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**THE MEDIATING EFFECT OF E-SATISFACTION AND THE
MODERATING EFFECT OF CONVENIENCE TOWARDS E-LOYALTY
AMONG INTERNET BANKING USERS IN NORTHERN REGION OF
MALAYSIA**



By
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Universiti Utara Malaysia

Thesis Submitted to
Othman Yeop Abdullah School of Business,
Universiti Utara Malaysia,
in Fulfilment of the Requirement for the degree of Doctor of Philosophy

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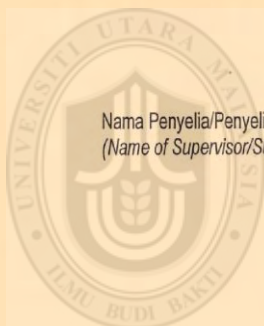
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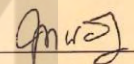
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Tajuk Tesis / Disertasi
(Title of the Thesis / Dissertation) : The Mediating Effect of E-Satisfaction and The Moderating Effect of Convenience towards E-Loyalty among Internet Banking Users in Northern Region of Malaysia

Program Pengajian
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ABSTRACT

Research on online customer loyalty among internet banking users is important because of the threat posed by phishing and other related issues. The literature has shown that it is a major concern, especially in Malaysia. This study examines the factors influencing eLoyalty such as eSatisfaction, eCommitment, eTrust, privacy, security, website quality and convenience among the internet banking users in Malaysia. The objectives of the study are to analyse the direct effect of eSatisfaction, eCommitment, eTrust towards eLoyalty and the mediating effect of eSatisfaction between privacy, security and website quality on eLoyalty. Another objective is to observe the moderating role of convenience between eSatisfaction and eLoyalty. The underpinning theory used to develop the study's framework is based on Oliver's Four-Stage Loyalty Model. An intercept data collection approach was chosen due to the nature of online users as well as the industry. A total of 427 datasets was employed for final analysis, performed using SPSS and SmartPLS-SEM (Partial Least Squares-Structural Equation Modeling). The results of the analysis show that all hypotheses are supported and only one is rejected. The study has established the direct relationship between eSatisfaction, eCommitment and eTrust towards eLoyalty. In addition, the study has confirmed the mediating effect of eSatisfaction between privacy and eLoyalty, security and eLoyalty and website quality on eLoyalty. However, the moderating role of convenience was found to be not significant indicating that there is a constant effect between eSatisfaction and eLoyalty. The study also discusses the theoretical and practical contributions as well as the limitations of the study and recommendations for future research.

Keywords: eLoyalty, eSatisfaction, privacy, security, convenience

ABSTRAK

Penyelidikan tentang kesetiaan pelanggan dalam talian dalam kalangan pengguna perbankan internet adalah penting kerana ancaman *phishing* dan isu-isu lain yang berkaitan. Perbincangan dalam beberapa kajian literatur telah menunjukkan bahawa ia telah menjadi suatu kebimbangan yang utama khususnya di Malaysia. Oleh itu, kajian ini mengkaji faktor-faktor yang mempengaruhi eKesetiaan seperti eKepuasan, eKomitmen, eAmanah, privasi, keselamatan, kualiti laman web dan kemudahan dalam kalangan pengguna perbankan internet di Malaysia. Objektif kajian ini adalah untuk menganalisis kesan langsung eKepuasan, eKomitmen, eAmanah ke atas eKesetiaan dan kesan eKepuasan sebagai pengantara bagi hubungan privasi, keselamatan dan kualiti laman web kepada eKesetiaan. Objektif kajian ini juga adalah untuk melihat peranan penyederhana iaitu kemudahan antara hubungan eKepuasan dan eKesetiaan. Teori yang menjadi asas untuk membangunkan rangka kerja kajian ini adalah berdasarkan kepada *Oliver's Four-Stage Loyalty Model*. Pengumpulan data kajian secara pintasan telah dipilih berdasarkan jenis pengguna dalam talian dan juga industri. Sebanyak 427 data telah digunakan untuk analisis akhir dan dianalisa dengan menggunakan kaedah SPSS dan *SmartPLS-SEM (Partial Least Squares-Structural Equation Modeling)*. Dalam data analisis, semua hipotesis telah disokong dan hanya satu sahaja yang ditolak. Kajian ini telah mengesahkan bahawa hubungan langsung antara eKepuasan, eKomitmen dan eAmanah ke atas eKesetiaan dan kesan pengantara eKepuasan antara privasi dan eKesetiaan, keselamatan dan eKesetiaan serta kualiti laman web pada eKesetiaan. Selain itu, peranan penyederhana iaitu kemudahan didapati tidak signifikan menunjukkan terdapat hubungan langsung antara eKepuasan dan eKesetiaan. Akhir sekali, kajian ini turut membincangkan tentang sumbangan teoretikal dan praktikal serta batasan kajian dan cadangan untuk kajian pada masa hadapan.

Kata kunci: eKesetiaan, eKepuasan, privasi, keselamatan, kemudahan

ACKNOWLEDGEMENT

In the name of Allah, the Beneficent, the Merciful. First and foremost, praise is to ALLAH, the Almighty, the greatest of all with His guidance and mercy allows me to do and complete my PhD research.

I am deeply thankful and would like to express my sincere gratitude to my supervisor, Professor Dr. Nor Azila Mohd Noor for her continuous support, guidance and encouragement from the start of my PhD journey until the final stage of the study.

In addition, I would like to extend my appreciation and thank to my second supervisor, Professor Dr. Rosli Mahmood. My deepest thank you is also extended to the respondents who participated in the survey.

I wish to further thank Universiti Teknologi MARA and Ministry of Education Malaysia (MOE) for the financial support, which the scholarship has assisted me towards the completion and success of my PhD.

Finally, I am very much thankful to my late father, Ali Shaikh Mohd who always believes in me and my development. To my mother, Noor Aini Hashim, I am always pleased for her continuous effort, pray and doa to ensure my success. To my beloved husband, Mohd Norhisyam Awang who always there to support me and my precious children Khairunnisaa, Daanish, Betrishia and Adeline for their patience and inspiration towards the completion of my PhD journey. Thank you also to all my family members, relatives and friends.

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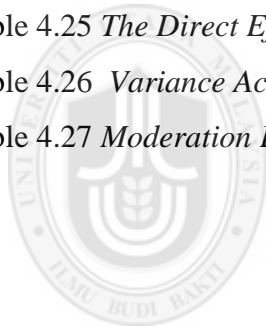
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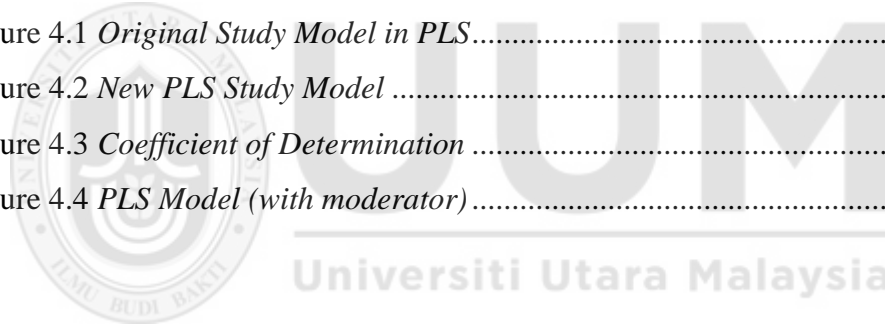
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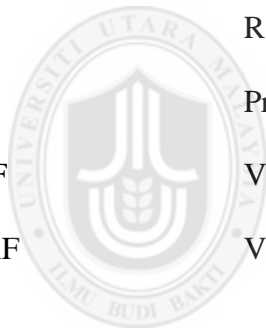
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LIST OF ABBREVIATIONS

SPSS	Statistical Package for Social Sciences
SEM	Structural Equation Modelling
PLS	Partial Least Square
BNM	Bank Negara Malaysia
CONV	Convenience
WebQuality	Website Quality
AVE	Average Variance Extracted
CR	Composite Reliability
CFA	Confirmatory Factor Analysis
R^2	R Square (Coefficient of Determination)
Q^2	Predictive Relevance
VIF	Variance Influence Factor
VAF	Variance Accounted For



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CHAPTER ONE

INTRODUCTION

1.1 Introduction

The chapter will discuss about the background of the study, problem statement, research questions, research objectives and scope of research. Subsequently, the chapter will also provide the significance of the research and definition of terms. Lastly, the chapter will end with the organization of the thesis.

1.2 Background of the Study

The rising of Relationship Marketing (RM) popularity started in the 80s and 90s (Little & Marandi, 2003). RM term is first initiated by Berry (1983) and further applied by Jackson (1985) in a business-to-business perspective (as cited in Gronroos, 2004). Recently, marketers are not merely focusing on satisfying their customers but also seeking and enhancing relationship with them (Hess & Story, 2005). As mentioned in Kotler, Keller, Swee, Siew and Chin (2009), RM is essential especially in dealing with Asian consumers. According to them, dual relationship between organization and client must inculcate trust and respect. Also, it is claimed that companies could enhance their long-term performance in term of growth and profit by focusing on relationship marketing rather than the transactional marketing (Sheth & Shah, 2003; Styles & Ambler, 2003). Loyalty conduct has been identified to generate continuous relationship as well as minimize risk and cost (Hess & Story, 2005). In addition, loyalty has been presented as the main element in customer relationship (Mathwick, 2002; Sirdeshmukh, Singh, & Sabol, 2002). Apart from

that, Little and Marandi (2003) argue that sometimes satisfaction alone might not direct consumers to become loyal, however in most cases, individual who experiences high level of satisfaction is willing to get involved in a business relationship. It is also remarked that it is imperative to examine the factors influencing relationship due to their impact on loyalty and word-of-mouth (Hennig-Thurau, Gwinner, & Gremler, 2002). They further asserted that it is important to identify and comprehend these factors to plan better strategies.

As mentioned by Little and Marandi (2003), relationship building is thought to be impossible with enormous number of buyers nevertheless technology has made it feasible to create relationship between organizations and their buyers. Lately, it has become a common trend to venture into e-commerce due to several opportunities such as business success, growth and profit (Lee-Kelley, Gilbert, & Mannicom, 2003; Mukherjee & Nath, 2007). It is also contended by Qureshi and Zafar (2008) that technology plays a substantial role in human and business life. Furthermore, the technology has enabled an interactive relationship between online retailers and consumers (Eastlick, Lotz, & Warrington, 2006). Besides, the term online service has been highlighted by most academicians and businesses as contributing factor to business success (Santos, 2003). Basically, traditional relationship marketing comprises of building and enhancing loyalty but with the development of internet technology, companies are urged to move from solely focusing on loyalty towards building more of online loyalty. It is further supported that the impact of the development in technology has led businesses especially those who are in the service industry to pursue their businesses on online retailing (Herington & Weaven, 2009).

In the banking perspective, the internet has allowed the emergence of e-banking among consumers as well as among businesses. Nowadays, banks are utilizing technology as a complementary tool to their traditional personalized service. The reason why most banks are riding on technology is because it affects bank-customer relationship (Durkin & Howcroft, 2003). It is further claimed that it is pertinent to look at the internet banking industry due to there is an issue of lack of personal contact (Colgate, Buchanan-Oliver, & Elmsy, 2005). They have further suggested that the loss of personal contact must be carefully managed. Customer loyalty can enhance bank's growth through their positive recommendations therefore banks need to invest in factors affecting loyalty to ensure customers becoming their supporters (KPMG, 2012). In addition, internet-technology might impact the banking industry and some authors claim that this technology is a strategy for effective relationship marketing (Zineldin, 2000). Furthermore, the swift growth of information and network technology has led individuals to become more familiar with the internet usage (Li & Zhu Yi, 2011). The use of internet technology allows people to communicate, search and transact speedier from anywhere around the world. It is also supported by Reichheld and Schefter (2000) where they emphasize that technology aspect should be evaluated due to the rapid growth of online business and transaction. Moreover, the internet technology provides continuous convenience and access especially for the users to obtain "information, entertainment, networking and communication" (Strauss & Frost, 2012, p.29). They further noted that from the business perspective, this technology enhances businesses activities and growth.

Whereas in the financial institutions, Sheth *et al.* (2000) note that the application of technology will enhance firms marketing activities gearing toward their customers,

for example technology usage in these institutions. Banks should also combine the mix of traditional and new technology towards satisfying customers need and thus improving mutual relationship (Durkin & Howcroft, 2003). They perceived that the power of customer in bank-customer relationship is rising and the impact may be significant to the banking industry. In addition, Kannan, Chang, and Whinston (2001) also look into how online technology and e-RM can give impacts on improving customer relationship by financial service providers. Their research concludes that using electronic networks to communicate with customer can create a relationship discussion thus can lead to a more warm and valuable e-relationship. Another supporting article has indicated that it is crucial to examine the impact of technology on customer loyalty (Parasuraman & Grewal, 2000). Also, Kaur *et al.* (2012) point out that there are few researches in studying consumer switching behaviour where technological innovation could have influenced this behaviour. Furthermore, customer loyalty has become a major concern due to high competition and globalization in the banking sector (Alrubaiee & Al-Nazer, 2010). Intense competition in the online environment is relatively due to the low switching cost and low entry barriers for competitors (Hu & Chuang, 2012). Thus, they further claimed that it is critical to create value or search for constructs that can be the determinants in retaining online customers. In addition, nowadays, it is becoming more crucial to analyse the online environment due to the fact that customers are more knowledgeable in searching for information looking for the best product and value offering (Hu & Chuang, 2012; Lo, Mahamad, Ramayah, & Mosahab, 2010). It is further supported that it is essential to examine the effect of consumer behaviors on customer retention or loyalty towards the firm or customer defection from the firm (Liang & Wang, 2007). In the stage of development of technology and online

services, more companies are moving from strategizing loyalty to eLoyalty. In Reichheld *et al.* (2000), they describe eLoyalty as to become patron to a relationship of services using internet technology. And, Smith (2000) has associated eLoyalty with revisit, rebuy, positive word of mouth towards the online companies and it is about “humanizing digital loyalty” (p.11).

It is claimed that without loyalty, even the best-designed online business model will collapse (Anderson & Srinivasan, 2003). Moreover, in the era of globalization and elevated competition, it has been suggested by Clarke III and Flaherty (2005) that marketing managers should look into fulfilling customers’ needs, building outstanding values, increase customers satisfaction and loyalty intention as well as creating relationship. In addition, without eLoyalty, online providers will also observe a gloomy future (Reichheld & Schefter, 2000). It has been stressed by Reichheld *et al.* (2000) that eLoyalty is the utmost contributors to internet business performance. In addition, eLoyalty becomes more essential economically and competitively due to getting new online customers is costly and moving to competitors is as easy as “a mouse click away” (Semeijn, van Riel, van Birgelen, & Streukens, 2005). Therefore, building online customer loyalty and satisfaction are the keys for heightening up businesses’ profit and competitive advantage (Valvi & Fragkos, 2012). It is also supported by Lee, Chu, and Yu Chao (2011) that retaining customer is the main contributor to a business’s longevity and victory thus creating competitive uniqueness. They also add that the effective ways to gain online banking customers are to ensure their satisfaction, develop their trust and loyalty. And, it is claimed that in order to gain the benefit of having and maintaining loyal customers, it is vital for online companies to understand the variables affecting eLoyalty (Floh

& Treiblmaier, 2006; Srinivasan, Anderson, & Ponnayolu, 2002). Consequently, the issue of eLoyalty will be explored and analysed.

1.3 Problem Statement

The current trend of the banking environment such as mergers, deregulation and intense competition has forced the Malaysian banking industry to make some changes. The scenario has become worsen from 2007 onward due to market liberalisation and globalisation. Due to these facts, banks must take drastic movements to retain customer satisfaction as well as customer loyalty. Moving towards the online banking can be one of the alternatives to enhance customer loyalty (Munusamy, Annamalah, & Chelliah, 2012). Nowadays, banks as well as financial institutions are in need of the internet technology to survive in the competitive financial environment (Dauda, Santhapparaj, Asirvatham, & Raman, 2007). It is further contended that the growth in Malaysia online financial activities is still lagging compared to the worldwide indicator (Munusamy *et al.*, 2012). Therefore, it is essential to look at factors that could increase the intention and loyalty among online banking users. It is also essential to analyse the constructs that may affect customers attraction towards the usage of internet banking (Al-Ghamdi, 2009). Retaining customer loyalty is essential in order to sustain and compete with both local and global banks especially those that are riding on internet banking.

Furthermore, the emergence of internet technology has made it less straightforward and more challenging for online companies to gain customer loyalty (Blut, Evanschitzky, Vogel, & Ahlert, 2007). As banks are entering a paradigm shift from transactional to relationship environment as well as the impact of competition and

fragmentation of knowledgeable consumers, the customers interaction and relationship with banks using technological devices are becoming more essential (Durkin & Howcroft, 2003). Although there are several studies on relationship marketing (Gilbert & Choi, 2003), RM in banking industry has not been fully implemented yet and it is important to create a more organized and holistic approach to ensure and enhance bank's competitive advantage. Moreover, banks to a great extent interact with customers and technology does play a vital role in that interaction (Proenca, Silva, & Fernandes, 2010). They also mention that banking is also a good example where the virtualization of relationship is mounting thus the usage of technology should be further investigated due to there is no agreement whether technology will enhance or diminish the banking relationship. Even though internet banking has been utilized widely due to its attractiveness, customer eLoyalty has become an issue because of heightened competition among Malaysian banks (Yee & Faziharudean, 2010). Therefore, there is a gap to study on the approaches to improve internet technology banking services in the banking industry in order to gain competitive advantage and loyalty as well as to explore determinants of eLoyalty among Malaysian internet banking customers.

Currently, banks are facing tough times due to the complexity surrounding them such as the rise of information technology, transaction in the borderless world and changes in buying patterns (Jagersma, 2006). Also, banks are experiencing a slow growth and downturn in profit (Bain & Company Inc., 2011). According to the company's research, banks need to gain customer loyalty due to loyal customers transact more, stay longer, refer new customers and restore company's wealth. In addition, banks need to ensure that they are using the most effective channel to earn customer loyalty. Moreover, a research conducted by BT (Banking Technology)

reveals that customers are changing banks and one of the contributors is they are searching for banks which offer superior internet technology services (Elliot, 2013). In addition, the rising of e-banking as well as mobile banking with maturing financial market and borderless competition have challenged banks to emphasize on the importance of customer loyalty (Lo *et al.*, 2010). Moreover, self-services technologies do add-value in building long-term relationship however it is not confirmed whether it contributes positively towards banks-customers relationship (Proenca *et al.*, 2010). Therefore, they emphasize that the research of internet-technology and relationship must be further considered.

In the Malaysian context, banks are facing difficulty to generate more returns. Furthermore, customer will switch to other bank(s) that provide better services, thus leading them to be less loyal to one particular bank. It is also supported by Malakian (2008) that it has become common situation for customer to move from one financial institution to another thus becoming less loyal to a particular bank. And, nowadays bank customers have greater choices than previously as most banks are offering improved products and services to compete among themselves which lead customers to become disloyal to a main bank. For these reasons, the study is undertaken to further analyse the online loyalty towards the internet banking services.

The next issue in online banking is the security and privacy matters. Phishing is a fraud designed to steal consumers' personal data. It can affect both the privacy and security matters among the internet users. It has been discussed in several articles that the phishing problem has becoming a major concern in Malaysia (Madihah Mohd Saudi, Shaharudin Ismail, Emran Mohd Tamil, & Mohd Yamani Idna Idris,

(2007); Rajalingam, Alomari, & Sumari, 2012). In addition, phishing is considered as the most encountered threats in the internet banking (Angie & Chow, 2006; Yuen, Yeow, Lim, & Saylani, 2010). It is further supported that internet banking services allow customer to transact anywhere online however, security matter has deterred customer from fully utilizing the internet banking service (Yuen & Yeow, 2008). It is further argued that phishing matter is becoming a greater challenge among the internet banking providers in Malaysia due to identity theft (Goh, Ling, Yih, & Eze, 2008). Another study in Malaysia has also dwelled into the security aspect of internet banking and found that security factor in Malaysia is considered to be weak and this affects bank performance (Normalini M. K. & Ramayah, 2012). According to The Association of Banks in Malaysia (2008), even though online banking is progressively popular due to its convenience and comfort in carrying consumers' business transactions, there are still some customers who remain doubtful over their security and safety issues because of scams, for instance "phishing" and "script editing". It is also supported by Amin (2007) that internet banking delivers fast and convenience services. Nevertheless, Malaysians users are still hesitating to use the services mostly due to privacy and security matters.

In addition, security element has been proposed to be further examined to foresee its impact on the online banking usage (Al-Ghamdi, 2009). Moreover, security of the internet banking has becoming an alarming concern among the Asian consumers and internet banking efforts for secured transactions are being undertaken among banks across Asia to deal with this issue (Hoflich, 2004). Furthermore, according to him, security of the internet banking has caused profitable customers to switch bank. As computer literacy increases, internet banking users have revealed an increasing trend; however, there is a concern on internet banking phishing through e-

communication channels such as internet and mobile (Goh, 2012). Looking at the aspects of privacy and security, it is pertinent to further analysed on both factors.

Apart from the inclusion of privacy and security, website quality will be analysed. It is supported by Santos (2003) that online businesses should focus on website quality because it has an effect on consumer behaviours. This is due to customer will cease away if they are having difficulty during their navigation process in searching and transacting (Ganapathy, Ranganathan, & Sanakaranayanan, 2004). Moreover, Rahimi, Bidmeshk, and Mirzaalian (2012) have suggested that other researchers should study more on this variable since website quality is an important predictor of eSatisfaction. Therefore, the researcher decides to analyse this variable factor in the same industry but applying in accordance to the Malaysia's context.

Moreover, it is strongly contended that trust is vital in e-commerce. Gefen (2000) has argued that trust has become a central concern among online users. This is due to internet users may face uncertainties while they are performing their online transactions; thus, trust in any electronic channels is essential (Ribbink, van Riel, Liljander, & Streukens, 2004). They believe that the element of eTrust is essential to increase customer eLoyalty; however, the empirical verifications on this relationship are still insufficient. Furthermore, it has been claimed that there is still limited study on trust in the banking context in Malaysia (Yong & Bojei, 2013). It has been contended that even though many studies have been done, limited and fragmented understanding result are achieved in these studies (Grabner-Kräuter & Kaluscha, 2003)". The next construct which is online commitment plays an important role in building customer relationship. It has been emphasized that commitment is essential in internet banking and may enhance customer loyalty towards the service and its

service providers (Casaló, Flavián, & Guinalú, 2007). Another supported article by Anderson and Srinivasan (2011) also stressed the importance of commitment towards customer desire and loyalty. Based on these arguments, eTrust and eCommitment will be examined to foresee their influence on online loyalty.

Additionally, the study will further analyse the mediating effect of eSatisfaction. The inclusion of this mediator is due to its mediation effect has not been vastly researched in Malaysia in the context of two associated variables. The two associated variables are between privacy and eLoyalty, security and eLoyalty and website quality and eLoyalty. So far, other similar studies have been conducted outside of Malaysia such as n Arab Saudi, Iran, United States and Europe. The inclusion of mediator may reveal better understanding on consumer behavior towards online banking. It is also recommended by Yee and Faziharudean (2010) that a mediator should be included to better predict customer loyalty in online banking in Malaysia.

Recently, the effort to expand customer loyalty has becoming difficult and more complex. Therefore, from the theoretical perspective, it is crucial to analyse and understand the pre-purchase decision in both traditional channels as well as virtual channels due to its impact on purchase intention and loyalty. Besides analysing direct relationship between variables, an investigation on moderator may aid a better understanding on how to create and preserve customer loyalty (Evanschitzky & Wunderlich, 2006). They also claimed that the inclusion of moderators has been mostly neglected. Looking at the convenience factor, consumer's purchase decision can be affected by motivation and expectations. With regards to the online banking context, one of the advantages of riding on technology is the providing convenience

to customers (Ibrahim, Joseph, & Ibeh, 2006). Thus, convenience is an imperative construct because it could determine the purchase decision (Izquierdo-yusta & Schultz, 2011). According to them, studies on convenience in using internet services are very few and limited regardless of its importance in measuring attitudes among the internet users. This is also supported by Berry, Seiders, and Grewal (2002) that the topic of convenience is essential especially in the service industry; however, only little is known about the topic. Similarly, Walsh, Evanschitzky, and Wunderlich (2008) also noted that there are still limited empirical evidences on moderating effect between the association of satisfaction and loyalty. Thus, it is recommended that studies on the satisfaction and loyalty link should be extended to another stage with the inclusion of moderator. They further remarked that is it essential to include the moderator to gain better understanding of the relationship between the two associated constructs. Furthermore, it is further claimed that focus on convenience is still few and thus, should be extended because of its significance especially in the service industry (Homburg & Giering, 2001; Kathleen Seiders, Voss, Godfrey, & Grewal, 2007).

So far based on our knowledge, only one study has been conducted applying convenience motivation as moderator among online retailing customers (Anderson & Srinivasan, 2003). In their study, they have tested convenience motivation as a moderator between eSatisfaction and eLoyalty and concluded the significant moderating effect of the construct. They have also further suggested that it is crucial to conduct further study on this critical relationship between eSatisfaction and eLoyalty. Furthermore, they also recommend that scholars and practitioners should develop a more comprehensive model or replicate their research in different business and product setting. Correspondingly, this study will analyse the convenience effect

in a different setting and in a more comprehensive model. Apart from that, it has been suggested by Yee and Faziharudean (2010) that their model should be extended by considering mediator and moderator variables to predict more accurately on customer loyalty toward internet banking services in Malaysia. Based on all these reasons, it is essential to add a moderator such as convenience factor in the study.

Thus, due to all of these aspects, this research will contribute theoretically to the existing body of knowledge for the internet banking sector in Malaysia in a comprehensive model with direct, mediator and moderator to understand consumer online loyalty. In addition, based on the discussed issues, theoretical and practical gaps, this study will investigate the factors towards eLoyalty among Malaysian internet banking users as well as the role of eSatisfaction as the mediator and convenience as the moderator and their impact towards eLoyalty. The underpinning theory for the study has been established by Oliver (1999) known as the Four-Stage Loyalty Model. The model is being adapted in the study because it represents most of the variables being discussed in the research. Further discussion on the model is presented in the following chapter.

1.4 Research Questions

Referring to the problem statement, six research questions are formulated and presented as the following:

- i. What is the level of eLoyalty among Malaysian internet banking users?
- ii. Are there any positive relationships between privacy, security and website quality toward eSatisfaction?

- iii. Does eSatisfaction positively affect eCommitment?
- iv. Are there any positive relationships between eTrust, eCommitment and eSatisfaction toward eLoyalty among the internet banking users?
- v. Does eSatisfaction mediate the relationship between privacy, security and website quality and eLoyalty?
- vi. Does convenience moderate or strengthen the relationship between eSatisfaction and eLoyalty?

1.5 Research Objectives

The research will explore the antecedents of eSatisfaction and eLoyalty to be applied in Malaysian banks. The findings will be recommended for maintaining and building online loyalty between banks and customers. By focusing on online loyalty in banks could bring substantial success to their daily online banking operations. In addition, several research objectives are constructed as the following:

- i. To gauge the level of eLoyalty among Malaysian internet banking users.
- ii. To investigate the influences of privacy, security and website quality toward eSatisfaction.
- iii. To determine the effect of eSatisfaction towards eCommitment.
- iv. To explore the relationship between eTrust, eCommitment and eSatisfaction toward eLoyalty.
- v. To explain the mediating effect of eSatisfaction between privacy, security and website quality toward eLoyalty.
- vi. To investigate the moderating effect of convenience between eSatisfaction and eLoyalty.

1.6 Scope of Research

Internet banking services industry is the chosen industry for this study since the usage and demand for internet banking has risen. The population of the research is the Malaysian internet banking customers who utilize internet banking services. The total population of Malaysian internet banking subscribers (age 15 & above accessing from home and work computers) as for Jan 2011 was 2,746,000 (comScore Inc, 2011) and according to Bank Negara Malaysia the number of online banking subscribers in December 2012 was 13,430,327 (Bank Negara Malaysia, 2014).

1.7 Significance of Research

The objective of this study is to examine the factors affecting customer eLoyalty towards internet banking services in Malaysia. The finding is essential especially for the banking industry sector, government, consumers as well as the academic field. The study is among the first in Malaysia to include convenience as a moderator between eSatisfaction and eLoyalty among the Malaysian internet banking users as well as the inclusion of eSatisfaction as mediator which has not yet been vastly researched. Other than that, another theoretical contribution is to merge the prominent variables such as eTrust, eSatisfaction, eCommitment and toward eLoyalty as well as antecedents of eSatisfaction such as privacy, security and website quality. In addition, the other theoretical contribution is to investigate both the moderating effect of convenience and the mediating effect of satisfaction which caused the researcher's model to be more comprehensive.

1.7.1 Theoretical Contributions

This study is expected to deliver two contributions to the body of knowledge. The first contribution is the theoretical contribution. First of all, the study will analyse the mediation effect of eSatisfaction. A mediating variable is “one that surfaces the time the independent variables start operating to influence the dependent variable and the time their impact is felt on it” (Sekaran & Bougie, 2009, p.77). According to them, it will be remarkable to also include the mediating factor to foresee any changes of the model or the effect of the relationship. So far, the researcher has found three studies in Iran, Saudi Arabia and United States which have investigated eSatisfaction as mediator between privacy, security and website quality toward eLoyalty (Eid, 2011; Hur, Yong, & Valacich, 2011; Sanayei, Shaemi, & Nasirdeh, 2011). And, one study of eSatisfaction as mediator is in Europe where one of the determinants of eSatisfaction is assurance that comprises the privacy and security items (Ribbink *et al.*, 2004). These studies on mediating role of eSatisfaction are studied in four settings which are online banking, e-commerce, sport context and online books and CDs store.

Secondly, this study will include the moderation effect of convenience. A moderator is “a third variable which, when introduced into the analysis, alters or has contingent effect on the relationship between an independent and a dependent variable” (Zikmund, 2003, p.479). It is also recommended that the introduction of moderator can provide a better view for the satisfaction-loyalty relationship (Dagger & David, 2012). Also, according to him, the present of a moderator may cause researcher to reject the original finding about the relationship. So far based on our knowledge, there is only one study of convenience as moderator in the online loyalty retailing

context that is measured by Anderson and Srinivasan (2003). Besides, there are several offline researches that include the moderation effect of convenience in their studies (Chang, Chen, Pang, Chen, & Yen, 2013; Hsu, Chen, Chang, & Chao, 2010; Kuo, Chang, Chen, & Hsu, 2012; Seiders, Voss, Grewal, & Godfrey, 2005). Even though, convenience factor has been claimed to have a significant impact on purchase decision; there are still limited studies on this construct (Berry *et al.*, 2002; Izquierdo-yusta & Schultz, 2011). In addition, the inclusion of a moderator in satisfaction-loyalty relationship has been neglected and this inclusion may affect the final relationship (Evanschitzky & Wunderlich, 2006; Homburg & Giering, 2001). There are few studies on eLoyalty in the Malaysia context but these studies do not include the moderation effect of convenience (Al-Agaga & Md Nor, 2012; Suleiman, Nik Kamariah, Adesiyani O. I., Mohammed A. S., & ALekam, 2012; Yee & Faziharudean, 2010). Moreover, from the theoretical perspective, the inclusion of moderator can enhance the understanding of the moderation effect (Walsh *et al.*, 2008).

Subsequently, this study will foresee the simultaneous effect of both mediator and moderator. The study will combine the mediator of eSatisfaction and moderator of convenience that may influence customer eLoyalty. Furthermore, it is essential to include both mediator and moderator effects because these effects may provide better explanation of the end result of eLoyalty among the Malaysian internet banking users (Yee & Faziharudean, 2010). In addition, the study will comprise of a more comprehensive model as suggested by Anderson and Srinivasan (2003). Thus, the study will include antecedents, a mediator and a moderator. In Malaysia, based on our knowledge there are studies on eLoyalty, however most analyses are on the

effect of independent variables towards eLoyalty (Al-Agaga & Md Nor, 2012; Suleiman *et al.*, 2012; Yee & Faziharudean, 2010).

Based on all these justifications, this study is anticipated to contribute theoretically with the inclusion of a mediator, a moderator and both simultaneous effect of mediator and moderator as well as a more comprehensive model.

1.7.2 Practical Contributions

The second aspect of contribution is the practical contribution. This contribution will lead to a significant managerial contribution and eventually will facilitate the improvement of the internet banking industry in Malaysia. The research has an essential practical implication especially for Malaysian bank managers so that they can get a better understanding of which prominent variables should be applied for internet banking sectors. By doing so, these managers can formulate their internet banking approaches and strategies to sustain and develop their uniqueness in order to retain and attain customers as well as to compete healthily with their competitors. By conducting this study, the result can assist banking managers to narrow down and focus their strategies on essential variables that could be privacy, security, website quality, trust, commitment, satisfaction and convenience. These findings too can help bank to minimize and eliminate any mistake upfront to improve eLoyalty because defect customer may switch from one internet banking providers to the other. The study may help the banking industry in Malaysia so that these banks are able to effectively cater internet customer perceptions towards eLoyalty thus hopefully give banks better competitive advantage in the internet banking surroundings.

Besides that, this finding can act as a guideline for the government agencies or the policy makers for the betterment of internet banking providers especially to the local banks. Moreover, the finding can help with the improvement of the local banks to compete with the foreign banks as internet banking may prevent customers from defecting from local banks to becoming patronage of foreign banks. In addition, customers too will benefit from the findings of the research because findings and suggestions given to banks and their implementations to improve the internet banking services will give better assurance to the customers that the internet banking services provided by the banks in Malaysia have all essential elements needed by the customers. Therefore, customers are assured that the probability of any mistake and failures while performing online will be minimized. With regards to the inclusion of the moderator, from the management view, the finding can guide managers to make better strategy such as in what context does the situation between satisfaction and loyalty become stronger. Therefore, proper investment can be made to create the situation.

As a conclusion, the finding will lead to an increase of empirical evidences on antecedents, mediating and moderating impacts of customer eLoyalty that may benefit other researchers theoretically and practically.

1.8 Definition of Key Terms

There are several key terms that will be used throughout the study. These terms are defined as the following:

1. **eLoyalty.** The customer's favourable attitude towards an electronic business, resulting in repeat purchasing behaviour (Anderson & Srinivasan, 2003, p.125).

2. **eSatisfaction.** The contentment of the customer with respect to his or her prior purchasing experience with a given electronic commerce firm (Anderson & Srinivasan, 2003, p.125).
3. **eTrust.** Online trust is “trusting beliefs in the reliability and predictability of the internet and the willingness of the consumer to depend on the internet with regard to economic transactions.” (Grabner-Kräuter & Faullant, 2008, p.487).
4. **Privacy.** Privacy is delineated as “an intrusion upon their solitude as well as physical activities and space, control of private information ..., and control of marketer interaction ...” (Morimoto & Macias, 2009, p.140).
5. **Security.** “The subjective probability with which consumers believe that personal information ... will not be viewed, stored and manipulated during transit and storage by inappropriate parties in a manner consistent with their confident expectations” (Flavián & Guinalú, 2006, p.604).
6. **Website Quality.** Website quality dimensions include site design quality, information quality and interaction quality (Shchiglik & Barnes, 2004).
7. **eCommitment.** Online commitment is defined as “the strength of the ongoing relationship with the prospects and customers of an e-business” (Anderson & Srinivasan, 2011, p.223).
8. **Convenience.** The time and effort that incur when customers buy a product or services and not just merely looking at the features of the product or services (Brown, 1990).

1.9 Organization of the Thesis

The thesis consists of five chapters and is organized as follows. Chapter 1 presents the introduction, background of study, problem statement, research questions,

research objectives, significance of research, definition of terms and organization of the thesis. Chapter 2 focuses on literature reviews with three main sections inclusive of conceptualization, underpinning theory and empirical evidences, especially literatures supporting direct relationships, mediating variable and moderating variable. Whereas, Chapter 3 describes the research methodology which includes the research design, sampling (population, sample, and technique), data collection technique, measurement and operationalization and preliminary analysis. Chapter 4 illustrates the data analysis and findings with further explanations of the analysis taken into consideration for the research. Lastly, chapter 5 explicates the discussion and conclusion of the research which is the recapitulation of the research's study and its implications. The inclusion of limitations of the study and recommendations for future research are also discussed.



CHAPTER TWO

LITERATURE REVIEWS

2.1 Introduction

This chapter will discuss some background on relationship marketing and its association with loyalty and relationship banking. Then, the chapter will provide literature reviews on constructs such as eLoyalty, eSatisfaction, eTrust, eCommitment, privacy, security, website quality and convenience. Subsequently, the discussion of mediator and moderator are presented. Lastly, the chapter will end with hypotheses development and summary.

2.2 Relationship Marketing and Its Association to Loyalty

Rivalry intensity has forced organizations to solidify their customer-relationship strategy (Ndubisi, 2007b). He further noted that the understanding of relationship marketing will assist organizations to effectively manage their customers thus gaining their loyalty. Gronroos (2004) claimed that continuous relationship may impact consumer's feeling of security, control and trust. In his earlier article, he mentioned that all this while, there is a relationship-focused industry in the services firms (Gronroos, 1995) and mentioned that the purpose of relationship marketing is not just to get consumers but to retain them. During the last two decades, there was a remarkable transformation from transactional marketing to relational marketing. And, according to Meryem El Alaoui Amine, Abdellatif Chakor, and Anass Mdaghri Chakor (2012), relationship marketing is a continuous effort to build commitment and satisfaction among customers.

The practice of relationship marketing is emphasizing “on what you can do *for* customer, as opposed to the traditional marketing approach, which focuses on what you can do *to* the customer” (Worthington & Horne, 1998, p.39). They further elaborated that relationship marketing is about persuading and securing customers subsequently. Gummesson (1994, p.5) in his article used the following definition of relationship marketing as “Relationship marketing is marketing seen as relationships, networks and interaction”. He had shifted the 4Ps (product, price, promotion and place) concept into 30 relationships (the 30Rs).

Furthermore, Ballantyne (2000) indicated that relationship marketing has transformed the managerial thoughts from getting benefits through transactions to relationships. According to him, the term “relationship marketing” is endowed by Berry (1983) however relationship-centred ideas had a reserved impact on marketing in 1980s. Berry (1983, p.25 as cited in Meryem El Alaoui Amine *et al.*, 2012, p.70) provided his definition of relationship marketing as “...attraction, maintenance and enhancement of customer relationship”. Whereas, Gordan (1998, p.8) defined relationship marketing as “... the ongoing process of identifying and creating new value with individual customers and then sharing the benefits from this over a lifetime of association”.

According to Morgan and Hunt (1994, p.20), “relationship marketing -- establishing, developing, and maintaining successful relational exchanges” create substantial change especially in marketing arena. They had introduced “The Commitment-Trust Theory” and posited that both commitment and trust are essential to succeed in relationship marketing. It is undeniable that other factors are also important however trust and commitment are fundamental constructs to

successful relational exchange. Furthermore, Morgan and Hunt (1994) stressed that marketers must ensure both trust and commitment are inculcated among their partners because both factors will contribute to cooperative attitudes that are needed in order to succeed. “Commitment and trust are “key” because they encourage marketers to (1) work at preserving relationship investments by cooperating with exchange partners, (2) resist attractive short-term alternatives in favour of the expected long-term benefits of staying with existing partners, and (3) view potentially high-risk actions as being prudent because of the belief that their partners will not act opportunistically” (Morgan & Hunt, 1994, p.22).

There are several other perspectives of relationship marketing, consumer behaviour and loyalty related to this study. One of them is Reciprocity Concept. The concept suggests that an individual assesses an action based on both consequences and intentions (Falk & Fischbacher, 2006). Reciprocity concept involves attitude towards kindness and the vice versa, unkindness. In Falk and Fischbacher (2000, p.1), “reciprocity means that people reward kind actions and punish unkind ones”. Typically, people will reward or appreciate kind actions and penalize or punish unkind actions and reciprocity is powerful in influencing individual behaviour (Falk & Fischbacher, 2006).

In addition, it is also supported by Crespo (2008) that reciprocity also involves an exchange. Reciprocity also involves behaviour as well as motive and can sometime be unpredictable towards one interest (Bruni, Gilli, & Pelligra, 2008). Looking at the relational marketing perspective, if companies exhibit appropriate or kind actions, customers tend to reciprocate positively towards the companies. The tendency of customer to become loyal is high because they have been treated with kindness in

term of pleasant product and service. On the other hand, those who feel threatened by the firms' actions will respond the opposite towards the firms. Customers will probably churn away or turn to their competitors as the consequence of the unkind treatment from the exiting companies.

Next, another perspective of individual relationship is known as the Social Exchange Theory (SET) which was introduced by George Homan in 1960s. Beside Homan, other important figures in this theory are John Tibaut, Harold Kelly and Peter Blau (Emerson, 1976). He further stated that SET is a notion of: "... a resource will continue to flow only if there is a valued return contingent upon it" (p.359). The theory indicated that relationships among individuals are subjected to their evaluation of cost-benefits as well as of alternatives among competitors. Referring to Blau (1964, as cited in Shore, Tetrick, Lynch, & Barksdale, 2006), social exchange is an unstated obligations whereby when a person provides favour to another individual there should be an exchange of return from the second individual. In addition, this social theory also emphasizes that trust is fundamental for the relational exchange. Thus companies must instil positive actions in order to get a good exchange such as positive relationship from the second individuals which are their customer.

The third perspective is Mehrabian-Russell's concept and had been introduced in 1974 (Lutz & Kakkar, 1975). In addition, the concept focused on the impact of environment/situation on individual's psychological behaviour and the effect of emotional responses such as pleasure, arousal and dominance. They further mentioned that some examples of pleasure are satisfaction and happiness. And, according to Uhrich and Koenigstorfer (2009), the theory offers insights of the

environment influence on individual's sentiment, response and assessment. Subsequently, they also noted about the important consequence of environment on the behavioural reactions (short-term and long-term reactions). For instance, in the relational context, environment such as the feeling of pleasure, satisfaction and happiness can enhance positive behaviour among the customers.

Other authors have also provided their perspectives and insights on relationship marketing, loyalty and its relevancies. Berry (1995) claimed that four forces have boosted the attention on relationship marketing: development of service marketing development, possible advantages for organizations as well as customers and evolution of technology. Furthermore, it is crucial to concentrate on retaining customers than on acquiring customers where the focus should be on relational rather than transactional exchanges (Sheth, 2002). Then, Priluck (2003) believed that organizations obtain several advantages through relationship marketing when it can cultivate loyalty and repetitive manners. He adds that customers experiencing relational conditions feel more satisfied than those involving in transactional approaches. And, one important driver to survive is by maintaining lasting relationship with stakeholders (de Madariaga & Valor, 2007).

Godson (2009) claimed that relationship can be considered as interaction between the two parties which are the supplier and the customer. According to him, issues in relationship marketing are getting mutual interaction and response in the relationship. Furthermore, by stimulating closer relationship, firms are creating a tie underlies on trust and commitment. As mentioned in Temporal and Trott (2001) business-consumer relationship is about collaboration and creation of win-win

situation, where if firm goes an extra mile in adding value, it will gain consumer's loyalty.

Moreover, de Azevedo and Pomeranz (2008) suggested that nowadays it is not just about selling but marketers must make sure buyers purchase new products or new versions whenever available. They further noted that loyalty programs can be developed to build relationship. As mentioned in Chaffey and Ellis-Chadwick (2012), forming long-term relationship with customers both in the offline and online context is critical due to its effect on business sustainability. They further added that focusing on customer relationship and loyalty help to minimize the firm's cost on customer acquisition. It is suggested that firms should strategize on customer-centric orientation because of the positive implications on customer loyalty, repeat purchase, higher spending and recommendation.

Next, Grönroos (2004) mentioned that relationship marketing is a process that begins with identifying prospects, creating and sustaining relationship with them. Apart from that, Arnett, German, and Hunt (2003) also asserted that the relationship marketing is a practical tactic especially for firms that are involved in business-consumers marketing. Whereas, Hess and Story (2005) affirmed that organizations must focus on relational exchanges rather than simply satisfying their customers. Then, Little and Marandi (2003) mentioned that a short-term transactional exchange is insufficient in today's business world due to the intense competition and advanced technology. They add that relational exchange is needed to preserve customers and their loyalty.

Moreover, by acting small, Berry (2011) mentioned that firms can improve their service even with a slight act which means bringing custom-made services to their buyers. In addition, he notes that acting small also comprise trusting, concerning, valuing, and constructing continuing relationship. Furthermore, relationship marketing can help businesses to get closer to their customers in order to satisfy their needs and wants (Ndubisi & Chan, 2005).

Ravald and Grönroos (1996) also noted that relationship marketing is an approach to gain shared benefits and lasting relationship. Customer relationship is essential in building customer retention and across a range of industries, maintaining customer by a minimum of 5% could result in the increase of profit between 25%-95% in the long-run (Reichheld *et al.*, 2000). They add even though the entry cost for internet business is low, the acquisition cost for online customer is hiking and only those who can attract loyal customers can survive, grow and generate profit.

Looking at the Asian perspective, relationship marketing is mostly essential especially in dealing with Asian buyers and it is nurtured to create trust and respect (Kotler *et al.*, 2009). According to them, products or services providers must make an attempt for continuous relationship rather than to manipulate buyers in a single transaction. An interesting empirical finding of whether relationship marketing did payoff is inconclusive due to the most profitable accounts are often discovered not to be the most lucrative accounts (Sheth, 2002). Relationship marketing is about satisfying and retaining customers as well as ensuring that customers will be loyal to a particular company. It is also supported by Little and Marandi (2003) that relationship marketing is about customer retention, product benefits, customer service and commitment as well as quality.

Relationship marketing has always been related to customer loyalty. Little and Marandi (2003) have also supported that relationship marketing is associated with customer loyalty either to make them stay or come back to the firm. Furthermore, it has been noted that bank should consider to invest in relationship marketing to increase customers' satisfaction and loyalty (Leverin & Liljander, 2006). This is partly due to the competition among domestic banks as well as international banks which have headed to a greater market challenge among banks.

In addition, due to the challenging competition in most businesses, advancing and sustaining customer relationship has become one of the main priorities (Omidinia, Matin, Jandaghi, & Sepahyar, 2014). They further measured the implication of relationship marketing on bank customers' loyalty and found that relationship marketing is capable in building loyalty in both public and private banks. It is also noted by Mittal and Gera (2012) that banks are focusing on customer retention by building satisfaction and loyalty level since there is not much differentiation among bank products and services. Therefore, based on these literatures, the researcher makes an attempt to study online customer loyalty.

2.3 Relationship Marketing in Bank / Relationship Banking

In Malaysia, only licensed banks under the Banking and Financial Institutions Act 1989 and the Islamic Banking Act 1983 can provide internet banking services (Bank Negara Malaysia & Persatuan Bank-Bank dalam Malaysia, 2007). Bank Negara has allowed local banks to offer internet banking service since June 2000 partly due competition from the foreign banks and fulfilling customers need for convenient banking. Furthermore, the services provide quicker and more convenient way to

perform several banking transactions which can be done during and after banking hours. According to Bank Negara, the emergence of internet will allow banks to ride on internet to provide information, communication and transaction to their customers. Most internet banking services can be assessed 24 hours a day which deliver faster and convenient service for customers (Bank Negara Malaysia & Persatuan Bank-Bank dalam Malaysia, 2007). Although e-banking provides many benefits to banks by lowering their costs as well as to customers by allowing them to control their banking activities, banks are still facing difficulty to maintain their customer's base (Peppard, 2000) compared to the face-to-face banking activities with physical visibility.

Moreover, most banks have already offered the internet-based technology services in order to maintain competitive advantages. It is relatively easy to connect to an internet banking service provider because there is no special software needed. The minimum requirement is to have a technological device with an internet access. The evolution of electronic technology in Malaysian banking sector has started since 1970s. The first electronic technology introduced in the bank was the Automated Teller Machine (ATM) which was introduced in the 80s. At that time, the introduction of ATM provides time and geographic convenience especially to the banking customers. In that era, ATM has replaced some function of the physical banking branches. At the beginning of the 1990s, there was a shift in banking trend through the introduction of telebanking using Automated Voice Response (AVR) Technology. Later in the mid-2000, the advancement of telecommunication and the online technology has derived banks to offer online banking.

In addition, Malaysia has been recorded to be among the top 10 highest number of internet users (Internet World Stats, 2010) in 2009 from 3,700,000 in 2000 to 16,902,600 in June 2010 which is a remarkable increase. In this statistic, Maybank Group is the number one internet banking destination, follows by CIMB Bank Berhad and the third is Public Bank. And, the latest statistic as in June 2012 revealed that the number of internet users in Malaysia has increased to 17,723,000 (Internet World Stats, 2012). It is also supported by Ng (2011) that a recent study revealed that Malaysia has the most online banking users in Southeast Asia. Nevertheless, surprisingly this does not contribute to the increment in the internet usage among the Malaysians. It has been numerous reported that internet banking usage in Malaysia is quite low (Ainin, Lim, & Wee, 2005; Khalil & Pearson, 2007; Ndubisi & Sinti, 2006). It is also supported by Dauda *et al.* (2007) that it is a terrifying issue of internet banking in Malaysia where acceptance of this technology is very slow. Based on the above reasons, there is a need to further explore on online internet banking.

Furthermore, Ruin (2010) claimed that technology can become secondary service to personalized banking and banks could not endure without it. Banks have added online banking services in their business operation to offer convenience to customers as well as encouraging loyalty and retention (Herington & Weaven, 2009). It is further remarked that the market prospective for this technology is noteworthy (Kannan *et al.*, 2001). In addition, internet-technology changes how some firms operate their daily businesses. This technology contributes an essential function especially in banks and financial institutions where banking and financial transactions can be performed online (Marhana, Fadzli, & Zakaria, 2012).

In Malaysia, internet banking service has been in action since 2000 and internet banking denotes as "...banking services provided via a secured website operated by the bank provider, thus facilitating the use of the Internet as a remote delivery channel" (Yee & Faziharudean, 2010). Internet banking allows an individual to manage most of his or her financial transaction from anywhere and anytime (Ruin, 2010). In addition, internet banking is also delineated as "... banks can function without any brick-and-mortar and evade all territorially bound attempts to limit them ..." (Cook, 2008, p. 28-29). Another definition of online banking is "Whether called internet banking, electronic banking, home banking or PC banking, online banking allows customer to perform banking transactions from their home computers (Center for Financial Training, 2003, p.23)". While, internet banking is another alternative channels where funds can be transferred electronically and common features of internet banking include transactional and non-transactional, bill payment, fund transfer and many more (Keswani & Chaturvedi, 2010). It is also noted that the most popular internet banking services performed by customers are checking their balances and transaction, fund transfers and bill payments (Momeni, Kheiry, & Maasomeh, 2013).

Next, Ruin (2010) noted that banks provide many services to the consumers and today banking businesses not only save or lend money to customers but also play a role as facilitator in local and worldwide transactions. The bank's role as a facilitator has been extended to relational provider due to relationship marketing among the banks has risen to become an important phenomenon. It is also remarked by Liang and Wang (2007) that bankers should invest in both relational activities as well as finding customers who are interested in these activities. It was also proposed by Munusamy *et al.* (2012) that banks need to constantly examine the customer need

and expectation in order to gain a larger sales in this industry. The dawn of internet commerce has opened up several opportunities for financing operations and internet banking to assist in relational exchange between banks and customers thus enhancing customer loyalty (Lee *et al.*, 2011).

In addition, online service has become one of the favourable channels by both marketers and customers. Due to this reason, many businesses such as banks are moving towards online banking services (Herington & Weaven, 2007). Furthermore, banks are riding on technology because of the high usage of internet. The future will be better if some enhancements are made by online banking providers in areas such as security system, software applications and comfort (Center for Financial Training, 2003).

Most banks have included online banking services to enhance their banking service in attracting more customers and enhancing bank performance and loyalty (Kumbhar, 2011). Among the effective ways to gain online banking customers are to ensure their satisfaction, develop their trust and loyalty. Since the emergence of internet, this technology element has been progressively debated. Moreover, the development of technology has affected the financial services industry as it is one of most information demanding industries thus challenging the industry structure and relationship strategies (Proenca *et al.*, 2010). This is due to service firms such as banks which expanded and resulted complexity in building and gaining true relationships (Gronroos, 1995). Moreover, loyalty among customers has become a serious concern which also includes loyalty in the banking industry (Ehigie, 2006).

Proenca *et al.* (2010) also indicated that information and communication are essential in building customer relationship and retail banking is an example where virtualization of relationship is on the rise. They further claimed that internet use in banking enables customers to fulfil their various needs with little human involvement and this added value helps to generate satisfaction and loyalty. In their empirical study, they found that banks-customers relationship is strengthened with the usage of internet-technology. Next, Devlin (2000) and O'Loughlin and Szmigin (2007) supported that it is significant to look into the banking and financial providers especially in the context of their relationship with their customers.

Apart from this, banking sector has demonstrated certain features such as variability and involvement that might affect customers to crave continuity usage with their current service provider and this is one of the possible advantages of relationship marketing (Berry, 1995). Also, Zeithaml, Rust, and Lemon (2001) emphasized that keeping bank customers is getting more complicated especially the profitable ones due to the intense competition where other financial providers are niching the profitable segment with attractive packages. A study on banking industry will provide a relationship advantage although its nature is complex and involves risk (Berry, 1995). In addition, Devlin (2000) has indicated that relationship marketing in bank is becoming more challenging due to its complexity, intangibility and impalpability.

Furthermore, in Eisingerich and Bell's (2007) research, they investigated the relationship marketing between consumers and financial service providers as these providers fulfil the element of complexity and customization, unsophisticated consumers and technical uncertainty. Jham and Mohd Khan (2008) further indicated

that satisfaction in banking industry has been linked to relational exchange. Their study also highlights that satisfaction has a linkage with bank achievement. In addition, based on Alrubaiee and Al-Nazer (2010) analysis, if relationship marketing activities implementation is effective, the case bank can enhance its customer loyalty. Also, the inclusion of tremendous changes in information technology has impacted to the revolution in the financial industry (Lee *et al.*, 2011) and internet banking has been acknowledged as an essential product innovation complementing the traditional ways of performing bank activities (Malhotra & Singh, 2010).

Moreover, there is a need to focus on relationship banking due to the entrance of electronic commerce which allows internet banking transactions to bring out new opportunities as well as greater challenges to this industry (Mukherjee & Nath, 2007). They further argue that the lack of physical presence of the bank and employees physical interaction have provided more obstacles in the online banking business. It is also supported by Black, Lockett, Ennew, Winklhofer, and McKechnie (2002) that the presence of sophisticated technology such as the internet has challenged the financial industry in term of consumer making choices. Internet banking offers many benefits as well as risk, however if the service is well managed and satisfactory, it will further assist the banks to strengthen mutual relationship (Rani, Gaur, & Ghalawat, 2013).

With regards to safety, the internet banking service has always been associated with risk. Banks as well as the government have taken several precautions to ensure that the security level is all round. The efforts such as regular check-up on the online banking systems, security measures, authentication have continually being performed to ensure security and minimize any online banking risk (Bank Negara

Malaysia & Persatuan Bank-Bank dalam Malaysia, 2007). Indirectly, these matters have affected customer online loyalty towards the internet banking services. Therefore, the researcher takes this into consideration to explore customer loyalty in the online banking context for strategies planning and implementation to attract and retain customer online loyalty.

2.4 eLoyalty

As discussed in several literatures, eLoyalty is significant due to its positive impact on the company's growth and profit. Online loyalty has become one of the major topic because of its importance in most businesses (Hsu, Wu, & Chen, 2013). In addition, companies that are able to obtain and maintain customer loyalty will get benefits such as continuous and proactive customer support and purchase instead of just getting passive customers who only know and accept the products or services (Lee *et al.*, 2011). Loyalty conduct too has been identified to generate continuous relationship as well as minimize risk and cost (Hess & Story, 2005). In Li and Green (2011), they believed that loyal customers contribute to better revenue and reduce in cost thus lead to the rise in profit. It is also noted that loyalty has been claimed to be a source of generating success to businesses (Ababneh & Al-Thuneibat, 2012).

In addition, loyalty has been presented as the main element in customer relationship (Sirdeshmukh *et al.*, 2002). However, loyalty is not only difficult to achieve but also hard to sustain and challenging to achieve (Wu, 2011). Thus, the concept of online relationship is worthwhile to be explored due to its rapid usage among online users (Colgate *et al.*, 2005). They have further conducted a survey among traditional banking users and online banking users to gain better views from the two types of

respondents. One of the findings has revealed that the introduction of technology has a negative effect on loyalty. Thus, further investigations are needed to look at factors that can help to enhance online loyalty.

Relationship management is mostly about maintaining and building customer loyalty. The main focus is on loyalty due to its ability in creating a sustainable competitive edge (Gommans, Krishnan, & Scheffold, 2001). More companies are stressing on loyalty due to its effect on reduced customer turnover, increased opportunity in selling additional products and service as well as reduced marketing effort (Davids, 2007). It is also noted that the importance of examining the antecedents of customer behaviour is due to the effect on loyalty especially in the growth of online stores (Qureshi *et al.*, 2009). Also, customer loyalty has become one of the major concerns among companies due to its influence on retention and profitability. In addition to this scenario, in the era of technology and internet, more online companies and service providers are emphasizing their focus from retaining loyalty to retaining online loyalty towards the web service providers. Furthermore, it is noted by Gommans *et al.* (2001) that the evolution of e-commerce has highlighted the significance of online loyalty. According to Bank Negara Malaysia (2013), the advancement of technology can contribute significantly to customers as well as the financial and banking industries. Based on the above discussions and due to the issues and significant of internet technology, the study will emphasize on eLoyalty.

Consumer eLoyalty is one of the most important outcomes for many online businesses including internet banking. The term eLoyalty has been defined by Ma, Meng, and Xiao (2010, p.136) as "...good faith of consumers to a website". Also, eLoyalty is described as "...the customer's favourable attitude toward an e-business

resulting in repeat buying behaviour” (Anderson & Srinivasan, 2003, p.125). There are some issues and concerns being raised on eLoyalty. According to Rahimi *et al.* (2012), one of the issues in internet banking is the creation and maintenance of eLoyalty due to its impact on the firm’s profitability and success. The fierce competition among online businesses has influenced researched to investigate the determinants of consumer loyalty (Casaló, Flavián, & Guinalú, 2008a).

In addition, Gommans, Krishnan and Scheffold, (2001) have stressed that the importance of eLoyalty is further heightened due to advancement of technology. And, internet usage is growing and becoming a popular way to communicate either for social and business purposes. Customer loyalty is a major concern due to high competition and globalization in the banking sector (Alrubaiee & Al-Nazer, 2010). The rapid rise of internet banking also has steered companies to focus on online loyalty (Lii, 2009). It is also supported that a strong foundation of customer loyalty can become a company’s valuable asset (Dehghan, 2011). He further claimed that loyal customer may recommend the company to others. Thus, it is important to examine and explore the know-how in generating and enhancing loyalty. In Malaysia, the introduction of new channels for banking transactions such as phone banking, ATM (automated teller machines) as well as internet banking, the maturing financial market and intense globalization have urged bankers to focus on customer loyalty (Lo *et al.*, 2010). Customer loyalty has become more conspicuous especially in the service context which includes banking industry due to its intangibility, heterogeneity and complexity traits (Shainesh, 2012).

Even though the same rule applies for both offline and online businesses where pursuing customer loyalty is the main target, e-commerce executives claim that

internet causes loyalty element to be more powerful than ever (Reichheld *et al.*, 2000). It is also supported by Wolfinbarger and Gilly (2003) that online and offline context may result in different buying experiences even when customers purchase the same products. Online loyalty is quite tough to maintain as unsatisfied customers will just click their mouse to another's or competitor's website (Parasuraman & Zinkhan, 2002).

Furthermore, it is impractical to mainly focus their strategies just on alluring more customers however the direction is to emphasize on retaining them and ensuring their loyalty towards the web-service (Reichheld & Scheffer, 2000) because retention and loyalty are essential ingredients for on-line operations' success. Similarly, Sadeh, Mousavi, Garkaz, and Sadeh (2011) claimed that eLoyalty is one of the most essential dimensions in online retailing. They further noted that eLoyalty can be explained by variables such as eSatisfaction and trust. The intensity of competition and higher customer purchasing power have directed most companies to focus on preserving current customers and attracting the new ones (Haghtalab, Ahrari, & Amirusefi, 2011). In Hur *et al.* (2011), they mentioned those customers that are loyal to an organization and its website will exhibit strong emotional support and commitment.

Moreover, e-firms need to secure their customer's loyalty to avoid defection because the cost of customer's replacement is high (Zeithaml, Berry, & Parasuraman, 1996). They also assert that sometimes new customers do not deliver any profit after quite some time. Next, Clarke III and Flaherty (2005) highlight that without customer loyalty even distinguished online businesses will face business failure. According to Floh and Treiblmaier (2006), eLoyalty can assist in preserving customers as well as

reducing the cost of getting new customers and subsequently improving e-firms profitability.

It is also essential for businesses to focus on relational activities to secure a long term relationship and prevent customer from churning away (Chang, Wang, Chih, & Tsai, 2012). Furthermore, Casaló, Flavián, and Guinalú (2008a) mentioned that due to the increased cost in client base, online banking providers should develop relational strategy focusing on loyalty to enhance their performance. In addition, loyalty can be developed by examining approaches and factors that are associated with customer behaviors and the state of mind (Haghtalab *et al.*, 2011). They further claimed that loyal customers have the tendency to share information with the service providers because of their trust and improvements based on the given information will benefit them as well. As a conclusion, there is a need for online providers such as banking and financial institutions to create and enhance eLoyalty among their customers.

2.5 eSatisfaction

As indicated earlier, one of the determinants of eLoyalty is eSatisfaction thus this construct is essential both in offline and online context. The term satisfaction is used repeatedly to measure the organization capability to meet or surpass customer expectation (Qureshi & Zafar, 2008). In business, it is unquestionable that relationship marketing is essential and has a major impact on customer satisfaction (Shamsudin, Mohd Kassim, Hassan, & Johari, 2010). In addition, satisfaction roles have been discussed and recognized as significant in most literatures (Hess & Story, 2005; Jham & Mohd Khan, 2008; Ndubisi & Chan, 2005; Shamsudin *et al.*, 2010).

Next, some definitions of eSatisfaction will be presented. eSatisfaction is delineated as “the contentment of the customer with respect to his or her prior purchasing experience with a given electronic commerce firm” (Anderson & Srinivasan, 2003, p.125). In Rahimi *et al.* (2012, p.2458), they described eSatisfaction as “...the customer’s pleasant sense due to his/her positive experience with an electronic business organization”. According to Hess and Story (2005), satisfaction reveals little information on how buyers respond to distinctive offers, accessibility of products such as internet banking services, price, or even product failure. Therefore, further research on satisfaction is needed to provide better understanding towards products and services. In addition, comprehending the antecedents of consumer online satisfaction is important because of the consequences of satisfaction namely loyalty, repeat purchase, positive recommendation and word-of-mouth (Cheung & Lee, 2005).

Also, Sadeh *et al.* (2011) noted that eSatisfaction is one of the most essential factors in e-retailing. A study by KPMG indicates banks are exposed to customers wearing away if those customers who experiencing dissatisfaction do not make any complain (KPMG, 2012). In their study, banks are exposed to attrition risk especially when banking customers do not make complaint even if they are not satisfied with the banks. In online context, consumer satisfaction may not result from a specific transaction but the overall evaluation of relational exchange between both partners (Casaló *et al.*, 2008a).

Next, the reviews on the importance of e-satisfaction will be discussed. The increase in online shopping has led both businesses and researchers to pay more attention to online satisfaction and online loyalty (Rodgers, Negash, & Suk, 2005). The causes

of financial crisis and global recession have pressured financial institutions to preserve customer satisfaction as well as maintain lower costs (Momeni *et al.*, 2013). They further noted due to these causes, internet banking services are made available to customers since decades ago. It is also claimed that customer satisfaction among online banking users is critical because of its impact on the success of the bank (Tan, Norazah, & Norbayah, 2012). In addition, banks can achieve greater benefits of online banking if they are able to identify factors that affect customer satisfaction and continuity with the service (Qureshi & Zafar, 2008).

Furthermore, customer satisfaction can be considered as the as the first stepping stone in ensuring a successful business (Davids, 2007). According to Anderson and Srinivasan (2003), if customers are satisfied with a company, they are inclined to stay with the current provider and hindered away from the competitors. The advantages of satisfying customers are they have the tendency to repeat purchase and competitors' dissatisfied customers can be easily attracted (Rust & Oliver, 2000). It is further suggested that satisfied and delighted customers have the tendency to remain loyal to the firms (Herington & Weaven, 2007).

In addition, satisfied customers tend to have a higher usage rate and often will spread positive word of mouth regarding the products and services (Ghane, Fathian, & Gholamian, 2011). They claimed that satisfactory online experience will lead to a higher eLoyalty level due to satisfaction will increase the confidence level towards the e-vendors. Moreover, comprehending the antecedents of consumer online satisfaction is important because of the consequences of satisfaction namely loyalty, repeat purchase, positive recommendation and word-of-mouth (Cheung & Lee, 2005). There are also other academicians searching for constructs determining

satisfaction because it has been posited that satisfaction may lead to loyalty (Ababneh & Al-Thuneibat, 2012). It is noted in Anderson and Srinivasan (2011) that in an online market, customer who is satisfied with the online services is inclined to have a higher level of loyalty and less likely to look for alternative products or services from the competitors.

Besides that, most firms are aware of the importance of customer satisfaction in building company growth and minimizing company cost such as in investing more to get new customers (Haghtalab *et al.*, 2011). And, conferring to Suleiman *et al.* (2012), satisfaction is considered as one of the important antecedents towards customer loyalty in online banking context. In the researcher's study, eSatisfaction is proposed as another important concept for understanding eLoyalty among online banking customers. Based on the above literatures, eSatisfaction has been indicated as an important variable; therefore, this variable should be included in the study.

2.6 eSatisfaction and eLoyalty

The eSatisfaction construct has been confirmed to have a relationship effect on eLoyalty. There are several studies that have been conducted to confirm this relationship. For instance, Little and Marandi (2003) stated that customer satisfaction is the main first step in acquiring loyalty. Satisfaction also has become the main focus of many businesses because it affects customer retention and business's market share (Hansemark & Albinsson, 2004). Moreover, Ndubisi and Chan (2005) agree that customer satisfaction is needed to succeed in this challenging business world. Also, satisfaction has an influence on tying business-consumer's relationship (Hess & Story, 2005). Shamsudin *et al.* (2010) stated that customer

satisfaction has become an essential element especially in the intense competition business since customers have the power to remain with or switch from any firms as they like. Also, Arnett *et al.* (2003) marked that several firms are targeting on consumer satisfaction as a strategy to preserve the current buyers and attract new ones. It is also been supported that the focus on satisfaction is on the rise because of its positive impact on company growth (Haghtalab *et al.*, 2011). Besides, customers will feel satisfied when their purchase situation meets their expectation and will further feel delighted when it goes beyond them. Sirdeshmukh *et al.* (2002) too are aware of satisfaction role in relationship marketing.

In a survey by Hennig-Thurau *et al.* (2002), they have concluded that satisfaction has the strongest positive impact on loyalty as well as on word-of-mouth; thus, service companies should ensure that their offerings are able to satisfy their customers. Satisfaction is essential in creating loyalty in banks because it can create the feeling of delight; therefore, banks must eliminate any sources of dissatisfaction (Bain & Company Inc., 2011). Furthermore, the “wow” interactions in banks also involve the usage of online and mobile technology that ease customers’ transactions as well as boost their loyalty. In the online business, one of the strategies to conquer customer loyalty is to continually strive to satisfy customers and build a long-term relationship with them because satisfaction seems to be an indicator of loyalty (Anderson & Srinivasan, 2003).

These are some studies that claimed that eSatisfaction has a direct influence on eLoyalty. It is supported by Lin and Hsieh (2006) that satisfaction with the self-service technologies has an impact on consumers’ behavioural intention. In a banking research by Alrubaiee and Al-Nazer's (2010), they disclosed that

satisfaction has a significant and positive association with customer loyalty. Subsequently, in the mobile banking industry, Sanayei, Ranjbarian, Shaemi, and Ansari (2011) established that satisfaction is an essential determinant of loyalty in m-payment services. In another study among the Taiwanese online shoppers, the respondents were asked to login to a particular online shopping centre to examine the effect of e-satisfaction toward e-loyalty (Hsu *et al.*, 2013). They further confirmed that there is a positive relationship between these two associated variables confirming that satisfied customers are most likely to repurchase the product or revisit the store.

In a study among the Australian customers to anticipate customer and service provider relationship, this study has also confirmed the positive and significant impact of satisfaction towards loyalty (Dagger & David, 2012). In another survey in Qatar among the online commerce users has shown similar result whereby satisfaction has a positive relationship toward positive word of mouth and customer intention (Norizan & Salaheldin, 2009). Satisfaction may contribute to customer positive word-of-mouth and consequently decreases the marketing expenses and expands revenue if new customers are attracted.

A survey of Austrian internet banking customers has revealed that both satisfaction and trust are vital predictors of eLoyalty (Floh & Treiblmaier, 2006). Also, Casaló *et al.* (2008a) have concluded that the impact of satisfaction on website loyalty is significantly positive. Shankar, Smith, and Rangaswamy (2003) also supported the positive relationship between eSatisfaction on eLoyalty in the online business transaction and they find that the online loyalty effect is higher than offline loyalty. Moreover, the finding of Lin and Sun (2009) among Taiwanese online business-to

consumer depict that there is a direct positive influence between eSatisfaction and eLoyalty. Moreover, M'Sallem, Bouhlel, and Mizoughi's (2011) finding on some North African's banks disclose that satisfaction has an influence on loyalty. In addition, Wu (2011) has conducted a causal study on consumer electronics e-tailers and his outcome denotes that customer satisfaction influences loyalty as well as acts as a between service quality and customer loyalty.

Moreover, Anderson and Srinivasan (2011, 2003) have come to the conclusion that eSatisfaction does affect eLoyalty among online customers. Besides that, Al-Agaga and Md Nor (2012) also revealed that satisfaction significantly affects customer eLoyalty. In other study among the major telecommunication operators, user satisfaction does influence their level of loyalty (Akbar & Parvez, 2009). Another study on online banking has been extended to commercial banks in Amman, Jordan (Alsamydai, Yousif, & Hamdi, Mohammad, 2012). They have conducted a survey among online banking users to foresee the relationship between customer satisfaction and the continuity of using the service. As the result, they have confirmed that customer satisfaction has an impact on the continuous usage of online banking.

Additionally, Casaló *et al.* (2007) asserted that satisfaction is a key predictor of customer loyalty in online financial service sector and customer's feeling of satisfaction with the bank website creates positive effect on customer loyalty. Furthermore, Devaraj, Fan, and Kohli (2003) stated that satisfaction as well as repeated satisfaction will eventually lead to customer online loyalty. In internet banking context, eSatisfaction is identified as one of eLoyalty indicators and their results show that eSatisfaction has a positive and direct effect on eLoyalty (Rahimi

et al., 2012). In Yen and Gwinner (2003), they ascertained that online loyalty among customers is affected by online satisfaction. Similarly, a study among online banking users in Tehran has confirmed their hypothesis that satisfaction has a positive impact on loyalty (Momeni *et al.*, 2013). They further noted that satisfaction has an impact on the continued relationship among the e-banking users.

In Casaló *et al.* (2008c), they have revealed three major contributions and one of them is satisfaction which has a significant impact on loyalty in the financial services website. In an e-banking study, Casaló *et al.* (2007) have analysed the satisfaction-reputation relationship towards loyalty and found that satisfaction has a significant effect on customer loyalty. Their next empirical research on the role satisfaction and website usability also revealed that online loyalty is explained by customer satisfaction (Casaló *et al.*, 2008b).

Similarly, Rodgers *et al.* (2005) have confirmed that there is a positive effect of online satisfaction towards online loyalty. They further noted that when customers are satisfied with the online providers they are more inclined to continue to purchase or use the service. Whereas, in the e-CRM context, satisfaction also has an impact on customer loyalty (Taylor & Hunter, 2002). Next, Lii (2009) has concluded that in order to increase online banking loyalty, online banks must increase the level of customer satisfaction and satisfaction has displayed a more vital effect compared to trust. In e-banking context, Ghane *et al.* (2011) have analysed the impact of eSatisfaction toward eLoyalty and concluded that eSatisfaction has a strong influence on eLoyalty.

In another online banking scenario in Malaysia, the research has confirmed the significant influence of satisfaction on loyalty (Suleiman *et al.*, 2012). Likewise, Ribbink *et al.* (2004) have established that satisfaction has a positive impact on online loyalty. There are several other studies that claimed the positive influence of eSatisfaction towards eLoyalty (Balabanis, Reynolds, & Simintiras, 2006; Bansal, McDougall, Dikolli, & Sedatole, 2004; Semeijn *et al.*, 2005). In conclusion, the rationale of including the influence of eSatisfaction is due to its significant relationship towards eLoyalty.

2.7 eTrust

Apart from the role of eSatisfaction, the study will also focus on eTrust since this factor has the potential to build loyalty in the online environment. The term trust has gained popularity to many researchers especially in the marketing field. And, the rising importance of relationship marketing has triggered trust construct to become essential in most marketing literatures as well as in the business conducts. According to Kantsperger and Kunz (2010), consistent with the increasing importance of relationship marketing, the trust concept also is essential in almost all organizations. The statement is also supported by Morgan and Hunt (1994) whereby they conclude that trust is pivotal to ensure continuous relationship.

The trust construct has been suggested to be further analysed to foresee its impact towards loyalty on the internet banking usage (Al-Ghamdi, 2009). Furthermore, trust is an essential component for successful relationship (Eastlick *et al.*, 2006; Urban, Sultan, & Qualls, 2000; Yu Chao, Lee, & Ho, 2009). Furthermore, trust has been considered as one of the most significant measurements in the online retailing

context (Sadeh *et al.*, 2011). Trust has become a vital issue especially when a customer is transacting online where strong foundation of trust is needed for customers to make the first and continuous purchase (Mukherjee & Nath, 2007). They further highlighted that trust does affect customer intention such as word of mouth, intention to purchase and continuous interaction. It is also noted that trust is an essential predictor in most relationship because it can help to reduce the perception of risk, enhances customer confidence towards the firm and minimize the transaction costs (De Wulf & Odekerken-Schroder, 2003). In addition, trust also acts as a catalyst for most transactional and relational marketing activities (Norizan & Salaheldin, 2009). Trust too has been recognised to have a pertinent effect on customer behaviors that prompted many researches and practitioners to examine on this construct (Yong & Bojei, 2013). They further noted that trust is becoming one of the core elements in developing Business-to-Consumer (B2C) relationship.

In addition, online trust has been recognized as essential in the virtual world. Consumers make their online purchase decision based on trust because in the virtual environment consumers have limited tangible and verifiable indications (Norizan & Salaheldin, 2009; Urban *et al.*, 2000). According to Foon and Chan (2011), banks in Malaysia should concentrate on several factors and one of them is trust in order to attract customers toward utilizing internet banking services. Internet-technology in bank has enabled customers to manage his financial transaction from anywhere globally (Ruin, 2010). However, he adds that users might want to know the possible risk of this banking technology to build-up trust and manage their accounts. It has been stressed by Reichheld *et al.* (2000) that the single most crucial variable for customers to decide in choosing online stores is trust.

Anderson and Srinivasan (2003) too have proposed that trust is essential in creating loyalty especially when the risk is high. Moreover, Kannan *et al.* (2001) stated that in the wireless setting similar to Internet setting trust that consumers have with the companies might be the answer to reduce the privacy issues. Furthermore, Dimitriadis, Kouremenos, and Kyrezis (2011) state that trust has been proven to be a main construct to comprehend and forecast consumer's attitude in self-service technology. Their finding explains that the higher the trust will result in higher intention to adopt the internet and phone banking.

Looking at the trust construct, it is becoming more pivotal especially in the age of internet and web media. Trust also embedded the element of belief towards the particular brand and customer trust should not be violated because of its implication on customer churn (Akbar & Parvez, 2009). Illustrated from RM and social exchange theory (SET), several instruments can help to elevate customers' trust and reduce privacy concern (Luo, 2002). Several researchers have shown evidence on how trust is prominent in customer relationship and loyalty (Alrubaiee & Al-Nazer, 2010; Geddie, DeFranco, & Geddie, 2005; Luo, 2002; Morgan & Hunt, 1994; Priluck, 2003). In Jing, Yu, and Zuo, (2008), they indicated that trading and transacting online are increasing substantially, however one of the challenges is to build consumer's confidence and trust in the companies' websites. Confidence is often associated with the feeling of trust and has an impact towards loyalty in building relationship.

The consumer's trust is vital in both traditional and internet environment. Li and Zhu Yi (2011) emphasized that the trust from the real or brick-and-mortar company has its benefits and can be converted into potential purchase or transaction in the e-

company. Trust has been noted as an essential influence on preference to transact and to become loyal among the internet users towards online companies (Flavián, Guinalú, & Gurrea, 2006). In addition, Shainesh (2012) noted that if customers feel that they can trust the company, they will tend to stay with the company. The feeling of trust can also originate from the customer belief that the other party is highly reliability and honest (Morgan & Hunt, 1994). Among others, trust is also significant before customers make their decision to transact or repurchase online (Qureshi *et al.*, 2009). Furthermore, trust is affected by customer experience and in turn will influence customer behaviour (Gefen, 2002; Wirtz & Lihotzky, 2003). In addition, the element of trust is vital especially in the online context because it can reinforce consumer trust and loyalty towards the online retailers (Hu & Chuang, 2012).

Next, the intention to purchase online depends on the consumer trust towards the website or the online merchant (Grabner-Kräuter & Faullant, 2008, p.487) and they have defined online trust as "...trusting beliefs in the reliability and predictability of the internet and the willingness of the consumer to depend on the internet with regard to economic transactions.". In Ribbink *et al.* (2004, p.447), eTrust is defined as "... the degree of confidence customers have in online exchanges, or in the online exchange channel". Another definition of online trust is "the confidence a person has in his or her favourable expectations of what other people will do..." (Gefen, 2000, p.726). Furthermore, trust also emerges when one individual or party is able to deliver its promises to the consumers (Sirdeshmukh *et al.*, 2002). Trust is also likely to predict customers' inclination to transact online and they usually turn away from e-firms that they do not trust (Reichheld & Schefter, 2000). Moreover, online trust includes consumer's expectation that online vendor will protect individual's privacy and confidential information and any risk will be resolved appropriately (Corritore,

Kracher, & Wiedenbeck, 2003). In the online purchasing, trust is comprised of three basic elements which are honesty, benevolence and competence (Flavián & Guinalú, 2006).

Next, Graf and Perrien (2005) mentioned that organizations should be alert on the vital role of trust especially in building relational tactics. In the meantime, Morgan and Hunt (1994) also found that trust has the largest effect in relationship marketing. Trust too was shown as a determinant of eLoyalty (Srinivasan *et al.*, 2002). Moreover, it is noted that it is always a risk when transacting and performing payment on the internet because both customers and the service providers are not physically present therefore trust is vital to reduce the involvement of online risk (Rahimi *et al.*, 2012; Ribbink *et al.*, 2004; Roca, García, & Vega, 2009; Yoon, 2002). In addition, internet has marked a quick growth though one hurdle to success has been the lack of consumer assurance in the companies' websites (Jing *et al.*, 2008). Also, Temporal and Trott (2001) argued that customers were worried when purchasing or transacting over the internet; however, being able to build trust upon the online firms enable them to create long-lasting relationship.

Reichheld and Schefter (2000) also claimed that in the e-business scenario, price does not really matter and what matters the most is trust. Furthermore, they mentioned that trust has become more crucial on the web because online customers cannot look at the sales' person, physical store or touch the product and sometimes not even get the opportunity to see the products thus they rely on their trust towards the e-company. Online business is exceptionally growing however these e-firms still reveal some lacking of trust (Mukherjee & Nath, 2007) and it has cited as a critical barrier to the e-commerce (Egger, 2000). It is supported by Lumsden and Mackay

(2006) that trust is an important construct in the online context due to its nature such as impersonality, anonymity, and automation of transactions as well as online companies cannot be analysed through face-to-face interactions compared to brick and mortar companies.

In addition, Mohd Kassim and Ahmed Abdulla (2006) mentioned that in the internet banking context, trust plays an important role because it can minimize the user's belief that he/she is performing some level of risk. According to them, the presence of trust may create an assurance against any (perceived) risks. Moreover, Flavián and Guinalú (2006) revealed that customer loyalty to a website is highly depended on the intensity of trust. Kolsaker and Payne (2002) also mentioned that the vital trait to become successful in online commerce is to create customer relationship and trust is a fundamental element due to the absence of physical facilities and employees. It is also supported by Casaló *et al.* (2007) that the absence of physical contact might increase the feeling of distrust among online users. Also, Roca *et al.* (2009) have suggested that trust is an essential factor in the online trading context and if consumers' trust is gained thus they are inclined to use that service.

It is also supported by Kassim and Abdullah (2010) that online companies must ensure that trust is secured among their customers in order to increase the usage of e-commerce. Moreover, it is claimed that the lack of trust among consumers is also cited as why they do not purchase or transact online (Flavián & Guinalú, 2006; Grabner-Kräuter & Kaluscha, 2003; Wang Shouzhong, 2008). In addition, overall trust is pivotal in marketing scenario especially in maintaining relationship and enhancing loyalty. Similarly, Ribbink *et al.* (2004) claimed that the empirical study

on the influence of eTrust on eLoyalty is still lacking. Because of all these reasons, eTrust is considered to be further tested in this study.

2.8 eTrust and eLoyalty

The discussion below will illustrate about the relationship between eTrust and eLoyalty based on several scholars' confirmation regarding this relationship. Bank customers are losing their trust towards their banks. It has been supported that one of the major challenges to the rise of internet is the insufficient trust among customers towards the online vendors (Rexha, Kingshott, & Aw, 2003). Also, banks must ensure to gain the public trust because they are dealing with the public's money (Ruin, 2010). By engineering towards trust-based strategy, websites can enjoy higher conversion and retention rates among their users (Urban *et al.*, 2000). In a research with bank customers in Jordan revealed that trust demonstrates a significant and positive relationship with customer loyalty (Alrubaiee & Al-Nazer, 2010). Furthermore, Eisingerich and Bell (2007) remark that trust and loyalty are both essential in creating and sustaining successful mutual relationship especially in the service sector. And, their finding also highlighted the significant and positive effect of trust towards repurchase intentions and customer loyalty. Besides that, trust-based relationship creates competitive advantage even to relatively small brand or firm and trust play a vital role in building connection (Hess & Story, 2005).

Moreover, there are more consumers now who enjoy surfing the internet and if they are satisfied, trust and loyalty without doubt can be developed (Ma *et al.*, 2010). They have conducted a quantitative survey among MBA students who have experience with online purchases and the result shows that security and reputation

are listed at first and second places which represent credibility construct. In another study by Qureshi *et al.* (2009), they have confirmed the positive effect of trust toward repurchase intention in a study in Northern Island and New Zealand. Another study among the mobile phone users has also concluded that trust is a factor in building customer relationship as well as usage intention (Nor Azila, 2012).

Furthermore, the relationship between trust and loyalty has been developed further in the online business as eTrust highly persuades customer to be loyal to this business (Park & Kim, 2003; Stewart, 1997). Moreover, trust is an important issue in every aspect of building customer relationship and the main factor that triggers intention to transact online (Izquierdo-yusta & Schultz, 2011). This is also supported by Anderson and Srinivasan (2011), which according to them, trust has a major impact on loyalty towards online firms and it will guarantee that customers remain loyal. Among the online loyal customers, they are inclined to make online transaction or purchase based on trust towards the e-retailers rather than price offered because to them trust is the critical factor (Reichheld *et al.*, 2000). A study by Ribbink *et al.* (2004) from customers of online book and CD stores in Europe revealed that eTrust has a direct impact on eLoyalty. In another online context among the e-commerce users, trust is claimed as an antecedent of loyalty and this relationship has been confirmed among the e-commerce users (Norizan & Salaheldin, 2009). Customer trust can also be enhanced by providing efficient system and revealing honesty. Further study has been employed in Northern and Central Taiwan among online shoppers and it has been confirmed that trust is the most important criterion and has the biggest effect in enhancing customer loyalty (Hu & Chuang, 2012).

It is also supported by Corbitt, Thanasankit, and Yi (2003) that online trust does contribute positively to online loyalty among the internet users. In a survey of e-banking among Malaysian students, Al-Agaga and Md Nor (2012) found that trust has an essential effect on customer eLoyalty. A study by Luarn and Lin (2003) has analysed the effect of trust toward eLoyalty and concluded that trust has significant relationship toward loyalty in e-service context. In Eastlick *et al.*'s (2006) study, they found that trust among US online shoppers has an influence on purchase intention; therefore, e-businesses should emphasize on trust to build and enhance sturdier long-term relationship. Similarly, Rahimi *et al.* (2012) have noted that eTrust is one of eLoyalty indicators in internet banking and their study has confirmed the significant relationship between the two variables.

In a survey on e-transaction by Mukherjee and Nath (2007) also confirmed that trust has a significant influence on customer's behavioural intention and comparing to trust and commitment, trust has a more significant effect on consumer behaviour. Moreover, a customer who has a trust on e-retailer will spread a positive word-of-mouth to others and will have a tendency to purchase and continue interaction from the website. Next, trust has an effect on loyalty because trust often encourage a more proficient behaviour of the online companies thus both online companies and customers will gain benefits from the relational activity (Yu Chao *et al.*, 2009). These researchers have conducted a survey among Taiwanese with e-banking experience and concluded that internet banking must emphasize on eTrust in order to gain eLoyalty and their study reveals that the trust construct has a direct influence on eLoyalty.

Moreover, trust will affect customers' intention to purchase or transact in the online environment and they will usually churn away from online retailers that do not exhibit trustworthiness (Jarvenpaa, Tractinsky, & Vitale, 2000; Reichheld & Schefer, 2000). Similarly to several other researchers, Chiou (2004) has established that perceived trust has a positive impact on customer loyalty towards the internet service providers. Conversely, Cyr, Hassanein, and Ivanov (2007) indicated that if the increase in trust level towards the websites will result in an increase in eLoyalty level. In addition, Floh and Treiblmaier (2006) discovered the importance of trust towards online loyalty in the financial service industry. In Yee and Faziharudean's (2010) study, they also found that trust has a highly significant and positive impact towards internet banking's loyalty.

In a web survey by Flavián and Guinalú (2006), trust has been noted to have a positive influence on eLoyalty; therefore, trust not only impacted intention to buy but also impacted actual buying behaviour. Furthermore, it has been established that the level of online banking loyalty will increase and thus coincide with the level of trust (Lii, 2009). Ghane *et al.* (2011) also noted that eTrust has a strong influence on eLoyalty. Similarly, technology trust has been proven to have an important effect on relationship and adoption in the e-banking services (Samsudin, Nor Azila, & Juhary, 2009). Consequently, the eTrust element should be included and further investigated in this research due to its established relational influence on eLoyalty.

2.9 eCommitment

Besides the construct of eTrust, eCommitment also contributes positively towards building and enhancing relational exchange. Commitment has been recognized as an

important construct for continuous and successful relationship marketing (Hennig-Thurau *et al.*, 2002). The term of eCommitment is explained by “the strength of the ongoing relationship with the prospects and customers of an e-business” (Anderson and Srinivasan, 2011, p.223). The commitment construct is essential because it influences consumers’ behaviour as well as it is able to develop customer loyalty (Morgan & Hunt, 1994). Furthermore, commitment can assist in sustaining customer loyalty (Wu, 2011). According to him, customers will put on more weight to any disadvantages if commitment does not exist. Additionally, commitment will minimize competitors’ desirable attractions and increase loyalty (Macintosh, 2007). Correspondingly, companies should focus on commitment because it can strengthen future relationship and loyalty (Gustafsson, Johnson, & Roos, 2005). However, commitment is different from interpersonal relationships because it represents a higher order of emotional attachment. It is rather significant to focus on commitment because of its capability in shrinking uncertainty and should be the major focus especially in the service context (Wu, 2011).

In Mohd Kassim and Ahmed Abdulla's (2006) study among users of internet banking, they remarked that committed customers have the tendency to do businesses with a retailer or supplier. According to them, customer commitment can be built through a customer-centred strategy based on mutual relationship benefits resulted in an increase of business. Furthermore, Casaló *et al.* (2007) have noted that commitment is one of the driving forces in strengthening customer relationship. They added that commitment is considered as an important predictor in online banking and it may increase consumer loyalty toward that website. Another noteworthy remark by Anderson and Srinivasan (2011) mentioned that the higher

the commitment implemented by online business towards fulfilling customer desire, the greater the loyalty level is.

It is further indicated that commitment has been observed as an important driver in relationship interaction between customers and service providers (Liang & Wang, 2007). They have hypothesized that a higher level of commitment will indicate for a higher level of behavioural intentions and their study have confirmed and supported the earlier assumption. They further suggested that commitment is somehow regarded as the ultimate relationship outcome. In addition, customer commitment is developed from both personal and function acquaintances (Hess & Story, 2005). Studies on commitment element is essential to better understand the influence to relationship marketing as well as whether commitment too is helpful in determining the impact on loyalty as well as the intention to purchase in the future (Dwyer, Schurr, & Oh, 1987; Gundlach, Achrol, & Mentzer, 1995; Morgan & Hunt, 1994). Generally, customers with higher affective commitment have higher tendency to sustain their relationship with the vendors (Chang *et al.*, 2012). They have suggested that this commitment can be built through repeated positive communications and fulfilled customers' needs. Therefore, as most literatures have supported on the importance of eCommitment factor, this variable should be included in the study.

2.10 eCommitment and eLoyalty

The discussion of eCommitment effects on eLoyalty has been undertaken by several researchers. These are several findings of the impact of commitment towards relationship marketing. Ndubisi's (2007a) study has shown that commitment also has a great impact toward customer loyalty. It is indicated that affective commitment

has a positive influence on advocacy intention and negative impact on switching behaviour (Fullerton, 2003). Also, a significant relationship between commitment and relationship performance which include retention, satisfaction as well as loyalty has been proven to be significant among the internet and mobile phone users in Jordan (Nor Azila, 2012). In Wu's (2011) study on electronic online consumers, commitment has a direct impact on customer loyalty and stimulates continuing affiliation. Next, a study in Pakistan among banking customers has also revealed the positive and significant effect of commitment towards customer loyalty (Afsar, Rehman, Qureshi, & Shahjehan, 2010). They further claimed that a strong interaction between banks and customers should exist since commitment is the key factor in loyalty. In another study among a merchant bank in Taiwan has revealed that commitment influences customer behavioural intention (Liang & Wang, 2007).

Furthermore, in Eastlick *et al.*'s (2006) research among online shoppers in the United States has revealed that one of the strongest factors that lead to online purchase intention is commitment. They conclude that online businesses should focus on commitment to foster better long-term relationship. According to Nusair, Nan Hua, and Xu Li (2010), it is crucial to study the impact of commitment on B2C relationships because it may be hard to build online commitment due to the nature of online business. According to them, commitment has been recognized as important to accomplish desirable outcomes and one of them is positive word-of-mouth in the travel sector. Moreover, commitment has been shown to have an effect on continual and strong relationship as well as a predictor of revenue. Additionally, in the e-commerce context, customer commitment influences their interaction with the retailer's website. Customers who are committed often have the intention to maintain relationship with a particular store and will revisit, buy and rebuy in the

future (Park & Kim, 2003). Their study in Korea involving customers who purchase through online bookstores indicates commitment does significantly influence consumer's intention to purchase.

In an article of online retailing by Mukherjee and Nath (2007), they mentioned that commitment among customer in e-retailing may trigger behavioural intention and may build positive as well as lengthy relationship. Their survey on a large British university reveals that commitment has a higher level of influence on behavioural intention. Furthermore, Luarn and Lin (2003) have researched the commitment effect among online users in the traveling services and video on demand. Their respondents were gathered from a convention that was held in Taiwan. They have further concluded that there is a significant relationship between commitment and loyalty and commitment displays the strongest direct effect towards loyalty. On the contrary, Alrubaiee and Al-Nazer (2010) found that in their study commitment has no significant impact on loyalty which to them is a surprising result. In summary, eCommitment has been presented to have an essential effect on eLoyalty. Consequently the factor is included in the study.

2.11 eSatisfaction and eCommitment

It has been shown in several articles that eSatisfaction has an effect on eCommitment. In an online travel, Nusair (2008) has posited that satisfaction is positively related to affective commitment. Based on his analysis on e-travel firms, it has been concluded that with certain level of satisfaction, customers are able to cultivate commitment. In addition, the relationship between these two variables is found to be significant. Furthermore, in the online business, customer satisfaction as

well as commitment should be established to generate successful relationship marketing and customer loyalty (Nusair *et al.*, 2010). Also, they strongly suggest that firms should invest in strategies to ensure for online customer satisfaction due to the significant impact on commitment. Looking at the context of financial services, satisfaction is suggested as the direct antecedent of commitment (Sharma & Patterson, 2000). As a result, this study has revealed that satisfaction is very significant in influencing relationship commitment.

Additionally, the link of satisfaction and commitment has been further discussed (Jumaev, Kumar, & Hanaysha, 2012). They have noted that among the banking customers, satisfaction is needed to reach the conative stage which is strongly committed to buy. Another study in the banking sector has revealed that satisfaction is an essential antecedent for both commitment and loyalty (Afsar *et al.*, 2010). Their study has concluded that satisfaction has a significant influence on commitment whereby higher satisfaction will lead to higher commitment toward the bank.

In the study on online bookstore, the researchers have suggested that satisfaction plays an important role in developing customers' commitment (Park & Kim, 2003). And, their analysis has proven that satisfaction has a significant impact towards customer's site commitment and later affecting purchase behaviour. Next, the satisfaction-commitment link has been proven in a study on online travel retailers (Nusair, Parsa, & Cobanoglu, 2011). According to them, customers that were satisfied with the online retailers may be emotionally devoted to these retailers. Furthermore, satisfaction is essential in building committed customers as well as

retaining them. Their finding has further revealed that eSatisfaction does develop positive commitment towards the web travel retailers.

Subsequently, in an e-service, it had been proposed that satisfaction has an impact on both commitment and loyalty (Luarn & Lin, 2003). In their analysis, they established that satisfaction has a substantial and positive impact on commitment. Lastly, they have tested the mediation effect of commitment and concluded that satisfaction has an indirect effect on loyalty through commitment. Therefore, it can be concluded that developing commitment through satisfaction is vital in order to create customer loyalty. Moreover, due to the increase in web travel sales, these retailers are searching for strategies to win over customers and to build up their relationship with them. Satisfaction has also been identified as a tool to generate commitment thus create relationship (Nusair & Nan Hua, 2010). They have conducted a study among undergraduate students who have purchased travel products or services on the web and established that eSatisfaction impacts customers' commitment. Thus, based on previous studies, eSatisfaction is shown to have a positive impact on eCommitment.

2.12 Privacy

Apart from the above relational discussions, there are studies which had confirmed the importance of privacy especially in the online context. In general, most customers are concerned on the misuse of their privacy or personal information once the information had been gathered by the businesses. The introduction of any new technology will raise the issue of privacy such as concern on the types of individual's information that will be captured, how it will be utilized and its

protection against illegal use (Galanxhi-Janaqi & Nah, 2004). In addition, Kelly and Erickson (2004, 2005) mentioned that the emergence and usage of technology have led privacy to become a vital matter. Privacy has been conceptualized as “intrusion upon their solitude as well as physical activities and space, control of private information ..., and control of marketer interactions” (Morimoto & Macias, 2009, p.140). And, according to them intrusion of privacy such as receiving unwanted commercial messages will trigger consumers’ reluctance which leads to negative behavioural intentions. In Phelps, Nowak, and Ferrel (2000, p.29), privacy is “... the ability to affect the dissemination and use of personal information that is collected during, or as a result of, marketing transactions, as well as control over unwanted telephone, mail, or personal intrusions in the consumer's home”. Another definition of privacy is “the protection of various types of data collected (with or without the knowledge of user) during users’ interaction with the online system, which may affect the usage of the system” (Kassim & Abdullah, 2010, p.354).

In Mukherjee and Nath (2007), they mentioned that the central focus of privacy is on protection of customer’s personal information on the internet. Also, privacy is recognized to consist of four legal offences such as invasion, exposure, fraudulent and false light (Eastlick *et al.*, 2006). The privacy issue is also highlighted in the online banking service due to its high-risk service that includes uncontrollable features that might affect the privacy loss (Zhao *et al.*, 2010). Thus, consumers are highly concerned with the privacy issue especially in the usage of internet (web-based technology) (Kannan *et al.*, 2001; Urban *et al.*, 2000; Wang, Sun, & Zha, 2009).

It is further remarked by Parasuraman and Zinkhan (2002) that privacy matter needs to be taken seriously; otherwise, it may tarnish customer relationship as well as their purchase online. In addition, the growth of online businesses, online information systems and the usage of information have increased the need to examine the privacy issue (Phelps *et al.*, 2000). In addition, customers have anticipated that online service providers need to clearly state the privacy policy and will keep all information as strictly confidential (Mukherjee & Nath, 2007). They further noted that no personal information should be distributed to another party without the owner's permission. Customers also have the right to opt out (not participate) and not receive any promotional emails. Businesses should be aware that customers are more concerned on privacy matters especially when they are required to provide their financial information.

Furthermore, according to Eastlick *et al.* (2006), privacy concern may have a lasting negative effect on online relationship between e-business and customers; therefore, it is crucial to look for strategies to minimize the concern. Their study has disclosed consumers' concerns on privacy have a negative impact on their purchase intention. Privacy is associated with the legal requirements and good business conducts when handling individual data such as letting them know necessary information before accepting the agreement (Eastlick *et al.*, 2006; Flavián & Guinalú, 2006). Besides that, customers are worried about how their private information is being utilized by governments as well as businesses and privacy is among the greatest concerns of online buyers (Udo, 2001). According to him, companies that want to succeed should spend their resources to counter the privacy issue. Even though customers are happy due to the ease of online banking however, privacy is still a major obstacle and concern among online customers (Taylor, 2005). In marketing, privacy is always

a main concern among the customers and becomes more significant in the emerging era of internet commerce (Rust, Kannan, & Peng, 2002). They added that customers are becoming more conscious because that have less control over their personal information and a rise in cases of exploitation of personal information.

Moreover, privacy is viewed as most significant when customers can actually refrain the usage of their personal information though some are not conscious of what information has been collected and exposed by the online retailers (Ribbink *et al.*, 2004). In their study, they have measured the effect of assurance (privacy/security) towards eSatisfaction and found that it has a direct effect on eSatisfaction. Similarly, Semeijn *et al.* (2005) has analysed the assurance factor which include the privacy and security items and they have concluded that assurance has a direct influence both on eSatisfaction and eLoyalty. Next, privacy is considered as one of the elements that customer use to evaluate the website as well as the quality of online service (Zeithaml, Parasuraman, & Maholtra, 2002).

Also, according to Flavián and Guinalú (2006), privacy is related to managing personal data thus consumers need to be notified on what and how their data will be utilized. They also proposed that privacy has an impact towards trust thus affecting loyalty among Spanish internet users. Online users prefer online companies to have an efficient privacy policy to ensure users' private information is well managed (Nusair *et al.*, 2010). Apart from that, according to Ala'Eddin Mohd Khalaf Ahmad and Al-Zu'bi (2011), privacy is an essential variable that can influence customers to use online transaction services. They have added that banks should implement efficient encryption tool to protect information privacy. As illustrated earlier by

several scholars, there is a need to examine privacy factor in the study due to its vital role especially in the online context.

2.13 Privacy and eSatisfaction

Studies have shown that one of the most important factors of customers' determinant to purchase online is their concerns on privacy. Privacy matter is crucial among online users and providers due to its impact especially on online banking users (Momeni *et al.*, 2013). It is also supported by Qureshi and Zafar (2008) that the advancement of technology in internet banking has resulted in the focus of privacy construct. In their study in Pakistan, both studies have concluded that privacy has significant impacts on customer acceptance to perform the online banking. With regards to this, they have recommended that managers should include and focus on privacy matter in their decision.

It is noteworthy to examine the antecedent(s) of satisfaction because of its impact on loyalty, repeat buying and positive word-of-mouth (Cheung & Lee, 2005). Moreover, some researches have indicated that privacy impact on satisfaction. According to Parasuraman and Zinkhan (2002), online companies need to rectify the privacy issues to ensure customers feel satisfied and confident while transacting online. Looking at the internet banking perspective, Poon (2008) noted that privacy is one of the main causes of dissatisfaction among users and they perceived that their private information is not kept safely. In Wang, Lee, and Wang (1998), they claimed that the most critical issue among online consumers are feelings of fear and distrust about their personal privacy while transacting online. Moreover in their article, they

stated that even though various actions have been taken to counter the issue, there are still more to be done to ensure the consumers' privacy is protected online.

In Ribbink *et al.*'s (2004) study, they have measured the effect of assurance (privacy/security) towards eSatisfaction and found that it has a direct effect on satisfaction. Also, the study of Ala'Eddin Mohd Khalaf Ahmad and Al-Zu'bi (2011) on e-banking concluded that privacy has a significant and positive impact on customer satisfaction. Consumers are often concerned that their privacy is at risk as well as having some doubts in the policy governing the internet environment which create challenges to encourage for more internet commerce activities (Lardner, 1999). Sanayei, Shaemi, *et al.* (2011) have conducted a survey among online users of an Iranian bank and concluded that privacy has a positive influence on online satisfaction. Similarly, privacy (an element of assurance) in e-commerce will have a positive effect on satisfaction which may affect online usage (Norizan & Nor Asiah, 2010; Semeijn *et al.*, 2005).

Next, Sadeh *et al.* (2011) also established that privacy is one of the most significant constructs in influencing eSatisfaction in e-retailing. In contrast, surprisingly, Wolfinbarger and Gilly's (2003) study has concluded that in the online retailing context, security/privacy is not significant except for most frequent online purchasers. For the privacy/security construct, they have applied indicators such as protection on personal information, safe transaction and adequate security measures. On the contrary, Eid (2011) established that privacy is a weak determinant of eSatisfaction. Therefore, there is a need for the researcher to look at privacy element to deter switching and create satisfaction and so forth to influence online loyalty.

Because of these reasons, privacy is included in the study because this variable may contribute towards feeling of satisfaction or dissatisfaction.

2.14 Security

Next, the second antecedent of eSatisfaction which is security will be explored due to many online users are concerned on security matter while transacting or purchasing online. Kolsaker and Payne (2002) mentioned that the success of a B2C is heavily depended on the guaranteed security (both perceived and reality security are equally important) provided by the online providers. And, in the internet context, security has become a serious threat (Shih, Chaing, Chang, & Lin, 2004). Customers are always concerned about the safety and risk involved in many types of system or technology which include the internet banking services (Ruin, 2010). In addition, the security factor must be reviewed seriously because customers' view of security may also reduce customer confidence level towards the online banking services or providers (Colgate *et al.*, 2005).

Kumbhar (2011) has also examined the security factors using items such as reliability, confidence, danger, fraudulent and hacking. It is also believed that security issues is critical especially when customer are purchasing or transacting online (Momeni *et al.*, 2013). It is further noted that customers have been complaining on the security and safety features of online and phone banking (Tan *et al.*, 2012) that entailed the banks to solve the matter because of its effect on online satisfaction. Also, the internet technology has urged internet banking providers to focus on security issue (Qureshi & Zafar, 2008). Their online banking study has

confirmed that security has an effect on customer acceptance. They further argued that managers should carefully managed the security matter.

It is also remarked that security is one of the most critical factors in determining the user acceptance towards online banking (Hua, 2009). Apart from that, it is also supported by Norizan Mohd Kassim and Ahmed Abdulla (2006) that banks riding on internet technology should develop a secured and protected system to develop customer trust. It is also noted that security system in the internet banking services does have an impact on customer adoption (Howcroft, Hamilton, & Hewer, 2002). In addition, security is also one of major obstacles that hinders customer from transacting and purchasing online (Udo, 2001). Security of online payment status, as well as risk perception are among customer's concerns while transacting online (Yoon, 2002). They claimed that e-firms' attempt to include symbols or logos to indicate website's security feature or system is a good move as it will reduce the feeling of dissatisfaction as well as distrust.

It is also suggested by Munusamy *et al.* (2012) that bankers need to minimize risk perception because this is one of the deterrents why non-adopters are not using online banking. Even though there are many business transactions can be made online, conversely, security issue is still an alarming worry among most customers (Weippl, 2001). It is also noted that customers are particularly worried about any loopholes leading to information being leaked and hacking attempt in the virtual space (Mukherjee & Nath, 2007). Thus, companies need to enforce appropriate security features to lessen the wary.

In addition, security issue has become critical in the technological era where customers sometimes feel discourage to purchase online because of the online threats such as scamming (The Association of Banks in Malaysia, 2008). Also, the worry on security has a negative effect on customer patronage whereby customer will deter from their current bank if they feel unsecured (Hoflich, 2004). Security has been noted as a vital construct in determining customer's online visitations and purchases (Ranganathan & Ganapathy, 2002). Subsequently, Wang *et al.* (2009) also noted that security is vital for the enhancement of online loyalty thus e-retailers need to focus on security construct. Similarly, among the internet banking customers in Taiwan, banks can improve their internet services by concentrating on security feature (Lee *et al.*, 2011).

Apart from that, Devaraj *et al.* (2003) mentioned that an e-store has to reveal all information needed from the customers to make better decision as well as assure them of their safety and security while transacting online. It has been mentioned that the adoption level among customers have not yet reached the satisfactory level that banks would like to have (Calisir & Gumusoy, 2008) as customers are constantly wary on the security and confidentiality issues of the transactions and their personal data (Aladwani, 2001; Aldas-Manzano, Lassala-Navarre, Ruiz-Mafe, & Sanz-Blas, 2009).

Moreover, Flavián and Guinalú (2006) noted that customers are concerned about their security, for example, spam, fraudulent, hacker and virus attacks; thus, online vendors must ensure the reliability and legitimacy of one's transaction. According to them, perceived security is known as "...subjective probability with which consumers believe that their personal information (private and monetary) will not be

viewed, stored, and manipulated during transit and storage by inappropriate parties in a manner consistent with their confident expectations” (p. 604). Security is also referred to “the protection of information or systems from unsanctioned intrusions or outflows” (Kassim & Abdullah, 2010 p.354). According to them, many studies have acknowledged that customer’s concern on security has an impact on customer’s online usage.

Next, Flavián and Guinalú (2006, p.604) have defined security as “the subjective probability with which consumers believe that personal information ... will not be viewed, stored and manipulated during transit and storage by inappropriate parties in a manner consistent with their confident expectations”. They also suggested that security has a relationship with trust and trust affects loyalty. In Sanayei, Ranjbarian, *et al.* (2011, p.25), they defined security as “protecting the details of transactions and customers from internal and external fraud/criminal usage”. Bart, Shankar, Sultan, and Urban (2005) defined security as the feeling of safety by online provider while customers are using technology to perform their transactions.

Due to several fraud cases on security system of websites, consumers have become more aware of their security while they are online. Moreover, Mayer and Davis (1999) elaborate that security does influence trust intention thus affecting loyalty. Thus, in Cheung and Lee's (2005) article, consumers are concerned of security when giving information online due to incidences of intrusion of website security system. Therefore, they have suggested that security impacts online satisfaction. In view of the prevailing reports of malicious attacks on security system of websites, consumers start to feel concerned over the level of security present when providing sensitive information online. For instance, in Mukherjee and Nath (2007), they noted that

increasing news of online security, spamming, hacking and phishing have influenced customer concern on security matter.

According to Zeithaml *et al.* (2002), in order to achieve outcomes such as repurchase and customer loyalty, online companies must emphasize on criteria that happened before, during and after transaction which include security and privacy. To them, security comprises of protecting against deception and financial risk which might result from the usage of one's credit card while transacting or purchasing online. Referring to Ala'Eddin Mohd Khalaf Ahmad and Al-Zu'bi (2011), customer may feel more secured if they are aware about the online providers security tools as well as the logos of trusted third party. Security is an essential variable to be explored because without it internet users or customers do not feel secured thinking that their payment might be captured by other illegal parties (Jones & Vijayasathy, 1998). As a conclusion, it is critical to focus on privacy matter thus this variable is included in the study.

2.15 Security and eSatisfaction

There are studies that exemplify the influence of security factor on eSatisfaction. According to Rahimi *et al.* (2012), banks should ensure security feature in the internet banking services in order to gain more customers and their satisfactions. They also argued that customer's feeling of assured security is crucial because by feeling so they are more than willing to share some of their personal information. Furthermore, it is mentioned that security has the strongest effect on dissatisfaction among internet banking users (Poon, 2008). Therefore, it is suggested that banks need to publicize their concerns and actions on security. And, Casaló *et al.* (2007)

have affirmed the positive and strong impact of security in online banking's website. This is due to when online companies applied and publicized their security actions, customers are likely to feel more safe and confident in making their online transactions and purchases.

Subsequently, in Park and Kim (2003), online purchasers are concerned on the usage of their private and financial information and their study has confirmed that security does have an impact on satisfaction. Referring to Ala'Eddin Mohd Khalaf Ahmad and Al-Zu'bi (2011), they also concluded that security has a positive influence and is among the three constructs that has the greatest impact on customer satisfaction among users of online banking. In Sanayei, Ranjbarian, *et al.* (2011) study of customer loyalty in m-payment, customer satisfaction and loyalty are affected by several critical factors and security is one of them. Their study concluded that security has a significant influence on customer satisfaction. In Ribbink *et al.*'s (2004), assurance which includes security has a direct effect on eSatisfaction. Similarly, Yoon (2002) confirmed the significant impact of security construct on website satisfaction in a simulation study on online purchase.

Similar to other studies, Kassim and Abdullah (2010) noted that security is essential to encourage repurchase and revisit to a particular website. Thus, their finding as well as finding by Semeijn *et al.* (2005) have confirmed that security (one element of assurance) has an effect on satisfaction and must be further developed to reassure visits and purchases online as well as online loyalty. In another study on e-banking among the Indian customers also revealed similar result whereby security (assurance) has a vital effect on customer satisfaction (Kumbhar, 2011). Likewise, Momeni *et al.* (2013) have assured that security of their information has a positive

impact on satisfaction among internet banking customers in Tehran. In India, seven constructs were tested to predict their impacts on satisfaction among the internet banking users and security among others was confirmed to have a positive impact on satisfaction. Based on the above relational impact of security towards satisfaction, therefore this study presumes that security has an association with eSatisfaction.

2.16 Website Quality

Subsequently, the third determinant of eSatisfaction which is website quality will be deliberated in the study because website quality has the potential to affect eSatisfaction based on several studies. In a “brick and mortar” store, the shop window acts as an influential element whether or not customer will enter the premise. Similar to the traditional/offline store, a webpage is a vital aspect for e-firms which customers are looking for a reliable system that can support their transactions (Lii, 2009; Wu, 2011). In addition, Devaraj *et al.* (2003) highlighted that website quality that produce a captivating e-shopping experience will probably lead the consumer to make a purchase decision.

It is also supported that it is essential for web designers to consider customer views on website quality (Santos, 2003). They further remarked that a good website appearance may influence customer’s first and continued visit. It is also suggested that online banking providers must focus on web quality that includes user-friendly aspect and efficient web (Herington & Weaven, 2007). Furthermore, in the online service context, customers look for website quality features such as web interface, navigation, download and upload speed and search efficiency (Jayawardhena, 2004).

Looking at the quality aspect, banks should strategize on online quality to avoid customer churning to another online banking services that have better site quality (Munusamy *et al.*, 2012). Customers are looking for effectual website quality that includes transactional features such as of site instruction, interactivity, upload and download speed (Ndubisi & Sinti, 2006). They further stated that web features have an effect on customer behaviour such as adoption. In the online business, customers will deter away if they are facing difficulty while searching or purchasing (Ganapathy *et al.*, 2004). Thus, it is essential to ensure easiness for customers to navigate while they are online. Website design and visual structure are mostly essential to most online users (Poon, 2008).

In online banking, customers interact with the website that allows them to inquire or transact about the banks' products and services. It is proposed that the the quality of the web should consist of two stages which are before and after the introduction of the online service (Santos, 2003). They further commented that several elements are needed for website quality consideration such as easy to use, appealing, continuous maintenance and improvement, well organized as well as attractive contents. In some and even most businesses, website has replaced the function of the physical store due to the current development in both internet and technology. Therefore, website quality and design are essential in building the company image and deliberately affecting purchasing behaviour (Samsudin, Kaled, & Nor Azila, 2010).

In addition, in the era of internet banking, customer will depend on indicators such as website quality and design when choosing which e-banking providers because the e-service seems to be undifferentiated among one and another (Hewer & Howcroft, 1999). It is also remarked that website service providers should organise their

website design to provide better and friendly platform to the users (Hsu *et al.*, 2013). Moreover, website quality of online businesses is essential as it is the only the channel or site representing most online businesses (Palmer & Griffith, 1998). Furthermore, a study by Qureshi, Yang, Ramsey, McCole, Ibbotson and Compeau (2009) has confirmed the direct impact of perceived website quality towards intention to repurchase. In addition, Casaló *et al.* (2007) have established that website's design and structure must be relatively simple and easy for better navigation and usage among online customers. Liang and Lai (2002) have also concluded that quality of website positively influences the online customer in purchasing a product or service.

Furthermore, the analysis conducted by Wolfinbarger and Gilly (2003) reveals that quality judgement of the online site is highly associated to the website design. They further noted that elements of website design which include navigation, information search, personalization and selection have an impact on consumer perception towards their buying behaviour. In addition, Devaraj *et al.* (2003) highlight that website quality that make captivating e-shopping experience will probably lead the consumer to make a purchase decision. In the online business, customers will deter away if they are facing difficulty while searching or purchasing (Ganapathy *et al.*, 2004). Thus, it is essential to ensure easiness for customer to navigate while they are online. Website design and visual structure are mostly essential to most online users (Poon, 2008). In online banking, customers interact with the website that allows them to inquire or transact about the banks' products and services.

In Laroche, Teng, Michon, and Chebat (2005), customers who have been experiencing a fulfilling service quality are more inclined to purchase a product.

Lassar, Manolis, & Winsor (2000) also supported that quality dimension is a reliable measurement in forecasting customer satisfaction. Additionally, van Riel, Liljander, and Jurriens (2001) claimed that due to the difficulty and increased expenditure in capturing online customers compared to the offline customers, website quality services are vital in acquiring and keeping online customers. According to Hur *et al.* (2011), the efficacy and achievement of a website somehow depend on how customers perceive the value and quality of the interactions and services. The design of the website acts as an appeal to attract, sustain, and keep consumers towards the web (Ranganathan & Ganapathy, 2002). Thus, when customers begin to use the website and start to feel familiar with it, they may continue to use it (Yee & Faziharudean, 2010).

Moreover, online shopping has become a routine way of shopping thus website quality may play a vital role in differentiating one site from the another (Yoo & Donthu, 2001). According to them, websites with high quality features are able to appeal more users and shoppers because quality enables online firms to sustain and compete efficiently and effectively. Furthermore, in Yoon's (2002) study, he revealed that website does influence consumer's purchase intentions. It had been claimed by Lai, Chen, and Lin (2007) that customers who are satisfied with the online travel website will be patronage to the web. They added that eLoyalty is also enhanced when the web is responsive. Therefore, all these discussions conclude that it is essential to examine the impact of website quality towards eSatisfaction on online service providers.

2.17 Website Quality and eSatisfaction

It has been confirmed by several studies that website quality also has continuously confirmed the positive association towards eSatisfaction. As numbers of online customers are growing, measuring website quality from customer's standpoint helps e-firms to take necessary steps to develop and improve their e-transaction (Ganapathy *et al.*, 2004; Seethamraju, 2004). Ganapathy *et al.* (2004) highlighted that the competition in e-environment is intense thus websites that deliver effortless interactions will become successful in a longer period of time. Furthermore, a study has been conducted among the retail banking customers in Malaysia has examined the effect of quality on customer satisfaction (Yong & Bojei, 2013). Technical quality is established to have an impact on satisfaction due to most customers rely on technology in fulfilling their banking needs. Thus, there is a need for the bank to make improvement on both the web technology as well the physical qualities (Yong & Bojei, 2013). Also, Floh and Treiblmaier (2006) included website quality in their model to foresee its effect and discover that it has an effect on satisfaction among Austrian online banking users. They suggest that website providers should ensure that online users experience easiness while navigating the websites.

Besides that, Lin and Sun (2009) have proposed the linkage between website service and eSatisfaction and eLoyalty and concluded that the linkage is positive. Customer involvement with the website such as navigation and processing has an essential effect whether or not they are satisfied with their on-line shopping experiences (Wolfenbarger & Gilly, 2003). Furthermore, Peterson, Balasubramaniam, and Bronenberg (1997) indicated that higher online quality of information will lead to a higher eSatisfaction level. Besides that, website quality is essential because this is

the first stage customers will go through before customers start to make their purchase (Yoon, 2002). Also, website quality has been associated with customer usage (Qureshi *et al.*, 2009). It is further claimed that if customers presumed that the website is high of quality, customers will most probably generate favourable attitude and ultimately create higher reuse intention (Jahng, Jain, & Ramamurthy, 2007; Pavlou & Fygenson, 2006).

In addition, website quality designs may reveal the good image of the bank thus increase its web efficiency (Jayawardhena & Foley, 2000). Obviously, customer will be satisfied with website that portrays efficient qualities (Lii, 2009). In her study from an online survey in Indonesia, she revealed that website quality indeed has the strongest influence towards eSatisfaction. Similarly, Eid (2011) has confirmed that user interface design quality is one of the constructs that influence eSatisfaction and eLoyalty among online consumers. In Bhattacharjee (2001), he stated that the website is essential in predicting the satisfaction level of the online brokerage service. Therefore, website has become an important predictor of satisfaction (Bhattacharjee, 2001; Zhilin Yang, Peterson, & Huang, 2001). Moreover, a study on two mock websites has revealed that web site design quality has an indirect effect on satisfaction and word of mouth intention (Ha & Im, 2012). It is also concluded that the website design is one of the important factors that significantly affect customers' eSatisfaction (Rahimi *et al.*, 2012). Next, a study by Wolfinbarger and Gilly (2003) revealed the association between quality satisfaction and loyalty intention. They have concluded that website has the strongest impact on predicting loyalty if consumer feels that their purchase is satisfying. Subsequently, Kassim and Abdullah (2010) have noted that website design has a positive influence on customer satisfaction across two groups in the e-commerce context. In addition, website

quality is also denoted to have significant effect on repurchase among university personnel in the Northern Ireland (Qureshi *et al.*, 2009). This is also supported by other researchers that website design of the e-banking has a positive impact towards customer website satisfaction (Ala'Eddin Mohd Khalaf Ahmad & Al-Zu'bi, 2011; Momeni *et al.*, 2013). In another study by Yong and Bojei (2013), customer satisfaction is concluded to be positively affected by both function and technical qualities of the bank. Thus, banks need to focus on qualities to increase positive customer intention or perception towards the bank.

A study in an online environment by Negash, Ryan, and Igbaria (2003) established that the system quality of a website has a positive effect on websites satisfaction. Similarly, Balabanis *et al.* (2006) concluded that beside product quality, website quality also has a positive impact on eSatisfaction. Similarly to the study by Hur *et al.* (2011) in online sports purchase behaviour, website quality has an effect on eSatisfaction. Also, it has been claimed that the website satisfaction is affected by website traits such as ease-of-use (Bansal *et al.*, 2004; Zeithaml *et al.*, 2002). Referring to Norizan and Salaheldin (2009), website quality does influence customer satisfaction level of online users. They further stated that the website quality features include web design and responsiveness. Subsequently, the result from Lii's (2009) study has confirmed that website quality has the strongest influence on satisfaction. Therefore, due to the prominent effect of website quality, online banks should strategize their websites by providing easiness and speedier transactions (Floh & Treiblmaier, 2006; Pikkarainen, Pikkarainen, Karjaluoto, & Pahnla, 2004). Therefore, it is justifiable to include the influence of website quality construct towards eSatisfaction.

2.18 Direct Relationships

In the previous studies, several researchers have discussed and presented on the direct relationship between privacy, security and website quality towards eLoyalty. Looking at the first direct relationship, it is stated that privacy is important in determining customer behaviour in accepting the online services (Ganapathy *et al.*, 2004; Mukherjee & Nath, 2007). In another study of likelihood of service usage has also suggested that if customers are being treated well especially with their private information, they are willing to use the service (Chellappa & Sin, 2005; Poon, 2008).

Next, in the second direct relationship, customers who feel secured over their transactions will make the effort to shop online (Park & Kim, 2003). Moreover, security is known to be the most critical factor in in the case of internet banking adoption (Laforet & Li, 2005). In other online services such as trading and transaction, security factor can either encourage or deter customers from using the online services (Roca *et al.*, 2009). In addition, a survey in China has revealed that internet security has the greatest impact on online loyalty (Wang *et al.*, 2009). They have concluded that most customers are concerned about security matters while they are shopping online.

Furthermore, lack of security features may discourage customer to transact with any online banking providers. Sanayei, Ranjbarian, *et al.* (2011) have also hypothesized the effect of security towards internet banking loyalty. They further concluded that security is essential in mobile payment even though their proposition is rejected. A survey in China has revealed that internet security has the greatest impact on online

loyalty (Wang *et al.*, 2009). Looking at the perspective of customer's acceptance of the online services, security is shown as one of the critical determinants (Ganapathy *et al.*, 2004; Kim, Steinfield, & Lai, 2008; Mukherjee & Nath, 2007). In the case of online banking, security is shown to be one of the significant determinants of customer's adoption (Poon, 2008).

In another study by Ribbink *et al.* (2004), assurance (a component of privacy and security) was found to have an impact on loyalty. Thus, by enhancing both security and privacy features, online service providers are able to enhance online loyalty. Similarly, Flavián and Guinalú (2006) have hypothesized the direct relationship between perceived security in handling private data (SHPD) which include both privacy and security items towards website loyalty. And, their study has also revealed that the relationship was not statistically significant, however there is a mediation effect of trust between SHPD and website loyalty.

Subsequently, the third direct relationship has also been analysed in several studies. The quality dimension is tested and proven to have a direct influence on online loyalty (Rodgers *et al.*, 2005). Other finding has also indicated the important effect of service quality towards customer loyalty in technology usage such as online banking (Ganguli & Sanjit Kumar Roy, 2011). In another quality study, the user interface and information quality also have a significant impact on customer loyalty (Eid, 2011). Moreover, in an online shopping context, website quality has a positive direct effect on both online satisfaction as well as online loyalty (Lin & Sun, 2009). Wang *et al.* (2009) further proposed that website design characteristic will also improve the level of eLoyalty, however the proposition is not supported.

Nevertheless, they further recommend that the quality must be improved to enhance customer relationship.

In addition, Hur *et al.* (2011) argued that customers' views on website quality do impact their loyalty towards the web. It is also suggested that the quality of a website will have an influence on customers' attitude towards the online retailer (Lim & Dubinsky, 2004). Moreover, quality functions offered by the online service providers may reinforced customer online loyalty (Reichheld & Schefer, 2000). Other researchers have also supported that online service quality has an effect on customer purchase decision (Michel Laroche, Teng, Michon, & Chebat, 2005; Liang & Lai, 2002) and retention (van Riel *et al.*, 2001). Next, a study in Iran has revealed that the direct effect of quality towards loyalty is not significant however, the full mediation effect of online satisfaction between quality and loyalty does happen (Sanayei, Shaemi, *et al.*, 2011).

It is noted that the independent variable may not have a significant impact on dependent variable for a mediation to occur. In some studies, the direct relationship maybe rejected or insignificant, however, recent researches indicate that the mediator effect can still be tested even though the direct effect is not significant (Shrout & Bolger, 2002; Zhao, Lynch Jr., & Chen, 2010). In conclusion, based on reviews on the three direct relationships, it is concluded that relationship do occur between privacy and eLoyalty, security and eLoyalty and lastly website quality and eLoyalty.

2.19 eSatisfaction as Mediator

Apart from the direct relationships between privacy, security and website quality towards eSatisfaction that are being elaborated above, the study will also include the mediating role of eSatisfaction. This is due to the reason that eSatisfaction has shown to have a mediating effect in some studies which will be further discussed. So far based on the our knowledge, there are only few articles that had discussed about the mediating effect of online satisfaction (Eid, 2011; Hur *et al.*, 2011; Ribbink *et al.*, 2004; Sanayei, Shaemi, *et al.*, 2011) between privacy, security and website quality towards eLoyalty. Sanayei, Shaemi, *et al.* (2011) have investigated the effect of privacy on eSatisfaction and eLoyalty and their study conclude that variables such as privacy have significant impact on eSatisfaction and thus significantly influence eLoyalty. In Ribbink *et al.* (2004), assurance dimension, which is the combination of customer perceived security and privacy, has an influence on online loyalty through eSatisfaction. Thus, in their study eSatisfaction mediates the relationship between assurance (privacy and security) and online loyalty. Furthermore, Eid (2011) explores the determinants and the mediation effect of eSatisfaction towards eLoyalty in Saudi Arabia among e-commerce customers. The antecedents applied in his study include privacy and security. However, eSatisfaction indicates no mediating effect between privacy and security and eLoyalty. Furthermore, he highlighted that his finding may not be generalized since it only covers the triangular cities of Dahrán, Khobar and Damman, therefore further analysis can be done in another country.

Moreover, Hur *et al.* (2011) argued that it is important to postulate online customer satisfaction due to the inability to tangibly inspect the product and services offered online. Therefore, they have tested the mediating impact of eSatisfaction between

website quality and eLoyalty among online sports fan in two large universities in the United States disclosed that eSatisfaction is an essential mediating factor between website quality and eLoyalty. In another aspect, a study in the offline environment by Olsen (2002) has also revealed that eSatisfaction does mediate the relationship between quality performance and repurchase loyalty.

Additionally, in other supporting article on service loyalty, Caruana (2002) has included satisfaction as a mediator and confirmed the mediating effect of satisfaction. In addition, a study in Taiwan leisure service environment has also emphasized the significant mediating role of satisfaction in enhancing behavioural intention (Chang & Polonsky, 2012). Next, Maznah Wan Omar (2009) has theorized the mediating role of satisfaction between sales person skills and word-of-mouth in Malaysian computer retail context. Her study has concluded that both cognitive and emotional satisfaction have mediation effects between these two variables. Next, a study in Malaysia has also confirmed the mediating effect of satisfaction in the overall banking context (Lo *et al.*, 2010). Another study in Bangladesh has examined the mediation effect of satisfaction and the effect is also supported (Akbar & Parvez, 2009).

Furthermore, another study by Vesel and Zabkar (2010) have proven the significant mediation effect of customer satisfaction in the DIY loyalty program in Europe. In their study, the relationship between both personal interaction and loyalty program qualities toward customer loyalty are mediated by customer satisfaction. In addition, Lee (2010) has studied the mediating role of satisfaction in the Korean mobile phone industry and found that satisfaction mediates the relationship between service quality and loyalty as well as between perceived value and loyalty. He claimed that

customer satisfaction acts an essential role as a mediator as well as having a direct influence towards loyalty. Another supporting article by Kuo, Chang, Chen, and Hsu (2012) has also confirmed the mediating role of satisfaction on behavioural intention.

In other online studies applying eSatisfaction as mediator was in the Indonesia online banking context (Lii, 2009). The author has further posited the mediation effect of eSatisfaction towards online loyalty and confirmed that internet banking loyalty can be attained through an enhanced customer eSatisfaction. Meanwhile, another study in Iran on online banking (Ghane *et al.*, 2011) and one study using web-based survey in the e-commerce context among online service users (Yang & Peterson, 2004) have shown that the mediating role of satisfaction towards loyalty is also significant. In their study, after adding customer satisfaction as the mediator, the value of R-square increased demonstrating that there is a mediating effect. In Taiwan, a study among users of major internet shopping websites has determined the mediating influence of eSatisfaction (Lin & Sun, 2009). Based on the above discussion, it can be concluded that it is crucial to include the mediating role of eSatisfaction to foresee the effects between the related variables.

2.20 Convenience

The discussion below will illustrate the impact of convenience due to supporting studies of its benefits towards relational behaviour. Nowadays, due to time constraint and convenience factors, consumers are looking for faster and efficient services. Convenience in services has been a topic for the marketing service in 1980s and 1990s however it is not clearly defined and it has been referred as the time and

effort that consumers take in buying the product and not focusing mainly on the features of the products and services (Brown, 1990). In addition, McDaniel *et al.* (2008) mentioned that the central element impacting the choice of service provider is convenience. In Srinivasan *et al.* (2002, p.44), convenience is referring to “the extent to which a customer feels that the web site is simple, intuitive, and user friendly”.

Moreover, Rowley (2005) noted that convenience-seekers loyalty may have an impact on numbers of visits or purchases towards the store and to them convenience may dominate brand preference. In addition, online businesses must provide convenience to ensure customer satisfaction (Davids, 2007). Next, Berry *et al.* (2002, p.1) delineate service convenience as “consumers’ times and effort perceptions related to buying or using a service”. According to them, service firms such as banks, hospitals create value through their services and service convenience helps the sales of their goods as well as services.

Furthermore, the emergence of internet has influenced the way businesses market and trade their products as well as services. In addition, the technology also has an influence on the ways customers purchase their products and services. Customers prefer to transact over the web due to its convenience and more economical in nature. Consequently, this has led for more businesses such as B2C (Business-to-Customer) to create and include internet business as their business platform (Haghtalab *et al.*, 2011; Lii, 2009; Ulbrich, Christensen, & Stankus, 2011). Moreover, technology advancement coupled with personalized service assist in building relationship where technology can minimize the time in purchasing or transacting (Berry, 2011). In addition, Gordan (1998) claimed that the internet-

technology can be used to deliver value to the customers. Furthermore, organizations can get nearer to buyers as well as gain competitive benefit with this technology.

In addition, consumers are seeking for convenience in their purchases and they consider that factor to be significant. In their article, Berry *et al.* (2002) also found that managers are conscious of the importance of convenience towards customer value and loyalty. Online banking service also provides better, faster and cheaper services (Momeni *et al.*, 2013). Seiders, Voss, Grewal, and Godfrey (2005) noted that convenience variable plays a vital role due to its ability to urge or disparege repeat buying behaviour. In the banking sector, customers are always looking for convenience and reliable service (Munusamy *et al.*, 2012). In addition, according to KPMG (2012), bank customers are also demanding a convenient transaction with the leveraging of technology. These customers require instant transaction from either their mobile phones or computers in the comfort of their homes or workplaces. Customer preferences in performing online banking is somewhat due to the convenience and flexibility factors that the traditional banking could not offer (Alsamydai *et al.*, 2012).

Moreover, customers are in need of convenient and interactive service and has shifted them to use more online services to perform their routine tasks (Santos, 2003). Thus, it is essential for businesses to understand the effect of convenience towards customer attitude, evaluation and perception on online services to succeed. Also, Pont and Mcquilken (2005) have carried out an investigation on customer satisfaction and loyalty and they assert that it would be useful to include other key variables that influence loyalty such as convenience. In Lee *et al.* (2011), online customers favour the internet banking usage because they enjoy saving money and it

provides better convenience while transacting online. In addition, Black *et al.* (2002) claim that convenience seems to be the main advantage of internet banking and their responses revealed that they are not under pressure to make decisions, do not have to queue or be at the bank at certain days or time. Also, Colwell, Aung, Kanetkar, and Holden (2008) indicate that convenience is a mean of adding values to consumers by decreasing their time and effort in spending on the service. And, Ala'Eddin Mohd Khalaf Ahmad and Al-Zu'bi (2011) also noted that convenience is considered as an influential factor towards satisfaction on e-banking.

Besides that, consumers can select from various alternatives based on the provider's added value and this added value is considered as convenience (Seiders, Berry, & Gresham, 2000). They also mentioned that consumers will opt for retailers that offer time and effort for saving and by doing so, retailer too can build an enduring customer relationships. The study on convenience is essential due to its relation to consumer purchasing behaviour and is directed towards their decision making process as well as their intention to use the provided channels by firms (Izquierdo-yusta & Schultz, 2011). According to them, the convenience factor is one of the determinants in customer's decision making choice among available distribution channels because it reduces the cost of time and effort. And it is supported by Wang *et al.* (2009) that convenience plays an important role in building positive online loyalty. They further claimed that a greater level of convenience will generate a higher level of online loyalty among the university students towards the online retailers.

Next, Liao and Cheung (2002) found that convenience is one of the most important features towards perceived usefulness among users of internet banking. It is also

supported by Poon (2008) that convenience in term of time and place contributes positively towards internet banking users' satisfaction. Besides that, Colwell *et al.* (2008) mentioned that in the competitive service environments, there is a pressure to provide convenient services to the consumers, thus more and more businesses have invested in improving their convenience feature. They have conducted an interview with consumers concerning their cellular telephone service providers and their study revealed that consumer satisfaction is positively improved by enhancing the overall aspect of service convenience. In addition, convenience should be further included and tested in the study model as customers have placed greater weightage on convenience especially in the service context (Seiders *et al.*, 2007).

Furthermore, as mentioned in Foon and Chan (2011), internet banking is an appropriate medium for customers' convenience to perform their banking transactions. In their survey in China, Wang *et al.* (2009) suggested that functional value which includes convenience factor develops a positive relationship on eLoyalty. And, their finding revealed that convenience has an essential positive influence on eLoyalty. Besides that, there were some customers who view convenience factors as pertinent and in turn affects customer perceptions toward the bank (Colgate *et al.*, 2005). Moreover, technology convenience is an implication of convenience using technology in term of speed and time with the absence of firms' employees (Ganguli & Sanjit Kumar Roy, 2011). Their survey among undergraduate students at University in the Massachusetts state revealed that technology convenience has positive and significant impacts on customer loyalty. As mentioned by Egger (2000), it is necessary to ensure that e-commerce medium delivers benefits such as convenience as it significantly outweigh any possible risks for users.

Moreover, simplicity and convenience to successfully complete an online transaction are essential to most customers (Srinivasan *et al.*, 2002). They also remarked that a convenient website may reduce customers' probability of making mistakes and will create a more satisfying online shopping and transacting. It is also supported by Schaffer (2000) that a convenient website should promise a shorter response time, faster completion of transaction and tinier on customer's effort because customer's expectation on online services is that it should be fast and efficient. Also, he argued that customers will leave the website without buying anything if they experience difficulty while transacting online. Based on the above discussion, it indicates that convenience is very important therefore this construct should be included in the study.

2.20.1 Convenience as Moderator

Next, the moderating effect of convenience will be discussed due to the potential of the moderator to influence the two related variables which are eSatisfaction and eLoyalty link. Customer's motivation towards purchasing is different from one to another. Some customers are inclined to gather and analyse information, save money and some are motivated to purchase or transact due to the convenience provided by the e-commerce firms (Anderson & Srinivasan, 2003). In addition, according to Izquierdo-yusta and Schultz (2011), customer's buying behaviour can be influenced by motivation and expectation therefore the convenience factor is essential because it can lead to the choice to purchase.

In an offline context, a study in Taipei's commercial hotel Kuo *et al.* (2012) included the moderating role of service convenience between customer satisfaction

and behavioural intention or post-purchase behaviour. They have noted the importance of convenience as a moderator between customer satisfaction and purchase intention. One of the main findings in their study concluded that convenience does moderate the relationship between these two factors whereby behavioural intention is sturdier for those who perceived a high level of convenience than those perceived a low level of convenience.

Next, Seiders *et al.* (2005) have hypothesized the moderating effect of convenience in a specialty retailing environment between satisfaction and repurchase behaviour or re-patronage. The survey was conducted in about 100 North American locations. In addition, their study has determined the relationship between satisfaction and repurchase behaviour that is subjected by several moderators and one of them is the convenience effect. As a conclusion, they have revealed that convenience had positively moderate the satisfaction's effect on repurchase behaviour as well as spending.

Moreover, service convenience emphasizes more on factors that are external to the service firm such as location and accessibility (Chang, Chen, Pang, Chen, & Yen, 2013). They have analysed the moderating impact of convenience on revisit intentions in a hardware service shop. Their study concluded that the moderation influence of service convenience was rather small, however the effect was statistically significant. Therefore, promoting customer convenience is one of the vital variables to retain existing customers and gain new ones. In addition, Hsu, Chen, Chang, and Chao (2010) claimed that in the forever challenging world of service market, delivering convenience to the consumer is essential. They have analysed the moderating role of service convenience in the Home Delivery Service

(HDS) and concluded that it enhanced the effect between service quality and customer loyalty.

Looking at the online environment, Anderson and Srinivasan (2003) have commented that customers who have already felt convenience transacting with their current online firms are rather unlikely to search for new online firms as it will cause inconvenience to them. They anticipated that the relationship between eSatisfaction and eLoyalty to be strengthened with a higher convenience factor. In their research, they have concluded that in the consumer level factor which is convenience has a significant moderating influence between eSatisfaction and eLoyalty. In addition, they have suggested for their study to be further analysed in a comprehensive model and in different setting. Based on these reasons, convenience factor is considered as a moderating role for the present study.

2.21 Research Framework

The study encompasses the major variables of customer eLoyalty. The antecedent variables that are included in the framework are privacy, security and website quality. One mediation variable is applied in the framework namely eSatisfaction. Lastly, convenience acts as the moderator between eSatisfaction and eLoyalty. According to the literature reviews and the research problems, a theoretical framework is diagrammed below. The research framework is derived mainly from several authors such as Anderson and Srinivasan (2003), Eid (2011) and Hur *et al.* (2011).

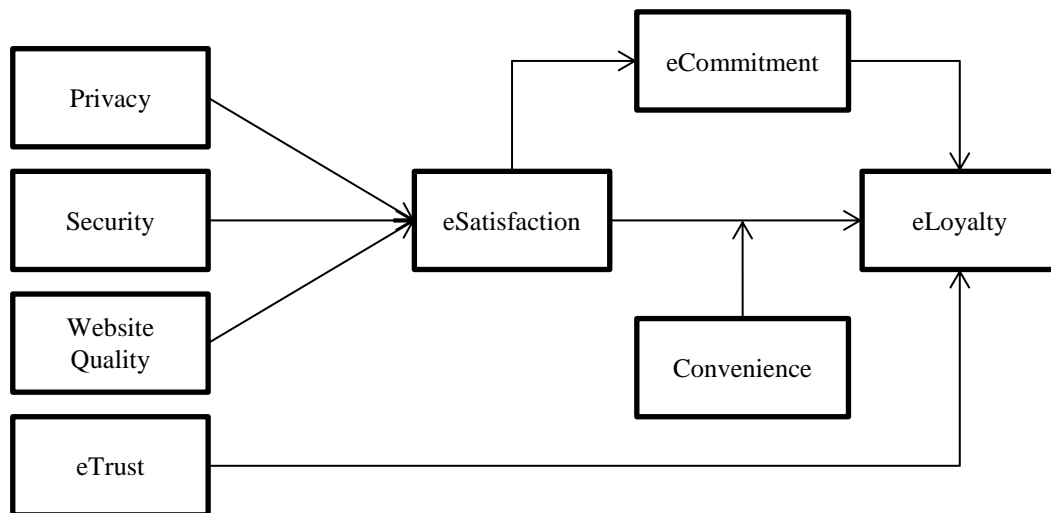


Figure 2.1
Conceptual Framework

2.22 Underpinning Theory

The underpinning theory for the above conceptual framework is based on Oliver's (1999) "Four-Stage Loyalty Model". The study adapts the Four-Stage Loyalty Model that has been pioneered by Oliver in 1997. Oliver's (1999, 2009) model has been cited by several researchers and academicians as their underlying or underpinning theory for their traditional loyalty, online loyalty as well as behavioural intention studies (Blut *et al.*, 2007; Gommans *et al.*, 2001; Harris & Goode, 2004; Lim & Nik Kamariah, 2012; Nik Kamariah, Abdul Mutalib, & Eakuru, 2009; Roy, Butaney, & Bhutaney, 2009; Yeng & Nik Kamariah, 2013). According to Gommans *et al.* (2001), the Oliver's model is quite similar between traditional and eLoyalty. The four phases loyalty model developed by Oliver (1999, 2009) is an expansion of the theoretical framework of brand loyalty proposed by Jacoby and Chesnut (1978). His four loyalty phases' model consists of cognitive loyalty, affective loyalty, conative loyalty and action loyalty.

In summary, the Oliver's theory is a relevant underpinning theory for this research framework. This is based on the theoretical framework, as the customer decision to become loyal to an internet banking services will be established by online customer's satisfaction. The eLoyalty factor in the research framework can be referred to the action loyalty in Oliver's Model. Furthermore, online satisfaction is affected by three antecedents such as privacy, security and website quality. By linking back to the Oliver's Model, the eSatisfaction construct in the research framework can be referred to the affective loyalty's stage. In addition, eSatisfaction may mediate the effect of the three antecedents (privacy, security and website quality) towards eLoyalty whereby eSatisfaction can better clarify the association between the three antecedents and eLoyalty. Thus, the antecedents are considered to fall under the cognitive loyalty phase in Oliver's Model. Next, eCommitment towards a brand or product is described as the conative loyalty. Finally, the moderation effect of convenience is added to the model to foresee whether it will strengthen or lower the relationship between eSatisfaction and eLoyalty. The detail elaboration of Oliver's Model will be discussed in the below section.

2.22.1 Cognitive loyalty

In this cognitive stage, Oliver (1999, 2009) mentioned that brand attributes information that is accessible by customers will indicate brand's preference preferable among other alternatives that are available. It is further noted that in this stage, consumers have a set of belief that a product or store is better than the others (Hu & Chuang, 2012). In addition, the cognitive loyalty is loyalty built on brand belief as well as brand features. Cognition or perception may be referred to previous, current or indirect information or experience. According to him, if the performance

is acceptable, the next phase which is affective will follow subsequently. It is also supported by Lim and Nik Kamariah (2012) that this first stage revolves around information and knowledge such as quality. In addition, it has been noted that in the cognitive stage, firm's offering on quality may lead to customer's satisfaction as well as loyalty (Evanschitzky & Wunderlich, 2006; Jumaev *et al.*, 2012). Likewise, it is also suggested that the consumer's cognitive on website quality does affect the website satisfaction (Hur *et al.*, 2011).

Furthermore, variables and features such as privacy, security and website quality are recognized by several academicians as determinants of eSatisfaction. Several authors have established the relationship between e-privacy and eSatisfaction (Ala'Eddin Mohd Khalaf Ahmad & Al-Zu'bi, 2011; Norizan & Nor Asiah, 2010; Poon, 2008; Ribbink *et al.*, 2004; Sadeh *et al.*, 2011; Sanayei, Shaemi, *et al.*, 2011; Semeijn *et al.*, 2005). E-security had also been tested and confirmed to have a positive effect on eSatisfaction by several authors (Ala'Eddin Mohd Khalaf Ahmad & Al-Zu'bi, 2011; Casaló *et al.*, 2007; Momeni *et al.*, 2013; Norizan & Nor Asiah, 2010; Park & Kim, 2003; Poon, 2008; Rahimi *et al.*, 2012; Ribbink *et al.*, 2004; Sanayei, Ranjbarian, *et al.*, 2011; Semeijn *et al.*, 2005; Yoon, 2002). Apart from this, Roy *et al.* (2009) have analysed website quality features in cognitive loyalty stage and others authors have also proven the positive influence of website quality towards eSatisfaction (Ala'Eddin Mohd Khalaf Ahmad & Al-Zu'bi, 2011; Balabanis *et al.*, 2006; Bansal *et al.*, 2004; Bhattacharjee, 2001; Eid, 2011; Floh & Treiblmaier, 2006; Ha & Im, 2012; Jayawardhena & Foley, 2000; Kassim & Abdullah, 2010; Lii, 2009; Lin & Sun, 2009; Momeni *et al.*, 2013; Negash *et al.*, 2003; Peterson *et al.*, 1997; Rahimi *et al.*, 2012; Wolfenbarger & Gilly, 2003; Zhilin Yang *et al.*, 2001; Zeithaml *et al.*,

2002). Referring to Oliver (1999), if all attributes and performances are satisfactory, then affective loyalty will follow.

2.22.2 Affective Loyalty

In the second stage which is affective loyalty, liking based on satisfying may incur (Oliver, 1999, 2009). As mentioned by him, the liking and satisfying phase can be referred to the satisfaction variable that has been applied in the researcher's study. He also noted that in the affective loyalty stage, "satisfaction is a building block for loyalty" (p. 37). In addition, studies by Blut *et al.* (2007) and Yeng and Nik Kamariah (2012) have adapted the Four-Stage Loyalty Model and associated the affective loyalty with satisfaction. Looking at several other scholars' and researchers' articles, they have confirmed the mediating effect of satisfaction (Caruana, 2002; Chang & Polonsky, 2012; Kuo *et al.*, 2012; Lee, 2010; Olsen, 2002; Vesel & Zabkar, 2009; Maznah Wan Omar, 2009) and eSatisfaction (Hur *et al.*, 2011; Sanayei, Shaemi, *et al.*, 2011). Therefore, this study also hypothesizes the mediation role of eSatisfaction towards eLoyalty. However, conferring to Oliver (1999, 2009), companies need to be aware that at this stage satisfaction does not guarantee loyalty as some customers may keep away or churn from the existing product or service.

2.22.3 Conative Loyalty

Next, in conative loyalty proposed by Oliver (1999, 2009), recurring incidents of positive experiences may develop where customers are committed or more intended to rebuy. It is further stated that the feeling of commitment is linked to an

individual's intention to make additional purchase due to motivational factors such as promotions. Several literatures have supported that in conative loyalty stage, the feeling of commitment occurs. Oliver (1999) noted that conative is the behavioural intention phase where customers are influenced by several positive recurrences of the brand or product which may lead to commitment to repeat purchase. In his earlier text, he noted that after the customer felt satisfied with his or her purchase, the customer may exhibit commitment towards the brand or store (Oliver, 1997).

Moreover, Jumaev *et al.*, (2012) have claimed that commitment to buy falls under the conative stage. They further added that this is one of the important stages because it involves word of mouth, revisit and promotion to other people such as friends and relatives. Similarly, it is also supported by Evanschitzky and Wunderlich (2006) that in the conative phase, an individual is stimulated to certain acts such as the desire to repurchase. However, firms need to be alert that in this phase, customers might deviate from their current brand or store if they experienced undesirable feeling with their purchase or service. Furthermore, others authors have generally defined conative loyalty as customer intention to repeat purchase while feeling committed to the brand or store (Blut *et al.*, 2007; Lim & Nik Kamariah, 2012).

Apart from this, several researchers have also supported the link between traditional commitment and loyalty (Anvari & Amin, 2010; Ndubisi, 2007a; Wu, 2011; Yeng & Nik Kamariah, 2013) as well as online commitment and online loyalty (Casaló *et al.*, 2007; Chang *et al.*, 2012; Eastlick *et al.*, 2006; Mohd Kassim & Ahmed Abdulla, 2006; Mukherjee & Nath, 2007). Consequently, in this study, the researcher will also include the direct effect of eCommitment towards eLoyalty.

2.21.4 Action Loyalty

Finally, in the last stage which is the action loyalty where customers are in the readiness phase to act or dedicated to purchase and are willing to overcome barriers that prevent them from making the purchase (Oliver, 1999, 2009). According to him, in this stage, an “action-inertia” will also take place and encourage repurchase will happen. In Oliver (1999), he stated that upon attaining the action stage, they were attached to the brand and desired to repurchase that only brand or to be loyal to that brand. Furthermore, he claimed in the action stage, loyalty has been created. Therefore, the dependent variable applied in the study is eLoyalty which is conformed to the last phase of Oliver’s Four-Stage Loyalty Model.

In relation to offline and online purchase behaviour, Oliver’s four phases model of loyalty was also applicable to customer online purchase behaviour (Hur *et al.*, 2011). According to them, an online customer will or inclination (cognitive phase) towards one website from the other alternative websites may create favourable attitudes (affective phase) towards that website. Customer is predicted to revisit the website to find or browse for more information but may not involve in any transaction or purchase action thus this phase is known as conation phase. In addition, at this point of time customer is stirred towards the motivation aspect such as promotions offered to the customers. The ultimate point of loyalty in Oliver (1997, 2009) is the action phase where customers will revisit, transact and/or purchase the product or service online.

2.23 Research Hypotheses / Hypotheses Development

Based on the illustrations of literature reviews, scholars have included factors impacting eLoyalty that are useful in developing theoretical framework for the study. In this section, the researcher develops several research hypotheses that have been identified as important to eLoyalty. The paragraphs below will discuss about the hypotheses development showing the relationship between three antecedents of eSatisfaction which are privacy, security and website quality, the mediator role of eSatisfaction and the moderator effect of convenience between eSatisfaction and the dependent variable which is eLoyalty.

2.23.1 eSatisfaction and eLoyalty

Satisfaction is shown to have a significant impact towards loyalty in both offline and online contexts. These are some of the results of studies on the positive loyalty (Alrubaiee & Al-Nazer, 2010; Kaur *et al.*, 2012; Ndubisi & Chan, 2005) and it also influenced successful relational exchange (Anvari & Amin, 2010; Graf & Perrien, 2005; Leverin & Liljander, 2006). In addition, core attention has been placed on satisfaction among businesses due to its positive effect on retention (Hess & Story, 2005) and defection rate (Shamsudin *et al.*, 2010). Also, a study of m-payment has indicated that satisfaction had a significant impact on loyalty (Sanayei, Ranjbarian, *et al.*, 2011). Moreover, customer satisfaction is essential in building loyalty (Ehigie, 2006; Jamal & Naser, 2002; Kaur *et al.*, 2012; M'Sallem *et al.*, 2011).

In the online context, several other academicians have confirmed the effect of online satisfaction on online loyalty (Al-Agaga & Md Nor, 2012; Anderson & Srinivasan, 2011, 2003; Lin & Sun, 2009; Sanayei, Shaemi, *et al.*, 2011; Shankar *et al.*, 2003;

Wu, 2011). Also, few other researchers have concluded their studies with eSatisfaction showing a positive impact on eLoyalty (Balabanis *et al.*, 2006; Bansal *et al.*, 2004; Casaló *et al.*, 2008a, 2008c; Devaraj *et al.*, 2003; Ribbink *et al.*, 2004; Rodgers *et al.*, 2005; Semeijn *et al.*, 2005; Taylor & Hunter, 2002; Yen & Gwinner, 2003). Similarly, in the other context of online banking and financial also depicted that eSatisfaction has an impact on eLoyalty (Casaló *et al.*, 2007, 2008b; Floh & Treiblmaier, 2006; Ghane *et al.*, 2011; Lii, 2009; Momeni *et al.*, 2013; Rahimi *et al.*, 2012). Therefore, this hypothesis is developed:

H1: eSatisfaction is positively related with eLoyalty.

2.23.2 eTrust and eLoyalty

Previous researches have highlighted the importance of trust construct towards loyalty. Trust is essential in building customer interaction (Hess & Story, 2005). In addition, trust along with relational marketing are both essential in most companies (Kantsperger & Kunz, 2010). Furthermore, trust has been proven to have positive impact on loyalty and thus on relational exchange (Graf & Perrien, 2005; Moorman, 1990; Ndubisi, 2007a). Trust is also the main variable in relationship marketing (Morgan & Hunt, 1994; Nor Azila, 2012; Priluck, 2003). Several other researchers have found that the trust construct had an influence on loyalty (Alrubaiee & Al-Nazer, 2010; Eisingerich & Bell, 2007; Sirdeshmukh *et al.*, 2002).

Furthermore, in online environment, researchers have confirmed the effect of online trust towards online loyalty (Anderson & Srinivasan, 2011; Chiou, 2004; Cyr *et al.*, 2007; Eastlick *et al.*, 2006; Izquierdo-yusta & Schultz, 2011; Jarvenpaa *et al.*, 2000;

Luarn & Lin, 2003; Ma *et al.*, 2010; Mukherjee & Nath, 2007; Park & Kim, 2003; Reichheld & Scheffer, 2000; Ribbink *et al.*, 2004; Stewart, 1997). Additionally, in online banking services, trust becomes of the central focus to retain customers (Foon & Chan, 2011) and create loyalty (Anderson & Srinivasan, 2003). Subsequently, the importance and influence of eTrust towards eLoyalty in online banking and financial has been revealed by some researchers (Al-Agaga & Md Nor, 2012; Corbitt *et al.*, 2003; Flavián & Guinalú, 2006; Floh & Treiblmaier, 2006; Ghane *et al.*, 2011; Lii, 2009; Rahimi *et al.*, 2012; Yee & Faziharudean, 2010; Yu Chao *et al.*, 2009). Therefore, the researcher concludes with the following assumption:

H2: eTrust is positively related with eLoyalty

2.23.3 eCommitment and eLoyalty

Commitment also has been recognized to have an impact on relationship marketing. According to Gustafsson *et al.* (2005), organizations that are strategizing on commitment can further built their current and future relationship with their customers. Furthermore, they claimed that the commitment construct is unique because it is able to create emotional attachment towards the company. These are the researchers' findings that revealed commitment does have an influence on loyalty (Anvari & Amin, 2010; Ndubisi, 2007a; Wu, 2011). Furthermore, other studies also noted that commitment does impact relationship marketing (Evanschitzky & Wunderlich, 2006; Fullerton, 2003; Morgan & Hunt, 1994).

In another aspect of online context, Luarn and Lin (2003) have noted that the outcome of the online commitment are customer's repeat purchase and higher attitudinal behaviour towards the online providers. Similarly, in other supporting

articles, committed customers have the intention to revisit or repurchase online (Norizan & Ahmed Abdulla, 2006) and are willing to strengthen their relationship with the online providers (Casaló *et al.*, 2007; Chang *et al.*, 2012; Eastlick *et al.*, 2006). Moreover, Mukherjee and Nath (2007) had suggested that eCommitment can create higher association and sense of belonging towards the online retailers. As a summary, eCommitment has been proven to influence online loyalty as concluded by some academicians (Eastlick *et al.*, 2006; Luarn & Lin, 2003; Mukherjee & Nath, 2007; Nor Azila, 2012; Nusair *et al.*, 2010; Park & Kim, 2003). Therefore, the researcher hypothesizes that:

H3: eCommitment is positively related to eLoyalty

2.23.4 eSatisfaction and eCommitment

The feeling of pleasure or satisfying is essential to build commitment towards a product or service. Satisfaction may also lead to commitment thus generate positive recommendations. It has been supported in several articles that both offline and online satisfaction have influenced customer's commitment and eCommitment. In an offline setting, satisfaction has an influence on commitment such as in retailing and several types of service providers (Evanschitzky & Wunderlich, 2006; Hennig-Thurau *et al.*, 2002; Lim & Nik Kamariah, 2012). Looking at the brick and mortar financial and banking sector, satisfaction has a crucial impact on commitment (Afsar *et al.*, 2010; Sharma & Patterson, 2000). Apart from this, in the online researches such as online bookstore, online retailers and online travel service providers, the similar result have been confirmed (Luarn & Lin, 2003; Nusair *et al.*, 2011; Park & Kim, 2003). Therefore, the researcher suggests that:

H4: eSatisfaction is positively related to eCommitment

2.23.5 Privacy and eSatisfaction

The emergence of any new technological device will trigger the argument on privacy. In Morimoto and Macias (2009), they claimed that the intrusion of privacy has some negative consequences on customer behaviour. This is due to the reason that privacy can be one of the items that customer used in assessing an online service (Zeithaml *et al.*, 2002). Furthermore, a structured privacy policy is favoured by online users to ensure their necessary information are well guarded (Nusair *et al.*, 2010). Moreover, privacy concern among consumers has been noted to influence the online satisfaction. A supporting article by Eastlick *et al.* (2006) asserted that there is an urgent need to minimize the privacy issue due to it may lead to a continuous negative relational behaviour. And, several studies on privacy have been proven to have positive impact on eSatisfaction (Norizan & Nor Asiah, 2010; Ribbink *et al.*, 2004; Sadeh *et al.*, 2011; Semeijn *et al.*, 2005). Furthermore, privacy also has been emphasised in the online banking sector due to its nature as a high-risk service with some features that might tarnish customer's privacy (Zhao *et al.*, 2010). Similarly, in the internet banking environment, studies have shown that privacy too has an impact on eSatisfaction (Ala'Eddin Mohd Khalaf Ahmad & Al-Zu'bi, 2011; Poon, 2008; Sanayei, Shaemi, *et al.*, 2011). Thus, it is suggested that:

H5: Privacy is positively related with eSatisfaction

2.23.6 Security and eSatisfaction

Security is an essential variable in determining satisfaction especially when customers are conducting online transaction or purchase. This is similar to privacy,

the issue of security may trigger consumer's defection (Hoflich, 2004). And, conferring to Kolsaker and Payne (2002), a company's success can be ensured if the security matter is well-managed. Some researchers have confirmed that security does influence online satisfaction (Norizan & Nor Asiah, 2010; Park & Kim, 2003; Ribbink *et al.*, 2004; Sanayei, Ranjbarian, *et al.*, 2011; Semeijn *et al.*, 2005; Yoon, 2002). Also, looking at the internet banking arena, banks can enhance online banking services by managing the security features. In the online bank case, Ala'Eddin Mohd Khalaf Ahmad and Al-Zu'bi (2011) noted that security devices such as logo of trusted third party can encourage customers to feel more secured. In summary of several studies, researchers have posited and established the positive impact of security on eSatisfaction (Ala'Eddin Mohd Khalaf Ahmad & Al-Zu'bi, 2011; Casaló *et al.*, 2007; Momeni *et al.*, 2013; Poon, 2008; Rahimi *et al.*, 2012). Therefore, the researcher theorizes that:

H6: Security is positively related with eSatisfaction

2.23.7 Website Quality and eSatisfaction

Website quality which comprises of web design is identified as important element in ensuring online satisfaction. This is because online customers are always looking for reliable and quality webpage in completing their transactions (Lii, 2009; Wu, 2011). Apart from that, the website quality might also delight online users experience thus lead them to finalize their purchase or decision to choose that particular online service providers (Devaraj *et al.*, 2003; Liang & Lai, 2002). Furthermore, a website quality in term of its design can help in retaining and acquiring more current and new online users to the web (Ranganathan & Ganapathy, 2002). It have been verified in several studies that there is a positive relationship between website

quality and eSatisfaction (Balabanis *et al.*, 2006; Bansal *et al.*, 2004; Bhattacharjee, 2001; Eid, 2011; Ha & Im, 2012; Hur *et al.*, 2011; Kassim & Abdullah, 2010; Lin & Sun, 2009; Negash *et al.*, 2003; Peterson *et al.*, 1997; Wolfinbarger & Gilly, 2003; Yang *et al.*, 2001; Zeithaml *et al.*, 2002).

In the situation of online banking, an indicator of a worthy website quality will help customers to finalize their choice of online banking provider (Hewer & Howcroft, 1999). Moreover, website quality design may create positive image of the bank among the users (Jayawardhena & Foley, 2000). In the online banking too, there are some researchers that support this positive website design and eSatisfaction link (Ala'Eddin Mohd Khalaf Ahmad & Al-Zu'bi, 2011; Floh & Treiblmaier, 2006; Jayawardhena & Foley, 2000; Lii, 2009; Momeni *et al.*, 2013; Rahimi *et al.*, 2012). Therefore, it is posited that:

H7: Website quality is positively related with eSatisfaction

2.23.8 eSatisfaction as Mediator

The mediating role of eSatisfaction has been tested and verified in some studies. In the offline context, Caruana (2002) and Lee (2010) have concluded that eSatisfaction has an impact as mediator. In addition, Kuo *et al.* (2012) and Chang and Polonsky (2012) have highlighted the mediation effect of satisfaction in behavioural intention and particularly in later study the mediation effect is significant. Moreover, the significant mediating role of satisfaction towards customer loyalty is also proven by Vesel and Zabkar (2009). Next, two studies in Malaysia have confirmed the mediation effect of satisfaction (Lo *et al.*, 2010; Maznah Wan Omar, 2009). In addition, in the other context which is on online

studies, Yang and Peterson (2004) and Lin and Sun (2009) have verified the significant mediation role of eSatisfaction toward eLoyalty. Moreover, two studies of e-banking loyalty have affirmed that eLoyalty can be achieved through the mediating role of eSatisfaction (Ghane *et al.*, 2011; Lii, 2009).

Next, the mediation effect of eSatisfaction between privacy, security and website quality towards eLoyalty has been discussed in several researches (Eid, 2011; Hur *et al.*, 2011; Ribbink *et al.*, 2004; Sanayei, Shaemi, *et al.*, 2011). A study by Sanayei, Shaemi, *et al.* (2011) has shown that privacy has essential effect on eSatisfaction and thus significantly influences eLoyalty. Furthermore, a study by Ribbink *et al.* (2004) has revealed that assurance factor which is comprised of privacy and security towards online loyalty is mediated by eSatisfaction. In the other context of one study on the mediation impact of eSatisfaction has discovered no mediating effect between privacy and security towards eLoyalty (Eid, 2011). And, according to him, the result may only be generalized throughout the Saudi population; therefore further analysis in other country can be explored. The study of eSatisfaction mediator influence between website quality and eLoyalty by Hur *et al.* (2011) has revealed that eSatisfaction is significant in mediating the two variables. In an offline context, Olsen's (2002) also concluded that perceived quality performance towards repurchase loyalty is mediated by satisfaction. Due to the mixed findings of some studies of the eSatisfaction mediation effects, the researcher will further investigate the mediating effect of eSatisfaction between privacy, security and website quality towards-loyalty. Therefore, for all three variables such as privacy, security and website quality are posited as follows:

H8i: eSatisfaction mediates the relationship between privacy and eLoyalty

H8ii: eSatisfaction mediates the relationship between security and eLoyalty

H8iii: eSatisfaction mediates the relationship between website quality and eLoyalty

2.23.9 Convenience as Moderator between eSatisfaction and eLoyalty

In the recent scenario, mostly due to time constraint, customers are looking for convenience and efficient ways of transacting and purchasing. In some ways, online services have overcome the constraint due to its convenience impact on users. Furthermore, service provider organizations have turned out to be more mindful of convenience element on value and loyalty (Berry *et al.*, 2002) because of its influence on encourage or discouraging repurchase (Seiders *et al.*, 2005). Additionally, convenience factor can impact customers in searching for information, purchasing and making any transaction (Anderson & Srinivasan, 2003). Therefore, the researcher theorizes that:

H9: Convenience moderates the relationship between eSatisfaction and eLoyalty

In conclusion, based on all the above hypotheses, the study theoretical framework is as follows:

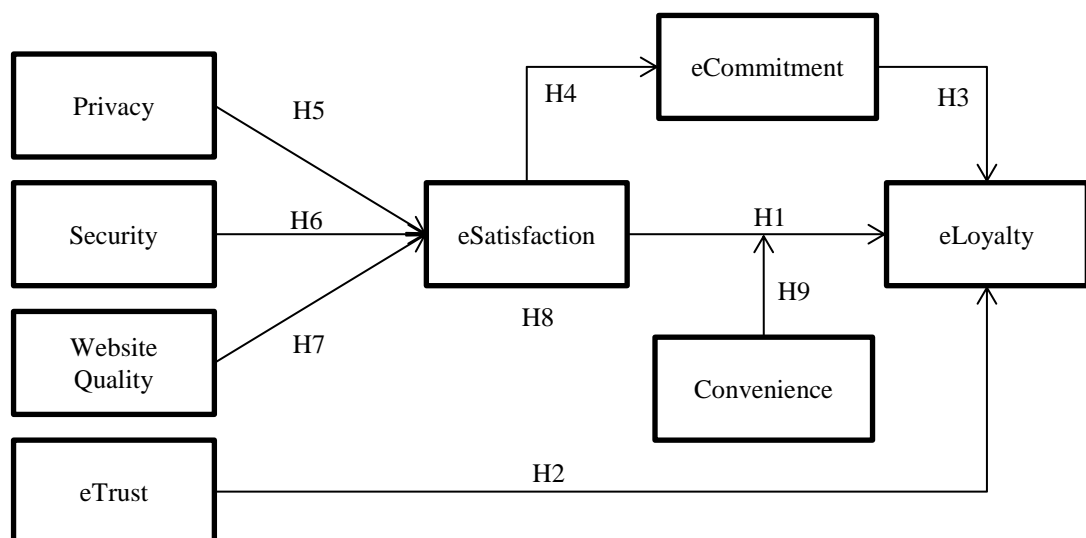


Figure 2.2
Theoretical Framework

2.24 Summary

The literatures reviews discuss in the study are based on the dependent variable which is the customer eLoyalty. In addition, literature reviews being presented in this study discuss about antecedent variables, mediating and moderating variables that have impacted customer eLoyalty. Based on these literatures reviews and the underpinning theory, the researcher has developed a theoretical framework to analyse and measure factors affecting customer eLoyalty. The summary of hypotheses is presented in the following table:

Table 2.1
Hypotheses to be Tested

No.	Hypotheses Statement
Hypothesis 1	There is a positive and significant relationship between eSatisfaction and eLoyalty
Hypothesis 2	There is a positive and significant relationship between eTrust and eLoyalty
Hypothesis 3	There is a positive and significant relationship between eCommitment and eLoyalty
Hypothesis 4	There is a positive and significant relationship between eSatisfaction and eCommitment
Hypothesis 5	There is a positive and significant relationship between Privacy and eSatisfaction
Hypothesis 6	There is a positive and significant relationship between Security and eSatisfaction
Hypothesis 7	There is a positive and significant relationship between Website Quality and eSatisfaction
Hypothesis 8	H8i : eSatisfaction mediates the relationship between privacy and eLoyalty H8ii : eSatisfaction mediates the relationship between security and eLoyalty H8iii : eSatisfaction mediates the relationship between website quality and eLoyalty
Hypothesis 9	Convenience moderates the relationship between eSatisfaction and eLoyalty

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

In this chapter, the researcher's objective is to verify and explain the research method of the study. The discussion on both SPSS and SmartPLS will be included. Further deliberation on analyses of measurement model and structural model among all constructs (privacy, security, website quality, eTrust, eCommitment, eSatisfaction and eLoyalty) are presented. The chapter also includes research design, data collection techniques, measurements and operationalization, pilot study and data analysis techniques.

3.2 Research Design

Research design is required in order to obtain information and data to be further analysed. This is done after research problem has been identified and theoretical framework has been developed in the earlier section. According to Sekaran (2003), there are few matters needed to be addressed in the research design such as the purpose of study, its location or setting, the type of investigation, the level of interference by the researcher, timing aspect and the level of data analysis. In the research design, data collection methods are one of the essential elements. In the study, survey method was used for data collection. This method was considered as a more structured way to obtain information from the respondents. The research questionnaires were developed from the proposed framework and were of quantitative type where a standardized, multiple-choice and scaled questionnaire

were used. Quantitative type of data collection is a method “involves gathering numerical data using structured questionnaires or observation guides to collect primary data from individuals” (Hair, Money, Samouel, & Page, 2007, p.203). The method undertaken to collect the data was by using survey questionnaire such as through personally administering questionnaires.

Quantitative method is applied in this research due to the fact that it is more structured and objective compared to qualitative method (Hair *et al.*, 2007). They further noted that quantitative method is more structured because of the list of questions that are ready to be answered by respondent; whereas “quantitative approaches provide objectivity in that hypotheses are tested by applying statistical criteria to the measure” (p. 153). These authors also mentioned that the “terms” used or mentioned by the respondents in the qualitative method might create ambiguity to the researcher. It is further noted by Bryman (2004) that the quantitative research delivers better generalization of population due to the requirement of a larger sample size.

Moreover, the study was conducted to analyse the relationships between eSatisfaction, eTrust, eCommitment towards eLoyalty, eSatisfaction towards eCommitment as well as privacy, security and website quality towards eSatisfaction. In addition, the study was performed to anticipate the impact of eSatisfaction as mediator between privacy, security and website quality towards eSatisfaction and convenience as moderator between eSatisfaction and eLoyalty.

3.2.1 Sources of Data

In general, researchers can gather their data through primary or secondary sources. Primary data is ‘... information obtained firsthand by the researcher on the variables of interest for specific purpose of the study’ and secondary data is “... information gathered from sources already existing” (Sekaran, 2003, p.219). The examples of primary data are individuals, focus groups and panels; whereas, examples of secondary data are company records, government publications, industry analysis and others (Sekaran, 2003). In this study, information was gathered through individuals using primary data using questionnaires (intercept survey) as well as secondary data such as financial and banking publications, articles, newspapers, industry statistics and the internet. According to Sekaran (2003), questionnaires can be effective if the researcher knows what is needed and ways to measure the variables. The advantages of personally administered questionnaires that are the researcher has the opportunity to introduce the topic, to answer any questions and encourage respondents to answer the questionnaires honestly (Sekaran, 2003). Subsequently, secondary data is the “data used for research that was not gathered directly and purposefully for the project under consideration” (Hair *et al.*, 2007, p.118). According to them, one of the advantages of using secondary data is the cost advantage because information has already been gathered by the originate author to be used by others. It is also supported by Sekaran (2003) that collecting data through secondary sources has its advantages such as it is time consuming and cost effective.

3.2.2 Population

The population of this research was the internet banking users in Malaysia. Population is defined as "... the entire group of people, events, or things of interest that the researcher wishes to investigate" (Sekaran, 2003, p.265). Referring to Table 3.1, as for Jan 2011, there were 2,746,000 Malaysian internet banking visitors (age 15 & above accessing from home and work computers) (comScore Inc, 2011). There was an increase of 16% starting from January 2010 until January 2011, which was considered as substantial increment. In addition, stating from Table 3.2, there was a total of 13,430,327 Malaysian subscribers of online banking (Bank Negara Malaysia, 2014).

Table 3.1
Online Banking Visitations

Online Banking Category Visitation by Market January 2011 vs. January 2010 Total Audience, Age 15+ : Home & Work Locations			
	Total Visitors (000)		
Country	Jan-10	Jan-11	% Change
Malaysia	2,360	2,746	16%
Hong Kong	1,304	1,543	18%
Vietnam	701	949	35%
Singapore	779	889	14%
Indonesia	435	749	72%
Philippines	377	525	39%

Source:

www.comscore.com/ger/Insights/Press_Releases/2011/3/Online_Banking_on_the_Rise_in_Southeast_Asia

Table 3.2

Internet Banking in Malaysia: Number of Subscribers (in million)

As at (Month &Year)	Individual	Individual: % of Subscriber to Total Population
Mar '11	10	34.62
Jun '11	10.7	36.81
Sep '11	11.1	38.29
Dec '11	11.6	40.18
Mar '12	12.2	41.5
Jun '12	12.3	42.05
Sep '12	12.8	43.77
Dec '12	13.4	45.78

Source: www.bnm.gov.my/payment/statistics/pdf/04_internet_banking.pdf

3.2.3 Sample and Sample Size

Sample is a part of the whole pie of the total population. The given definition of sample by Sekaran (2003, p.266) is "... subset of the population. It comprises some members selected from the sample". This explains that only some of the total population will constitute as the sample. In this study, some percentages of the total population of the internet banking users were considered as the sample. The sample was studied in order to derive some conclusions about eLoyalty among the chosen sample as well as to gain some generalisation on the total population of internet banking users as a whole. Whereas, sampling is considered as "...the process of selecting a sufficient number of elements from the population ..." (Sekaran, 2003, p.267). The sampling of this study has been referred to the sample size table by (Krejcie & Morgan, 1970, p.608). Sekaran (2003) too has cited their table as guideline to make decision on sample size. Therefore, in this study, the chosen sample size for this study was 384 since the total population is more than 1,000,000 (refer Table 3.3). Since this study intends to use PLS (Partial Least Squares) for data analysis, the minimum sample size of PLS has been fulfilled by the minimum

sample size requirement as suggested by Sekaran and Bougie (2009). It was also supported by Tabachnick and Fidell (2007) that in general it is more secured to have a minimum of 300 samples for factor analysis.

Table 3.3
Sample Size (starting with more than 10,000 populations)

Population Size = N	Sample Size = S
10,000	370
15,000	375
20,000	377
30,000	379
40,000	380
50,000	381
75,000	382
1,000,000	384

Source: Sekaran and Bougie (2009)

It is also essential to consider the response rate for the study. The probability of response rate for this study was 50% which is considered to be reasonable since most studies on online banking (which include loyalty, adoption and acceptance) have generated a response rate between 58.5 and 96.7%. The lowest response rate of 58.5% was recorded in an e-bank loyalty study in Malaysia (Suleiman *et al.*, 2012). Moreover, two studies have recorded a response rate between 70% and 80%, whereby Ala'Eddin Mohd Khalaf Ahmad and Al-Zu'bi (2011) have gathered a response rate of 74% and Yuen's (2010) study is at 73%. While, Butt and Aftab (2013) have obtained a response rate of 83.42%, Yee and Faziharudean (2010) have reached a response rate of 82.57% and Rahimi *et al.* (2012) have achieved a total of 91.7% response rate. Whereas, the highest response rate of 96.7% was shown in a generic-based technology in banking (Ganguli & Sanjit Kumar Roy, 2011). Thus, based on previous response rate, the study has intended to achieve a minimum

response rate of 50%. Therefore, the working sample needed to avoid any biasness and incomplete responses was 768 samples.

3.2.4 Data Collection Procedure

There are several methods that can be performed when collecting and gathering data and related information. Some examples of approaches in data collection are face-to-face interviews, telephone interview, intercept survey and mails survey as well as through observations (Hair *et al.*, 2007). It is strongly argued that the nature of data collection is subjected to the nature of the study. In this study, the intercept survey was chosen. And, according to Kotler *et al.* (2009), intercept survey involves stopping people at a certain location requesting them to answer the questionnaires. In this study, the questionnaires were filled in by intercepting bank customers outside of the banks. In addition, this intercept method has been claimed to have several advantages such as speedier, lower cost and researcher has control over the type of respondent (Chinomona, 2013).

Moreover, several authors have applied this intercept design in their studies among the banking users. There are two studies about the relationship quality (Khoo-Lattimore, Yang, & H. Ekiz, 2010; Ndubisi, Khoo-Lattimore, Yang, & Capel, 2011), one is about customer loyalty in Malaysia (Ndubisi, Wah, & Ndubisi, 2007) and the other is on customer complaint behaviour in Malaysia (Ndubisi & Tam, 2006). In addition, researches on online loyalty intention and online behavioural intention have also chosen this intercept design (Hu & Chuang, 2012; Lin & Hsieh, 2006). In the online loyalty intention among e-retailers, customers are intercepted at the Technology Park. Whereas, researchers for the online behavioural intention study on

self-service technology has approached the customers at busy locations. Furthermore, the intercept technique is also supported by few other researchers in their online banking study on attitude and intention (Guriting, Chunwen, & Ndubisi, 2007; Guriting & Ndubisi, 2006; Lim, Foong, Sean Siew, & Ndubisi, 2007; Onyia & Tagg, 2012). In the Malaysia Borneo online banking context, customers are intercepted and invited to answer the questionnaire (Guriting & Ndubisi, 2006). Similarly, intercept sampling is used among the Nigerian banking customers as this sampling design is found to be useful in the research (Onyia & Tagg, 2012). Therefore, it is concluded that the intercept design will be applied in the study.

Furthermore, in the study, three major banks were selected because these banks were identified as the most visited internet banking websites in Malaysia (Ng, 2011). These three banks are Malayan Banking Berhad (Maybank) followed by CIMB Bank Berhad and Public Bank Berhad. Next, Northern Region states such as Perak, Penang, Kedah and Perlis were randomly selected to represent the total population. This was mainly due to the reason that internet banking users at any region or state will look at the same internet banking interface everytime they access the internet banking services regardless of their locations (Bank Negara Malaysia & Persatuan Bank-Bank dalam Malaysia, 2007; Proenca *et al.*, 2010; Ruin, 2010). In addition, parsimony is also another reason why Northern Region is chosen (Hair *et al.*, 2007; Sekaran & Bougie, 2009). Parsimony is a method of applying a simpler method in order to achieve a satisfactorily result (Hair *et al.*, 2007). In the study, the selection of Northern Region was considered as a simpler solution in the data collecting procedure.

Looking at the data collection procedure, the data collection was conducted for six months starting December 2014 until May 2015. And, the customers or respondents were selected using probability sampling which is systematic sampling. In a previous study on bank customers loyalty, a systematic procedure was used by approaching every third of the bank's customer (Shainesh, 2012). In this study, the same procedure was applied whereby every third customer who walks out of the bank was approached and asked to answer the questionnaire. The researcher was present during the intercept process. The data collection process took 2 months for Perak state, 2 months for Kedah state and another 2 months for Perlis and Kedah states. In the initial stage, participants were provided with an explanation of the research which was included on the front cover of the questionnaires. Participants were anonymous and there was no identity recorded. However, it was noted that only those who were willing to answer the questionnaire were given the questionnaire. If the participant agreed to participate, a clipboard, a pen and a questionnaire were given to them. Then, the researcher will move to the next respondent/subject leaving the "previous" respondent to answer in private. The completed questionnaires were also gathered outside of the bank and the only coding process involved were the coding of date and time.

In this study, proportionate stratified sampling method was chosen. For instance, out of 36 Maybank branches in Ipoh, only 1 main branch is chosen. Then, the total number of questionnaires distribute for each branch was calculated using the proportion of each branch to the total of all branches in Ipoh, Penang, Kedah and Perlis. Thus for Maybank's Perak main branch, a minimum of 133 customers was systematically intercepted. As indicated earlier in the sample and sample size section, the required minimum working samples were 768 users in order to get the

required sample size of 384 users. In order to achieve these required minimum working samples and required sample size among these three most visited internet banking providers, a table was drawn to indicate the proportion of questionnaires to be distributed according to the banks and states (see Table 3.4). In summary, the minimum number of distribution of questionnaires from Maybank was 318 in order to achieve a minimum of 159 completed and usable questionnaires from this bank. Whereas for CIMB Bank, in order to obtain a minimum of 116 completed and usable questionnaires, the minimum number of distribution was 233 questionnaires. Lastly for Public Bank, the calculated minimum number of distribution was 218 questionnaires in order to reach a minimum of 109 completed and usable questionnaires.

Table 3.4
Number of Branches & Distribution of Questionnaires in Three Selected Banks

No	Banks	States	Number of Branches	Main Branch for Each State	Minimum Number of Distribution of Questionnaires	Minimum Number of Completed and Usable Questionnaires
1	Maybank Berhad	Perak	36	1	133	66
		Penang	33	1	122	61
		Kedah	14	1	52	26
		Perlis	3	1	11	6
			86		318	159
2	CIMB Bank Berhad	Perak	22	1	81	41
		Penang	27	1	100	50
		Kedah	13	1	48	24
		Perlis	1	1	4	2
			63		233	116
3	Public Bank Berhad	Perak	27	1	100	50
		Penang	21	1	78	39
		Kedah	10	1	37	18
		Perlis	1	1	4	2
			59		218	109
			208		768	384

3.3 Data Collection Techniques

3.3.1 Questionnaires Design

Questionnaire is described as “a preformulated written set of questions to which respondents record their answers, usually within rather closely defined alternatives” (Sekaran & Bougie, 2009, p.197). In the study, the questionnaires were used to seek the answers to all the research questions and meet the objective of the study. A good researcher will be able to produce a comprehensive questionnaire. Also, the setting of wordings of the questions, the answer options or choices for each question and the arrangement of questions were designed to ensure respondents’ understanding and make them feel easy and motivated to answer the questions. At the beginning of the each section in the questionnaire, an instruction was provided to ensure clarity when answering the questionnaire. Looking at the answer options or choices, closed questions were employed. A closed question allows “... respondents to make choices among a set of alternatives given by the researcher” (Sekaran, 2003 , p.239). By implementing this type of question, faster decision and response can be obtained from the respondent due to respondent is presented with all possible options or choice in the questionnaire.

According to Sekaran and Bougie (2009), there are three major areas of questionnaire design that should be emphasised on which are (1) the wording of the questions, (2) how variables will be categorized scaled and coded and (3) questionnaire’s appearance. In this study, there were 14 questions in Section A (demographic section) and 8 subsections in Section B. With regard to questions in Section A, there were 14 questions included in the instrument. These 14 questions consisted of respondent’s demographic and statistic on their internet banking

services. These questions included general questions like whether the respondent is a bank customer, their gender, age group, marital status, academic qualification, employment status, monthly income, a screening question, internet banking usage frequency, number of years using internet banking, latest time usage of internet banking, internet banking accounts, decision to use internet banking is influenced by and lastly, intention to use internet banking in the future. In Section B, a standardized questionnaire was developed from the factors of the theoretical framework. In this section, there were eight subsections with their measurements. The eight subsections included questions on privacy (7 items), security (8 items), website quality (6 items), eSatisfaction (5 items), eTrust (6 items), eCommitment (4 items), convenience (4 items) and eLoyalty (10 items). Throughout the Section B, the variables are measured using the 7-point Likert scale where 1 is strongly disagree, 2 is disagree, 3 is disagree somewhat, 4 is neither agree or disagree, 5 is agree somewhat, 6 is agree and 7 is strongly agree. The 7-point Likert scale has been used in several “e” or online researches which some studies include online loyalty, internet banking and several determinants of eLoyalty and eSatisfaction (Anderson & Srinivasan, 2011; Casaló *et al.*, 2008a, 2007, 2008b, 2008c; Luarn & Lin, 2003; Ribbink *et al.*, 2004; Roca *et al.*, 2009; Srinivasan *et al.*, 2002; Tan & Teo, 2000; Yap, Wong, Loh, & Bak, 2010).

3.4 Measurements and Operationalization of Variables

Each variable in Section B, with exception of demographics section in Section A, was measured using previously developed instrument. And, the details of measurements and operationalization of variables are discussed below. Nevertheless,

some wordings of the measurements were revised to match the respondents and local context. Below is the summary of list of measurements adapted for this study.

Table 3.5
Summary of List of Measurements: Factors and Number of Items

Factors	Authors (Years)	Items
eLoyalty	Anderson and Srinivasan (2003) cited from Gremler (1995) and Zeithaml <i>et al.</i> (1996)	10 items
eSatisfaction	Lii (2009) adapted from previous studies	5 items
eTrust	Zhao <i>et al.</i> (2010)	6 items
eCommitment	Luarn and Lin (2003) adapted from Pritchard <i>et al.</i> (1999)	4 items
Privacy	Flavián and Guinalú (2006) adapted from Janda Trocchia and Gwinner (2002), O’Cass and Fenech (2003) and Cheung and Lee (2001)	7 items
Security	Flavián and Guinalú (2006) adapted from Ranganathan and Ganapathy (2002) and O’Cass and Fenech (2003)	8 items
Website Quality	Lii (2009) adapted from previous studies	6 items
Convenience	Anderson and Srinivasan (2003) based on Moorman (1990, 1998)	4 items

3.4.1 eLoyalty

In this study, eLoyalty factor was operationalized by three dimensions that which are behavioural loyalty, attitudinal loyalty and cognitive loyalty. These dimensions were suggested by Gremler and Brown (1996) based on their literature reviews. According to them, behavioural loyalty was termed as consumer’s behaviour towards the product such as continual purchase. Whereas, attitudinal loyalty is recognised as customer’s preference and intention towards the product or service. And lastly, cognitive loyalty is described as the provider or the brand which appears *first* in the consumer’s mind when they were making decision as well as the provider or the brand which becomes the customer’s *first* choice compared to other alternatives. Behavioural loyalty was measured by five items, attitudinal loyalty was measured by

three items and cognitive loyalty was measured by two. As a result, there were ten items used to measure eLoyalty and these items were as follows:

Table 3.6
Scale Items for eLoyalty

eLoyalty
Behavioural Loyalty
1. I say positive things about the internet banking services to other people.
2. I recommend the internet banking services to someone who seeks my advise
3. I encourage friends and relatives to do business with the internet banking services.
4. I seldom consider switching to another internet banking services.
5. As long as the present/current service continues, I doubt that I would switch internet banking services.
Attitudinal Loyalty
6. I like using this internet banking services.
7. To me this site is the best banking internet banking services to do business with.
8. I believe that this is my favourite internet banking services.
Cognitive Loyalty
9. I try to use the internet banking services whenever I need to make a purchase/do any transaction.
10. When I need to make a purchase/do any transaction, this internet banking services is my first choice.

Source: Anderson and Srinivasan (2003) cited from on Gremler (1995) and Zeithaml *et al.* (1996)

3.4.2 eSatisfaction

Next, eSatisfaction items were based on Lii (2009) which she had adapted from several studies. The author operationalized eSatisfaction as customer's overall satisfaction or unidimensional based on his/her experience with the providers as suggested by several studies (Garbarino & Johnson, 1999; Luarn & Lin, 2003; Oliver, 1980; Ribbink *et al.*, 2004). Apart from this, Yang and Peterson (2004) noted that overall satisfaction involves summing the "customer cumulative satisfaction" about the firm's product or service performance. According to him, overall satisfaction may reveal better determinant of customer loyalty. There are five items used to measure eSatisfaction and these items are as follows:

Table 3.7
Scale Items for eSatisfaction

eSatisfaction
Overall Satisfaction
1. I am completely happy with my internet banking services.
2. I am very pleased with what the internet bank services do for me.
3. My experiences with the internet banking services have always been good.
4. Overall, I am very satisfied with my internet banking services.
5. If I had to do it all over again, I would still choose to use the internet banking services.

Source: Lii (2009) based on several studies

3.4.3 eTrust

Subsequently, six items were used to measure the eTrust construct. The construct was operationalized by three dimensions such as integrity/honesty, benevolence and competence. The measurement was adapted from Zhao *et al.* (2010). Also, these three dimensions are similar to the work of Flavián and Guinalú (2006). The six items used to measure eTrust are listed as follows:

Table 3.8
Scale Items for eTrust

eTrust
Integrity/Honesty
1. The internet banking provider is honest.
2. This internet banking provider will keep its promise.
Benevolence
3. The internet provider puts customer interest first before its own.
4. This internet banking provider demonstrates its belief that “the customer is always right”.
Competence
5. The internet banking provider is competent in carrying out its online banking transactions
6. This internet banking provider knows how to provide excellent internet banking services.

Source: Zhao *et al.* (2010)

3.4.4 eCommitment

Then, eCommitment construct was operationalized using the four items as proposed by Luarn and Lin (2003). Their items were based on Pritchard *et al.*'s (1999)

“resistance to change” dimension. There are four items under the “resistance to change” to measure eCommitment. These four are as follows:

Table 3.9

Scale Items for eCommitment

eCommitment
Resistance to Change
1. My preference for this internet banking service would not willingly change.
2. It would be difficult to change my belief about this internet banking service.
3. Even if close friends recommend another online banking service, I would not change my preference for this internet banking service
4. To change my preference from this internet banking service would require major rethinking.

Source: Luarn and Lin (2003)

3.4.5 Privacy

The following construct, privacy was measured using adapted measurement by Flavián and Guinalú (2006). Their measurements were adapted from Janda Trocchia and Gwinner (2002), O’Cass and Fenech (2003) and Cheung and Lee (2001). Privacy was operationalized using three dimensions which 2 items are on concerns towards the providers, 2 items are about protection on data while 3 are were on both user’s respect and consent. There are seven items used to measure privacy and these items were as follows:

Table 3.10
Scale Items for Privacy

Privacy
Concerns towards the Providers
1. This internet banking service shows concern for the privacy of its user.
2. I feel safe when I send personal information to this internet banking services.
Concerns about Protection on Data
3. This internet banking service is protected by personal data protection laws.
4. This internet banking service only collects user personal data that are necessary for its activity.
User's Respect And Consent
5. This internet banking service respects the user rights when obtaining personal information.
6. This internet banking service will not provide my personal information to other companies without my consent.
7. This internet banking service will ask user's permission before sending any advertisements

Source: Flavián and Guinalú (2006) adapted from Janda Trocchia and Gwinner (2002), O'Cass and Fenech (2003) and Cheung and Lee (2001).

3.4.6 Security

In addition, security was measured based on Flavián and Guinalú's (2006) study. The measurements were adapted from Ranganathan and Ganapathy (2002) and O'Cass and Fenech (2003). Security variable was operationalized using four dimensions such as integrity, confidentiality, authentication and non-recognition of transaction. And, there was a total of eight items to measure the variable. The two items are from integrity, one item is on confidentiality, two items are about authentication and lastly, three items are on non-recognition of transaction. These eight items are as follows:

Table 3.11
Scale Items for Security

Security
<p>Integrity</p> <ol style="list-style-type: none"> 1. This internet banking service has mechanisms to ensure the safe transaction of its users' information. 2. This internet banking service shows great concern for the security of any transactions. <p>Confidentiality</p> <ol style="list-style-type: none"> 3. This internet banking service has sufficient technical capacity to ensure that no other organization will imitate its identity on the internet. <p>Authentication</p> <ol style="list-style-type: none"> 4. I am sure of the identity of this internet banking service when I establish contact via the internet. 5. When I send data to this internet banking services, I am sure that they will not be intercepted by unauthorized third parties. <p>Non-Recognition of Transaction.</p> <ol style="list-style-type: none"> 6. This internet banking service has sufficient technical capacity to ensure that the data I send will not be intercepted by hackers. 7. When I send data to this internet banking website, I am sure they cannot be modified by a third party. 8. This internet banking website has sufficient technical capability to ensure that the data I send cannot be modified by a third party.

Source: Flavián and Guinalú (2006) adapted from Ranganathan and Ganapathy (2002) and O’Cass and Fenech (2003)

3.4.7 Website Quality

Consequently, the next variable which is the website quality was operationalized using the adapted measurement by Lii (2009). In his study, three dimensions consisting of six items were applied with website design consists of two items, two from website structure and the remaining two from website content. Thus, these six items are listed as follows:

Table 3.12
Scale Items for Website Quality

Website Quality
Website Design
1. Learning to operate the internet banking website is easy for me.
2. The display pages within the internet banking website are easy to read
Website Structure
3. The internet banking website loads quickly.
4. When I use the internet banking website, there is very little waiting time between my actions and the internet banking services website's response.
Website Content
5. The internet banking website adequately meets my information needs
6. It is easier to use the website to complete my business with the bank than the others facilities.

Source: Lii (2009)

3.4.8 Convenience

The final construct, convenience measurement was adapted from Anderson and Srinivasan (2003) which was based on Moorman (1990, 1998) that has indicated dimensions of motivation is conceptualized from individual's motivation following their exposure towards the stimuli situations. The convenience measurements are also similar to the technology convenience measured by Ganguli and Sanjit Kumar Roy (2011) in their study on generic technology-based service quality in banking. There are four items used to measure convenience and the measurements were shown in the following table:

Table 3.13
Scale Items for Convenience

Convenience
Motivation toward the Situations
1. I want the convenience that internet banking services offers.
2. I enjoy the flexibility of the internet banking services
3. I am interested in taking advantage of the ease of internet banking services.
4. I would like to do transaction at my own pace while transacting the internet banking services.

Source: Anderson and Srinivasan (2003) adapted from Moorman (1990, 1998)

For questionnaire validation purposes, content and face validity test were conducted where questionnaires were sent to content and industry expert to provide judgemental valuations on the constructs and items that were developed based on extensive literatures. Expert opinion was sought in order to ensure that the content of the questionnaires describes what it was expected to measure. This is due to some terms and phrasings might need to be modified to suit the respondents, industry and the local settings. For instance, terms such as internet banking services were added or replaced to the original setting to suit with the study of industry setting.

3.4.9 Translation

The original questionnaire was designed in English. In this study, each internet banking user may have different level of understanding when reading English text. Thus, it is appropriate to include Malay translation in the questionnaire in order to guarantee that each user understood all questions being asked in the questionnaire. It was suggested that a back translation technique was needed to achieve understanding in both Malay and English version (Brislin, 1970). The English version of the questionnaire was transformed to the standard Malay translation. This translation was done by a certified translator who is a Malay bilingual. The individual has an expertise in this area and experiences in translation from English to Malay. Later, the

questionnaire was back translated to English by another qualified translator who is also proficient in both Malay and English languages. In the process of back translation from Malay to English, some discussions were taken place to ascertain that the original meanings intended are retained.

3.5 Pre Test and Pilot Test

A pre-test is an essential tool before any distribution of questionnaire is performed. The pre testing was conducted to ensure the accuracy and consistency of the respondent's answers (Bryman & Bell, 2007; Hair *et al.*, 2007). Also, content validity can be achieved by performing both pre-test and pilot test (Lewis, Templeton, & Byrd, 2005). In this study, two experts are selected based on their marketing and banking industry knowledge. The two experts were from Universiti Teknologi MARA. Both of them were approached to seek their expertise and feedback to solidify the questionnaires. One of them is a Professor who has an expertise in marketing field and another expert is a senior business lecturer with extensive years of working experience from the bank. Referring to Lewis *et al.* (2005), items can be added or deleted from the set of questionnaires as well as items can be further improved upon recommendations from these experts, if required. As the result and based on experts recommendations, it was suggested that a total of seven questions should be added to the questionnaire. One item was added under the eTrust factor, three questions were inserted under the eLoyalty construct, and another three items were included in the convenience variable. Under the eTrust construct, one item was introduced which is "This internet banking provider is capable in carrying out its online banking transactions". Furthermore, three more questions were added to eLoyalty. These questions are as follow: "I have always

used this internet banking service”, “I am currently using this internet banking service” and “I will always want to use this internet banking service again”. Finally, three additional items under the convenience construct were being added such as “I would like to do transaction at my own place while transacting the internet banking services”, “I would like to do transaction at my own time while transacting the internet banking services” and “I would like to do transaction at my own feasibility while transacting the internet banking services”.

As recommended by the experts, some rewordings were also needed to ensure the clarity and understanding of questions to fit the respondents, local and industry context. For instance, item no. 6 in the website quality was reworded from “It is easier to use the website to complete my business with the bank than the others facilities” to “It is easier to use this internet banking website to complete my banking needs compared to using other mediums (i.e. ATM and counter service)”. Another example of rewording was for item 1 under the convenience construct. The word “I want the convenience that internet banking services offers” is modified to “I want the convenience offers by this internet banking services”. In summary, the total of questions in Section B has developed into 57 items. The segregation of questions is as follow: privacy (8 items), website quality (6 items), eSatisfaction (5 items), eTrust (7 items), eCommitment (4 items), convenience (7 items) and eLoyalty (13 items).

After the pre-testing procedure, the questionnaire was distributed for pilot testing. In this pilot-test, respondents were chosen based on their criteria as being described in sample section. Pilot test was conducted to assess and detect the reliability and validity of questionnaires. As mentioned by (Zikmund, 2003, p.63), pilot study is “any small-scale exploratory research technique that uses sampling but does not

apply rigorous technique”. Pilot studies are usually conducted in a small scale from a small number of incidences (Sekaran & Bougie, 2009). Another advantage of pilot study is it can identify any flaw in the design and instrumentation and its sample size can just be between 25-100 respondents (Cooper & Schindler, 2008). Therefore, the study has aimed to achieve at least 30 complete and usable questionnaires. Basically, the data collected from the pilot study via the questionnaires will be coded, inputted and processed using SPSS software to perform reliability and adequacy analyses. The next section will discuss more on pilot test analysis which involves both reliability analysis and factor analysis.

3.5.1 Reliability Analysis

Next, the most recent used of reliability analysis for items is the cronbach alpha (α) coefficient. The reliability score can vary from 0.00 to 1.0. According to Sekaran (2003, p.203), she noted that “reliability of a measure is an indication of the stability and consistency with which the instrument measures the concept and helps to assess the “goodness” of a measure”. She added that the closer the reliability of measure to 1.0 is better and the reliability that is less than 0.60 is considered poor, those in the 0.70s is an acceptable reliability measure and those over 0.80 are considered good (Sekaran, 2003). In analysing the reliability, an acceptable minimum level of reliability analysis is 0.7 and it may decrease to 0.60 in an exploratory research (Robinson, Shaver & Wrightsman, 1991 as cited in Dauda *et al.*, 2007). It is also supported that the reliability value of 0.6 and below are considered as unsatisfactory reliability (Malhotra, 2004). Furthermore, according to Nunnaly (1967, as cited in Dauda *et al.*, 2007), the reliability score should be above 0.6.

In this pilot study, the Cronbach's alpha coefficient ranged from 0.856 to 0.964. Since all alpha values were above 0.80, the reliabilities of all constructs are considered to be good. It also indicates that all measurements possess good reliability. Thus, the result revealed that there is a consistency where the items in each construct are reliable. The table below presents the mean, standard deviation and the Cronbach's alpha (C.A.) values for all constructs.

Table 3.14
Summary of Reliability Analysis

Construct	No. of items	Mean	Std. Dev.	C. A. (α)
Privacy	7	5.058	5.857	0.886
Security	8	5.094	6.491	0.911
Website Quality	6	5.260	5.022	0.856
eSatisfaction	5	5.313	4.550	0.921
eTrust	7	5.170	5.146	0.896
eCommitment	4	5.031	3.452	0.859
Convenience	7	5.567	5.521	0.920
eLoyalty	13	5.252	11.865	0.964

3.5.2 Factor Analysis

Factor analysis is delineated as “a data reduction technique used to reduce a large number of variables to a smaller set of underlying factors that summarize the essential information contained in the variables” (Coakes, 2005, p.154). Another aspect of factor analysis is that it lowers the number of large variables into “meaningful, interpretable, and manageable set of factors” (Sekaran, 2003, p.408). The factor loading of ± 0.30 to ± 0.40 is analysed as meeting the lower level of interpretation of the factor matrix and loadings of ± 0.50 or above is considered practically significant (Hair, Black, Babin, & Anderson, 2010).

Next, the Bartlett's tests of sphericity and Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy will be conducted. Bartlett's test of sphericity is defined as “a

test of sphericity used to examine the hypothesis that the variables are uncorrelated in the population” Malhotra (2010, p.638). On the other hand, KMO measures the intercorrelations among variables (Hair *et al.*, 2010). Apart from this, KMO may vary between 0 and 1; in addition to that values closer to 1 are better or showing better adequacy of the sample. In Malhotra (2010), he mentioned that KMO measures the adequacy of sample and has noted the following interpretation of KMO measure of adequacy’s results which the figure around 90s is considered as marvellous, in the 80s is considered to be meritorious, around 70s is considered as middling, in the 60s is considered as mediocre, around 50s is considered miserable and lastly, below 0.50 is considered as unacceptable.

In this pilot study, the KMOs’ values ranged from 0.670 and 0.903. And, referring to Malhotra (2010), this study has a high value of adequacy where the values of all constructs are between 0.50 and 1.00. In this study, the Bartlett’s test shows that all values were between 0.50 and 1.00 and significant. Thus, this result revealed that the measurement items were needed to measure the constructs and these items were appropriate in establishing the constructs. Consequently, no item was deleted. The Table 3.15 below shows the factor analysis for all constructs.

Table 3.15
Summary of Factor Analysis: KMO and Bartlett’s Test

Construct	KMO	Bartlett's Test
Privacy	0.791	Significant
Security	0.804	Significant
Website Quality	0.670	Significant
eTrust	0.825	Significant
eSatisfaction	0.846	Significant
eCommitment	0.722	Significant
Convenience	0.773	Significant
eLoyalty	0.903	Significant

3.6 Data Analysis Techniques

Generally, data is coded and edited then transformed in order to conclude with some results. After the process of coding is performed, data screening and cleaning will be conducted. The purpose is to rectify any errors after inserting data into SPSS. In data screening and analysis several tests are conducted such as data entry errors, missing value, treatment of outliers and test of multicollinearity. Then, the next step is to perform the descriptive employing SPSS software and inferential statistics using SmartPLS.

3.6.1 Data Entry Errors

Before proceeding with any descriptive and inferential statistical analysis, checking for errors is a necessary process. This is done as to it is common to make mistakes when data is being inserted into the SPSS. According to Pallant (2013, p.45), “When checking for errors, you are primarily looking for values that fall outside the range of possible values for a variable”. For instance, if there are only two options for gender which are 1=male and 2=female, there should not be any other value except 1 or 2. It is very critical to check for data entry error before proceeding to other test or analysis. If any error is detected, this error should be rectified.

3.6.2 Missing Value

Subsequently, the missing value analysis was needed. It is typical in most researches to get some missing data or values while collecting their data. In addition, it was noted that it is essential to find for missing data and to rectify the problem. It has been supported that the treatment of missing data is critical due to its consequences

on generalisation of result (Hair *et al.*, 2010). There are some suggested ways to rectify this problem such as applying the exclude cases listwise, exclude data cases pairwise or replace with mean (Pallant, 2013).

3.6.3 Treatment of Outliers

The succeeding step in the study was to inspect whether there is an existence of outlier. “An outlier is a respondent (observation) that has on or more values that are distinctly different from the values of other respondents” (Hair *et al.*, 2010). Similar to missing value, any outlier should be detected and rectified. There are several techniques that can be chosen from to resolve the problem, and one of them is by observing the Mahalanobis distance value. The Mahalanobis value that is derived from the SPSS will be compared to the critical value. And, any value that is above the critical will be omitted from the analysis.

3.6.4 Test of Multicollinearity

Finally, the last test for data screening and cleaning was to examine for multicollinearity. According to Sekaran and Bougie (2009, p.352), “Multicollinearity is an often encountered statistical phenomenon in which two or more independent variables in a multiple regression model are highly correlated”. In some researches, multicollinearity may occur. Thus, this matter must be resolved as the existence of multicollinearity can initiate several issues with the regression (Hair *et al.*, 2007). The identification of multicollinearity can be made by calculating the correlations among variables, tolerance and VIF (variance inflation factor) values. For the correlations among variables, it is suggested that the correlation values at 0.90 or

higher is an indication of multicollinearity (Hair *et al.*, 2010). Both tolerance and VIF values will be described in later section.

3.7 Descriptive and Inferential Statistics

There are two main types of statistical concepts which are descriptive and inferential statistics. “Descriptive statistic is to describe or summarize information from a population or sample” and “inferential statistics is used to make inferences or judgements about a population based on a sample” (Zikmund, 2003, p.402). This study will apply both techniques which were to describe characteristics of the sample as well as form generalization from the sample. Descriptive analysis also includes the minimum, maximum, mean, standard deviation and variance for all variables (Sekaran, 2003). Furthermore, a descriptive study will describe and profile the respondents and variables as well as tabulate frequencies (Cooper & Schindler, 2008). In addition, two areas will be conferred by using inferential statistics which are “estimation of population values” and “testing statistical hypotheses” (Cooper & Schindler, 2008, p.468).

3.7.1 Partial Least Squares (PLS)

Next, SmartPLS-SEM (Partial Least Squares) software is used in the study. PLS is considered as another estimation method beside using SEM (Structural Equation Model) where “the constructs are represented as composites based on factor analysis results, with no attempt to create covariances among measure item” (Hair *et al.*, 2010, p.691). PLS Variance Based is considered relevant in the study because it is deliberated as prediction oriented where it help to facilitate the theory development.

Beside that, there are several reason why the researcher has chosen the PLS analysis. PLS was used in the study because the researcher has estimating using multiple measurements items to explain drivers of eLoyalty and eSatisfaction with both mediator and moderator (Hair *et al.*, 2010). It is also suitable for a more advanced model with moderators(s), nonlinear relationship or hierarchical model (Becker, Klein, & Wetzels, 2012; Henseler & Chin, 2010; Henseler, Fassott, Dijkstra, & Wilson, 2012).

Furthermore, PLS has gained its acceptance in research in business, education and social sciences. PLS is also commonly used in marketing (Hennig-thurau, Henning, & Sattler, 2007; Henseler, Ringle, & Sinkovics, 2009) where researchers have several factor loadings and path coefficients to estimate. In addition, several researchers on online studies have analysed their data using PLS (Anderson & Srinivasan, 2003; Chiu, Chang, Cheng, & Fang, 2009; Hackman, Gundergan, Wang, & Daniel, 2006; Roca *et al.*, 2009). Among these researches, two studies are focusing on online loyalty among the internet banking users (Chao, Lee, & Ho, 2009; Keating, Alpert, Kriz, & Quazi, 2011) and one on online satisfaction in internet banking (Rod, Ashill, Shao, & Carruthers, 2009). Based on these previous online researches, PLS was selected as the data analysis tool for the study.

In addition, PLS is mostly used for three main reasons such as PLS does not make any data distributional assumptions (Hair, Hult, Ringle, & Sarstedt, 2014). Thus, PLS is preferred over Maximum Likelihood (ML) based estimation that assume data is normally distributed (Semeijn *et al.*, 2005). Secondly, PLS is appropriate in the circumstance where parameter-to-sample size is rather small (Cassel, Hackl, & Westlund, 2000). Lastly, according to them, PLS is shown to be robust against

possible problem such as multicollinearity. This study is conducted on two phases which the first phase involves with the measurement (outer) model and the second stage consists of the analysis of the structural (inner) model (Anderson & Gerbing, 1988; Bagozzi, Yi, & Phillips, 1991). As indicated earlier, the study applied reflective model, thus the analyses needed for both measurement and structural model were further discussed. Figure 3.1 illustrates a simple path of inner and outer model with reflective indicators.

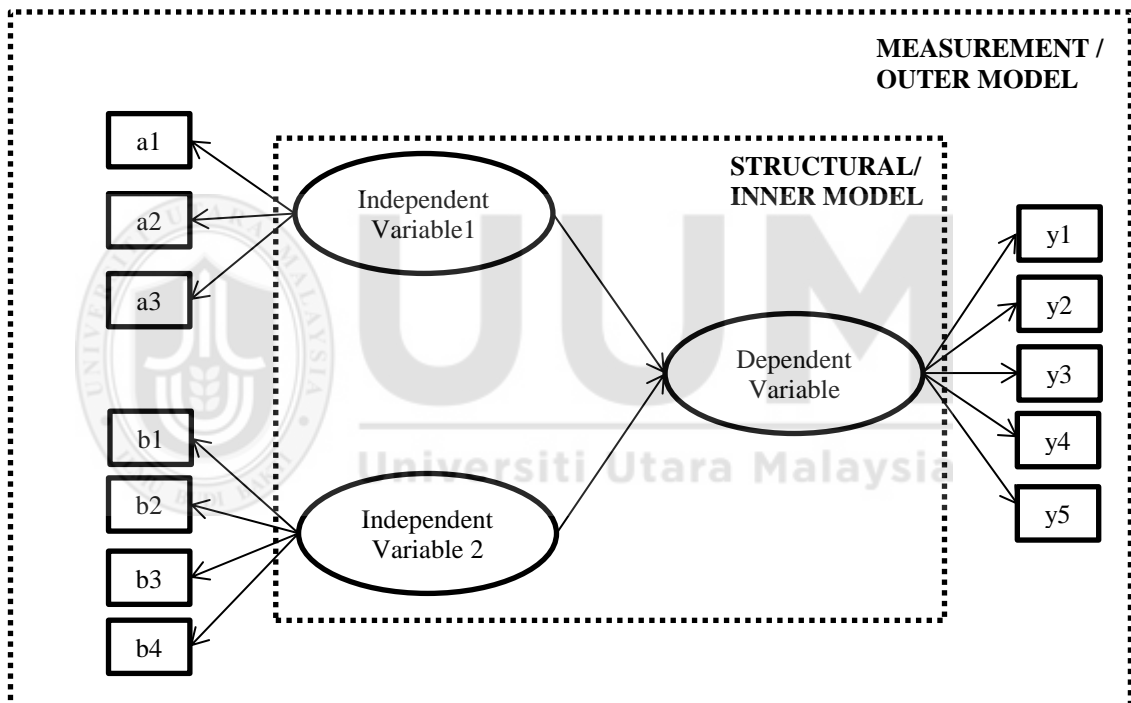


Figure 3.1
A Simple Path Model (reflective indicators)
 Source: Hair *et al.* (2014)

As cited by Hair *et al.* (2014), for the measurement models, the needed analyses are indicator loadings, composite reliability, convergent validity (average variance extracted or AVE) and discriminant validity. Whereas, the analyses needed in evaluating the structural model are significant and relevant of structural model relationship by looking at the Beta and t-value or also known as hypothesis testing (Beta & t-value), coefficient of determination (R^2) and f^2 effect sizes, predictive

relevance (Q^2) and q^2 effect sizes. The summary of both analyses is presented in the table below.

Table 3.16
Analyses of the Measurement Model and Structural Model for Reflective Measurement

Measurement Model	Structural Model
<ul style="list-style-type: none"> • composite reliability • convergent validity (average variance extracted or AVE) & • discriminant validity 	<ul style="list-style-type: none"> • significant & relevant of structural model relationship (Beta & t-value) or hypothesis testing • coefficient of determination (R^2) & f^2 effect sizes • predictive relevance (Q^2) & q^2 effect sizes

Source: Hair *et al.* (2014)

3.7.2 Measurement Model (Outer Model)

Firstly, the measurement model was assessed with the confirmatory factor analysis (CFA) to analyse the reliabilities and validities of the research variables. The measurements were analysed using a CFA that comprises of each factor measured by its indicated scales (Anderson & Gerbing, 1988; Bagozzi *et al.*, 1991). Next, the composite reliability denotes the shared variance among a group of observed variables (Fornell & Larcker, 1981). The PLS's composite reliability prioritizes the indicators as per their individual reliability whereas cronbach alpha is likely to underestimate the internal consistency reliability (Hair *et al.*, 2014, p.101). If all analyses in the measurement model met the required criteria, then the researcher can move on to the next stage which was the evaluation of structural model.

3.7.2.1 Composite Reliability

The values of composite reliability ranges between 0 and 1, and a higher value will demonstrate a higher reliability (Hair *et al.*, 2014). Referring to them, composite values between 0.60 to 0.70 are considered acceptable in exploratory research and values 0.70 to 0.90 are considered satisfactory (Nunnally & Bernstein, 1994 as cited in Hair *et al.*, 2014). It is also suggested by Gefen, Straub, and Boudreau (2000) that the composite reliability of 0.70 and higher will demonstrate a sufficient internal consistency. The composite reliability is more suitable compared to the Cronbach alpha's due to the composite reliability "takes into account the different outer loadings of the indicator variables ..." (Hair *et al.*, 2014, p.101)

3.7.2.2 Convergent Validity

Apart from the internal reliability, analysis of convergent validity was performed. Convergent validity is described as "the extent to which a measure correlates positively with alternative measures of the same construct" (Hair *et al.*, 2014, p.102). Correspondingly according to them, convergent validity requires the researcher to review the outer loading of the indicators in addition to the average variance extracted (AVE). Providing that, higher outer loadings denote that the items have much in common and it is stated that the outer loadings should be 0.708 or higher since the squared of 0.708 is equal to 0.50 (0.70 value can still be considered). In addition, usually it is suggested that outer loading values between 0.40 to 0.70 should be considered for elimination on condition that the elimination increases the composite reliability and average variance extracted (Hair *et al.*, 2014). The below figure indicates the relevance testing of outer loading.

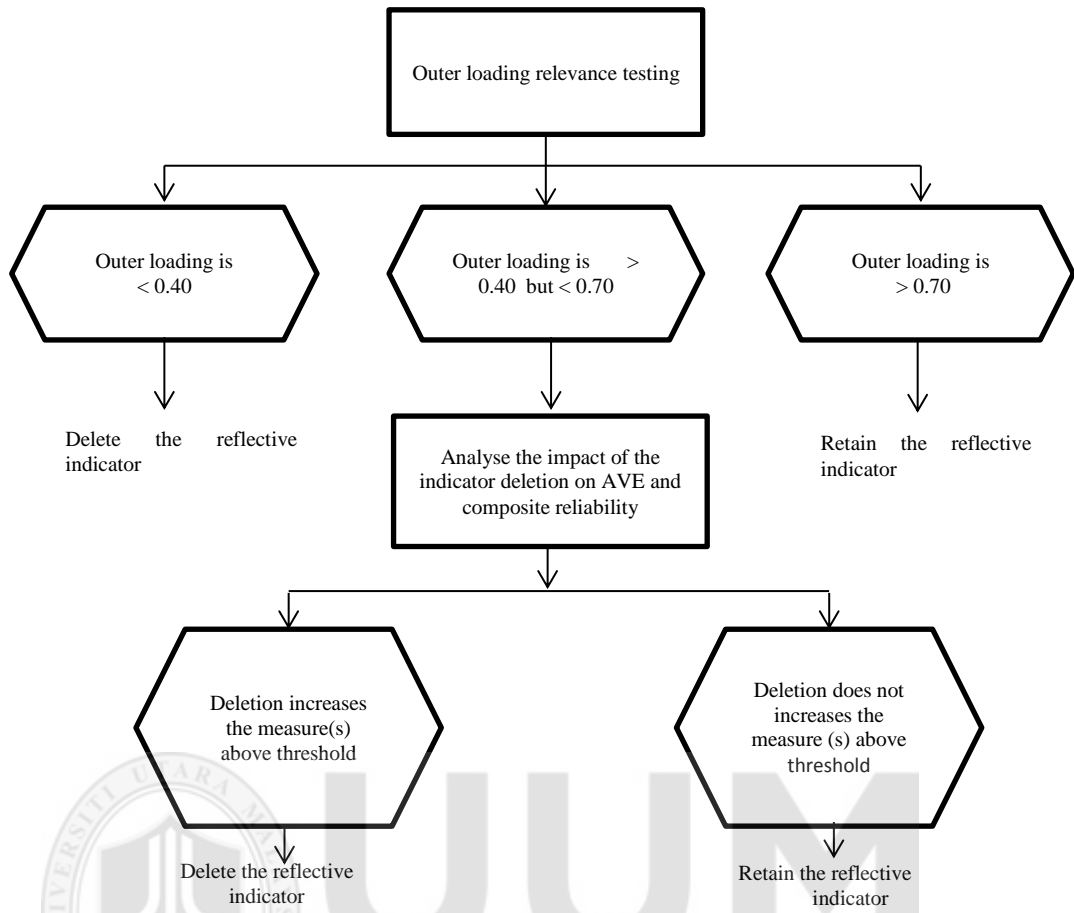


Figure 3.2
Outer Loading Relevance Testing
 Source: Hair *et al.* (2014)

Apart for the outer loading analysis, the next measurement to establish convergent validity on the variable was average variance extracted (AVE). According to Hair *et al.* (2014, p.103), the AVE “is the sum of the squared loadings divided by the number of indicators”. Therefore, they suggested that the AVE values must be 0.50 or higher showing that the variable “explains more than half of the variance of its indicators” (p.103).

3.7.2.3 Discriminant Validity

Apart from the convergent validity, the discriminant validity was also conducted. Before performing the discriminant validity, the reliability and convergent validity must be successfully met and established. The term discriminant validity is delineated as ‘the extent to which a construct is truly distinct from other construct by empirical standards’ (Hair *et al.*, 2014, p.104). An analysis on the cross loadings of the indicators was performed to measure the discriminant validity. As further recommended by them, an indicator’s outer loadings on a particular variable should be larger than all its loadings on other variable, which was the cross loadings. Apart from this, Fornell and Larcker's (1981) criterion noted that in order to assess discriminant validity is to compare the square root of each variable’s AVE with the latent variable correlations and the square root should be larger than the highest correlation compared to any other construct. If any criterion does not meet the requirement, the researcher may choose to eliminate the indicator(s) nonetheless the elimination may increase the reliability or discriminant validity but simultaneously it may decrease the content validity (the validity of the variable which is explained by its indicators) (Hair *et al.*, 2014).

3.7.3 Structural Model (Inner Model)

Next, the structural model included testing the strength and direction of the suggested variables by examining collinearity, structural model relationships (hypotheses testing), coefficient of determination (R^2), f^2 effect size, predictive relevance (Q^2) and q^2 effect size. The summary of the steps needed to execute the structural model analysis is figured out below:

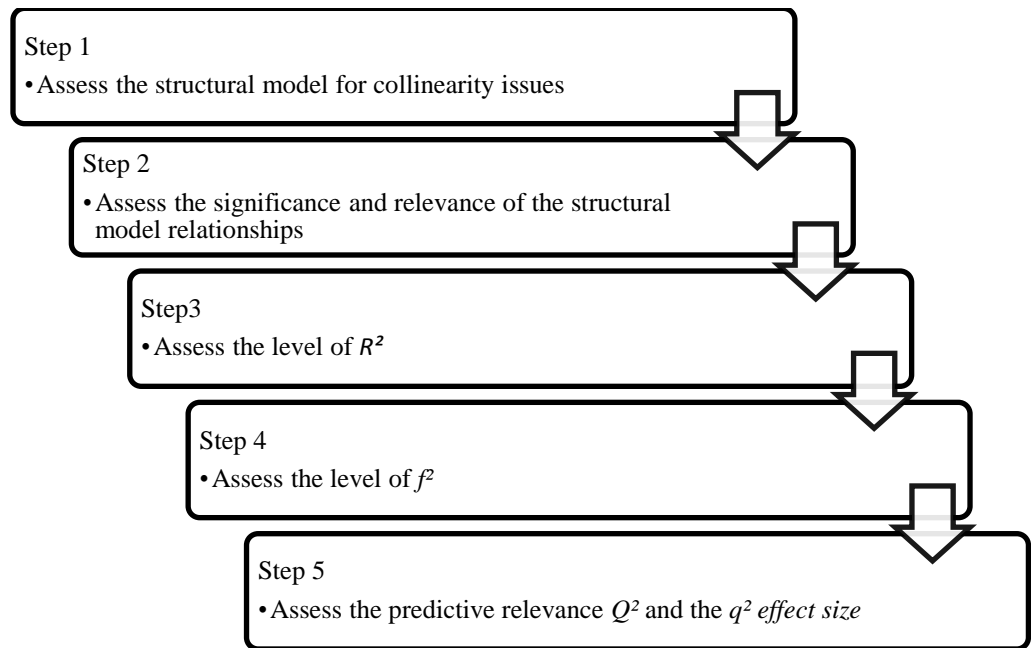


Figure 3.3
Structural Model Assessment Procedure
 Source: Hair *et al.* (2014)

3.7.3.1 Collinearity Assessment

According to Hair *et al.* (2014), collinearity occurs when “two indicators are highly correlated” (p.115). In addition, they noted that multicollinearity will exist when there are more than two indicators involved. For multicollinearity assessment, each set of predictor construct(s) must be assessed using tolerance levels and VIF (variation inflation factor) values. The tolerance level and VIF value are additional techniques used to detect multicollinearity besides looking at the correlations among variables as stated earlier.

In the study, eTrust and eCommitment acted as predictors of eLoyalty; while, privacy, security and website quality were predictors of eSatisfaction and eSatisfaction was the predictor of eLoyalty. Thus, it is essential to check whether the

significant level of collinearity exists between eTrust to eLoyalty, eCommitment to eLoyalty, privacy to eSatisfaction, security to eSatisfaction, website quality to eSatisfaction and eSatisfaction to eLoyalty.

Based on Hair *et al.* (2014), they remark that the tolerance level under 0.20 and VIF above 5.00 are indications of collinearity. If collinearity exists, the suggested actions are to remove the variable, merge predictors to become one variable or generate higher-order variables.

3.7.3.2 Structural Model Path Coefficients/Relationships

Subsequently, the structural model relationships (the path coefficients) will be determined which denote the outcome of hypothesized relationships among variables (Hair *et al.*, 2014). The standardized value of the relationship is from -1 to +1 and value that is close to +1 indicates a strong positive relationship (and the opposite for negative value). Whereas, value that is closer to 0 is considered a weak relationship and value that is close to 0 is usually insignificant. Eventually, in the study, the test of whether the coefficient was significant or not will rely on its standard error through bootstrapping. Bootstrapping is "... a resampling technique that draws large number of subsamples from the original data (with replacement) and estimates models for each subsample. It is used to determine standard errors of coefficient estimates to assess the coefficient's statistical significance without relying on distributional assumptions" (Hair *et al.*, 2014, p.163). The bootstrapping procedure will reveal the empirical t-value. The significant was observed against the t-value and when the t-value was larger than critical value, therefore the coefficients was significant at a certain significance level. In the study, since all hypothesized

relationships were positive, a one-tailed test is used (Hair *et al.*, 2007). Typically, the common critical values for one-tailed tests are as the following: 1.280 (significance level = 10%), 1.645 (significance level = 5%) and 2.33 (significance level = 1%).

3.7.3.3 Coefficient of Determination (R^2 Value)

The typical measurement of structural model is the measurement of R^2 value (the coefficient of determination) that measure the model's predictive accuracy (Hair *et al.*, 2014). Furthermore, the R^2 value is between 0 to 1 and the greater the number will indicate greater predictive accuracy. However, in scholarly research on marketing the R^2 value of the endogenous latent variable of 0.75 is considered substantial, 0.50 is considered moderate and 0.25 is considered weak (Hair, Ringle, & Sarstedt, 2011; Henseler *et al.*, 2009).

3.7.3.4 Effect sizes f^2

Next, the measurement of f^2 effect sizes will be determined. The effect size is calculated by looking at Cohen's f^2 . The f^2 term is calculated to foresee the impact of the R^2 when an exogenous variable is deleted from the model and to anticipate if the deleted construct has a substantive effect on the endogenous constructs (Hair *et al.*, 2014). By employing the SmartPLS software, the f^2 value is derived automatically. Also, as mentioned in Hair *et al.* (2014, cited from Cohen, 1988), the assessment of f^2 is as follows: 0.02 signifies a small impact, 0.15 represents a medium impact and 0.35 indicates a large impact on exogenous latent variable.

3.7.3.5 Blindfolding and Predictive relevance (Q^2)

In addition to assessing the R^2 value, it is also suggested to measure the Stone-Geisser's Q^2 value which is to foresee the model's predictive value (Hair *et al.*, 2014 as cited in Stone, 1974; Geisser, 1974). In addition, the Q^2 will precisely predict "the data points of indicators in reflective measurement models of endogenous constructs and endogenous single-item constructs" and the Q^2 value that is above zero "for the certain reflective endogenous latent variable indicate the path model's predictive relevance for the particular construct" (p. 178). In getting the Q^2 value, the blindfolding procedure will be performed. According to Henseler, Ringle, and Sinkovics (2009), blindfolding technique involves in deleting and assessing each data point of the indicators in endogenous constructs. It is taken into consideration that Q^2 value that is above zero may not reveal the quality of the prediction (Rigdon, 2014; Sarstedt, Ringle, Henseler, & Hair, 2014).

3.7.3.6 Goodness of Fit (GoF) Index

Subsequently, the goodness-of-fit (GoF) index is calculated. It has been suggested that the PLS goodness-of-fit may be used to validate the PLS model (Tenenhaus, Amato, & Vinzi, 2004; Tenenhaus, Vinzi, Chatelin, & Lauro, 2005). In addition, the GoF indicator is applied for PLS for diagnostic purposes (Tenenhaus *et al.*, 2005; Wetzels, Odekerken-Schroder, & Van-Oppen, 2009). The GOF index is also developed to foresee whether the model fit for both measurement and structural model and thus reveal a single indicator for the overall model performance (Vinzi, Trinchera, & Amato, 2010). They further noted that that this index is appropriate for reflective measurement models. The indicators for GoF are as follows, GoF small =

0.1, GoF medium = 0.25 and GoF large = 0.36. The goodness-of-fit is deliberated as

$$\text{GoF} = \sqrt{\text{average of } R^2 \times \text{average of AVE}} .$$

3.7.4 Mediating Analysis

In this study, the researcher hypothesized that eSatisfaction will mediate the effects of privacy, security and website quality on eLoyalty which were based on previous literatures. Referring to Hair *et al.* (2014), a mediator acts as an intervening role between the two associated variables. Furthermore, they indicate that mediator helps to clarify why the two related variables occur for instance how eSatisfaction may help to explain the relationship between privacy and eLoyalty, security and eLoyalty as well as website quality and eLoyalty. Furthermore, Baron and Kenny (1986, p.1173) have defined mediator as "... the mediator function of a third variable, which represents the generative mechanism through which the focal independent variable is able to influence the dependent variable of interest". In the study, the third variable or mediator was eSatisfaction which plays as an intervening role. Thus, the three mediation hypotheses for this study will be further explored. The three hypotheses are eSatisfaction mediates the relationship between privacy and eLoyalty, eSatisfaction mediates the relationship between security and eLoyalty and lastly, eSatisfaction mediates the relationship between website quality and eLoyalty.

In Baron and Kenny (1986, p.1176), an intervening variable becomes a mediator when it satisfies three conditions which are "(a) variations in levels of the independent variable significantly account for variations in the presumed mediator (i.e. Path *a*), (b) variations in the mediator significantly account for variations in the dependent variable (i.e. Path *b*), and (c) when Paths *a* and *b* are controlled, a

previously significant relationship between the independent and dependent variables is no longer significant, with the strongest demonstration of mediation occurring when Path *c* is zero". The simplest mediator model to explain the above conditions is diagrammed in Figure 3.4.

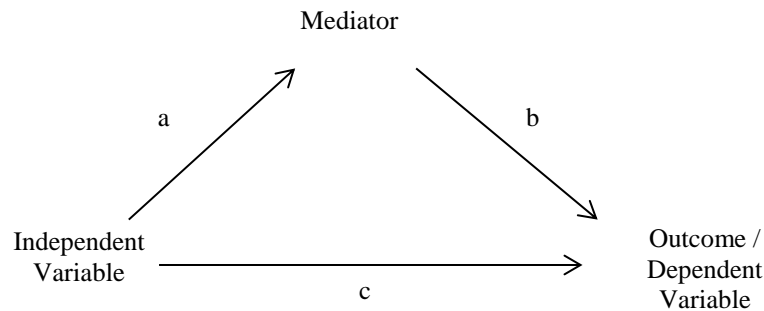


Figure 3.4
Simple Mediator Diagram

On the other hand, recent researchers have reconsidering the Baron and Kenny's mediation analysis. According to them, even though the direct relationship between independent and outcome variable may reveal a non-significant effect, the mediator effect can still be further examined (Shrout & Bolger, 2002; Zhao, Lynch Jr., & Chen, 2010). An alternative to the Baron and Kenny's mediation analysis, Hair *et al.* (2014) has suggested a 3-step approach in analysing the mediating influence. The first step is to exclude the mediator in the PLS model to determine whether the direct effect is significant through a bootstrapping procedure (see Figure 3.5). Then, include the mediator to re-estimate whether the indirect effect is significant using the same bootstrapping technique (see Figure 3.6). Therefore, the 3-step technique will be deployed in the study.

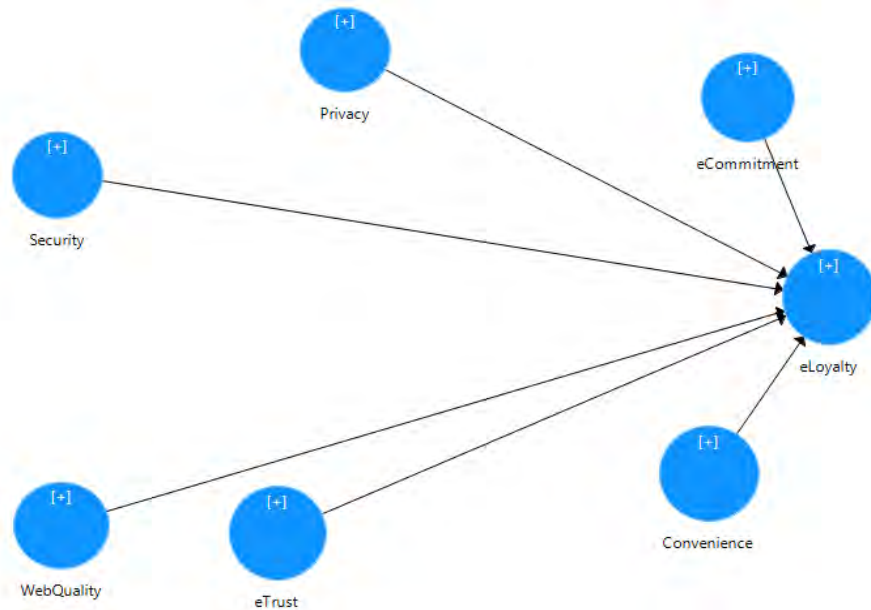


Figure 3.5
Path Coefficient (without mediator)

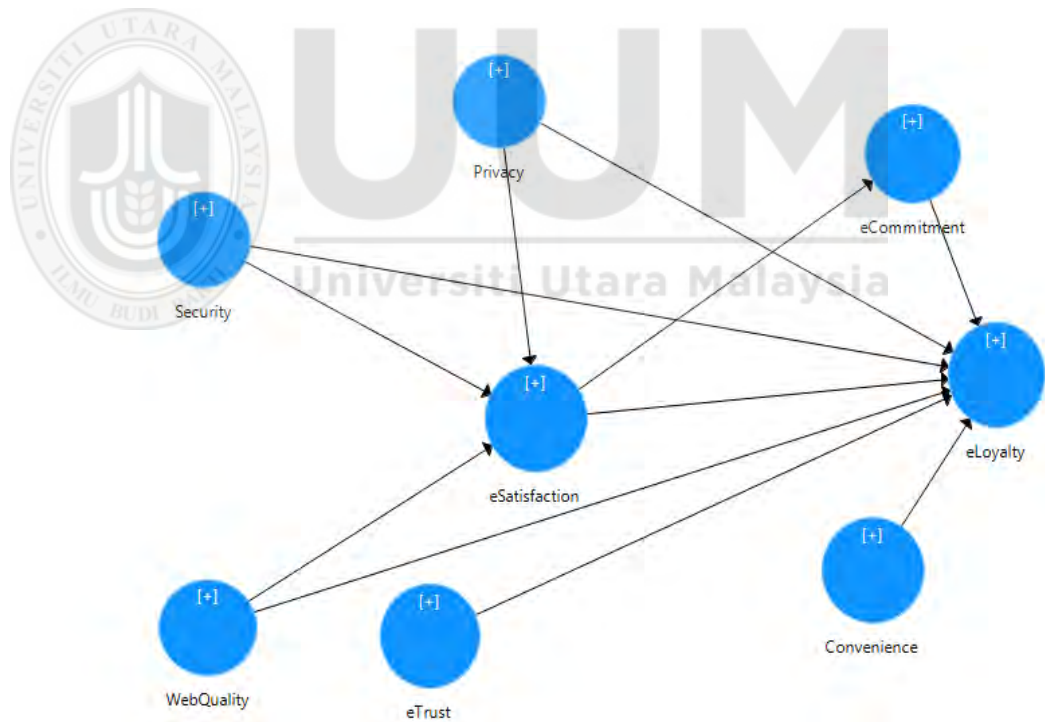


Figure 3.6
Path Coefficient (with mediator)

Lastly, the third step involved calculating whether there is a situation of full, partial or no mediation effect at all. The VAF (Variance Accounted For) will delineate whether there is a full mediation, partial mediation or no mediation (Hair *et al.*,

2014). Figure 3.7 illustrates the mediator analysis procedure. And, if mediating effect exists, it indicates that there is an *indirect* influence between the two related variables. In this example, eSatisfaction was the mediator and it is posited that eSatisfaction mediates the relationship between privacy, security and website quality towards eLoyalty. The mediator allows the causal relationships between privacy, security and website quality and eSatisfaction as well as eSatisfaction and eLoyalty to be conveyed.

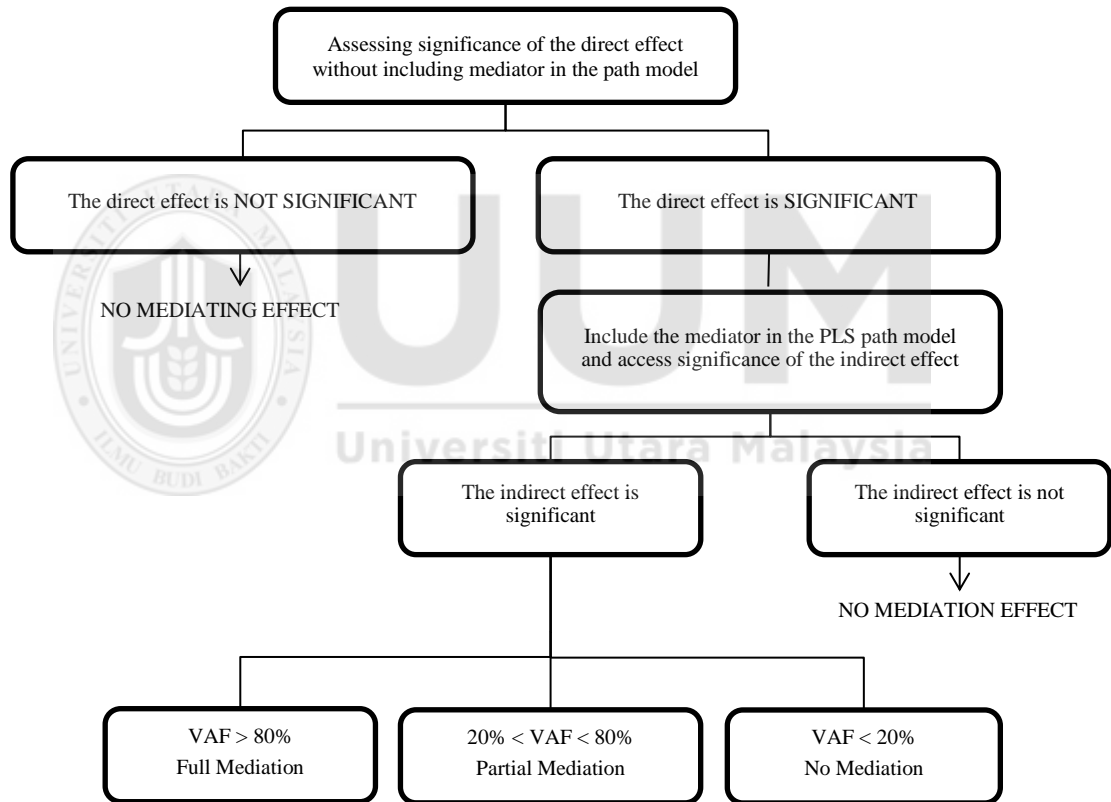


Figure 3.7
 Mediator Analysis Procedure in PLS-SEM
 Source: Hair *et al.* (2014)

3.7.5 Moderating Analysis

Moderator can have an impact on the strength or direction of a relationship between two variables- exogenous and endogenous variables (Baron & Kenny, 1986).

According to them, a moderator can be a qualitative or quantitative variable. Consequently, if a moderation influence exists, this indicates that this moderator changes the relationship between two related variables (Hair *et al.*, 2010). In this study, it is hypothesized that convenience moderates the relationship between eSatisfaction and eLoyalty. Thus, in this study, convenience factor could have a moderation effect between eSatisfaction and eLoyalty. And, it is noted that the moderator could alter the strength between eSatisfaction and eLoyalty (Hair *et al.*, 2014). Thus, the relationship may be positive for higher level convenience and may be negative for lower level convenience.

In Cohen, Cohen, West, and Aiken (2003), the influence of the moderator is known as an interaction. In determining the moderating effect, the initial stage is to determine whether there is a significant interaction between the suggested moderator and the other variable. Thus, in this study, the analysis is conducted to determine the interaction effect of convenience between eSatisfaction and eLoyalty. In creating the interaction effect, it has been suggested that the product-indicator method should be applied (Chin, Marcolin, & Newsted, 2003; Hair *et al.*, 2014). The product indicator method can be viewed in Figure 3.8. The interaction term which is eSatisfaction*Convenience will consist of 35 product indicators: C1 * eS1, C1 * eS2, C1 * eS3, C1 * eS4, C1 * eS5, C2 * eS1, C2 * eS2, C2 * eS3, C2 * eS4, C2 * eS5, C3 * eS1, C3 * eS3, C2 * eS3, C3 * eS4, C3 * eS5, C4 * eS1, C4 * eS2, C4 * eS3, C4 * eS4, C4 * eS5, C5 * eS1, C5 * eS2, C5 * eS3, C5 * eS4, C2 * eS5, C6 * eS1, C6 * eS2, C6 * eS3, C6 * eS4, C6 * eS5, C7 * eS1, C7 * eS2, C7 * eS3, C7 * eS4 and C7 * eS5. To further illustrate on the below figure, the influence of eSatisfaction on eLoyalty will depend on both effects of $p1$ (the main effect between eSatisfaction and eLoyalty) and $p3$ (the interaction effect of

eSatisfaction*Convenience) as well as convenience. An equation can be derived to explain the moderation effect. The equation or $Y2 = p1 * Y1 + p2 * M + p3 * (Y1 * M)$ indicates “that including a moderating effect requires the specification of the simple effect of exogenous latent variable, the simple effect of moderator variable ..., and the product term ..., which is also called the **interaction term**” (Hair *et al.*, 2014, p.261).

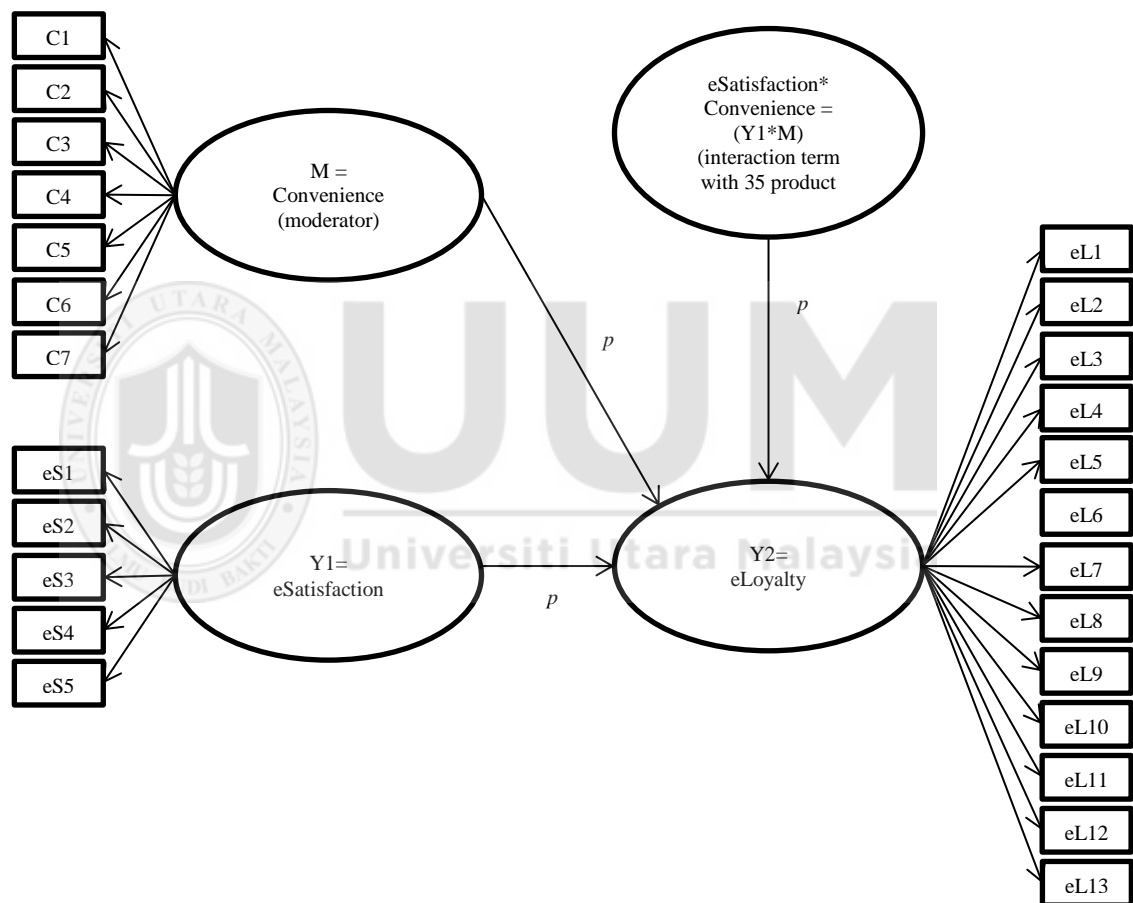


Figure 3.8
Product Indicator Approach

Then, all these interactions were tested to determine the existence and significant of the moderator. If the result of moderator is significant, it is recommended to draw an interaction plot (Dawson, 2014). Again according to Dawson (2014), the reason of the interaction plot is to detect the size and nature of the moderating effect.

Formerly, the interaction plot was done using SPSS and to draw the plot will take tedious time and steps. However, due to the existence and advancement of templates and softwares, this can be done faster and simpler. Professor Jeremy Dawson has provided the link to assist researcher to draw the plot at www.jeremydawson.co.uk/slopes.htm. For this study, if the moderator is significant, the interaction plot will be drawn. Since the moderator is continuous and the standardized beta coefficient is used, the (2-way standardised.xls) template will be deployed.

3.8 Summary

In summary, this chapter illustrated the methodology on how the study will be conducted. The inclusion of researcher design, sources of data, population, sample and sample size, data collection techniques and measurements of constructs were among others that were being discussed in the chapter. Previous measurement items were adapted in the study and two experts were invited to edit the questionnaire. The questionnaire was also translated into Malay language using a back-to-back technique to ensure the understanding of the local respondents. The discussion on reliability and validity were being discussed in the pilot study. Two softwares which are SPSS and Smart-PLS were chosen for the descriptive and inferential analysis. In PLS analysis, the hypotheses testing, mediating effect and moderating effect were also deliberated. The discussion on the data analysis and findings will be further demonstrated in the next chapter.

CHAPTER FOUR

ANALYSIS AND FINDINGS

4.1 Introduction

In this chapter, the result of data analysis will be discussed. Both descriptive and inferential statistical analysis will be obtained using SPSS and SmartPLS-SEM. The chapter begins with analyses of the response rate, non-response bias, data screening and cleaning, demographic profiles and follows by evaluation of measurement model as well as evaluation of structural model. The response rate will include the percentage of the usable questionnaires. Next, the test of non-response bias was examined to expect any difference between early and later responses. Later, data screening and cleaning were conducted to screen the data entry errors, missing value(s), outliers and multicollinearity test. Then, profiling of respondents was conducted. Lastly, measurement model and structural model analysis will be presented to test the validity, reliability and hypotheses which include direct relationships, mediating and moderating effects.

4.2 Analysis of Survey Response

4.2.1 Response Rate

Firstly, the analysis on the response rate will be explored. The minimum number of questionnaires distributed was 768. The questionnaires were distributed through an intercept design among the internet banking users in Malaysia. This type of design was applied due to the relevancy of this design towards the nature of the study. Out

of 768 questionnaires, 519 questionnaires were returned. Eighty three of them were omitted as they are not internet banking users of that particular bank. Most of the non-users stated that their main concerns are on the privacy and security issues of the internet banking services. Finally, only 436 completed and usable questionnaires were obtained, yielding a response rate of 56.77% (see Table 4.1). The response rate obtained was similar to one previous study by Suleiman *et al.* (2012). According to Sekaran & Bougie (2009), the minimum sample size required is 384 since the total population is above 1,000,000. It was concluded that the total usable questionnaires which is 436 has met the minimum sample size requirement, and will be further analysed.

Table 4.1
Number of Responses

No	Banks	States	Number of Branches	Minimum Number of Distribution of Questionnaires	Minimum Number of Completed and Usable Questionnaires	Actual Number of Completed and Usable Questionnaires
1	Maybank Berhad	Perak	36	133	66	72
		Penang	33	122	61	72
		Kedah	14	52	26	32
		Perlis	3	11	6	13
			86	318	159	189
2	CIMB Bank Berhad	Perak	22	81	41	44
		Penang	27	100	50	52
		Kedah	13	48	24	26
		Perlis	1	4	2	4
			63	233	116	126
3	Public Bank Berhad	Perak	27	100	50	53
		Penang	21	78	39	43
		Kedah	10	37	18	21
		Perlis	1	4	2	4
			59	218	109	121
			208	768	384	436

4.2.2 Test of Non-Respondent Bias

After analysing the response rate for the study, test of non-respondent bias was explored. The test was performed to foresee any significance differences between respondents and non-respondents in order to avoid the non-respondent error. The non-response errors occurs when there is a statistical different between those who responded and those who do not responded to the questionnaire (Malhotra, 2010; Zikmund, 2003). It is also noted that that the non-respondents have similar characteristics with the late respondents (Armstrong & Overton, 1977). In this study, the respondents were grouped into two which are the early responses (respondents) and the late responses (non-respondents). A total of 169 respondents were identified as early responses (questionnaires that were able to be collected in the first month) and 267 (questionnaires that were collected between the second, third and fourth month period). Levene's test was employed to examine the statistical differences between the early group and the late group respondents.

Referring to Table 4.2, the result of the analysis revealed that there was no significant difference between these two groups since the p-values for all main variables are above 0.05. The result showed that lowest significant value is eTrust at 0.086 and the highest significant value is Privacy at 0.887. All other variables which are security, website quality, eSatisfaction and eCommitment have obtained significant values between 0.086 and 0.887. Thus, this test has concluded that the non-response bias did not exist and did not affect the generalizability of the final result of this study due to the non-significant difference between these two groups.

Table 4.2
Non-Response Bias Test between Early and Late Responses

Variables	Levene Statistic	Sig.
Privacy	0.020	0.887
Security	0.424	0.515
Website Quality	0.179	0.672
eSatisfaction	0.494	0.483
eTrust	2.959	0.086
eCommitment	2.671	0.103
Convenience	0.740	0.390
eLoyalty	0.908	0.341

4.3 Data Screening and Cleaning Analysis

In detecting the data entry errors, data screening analysis was deployed. The data screening also encompassed of analysing the missing values, detecting outliers and multicollinearity. If any missing value, outlier and multicollinearity were identified, some cleaning techniques were performed.

4.3.1 Data Entry Errors

It is sometimes common to make some errors while entering data into SPSS. The data entry error analysis can be conducted in the descriptive or frequency command (Mohd Rafi Yaacob, 2013). After performing this analysis, all entries were correctly entered within the specified range answers. For example, all demographic profiles' responses were within the specified range such as gender are between 1 or 2, age group ranged from 1 to 5 and marital status was in the range of 1 to 4. Other profiles such as academic qualification, employment status, monthly income, internet banking usage frequency, number of years using internet banking, latest time usage of internet banking, internet banking accounts, decision to use internet banking is influenced by and lastly, intention to use internet banking in the future is also within the specified range. The details of data entry for demographic profiles can be

referred in Table 4.3. Similarly, answers for all measurement items in Section B were within the Likert scale of 1 to 7. Table 4.4 indicates the items in Section B were between 1 to 7.

Table 4.3
Data Entry for Demographic Profiles

	N			
	Valid	Missing	Minimum	Maximum
Gender	436	0	1	2
Age_Group	436	0	1	5
Marital_Status	436	0	1	4
Academic_Qualification	436	0	1	6
Employment_Status	436	0	1	12
Monthly_Income	436	0	1	5
Usage_frequency	436	0	1	4
Years_IB	436	0	1	4
Latest_time_usage	436	0	1	5
IB_Account	436	0	1	3
Intention	436	0	1	2

Table 4.4
Data Entry for Section B (selected items)

	N			
Selected Items	Valid	Missing	Minimum	Maximum
Pri1	436	0	1	7
Pri2	435	1	1	7
Sec2	436	0	2	7
WQ2	436	1	2	7
eSat1	435	0	2	7
eSat2	436	3	2	7
eTr2	436	0	1	7
eComt1	436	0	1	7
Conv1	436	0	2	7
eL1	436	0	1	7

4.3.2 Treatment of Missing Data

Next, the analysis of missing data was performed. The analysis and treatment of missing data are important because of its consequence on generalizability of the results (Hair *et al.*, 2010). It is also noted that the missing data can create issue due to its negative implication on the data analysis and result (Cavana, Delahaye, & Sekaran, 2001). Due to this implication, first of all, analysis on missing data was conducted. The missing data analysis was performed under analysis and missing value analysis command. The result has revealed that there were 5 missing values which were items Pri2 (1 missing value), WQ2 (1 missing value), eSat2 (3 missing values) and eL4 (1 missing value). Subsequently, these missing values were transformed and replaced with series mean as indicated in Hair *et al.* (2010). They further noted that the mean substitution is the best value and broadly used to replace the missing value. The summary of the missing value analysis has been tabled out in Table 4.5.

Table 4.5
Missing Value Analysis

Items	Mean	Std. Deviation	Missing	
			Count	Percent (%)
Pri2	4.7494	1.20453	1	0.2
WQ2	5.3632	1.09945	1	0.2
eSat2	5.3141	1.05111	3	0.7
eL4	5.2069	1.25483	1	0.2

4.3.3. Treatment of Outliers

The following step of data cleaning was to check for outliers. Outliers are cases where respondent's responses are way above or way below compared to the majority of other responses (Pallant, 2013). It is also supported that outlier may exist due to

the observation of some samples which are more to the extreme than the remaining of the samples (Hair *et al.*, 2010). There are several techniques that can be performed to check outliers, among others is by examining the Mahalanobis distance score of D^2 (Hair *et al.*, 2010; Pallant, 2013). In this study, seven (7) variables were entered as the degree of freedom (*df*), which include all independent variables, a mediator and a moderator. Thus, the critical value or the (χ^2) in this data is 24.32 at alpha level of 0.001. As the result, 9 outliers were identified due to the Mahalanobis score is above the critical value (see Table 4.6). The cases involved were cases such as 52, 152, 160, 173, 215, 223, 251, 297 and 422. These cases were further omitted from the dataset; thus, only 427 dataset were further used in the data analysis.

Table 4.6
Mahalanobis Distance vs. Critical Value

ID	Mahalanobis Distance	Critical Value
52	43.432	24.32
297	33.326	24.32
223	31.174	24.32
173	30.036	24.32
215	26.718	24.32
152	44.983	24.32
251	25.778	24.32
422	25.778	24.32
160	25.381	24.32

4.3.4 Test of Multicollinearity

Multicollinearity may exist among variables tested in the study. Multicollinearity analysis was performed to eliminate the problem by assessing the correlations among variables, tolerance and VIF values. One simplest way to detect multicollinearity is to analyse the correlation matrix and the existence of correlation value at 0.90 or higher is an indicator of multicollinearity (Hair *et al.*, 2010). It is also argued that the present of multicollinearity can be detected if the correlation of two or more

variables are 0.90 or above (Tabachnick & Fidell, 1996). Since all the shaded values were below 0.90, it was concluded that the multicollinearity issue did not appear in the study. Table 4.7 illustrates the correlation values of the variables.

Table 4.7
Correlations among Variables

	eL	Pr	Se	WQ	eS	eT	eC	Conv
eLoyalty (eL)	1.000	.652	.678	.746	.817	.728	.834	.772
Privacy (Pr)	.652	1.000	.759	.620	.696	.641	.639	.532
Security (Se)	.678	.759	1.000	.708	.722	.757	.693	.640
WebQuality (WQ)	.746	.620	.708	1.000	.807	.745	.699	.696
eSatisfaction (eS)	.817	.696	.722	.807	1.000	.719	.729	.723
eTrust (eT)	.728	.641	.757	.745	.719	1.000	.712	.654
eCommitment (eC)	.834	.639	.693	.699	.729	.712	1.000	.685
Convenience (Conv)	.772	.532	.640	.696	.723	.654	.685	1.000

Table 4.8
Tolerance Level and VIF Value

Model 1	Unstandardized Coefficients		Standardized Coefficients	t-value	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	-.211	.142		-1.480	.140		
Privacy	.076	.038	.069	2.014	.045	.369	2.713
Security	-.105	.040	-.103	-2.595	.010	.275	3.632
WebQuality	.027	.042	.025	.639	.523	.276	3.617
eSatisfaction	.286	.041	.294	6.943	.000	.243	4.111
eTrust	.103	.042	.091	2.440	.015	.312	3.204
eCommitment	.409	.036	.403	11.463	.000	.351	2.847
Convenience	.250	.035	.235	7.070	.000	.394	2.537

Moreover, other typical ways to analyse multicollinearity are to calculate the tolerance level and VIF value. It is stated that tolerance value under 0.20 and VIF above 0.50 are indicators of multicollinearity (Hair *et al.*, 2014). Looking at these two values in the above table (see Table 4.8), all tolerance values are above 0.20 and all VIF are below 0.50. Thus, it was confirmed that multicollinearity did not present.

Since multicollinearity does not exist, none of the variable was being removed or combined.

4.4 Demographics Profile

Descriptive analysis was derived from the frequency distributions from the data collection in Section A. It was essential to discuss the finding on respondent's profile to better explain the results and findings. After 9 cases of deletions have been made, the final responses of 427 were considered for the further analysis. Out of the total of 427 responses, 144 (33.7%) respondents were males and the remaining of 283 (66.3%) were females. Hence, females constituted the highest number of respondent in the gender group. Looking at the age group, the highest number of respondents was at 20 to 29 years old (46.8%) and followed by 30 to 39 years old (29.7%), 15.7% of them were within the range of 40- 49 years old and the lowest was 3.0% at age less than 20 years old. In the context of marital status among the respondents, 51.5% (220) of them are married and this category of respondents represents the highest number of respondents among other categories. The number of respondents that falls under the single category was 45.5% or 194 respondents. Subsequently, 9 (2.1%) of them are divorced as well as the remaining 4 of them can be categorized as others (widows and widowers).

Observing the academic qualification indicator, the respondents' levels of education starts with PMR (Penilaian Menengah Rendah) or LCE at 1.2% with a total of 5 respondents, and the percentage for SPM (Sijil Pelajaran Malaysia) or MCE level is 13.3% with 57 respondents. An additional of 123 respondents (28.8%) are Certificate / Diploma holders, 34% of them (145 respondents) are holders of Degree /

Professional Certificate. Another 95 respondents (22.2%) of them are Postgraduate holders. Finally in this indicator, others category constituted of 0.5% with 2 respondents.

As far as the employment status is concerned, the highest number of respondents is self-employed at 22.5% (96 respondents), second highest is at 15% which are among clerical support employees and the third highest is the professionals with 61 respondents (14.3%) and the fourth is academicians at 14.1%. Then, in the descending order, the employment status demographic profiles are followed by students, management level employees, managers, service and sales employees, technicians, others, operators and assemblers then finally, skilled employees. With respect to the monthly income (RM) indicator, 206 of the respondents (37%) have an income level between RM3,000 and below, while 153 (41.5%) between RM3,001 to RM6,000. Those who stated to have income between RM6,001 to RM9,000 comprised of 47 respondents (16.6%). And, 12 (3.8%) of them have reported an income between RM9,001 to 12,000. Lastly, the lowest percentage is at 2.1% (9 users) with income from RM12,001 and above.

Next, the findings on internet users profile on the pattern of internet banking services will be discussed. From the 427 respondents, in order of the highest to the lowest, the percentage of monthly usage frequency was 54.1% for 1 - 3 times, 24.6% for 4 - 6 times, 13.3% was more than 9 times and the remaining of 8% is at 7 - 9 times. Furthermore, the frequencies on the number of years using internet banking are 129 respondents with experience less than 1 year (30.2%), 128 respondents (30%) with an internet banking experience of more than 3 years to 6 years, while 111 (26%) and 59 (13.8%) respondents with experience between 1 to 3 years and more than 6 years,

respectively. Thus, in the profile of number of years using internet banking, the highest number of respondents was under less than 1 year category, the second highest was more than 3 years to 6 years, thirdly 1 year to 3 years and the lowest category is more than 6 years. In addition, in term of the latest time usage or latest time to log in into the internet banking service provider, more than 50% of the respondents utilised the internet banking service less than 1 week ago, about 21% of them used the service 1 - 2 weeks ago while others used the service more than 2 - 4 weeks ago (8.2%), 1 - 2 months ago (4%) and more than 2 months ago (7.7%). Therefore, the highest category is less than 1 week ago and the lowest category was between 1 – 2 months ago. Details of the demographic profiles are presented in Table 4.9.

The study also offers some explanations for the findings on the frequency of demographic profiles collected from the intercept data collection approach. The demographic profiles attributed from the study might be due to the context of the research area such as the internet banking. It was professed that female internet banking users were higher compared to male. Whereas, in the age group context, the age group of 20-29 years contributed the highest percentage. The underlying reasons are there is a massive growth among female and young users in using and applying technology in their daily lives. Proliferation of computers at home and the access of internet at home and work also contributed to the rise in the percentage of women and the younger age people among the internet banking users. Women nowadays whether as housewives or working women were fulfilling their family role or responsibility in performing banking activities either from home or the work place. Another supporting argument is that women and the younger generations are becoming more financially independent whereby they manage their own banking

activities online. On the other hand, older generation (age group from 50 & above) is more sceptical towards internet banking due to the issues of security, privacy as well as they are less technology savvy. Similarly, the youngest age group (age group less than 20) represent the lowest in the age ranking due to the reason that they are still in need of financial support from their parents or guardians thus, most banking activities are not performed by them.

In the next category, self-employed and professionals contributed the most in percentage as they were working individuals and thus, they are more financially independent. Most of their income might be credited to their banking account. Therefore, this allows them to perform their own online banking activities. They also enjoy the benefits and services of internet banking because they can perform their financial transactions such as money transfer, bill payment and others anywhere and anytime. Thus, this offers a valid reason why they contributed the most in the employment status indicator. In another category, the underlying argument why certificate/diploma, degree/professional certificate and postgraduate holders represented the highest three in ranking was due to the Malaysia education system. The education system has implemented the IT education as early as in the primary school. It can be inferred that this might be the reason why they constituted the most among the internet banking respondents in the study. They already have the proper and adequate education and information in assessing the internet when they were younger. Next, looking at the pattern in assessing the internet banking, the highest usage of frequency per month was between 1 to 3 times. This could be explained by the salary pattern in Malaysia where some of us earned our salary biweekly and some once a month. Once they received the salary, they will start to login to their internet banking accounts. Therefore, all the above explanations have provided some

indications of the internet banking users trend in Malaysia based on these demographic profiles.

Table 4.9
Demographics Profiles

Demographics	Indicators	Frequency	Percent (%)
Gender	Male	144	33.7
	Female	283	66.3
	Total	427	100
Age Group (years)	Less than 20	13	3.0
	20-29	200	46.8
	30-39	127	29.7
	40-49	67	15.7
	50 & above	20	4.7
	Total	427	100
Marital Status	Single	194	45.4
	Married	220	51.5
	Divorced	9	2.1
	Others	4	0.9
	Total	427	100
Academic Qualification	PMR / LCE	5	1.2
	SPM / MCE	57	13.3
	Certificate / Diploma	123	28.8
	Degree / Professional Certificate	145	34.0
	Postgraduate	95	22.2
	Others	2	0.5
	Total	427	100.0
	Employment Status	Student	46
Self-Employed		96	22.5
Professional		61	14.3
Manager		23	5.4
Management level		45	10.5
Academician		60	14.1
Technician		9	2.1
Clerical support employee		64	15
Service and sales employee		10	2.3
Skilled employee		2	0.5
Operator and Assembler		3	0.7
Others		8	1.9
Total		427	100

Table 4.9 (Continued)

Demographics	Indicators	Frequency	Percent (%)
Monthly Income (RM)	3,000 and below	206	37
	3,001 – 6,000	153	41.5
	6,001 – 9,000	47	16.6
	9,001 – 12,000	12	3.8
	12,001 and above	9	2.1
	Total	427	100
Usage frequency per Month	1-3 times	231	54.1
	4-6 times	105	24.6
	7-9 times	34	8
	more than 9 times	57	13.3
	Total	427	100
Years using Internet Banking	Less than 1 year	129	30.2
	1 years -3 years	111	26
	more than 3 years - 6 years	128	30
	more than 6 years	59	13.8
	Total	427	100
Latest Time Usage	Less than 1 week ago	251	58.8
	1-2 weeks ago	91	21.3
	more than 2 - 4 weeks ago	35	8.2
	1 - 2 months ago	17	4
	more than 2 months ago	33	7.7
Total	427	100	

4.4.1 Level of eLoyalty

Referring to the first chapter of the thesis, the first research question in the study is to gauge the level of eLoyalty among the Malaysian internet banking users. Therefore, some descriptive statistical analysis on eLoyalty and the demographic profiles will be analysed to answer the research question. First of all, the mean score for all variables obtained are as indicated in Table 4.10. Among all variables, eSatisfaction is denoted with the highest mean score of 5.312 and the second and third highest are website quality with the score of 5.234 and eLoyalty at 5.213, consecutively. The mean score for eLoyalty is 5.213 showing a high level of online loyalty among the

Malaysian internet banking users. Whereas, eCommitment has resulted with the lowest mean score of 4.921.

Table 4.10
Mean Scores for All Variables

	Privacy	Security	Website Quality	eSatisfaction	eTrust	eCommitment	Convenience	eLoyalty
Mean	4.950	4.941	5.234	5.312	5.136	4.921	5.449	5.213

Moreover, it was further analysed whether the level of eLoyalty differs among the users based on their demographic profiles. Several studies on demographic characteristics have been conducted to examine their impact and significant differences toward the endogenous construct (Adewale, 2015; Chi, Gursoy, & Qu, 2009; Laoviwat, Suppapanya, & Yousapronpaiboon, 2014; Ramli Saad, Hadzli Ishak, & Nur Rashidi Johari, 2013; Yalçın, 2005). Most of these studies were researches on loyalty namely destination loyalty, store loyalty and subscribers and user loyalty as well as brand equity. In this study, the analysis was conducted to get better understanding on the level of eLoyalty among internet banking users based on their demographic differences. Firstly, analysis on gender differences towards eLoyalty was employed to foresee any differences between male and female on online loyalty. In this case, the t-test was conducted to examine differences between two groups (male and female). According to Sekaran and Bougie (2009, p.346) "... the (independent samples) *t-test* indicates whether or not there is a significant mean differences in a dependent variable between two groups...". Apart from that, Table 4.11 also denotes that gender did not have significant difference in terms of their online loyalty towards the internet banking service since the p-value is higher than 0.05.

Table 4.11
eLoyalty Level by Gender

Gender	N	Mean	F	p-value*
Male	144	5.2142	1.214	0.271
Female	283	5.2126		

* Significant at $p < 0.05$

Subsequently, the ANOVA test was conducted to examine the differences among categories such as age group, marital status, academic qualification, employment status and monthly income. It was noted that all these categories represent more than two indicators, thus the ANOVA test was deployed. ANOVA is defined as "... the statistical models that we use to analyse situations in which we want to compare more than two conditions: analysis of variance (or ANOVA ...)" (Field, 2013, p. 430). The findings on these differences can be referred to Table 4.12. Looking at the age group category, the analysis concluded that there was no difference among them in terms of their online loyalty level due to the p-value is greater than 0.05. Also, similar results were concluded with the category for marital status, academic qualification and monthly income. The p-value obtained for marital status, academic qualification and monthly income were all above 0.05 indicating no significant differences: age group (years) at 0.360, marital status at 0.249, academic qualification at 0.271 and lastly, monthly income (RM) at 0.260.

On the other hand, with regards to employment status category, there was a significant difference among the group where the p-value is at 0.000 ($p\text{-value} < 0.05$). This indicates that an individual who holds a particular employment status revealed different level of online loyalty. For instance, operator and assembler, academician, skilled employee and professional exhibit a higher level of online loyalty compared to others due to having higher level of mean scores among the other groups such as manager, skilled and sales employee, others and management

level. This justification is those at either lower, middle or higher level of the employment status might have different personalities or characteristics towards online loyalty. This could be due to the switching cost or the barrier costs to exit and entry were low. Internet banking users can easily switch from one provider to another to look for better services at minimum cost or no cost at all.

Table 4.12
eLoyalty Level by Several other Demographic Factors

Demographic Profile	Category	N	Mean	F	p-value*
Age Group (years)	Less than 20	13	5.320	1.093	0.360
	20-29	200	5.160		
	30-39	127	5.331		
	40-49	67	5.084		
	50 & above	20	5.354		
	Total	427	5.213		
Marital Status	Single	194	5.185	1.376	0.249
	Married	220	5.245		
	Divorced	9	5.419		
	Others	4	4.346		
	Total	427	5.213		
Academic Qualification	PMR / LCE	5	5.677	1.282	0.271
	SPM / MCE	57	5.034		
	Certificate / Diploma	123	5.235		
	Degree / Professional Certificate	145	5.149		
	Postgraduate	95	5.368		
	Others	2	5.154		
Total	427	5.213			
Employment Status	Student	46	5.124	3.521	0.000*
	Self-Employed	96	5.206		
	Professional	61	5.389		
	Technician	9	5.077		
	Clerical support employee	64	5.314		
	Service and sales employee	10	4.623		

Table 4.12 (Continued)

Demographic Profile	Category	N	Mean	F	p-value *
	Manager	23	4.595		
	Management level	45	4.908		
	Academician	60	5.628		
	Skilled employee	2	5.462		
	Operator and Assembler	3	5.769		
	Others	8	4.673		
	Total	427	5.213		
Monthly Income (RM)	3,000 and below	206	5.111	1.326	0.260
	3,001-6,000	153	5.322		
	6,001-9,000	47	5.277		
	9,001-12,000	12	5.128		
	12,000 and more	9	5.470		
	Total	427	5.213		

* Significant at $p < 0.05$

In summary, the level of eLoyalty among the internet banking users in Malaysia is considered to be high. Internet banking users between gender did not reveal any significant difference towards the level of online loyalty. The result also indicates that eSatisfaction had the highest mean score, followed by website quality (second highest) and eLoyalty (third highest). It is also similar to the findings on other category such as age group, marital status, academic qualification and monthly income which indicates no differences towards the level of eLoyalty. In contrast, there was a significant difference among the internet banking users under the employment status category.

4.5 Evaluation of Measurement Model (Outer Model)

As mentioned in the earlier section, this study deployed the SmartPLS 3.0 software to analyse the inferential statistics (Ringle, Wende, & Will, 2005). The first step was

to evaluate the measurement model also known as the outer model. In the measurement model, the analyses on construct validity as well as on reliability were performed. In this analysis, both convergent and discriminant validities are presented. In the convergent validity, three types of analysis were explored, which include cross or factor loadings, average variance extracted (AVE) and composite reliability (CR). Subsequently, discriminant validity was discussed. Figure 4.1 illustrates the original study model in PLS. The original study model comprised of eight (8) variables with 57 reflective measurement indicators. The eight variables are security, privacy, website quality, eTrust, eSatisfaction, eCommitment, eLoyalty and convenience. The eLoyalty factor is the dependent variable, eSatisfaction is the mediator, and convenience is the moderator.



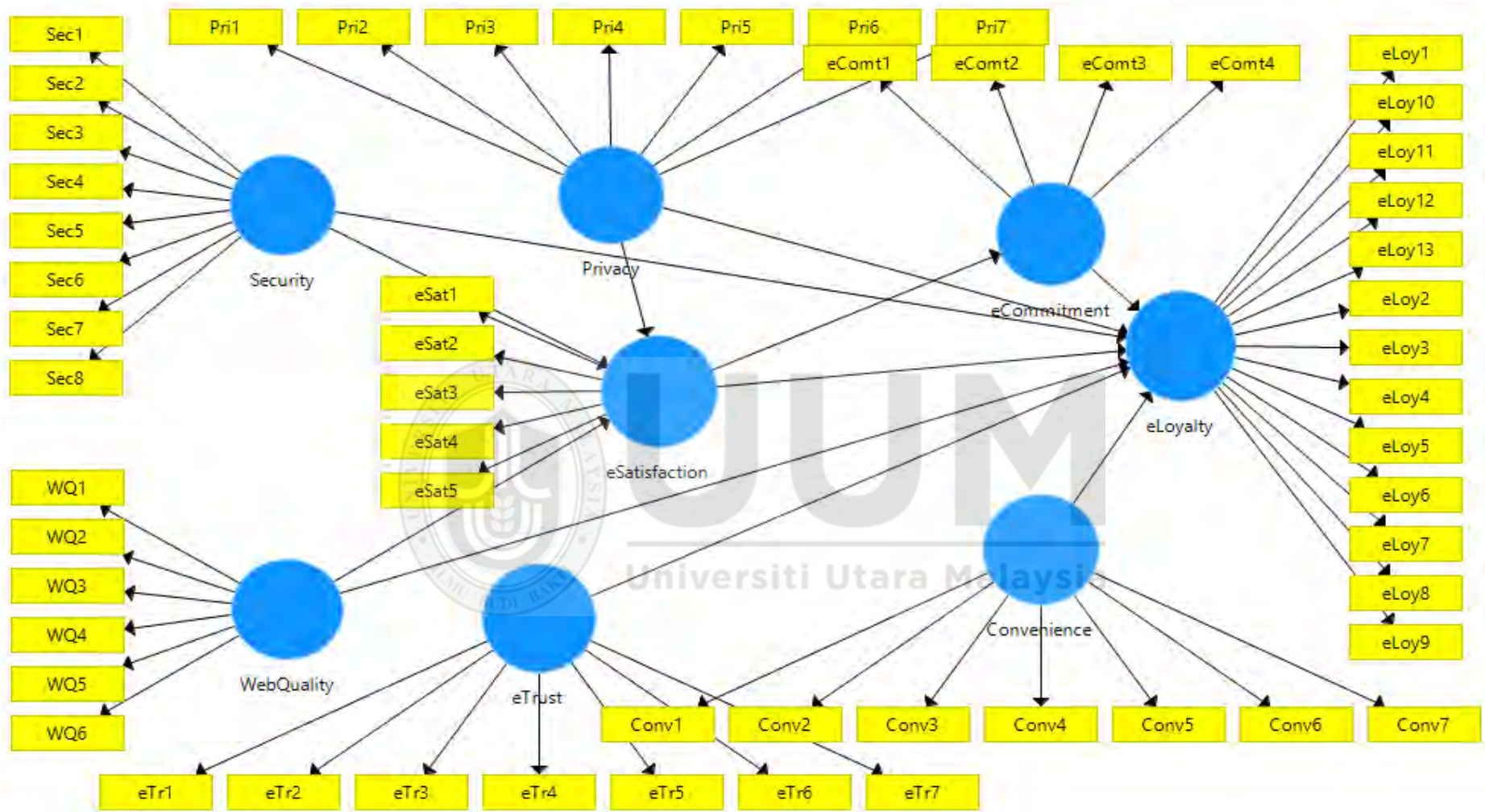


Figure 4.1
Original Study Model in PLS

4.5.1 Assessment of Measurement Model

In assessing the measurement model, both validity and reliability analysis were conducted. Validity is an analysis that “is associated with the term accuracy. A construct measures what it is supposed to measure” (Hair *et al.*, 2007, p.426). On the other hand, reliability is an assessment to foresee whether the questionnaire reflects the variable that it is measuring (Field, 2013). In evaluating the reflective measurement items, it is suggested to inspect the convergent validity and the discriminant validity (Hair *et al.*, 2011).

4.5.1.1 Convergent Validity

The purpose of conducting convergent validity analysis is to assess the correlation among measurements of the same construct or factor (Hair *et al.*, 2014). In order to assess the convergent validity, it is proposed to look at the outer loading of each indicator and sometimes, it is also known as construct validity. The construct validity is defined as “Does the instrument tap the concept as theorized? (Sekaran & Bougie, 2009, p. 160). The suggested outer loading values should be 0.70 or above (Hair *et al.*, 2011; Valerie, 2012). Value that was below 0.70 can be considered to be excluded from the analysis. Thus, based on the previous discussions, the cut-off point for the cross loading was 0.70. Table 4.13 illustrates the loading and cross loadings before any deletion was made.

Table 4.13
Loadings (Before deletion)

Factors	Items	Loadings
Convenience	Conv1	0.844
	Conv2	0.887
	Conv3	0.872
	Conv4	0.836
	Conv5	0.859
	Conv6	0.871
	Conv7	0.848
Privacy	Pri1	0.779
	Pri2	0.750
	Pri3	0.772
	Pri4	0.777
	Pri5	0.857
	Pri6	0.741
	Pri7	0.623
Security	Sec1	0.784
	Sec2	0.820
	Sec3	0.803
	Sec4	0.838
	Sec5	0.802
	Sec6	0.809
	Sec7	0.821
	Sec8	0.840
Website Quality	WQ1	0.812
	WQ2	0.847
	WQ3	0.774
	WQ4	0.802
	WQ5	0.806
	WQ6	0.773
eCommitment	eComt1	0.873
	eComt2	0.855
	eComt3	0.823
	eComt4	0.847
eLoyalty	eLoy1	0.684

Table 4.13 (Continued)

Factors	Items	Loadings
	eLoy2	0.812
	eLoy3	0.838
	eLoy4	0.862
	eLoy5	0.872
	eLoy6	0.858
	eLoy7	0.877
	eLoy8	0.832
	eLoy9	0.855
	eLoy10	0.854
	eLoy11	0.871
	eLoy12	0.864
	eLoy13	0.875
eSatisfaction	eSat1	0.892
	eSat2	0.907
	eSat3	0.898
	eSat4	0.904
	eSat5	0.877
eTrust	eTr1	0.835
	eTr2	0.867
	eTr3	0.856
	eTr4	0.761
	eTr5	0.849
	eTr6	0.847
	eTr7	0.856

Based on the above table, two items (eLoy1 and Pri7) were deleted due to their loadings were below 0.70. The present cross loadings for these two items are as follows: eLoy1 is 0.684 and Pri7 is 0.623. And, Table 4.14 presents the cross loadings after these two items were being omitted. Conferring to the loadings of the variables, they are stronger on their constructs due to all loading were above 0.70 and considered as to be adequately fit (Chin, 1996; Fornell & Larcker, 1981; Gefen

& Straub, 2005; Henseler *et al.*, 2009). As a result, all cross loadings are above 0.70 and met one of the requirements for convergent validity.

Table 4.14
Loadings (After deletion)

Factor	Items	Loading
Convenience	Conv1	0.844
	Conv2	0.887
	Conv3	0.872
	Conv4	0.837
	Conv5	0.859
	Conv6	0.871
	Conv7	0.848
Privacy	Pri1	0.801
	Pri2	0.764
	Pri3	0.804
	Pri4	0.792
	Pri5	0.860
	Pri6	0.716
Security	Sec1	0.785
	Sec2	0.820
	Sec3	0.803
	Sec4	0.838
	Sec5	0.802
	Sec6	0.809
	Sec7	0.82
	Sec8	0.839
Website Quality	WQ1	0.813
	WQ2	0.847
	WQ3	0.774
	WQ4	0.802
	WQ5	0.806
	WQ6	0.773
eCommitment	eComt1	0.835
	eComt2	0.867
	eComt3	0.855
	eComt4	0.761
eLoyalty	eLoy2	0.849
	eLoy3	0.848
	eLoy4	0.856
	eLoy5	0.892
	eLoy6	0.907
	eLoy7	0.898

Table 4.14 (Continued)

Factors	Items	Loadings
	eLoy8	0.905
	eLoy9	0.877
	eLoy10	0.858
	eLoy11	0.878
	eLoy12	0.871
	eLoy13	0.879
eSatisfaction	eSat1	0.799
	eSat2	0.836
	eSat3	0.867
	eSat4	0.877
	eSat5	0.857
eTrust	eTr1	0.874
	eTr2	0.831
	eTr3	0.858
	eTr4	0.873
	eTr5	0.855
	eTr6	0.823
	eTr7	0.847

Furthermore, the next step was to look at second indicator of convergent validity, which is the AVE. In this test, the AVE values should be 0.50 or higher (Hair *et al.*, 2011; Valerie, 2012). An AVE value of 0.50 and higher indicates that the factor describes “more than half of the variance of its indicators” (Hair *et al.*, 2014, p.103). In the study, all AVEs are above 0.50 and are within the recommended value. Deliberating on the AVE values, convenience factor is at 0.739, privacy at 0.625, security at 0.664, website quality at 0.645, eCommitment at 0.722, eLoyalty at 0.735, eSatisfaction at 0.802 and lastly eTrust at 0.705. Thus, the second indicator of convergent validity which is the AVE requirement for the study was met.

Finally, the finding on composite reliability is presented. The range for composite reliability is from 0 to 1. According to Hair *et al.* (2014), it is generally acceptable to accept value between 0.60 and 0.70 and values between 0.70 and 0.90 are categorized as satisfactory. And, it is noted that higher composite value indicates

higher reliability. Therefore, in the study, it was acceptable to have a composite reliability value from 0.70 and onwards. For this study, the analysis and finding on composite reliability has revealed that all constructs' values were above 0.70 and which ranged from 0.909 to 0.971. Thus, it was concluded that all constructs show adequate and high internal consistency.

It is concluded that the convergent validity is confirmed since all three conditions in convergent validity were met. These three conditions are all loadings are above 0.70 which ranged from 0.716 to 0.907, AVEs are above 0.50 from 0.664 to 802, and CRs are above 0.70, stretching from 0.909 to 0.971. The details of convergent validity analysis on loadings, AVE and Composite Reliability as well as the Cronbach Alpha can be referred in Table 4.15.

Finally, before evaluating the measurement model, another test of construct was executed. In order to retrieve the construct collinearity, the value of Variance Inflation Factor (VIF) will be evaluated (Hair *et al.*, 2011). Referring to Table 4.16, since all VIF values are below 5; therefore, it was suggested that multicollinearity is not a problem in the study.

Table 4.15
Convergent Validity Analysis

		Loadings	AVE	Composite Reliability	Cronbach Alpha
Convenience	Conv1	0.844	0.739	0.952	0.941
	Conv2	0.887			
	Conv3	0.872			
	Conv4	0.837			
	Conv5	0.859			
	Conv6	0.871			
	Conv7	0.848			
Privacy	Pri1	0.801	0.625	0.909	0.879
	Pri2	0.764			
	Pri3	0.804			
	Pri4	0.792			
	Pri5	0.860			
	Pri6	0.716			
Security	Sec1	0.785	0.664	0.940	0.928
	Sec2	0.820			
	Sec3	0.803			
	Sec4	0.838			
	Sec5	0.802			
	Sec6	0.809			
	Sec7	0.820			
	Sec8	0.839			
	Sec9	0.839			
WebQuality	WQ1	0.813	0.645	0.916	0.890
	WQ2	0.847			
	WQ3	0.774			
	WQ4	0.802			
	WQ5	0.806			
	WQ6	0.773			
eCommitment	eComt1	0.873	0.722	0.912	0.872
	eComt2	0.855			
	eComt3	0.823			
	eComt4	0.847			
eLoyalty	eLoy2	0.858	0.735	0.971	0.967
	eLoy3	0.878			
	eLoy4	0.871			
	eLoy5	0.879			
	eLoy6	0.799			
	eLoy7	0.836			
	eLoy8	0.867			
	eLoy9	0.877			
	eLoy10	0.857			

Table 4.15 (Continued)

		Loadings	AVE	Composite Reliability	Cronbach Alpha
	eLoy11	0.874			
	eLoy12	0.831			
	eLoy13	0.858			
eSatisfaction	eSat1	0.892	0.802	0.953	0.938
	eSat2	0.907			
	eSat3	0.898			
	eSat4	0.905			
	eSat5	0.877			
eTrust	eTr1	0.835	0.705	0.943	0.930
	eTr2	0.867			
	eTr3	0.855			
	eTr4	0.761			
	eTr5	0.849			
	eTr6	0.848			
	eTr7	0.856			

Table 4.16

Variance Inflation Factor (VIF): Construct Collinearity

Variables	eLoyalty	eSatisfaction
Convenience	2.573	
Privacy	2.499	2.250
Security	3.670	2.982
WebQuality	3.567	2.102
eCommitment	2.913	
eSatisfaction	3.884	
eTrust	3.209	

4.5.1.2 Discriminant Validity

After analysing the convergent validity, the test on discriminant validity was performed. This test was conducted to foresee whether there was a difference between one construct to another by looking at the outer loadings. In this test, an indicator's outer loading should be higher than all cross loadings on other variables as in accordance to Fornell & Larcker's 1981 criterion (Hair *et al.*, 2011). If this condition is not met, deletion of item is needed. Table 4.17 indicates that values in the diagonal

are the square root of the values of AVE, whereas the off diagonal values were the inter-construct correlations. In order to meet the discriminant validity requirement, the square root values must be higher than the inter-construct correlations. All square root values of AVE are higher than the inter-construct correlations except for one value under the website quality. The square root value of AVE for website quality is 0.803 which is lower than the inter-correlation coefficient (value at 0.810) under the website quality (see Table 4.17). Therefore, item that is highly correlated between WebQuality and eSatisfaction should be deleted to ensure the conformation of discriminant validity as well as before any other analysis can be conducted.

Table 4.17
Discriminant Validity (before deletion)

	Convenience	Privacy	Security	WebQuality	eCommitment	eLoyalty	eSatisfaction	eTrust
Convenience	0.860							
Privacy	0.525	0.791						
Security	0.651	0.739	0.815					
WebQuality	0.702	0.597	0.717	0.803				
eCommitment	0.689	0.632	0.697	0.705	0.849			
eLoyalty	0.778	0.624	0.679	0.746	0.832	0.857		
eSatisfaction	0.725	0.675	0.730	0.810	0.734	0.818	0.896	
eTrust	0.659	0.608	0.760	0.746	0.718	0.726	0.719	0.839

In order to rectify this problem, loadings and cross loadings of website quality and eSatisfaction were derived from the software. Referring to the Table 4.18, eSat3 is found to have the largest correlation coefficient which is 0.757 compared to others (0.663, 0.670, 0.586, 0.588, 0.663, 0.717, 0.752, 0.757, 0.718 and 0.684). After the deletion of eSat3 was performed, the new discriminant validity was calculated and the result was presented in Table 4.19. Next, the calculations of new factor loadings,

composite reliability and AVE (after deletion) were performed and presented in Table 4.20.

Table 4.18
Loadings and Cross Loadings of WebQuality and eSatisfaction

Items	WebQuality	eSatisfaction
WQ1	0.813	0.663
WQ2	0.847	0.670
WQ3	0.774	0.586
WQ4	0.802	0.588
WQ5	0.806	0.663
eSat1	0.717	0.892
eSat2	0.752	0.907
eSat3	0.757	0.898
eSat4	0.718	0.905
eSat5	0.684	0.877

Table 4.19
Discriminant Validity (after deletion)

	Convenience	Privacy	Security	WebQuality	eCommitment	eLoyalty	eSatisfaction	eTrust
Convenience	0.860							
Privacy	0.525	0.791						
Security	0.651	0.739	0.815					
WebQuality	0.702	0.597	0.717	0.803				
eCommitment	0.689	0.632	0.697	0.705	0.849			
eLoyalty	0.778	0.624	0.679	0.746	0.832	0.857		
eSatisfaction	0.723	0.677	0.726	0.796	0.729	0.814	0.902	
eTrust	0.659	0.608	0.760	0.746	0.718	0.726	0.708	0.839

Table 4.20

Factor Loadings, Composite Reliability and AVE (after deletion)

Factor	Items	Loadings	Composite Reliability	AVE
Convenience	Conv1	0.844	0.941	0.739
	Conv2	0.887		
	Conv3	0.872		
	Conv4	0.837		
	Conv5	0.859		
	Conv6	0.871		
	Conv7	0.848		
Privacy	Pri1	0.801	0.879	0.625
	Pri2	0.764		
	Pri3	0.805		
	Pri4	0.792		
	Pri5	0.860		
	Pri6	0.715		
Security	Sec1	0.785	0.928	0.664
	Sec2	0.820		
	Sec3	0.803		
	Sec4	0.838		
	Sec5	0.801		
	Sec6	0.809		
	Sec7	0.820		
	Sec8	0.839		
WebQuality	WQ1	0.813	0.890	0.644
	WQ2	0.848		
	WQ3	0.773		
	WQ4	0.801		
	WQ5	0.805		
	WQ6	0.774		
eCommitment	eComt1	0.873	0.872	0.722
	eComt2	0.855		
	eComt3	0.823		
	eComt4	0.846		
eLoyalty	eLoy2	0.799	0.967	0.735
	eLoy3	0.836		
	eLoy4	0.867		
	eLoy5	0.877		
	eLoy6	0.857		
	eLoy7	0.874		
	eLoy8	0.831		
	eLoy9	0.858		
	eLoy10	0.858		

Table 4.20 (Continued)

Factor	Items	Loadings	Composite Reliability	AVE
eSatisfaction	eLoy11	0.878	0.924	0.814
	eLoy12	0.871		
	eLoy13	0.879		
	eSat1	0.904		
	eSat2	0.913		
eTrust	eSat4	0.903	0.930	0.705
	eSat5	0.889		
	eTr1	0.835		
	eTr2	0.867		
	eTr3	0.855		
	eTr4	0.761		
	eTr5	0.849		
eTr6	0.848			
	eTr7	0.856		

Also, Figure 4.2 illustrates the new PLS study model. The new PLS study model displayed the revised model after all relevant deletions were made. Now, the discriminant validity is met where all the square roots values of AVE (diagonal values) are above the correlation coefficient (off diagonal values). Therefore, it is established that the discriminant validity has been confirmed and satisfied.

In conclusion, the findings on both convergent and discriminant validity have shown that all measurement model criteria have been fulfilled indicating that the measure for both reliability and validity are supported for further analysis. The next step is to assess the structural model.

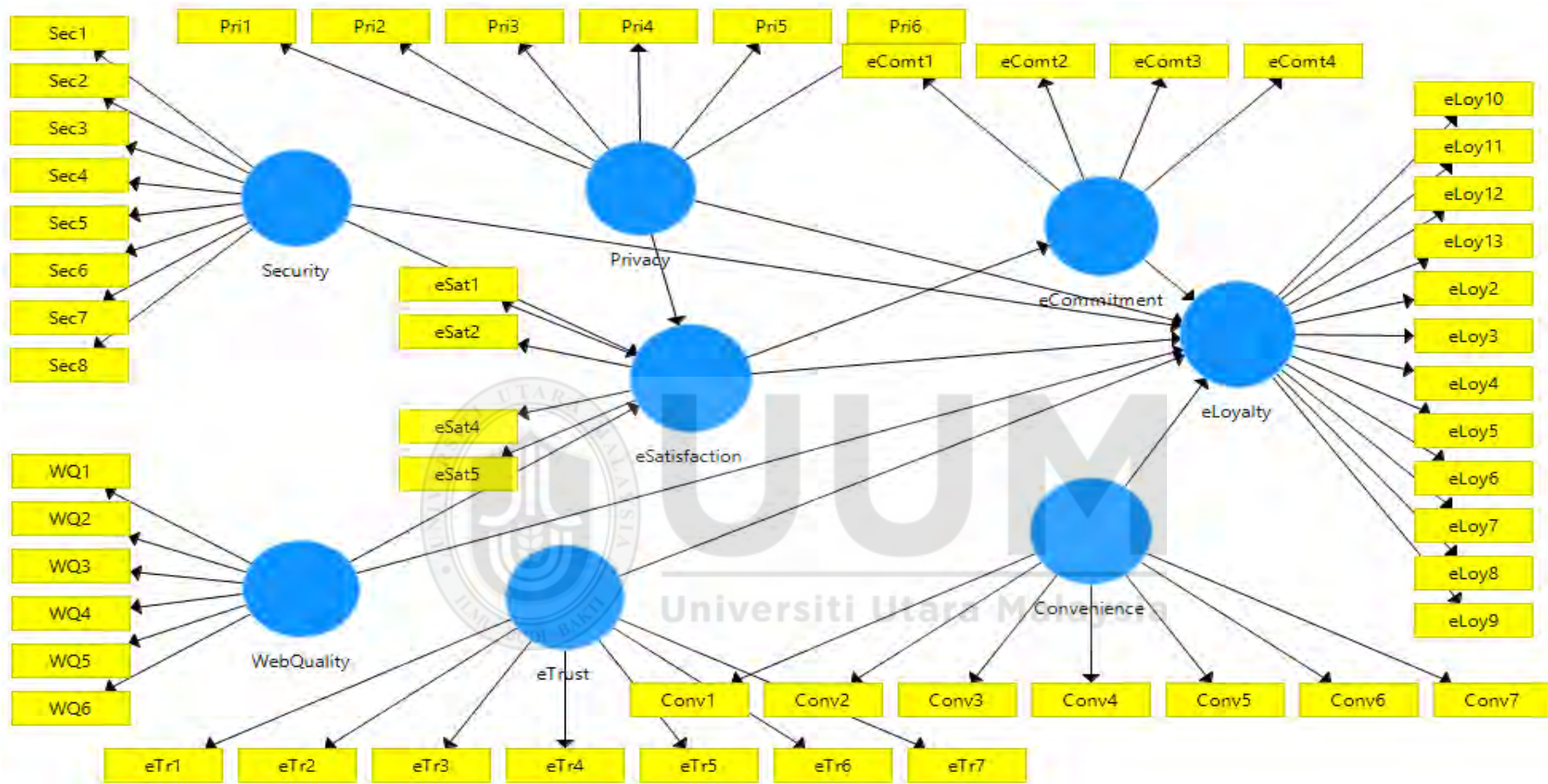


Figure 4.2
New PLS Study Model

4.6 Evaluation of Structural Model (Inner Model)

Next, the structural model was presented for further evaluation. The analysis involved in this evaluation was testing on the coefficient of determination (R^2), f^2 effect sizes, blindfolding and predictive relevance (Q^2), goodness-of-fit model and structural model path coefficients (hypothesis testing).

4.6.1 Coefficient of Determination (R^2 Value)

Next, the value of coefficient of determination or R^2 value was determined. It was noted that this value should be between 0 to 1 and larger value indicates greater accuracy. The value of R^2 for eLoyalty is 0.816 suggesting that 81.6% of variance of eLoyalty could be explained by Privacy, Security, Website Quality, eCommitment, eTrust, eSatisfaction and Convenience. In addition, based on the R^2 value of 0.706 and 0.531, 70.6% of eSatisfaction is described by Privacy, Security and Website Quality and 53.1% of eCommitment is explained by eSatisfaction (see Figure 4.3). As the rule of thumb, R^2 values of 0.75, 0.50 or 0.35 can be described as substantial, moderate or weak, respectively (Hair *et al.*, 2011). In summary, the R^2 value for eLoyalty is considered to be substantial, R^2 for eSatisfaction as rather substantial and lastly, the R^2 value for eCommitment is considered to be moderate.

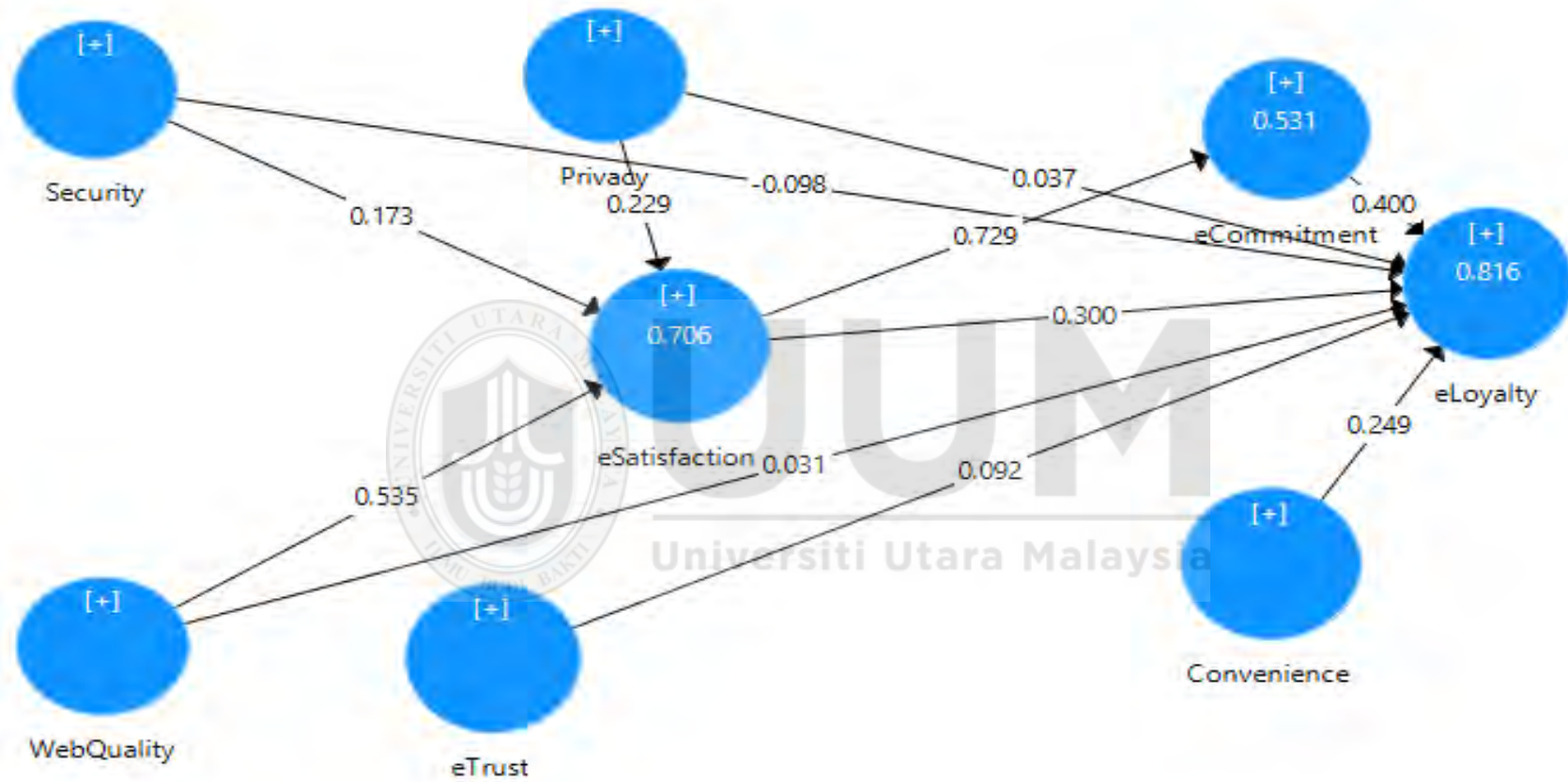
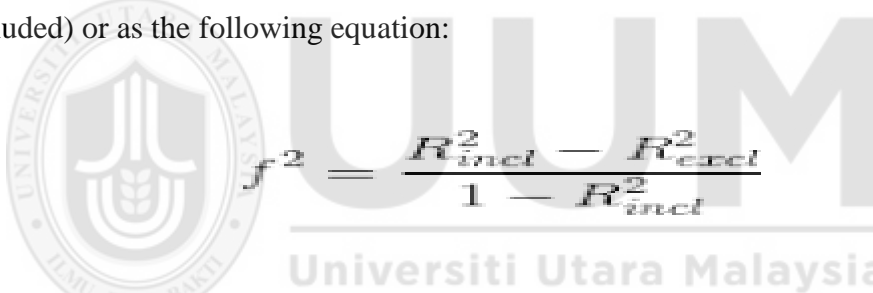


Figure 4.3
Coefficient of Determination (R^2)

4.6.2 Effect sizes f^2

Subsequently, the effect size (f^2) rating was explored. It is relevant to evaluate the effect sizes of specific variable toward the dependent variables using f^2 test (Chin, 2010), which is a complementary analysis to R^2 value. This effect size is to determine the effect of the R^2 when the exogenous is removed from the model and to foresee if the deleted variable has an enormous effect on the endogenous factor. As mentioned earlier, the indicator of f^2 can be deliberated as the following: 0.02, 0.15 and 0.35 indicate small impact, medium impact and 0.35 large impact, correspondingly (Hair *et al.* 2014, cited from Cohen, 1988). Previously, the effect was calculated manually using this formula, $f^2 = (R^2_{included} - R^2_{excluded}) / (1 - R^2_{included})$ or as the following equation:


$$f^2 = \frac{R^2_{incl} - R^2_{excl}}{1 - R^2_{incl}}$$

Recently, the f^2 can be derived automatically from the SmartPLS 3.0 using the bootstrapping procedure and the value of f^2 is obtained under the quality criteria column. For this study, Privacy has a small effect, Security has a medium effect, Website Quality has a small effect, eCommitment has a large effect while eTrust has a medium effect toward eLoyalty. In addition, eSatisfaction and Convenience have medium effects on eLoyalty. Meanwhile, Privacy has a small to medium effect, Security has a small effect and Website Quality has a large effect on eSatisfaction (see Table 4.21).

Table 4.21
Effect Size Rating

	R²	f²	Effect Size Rating
eLoyalty	0.816		
Privacy		0.003	Small effect
Security		0.014	Medium effect
Website Quality		0.001	Small effect
eCommitment		0.299	Large effect
eTrust		0.014	Medium effect
eSatisfaction		0.126	Medium effect
Convenience		0.131	Medium effect
eSatisfaction	0.706		
Privacy		0.080	Small to medium effect
Security		0.034	Small effect
WebQuality		0.463	Large effect

4.6.3 Blindfolding and Predictive relevance (Q²)

Besides looking at the R² value and f² effect size, it is recommended to examine the Q² value. The value will somehow forecast the model's predictive relevance or value. It is indicated that Q² will predict the point of endogenous factors and its single-item factors. In addition, Q² value should be above zero to display level of relevancy. In the study, all Q² values are above zero. The value of Q² for eCommitment is at 0.378, eLoyalty at 0.598 and eSatisfaction at 0.573 indicated that the model has an adequate predictive relevance (see Table 4.22).

Table 4.22
Predictive Relevance

	SSO	SSE	Q² = 1-SSE/SSO
eCommitment	1,708.000	1,063.000	0.378
eLoyalty	5,124.000	2,060.314	0.598
eSatisfaction	1,708.000	730.111	0.573

4.6.4 Goodness-of-Fit (GOF) Index

In the next test, the GOF Index was examined. GOF is used to predict the model fitness. Furthermore, this test is somehow used to value the PLS model. These indicators were used as guideline to determine the goodness of fit such as GoF small = 0.1, GoF medium = 0.25 and GoF large = 0.36. In this study, since the GoF value is 0.695, this illustrates that the model is a very good model fit.

4.7 Structural Model Path Coefficients/Relationships

Next, path analysis was analysed to test all generated hypotheses in the study. These hypotheses were analysed using the path coefficients or Beta (β) in the structural equation modelling in PLS software. The indicator of path coefficient determines the nature of relationship. The indicator or value can be between -1 to $+1$ whereby value that is near to $+1$ indicates a strong positive relationship and otherwise for negative value. An indicator that is nearer to 0 is considered a weak relationship and sometimes indicated a non-significant relationship. Thus, further analysis is conducted to foresee whether the relationship is positive and significant or not which is through bootstrapping by observing the t-value (Bakshi & Krishna, 2009; Chin, 2010; Efron & Tibshirani, 1993). Similar to Beta (β), the t-value reveals the strength of relationship where higher t-values denotes stronger relationship (Huang, Lin, & Chuang, 2007). It is noted that that the t-value must be larger than the critical value to confirm the significant relationship.

In the measurement model evaluation, both validity and reliability were met and satisfied. Thus, the next step is to test all hypothesized relationships which include the direct, mediating and moderating effects. In this test, the PLS algorithm and

bootstrapping commands were chosen and calculated. Firstly in the hypotheses testing, the analyses on the direct relationship were deliberated. The seven hypotheses involved were the direct relationships between eSatisfaction and eLoyalty, eTrust and eLoyalty, eCommitment and eLoyalty, eSatisfaction and eCommitment, privacy and eSatisfaction, security and eSatisfaction and lastly website quality and eSatisfaction. Secondly, all hypothesized mediating relationships were performed. The analysis was done to determine the mediating effect of eSatisfaction between privacy and eLoyalty, security and eLoyalty as well as website quality and eLoyalty. Thirdly, the hypothesized moderating relationship was executed. Convenience was posited to have a moderating effect between eSatisfaction and eLoyalty.

4.7.1 Direct Relationship between Exogenous (IV) and Endogenous (DV) Analyses

In this study, there are seven exogenous variables. These variables are eSatisfaction, eTrust, eCommitment, eSatisfaction, privacy, security and website quality. After conducting algorithm and bootstrapping, the hypothesized results were obtained. Table 4.23 illustrates the hypothesized relationship from Hypothesis 1 (H1) to Hypothesis (H7).

Table 4.23
Hypotheses Testing

Hypothesis	Relationship (Exogenous -> Endogenous)	Path Coefficients (β)	t-values	p-values*	Decision
H1	eSatisfaction -> eLoyalty	0.300	6.100	0.000	Supported
H2	eTrust -> eLoyalty	0.092	2.202	0.014	Supported
H3	eCommitment -> eLoyalty	0.400	8.222	0.000	Supported
H4	eSatisfaction -> eCommitment	0.729	30.601	0.000	Supported
H5	Privacy -> eSatisfaction	0.229	4.869	0.000	Supported
H6	Security -> eSatisfaction	0.173	3.112	0.001	Supported
H7	WebQuality -> eSatisfaction	0.535	11.247	0.000	Supported

*significant at $p < 0.05$

H1: There is a positive and significant relationship between eSatisfaction and eLoyalty

The result indicated that eSatisfaction has positive and significant relationship with eLoyalty where the path coefficient (β) is at 0.300 and t-value at 6.100. Thus, the hypothesis is supported.

H2: There is a positive and significant relationship between eTrust and eLoyalty

There was a positive and significant effect of eTrust towards eLoyalty due to the β revealed positive value and t is above the critical value ($\beta = 0.092$ and $t = 2.202$).

Therefore, the hypothesis is supported.

H3: There is a positive and significant relationship between eCommitment and eLoyalty

The result also offered support for H3 whereby eCommitment has positive and significant relationship towards eLoyalty ($\beta = 0.400$ and $t = 8.222$). As for this result, the hypothesis is supported.

H4: There is a positive and significant relationship between eSatisfaction and eCommitment

Finding concluded that eSatisfaction has a strong and significant association on eCommitment with $\beta = 0.729$ and $t = 30.601$. Therefore, the hypothesis is supported.

H5: There is a positive and significant relationship between Privacy and eSatisfaction

Privacy was positively associated with eSatisfaction ($\beta = 0.229$ and $t = 4.869$). Thus, the hypothesis is supported.

H6: There is a positive and significant relationship between Security and eSatisfaction

Result showed a significant and positive association between security and eSatisfaction with $\beta = 0.173$ and $t = 3.112$. Hence, the hypothesis is supported.

H7: There is a positive and significant relationship between Website Quality and eSatisfaction

It was established that security has strong and significant positive effect on eSatisfaction ($\beta = 0.535$ and $t = 11.247$). Thus, the hypothesis is supported.

Therefore, it is concluded that all hypothesized relationships from H1 to H7 have positive and significant effects. Therefore, all H1 to H7 are accepted and supported.

4.7.2 Mediating Analysis

Looking at previous literatures, the study has included eSatisfaction as the mediator. The mediation effect was introduced in the study because it may become important as the intervening role between two related factors. The mediation effect would provide a better explanation between the two factors. The mediation analysis will be tested by using the bootstrapping technique (Preacher & Hayes, 2008). In this study, the mediating test was undertaken to forecast the mediation effect of eSatisfaction between privacy, security and website quality on eLoyalty. If the result showed any mediating effect, thus it indicates an indirect influence between privacy, security and website quality and eLoyalty through the mediator which is eSatisfaction. As mentioned in the earlier section, the 3 step method will be applied (Hair *et al.*, 2014). According to Hair *et al.* (2014, p.223), “empirical tests must answer the following questions:

- 1- Is the direct effect significant when mediator variable is excluded from the PLS path model?
- 2- Is the indirect effect via the mediator variable significant after this variable has been included in the PLS path model?
- 3- How much of the direct effect does the indirect effect absorb? Do we have a situation of full or partial mediation?”

Table 4.24
The Direct Effect (mediator is excluded)

Direct Effect	t-Values	p-Values*	Decision
Privacy -> eLoyalty	2.863	0.002	Supported
Security -> eLoyalty	1.702	0.045	Supported
WebQuality -> eLoyalty	3.516	0.000	Supported

*significant at $p < 0.05$

Table 4.25
The Indirect Effect (via the mediator)

Indirect Effect	t-Values	p-Values*	Decision
Privacy -> eLoyalty	4.376	0.000	Supported
Security -> eLoyalty	2.870	0.002	Supported
WebQuality -> eLoyalty	8.093	0.000	Supported

*significant at $p < 0.05$

In this study, the result of the direct path and indirect path are presented in Table 4.24 and Table 4.25. As indicated in both tables, the direct and indirect effects of privacy, security and website quality towards eLoyalty are supported and significant at p less than 0.05. In addition, both Table 4.24 and Table 4.25 have followed the requirement of question 1 and question 2 as suggested by Hair *et al.* (2014). Below is the summary for Hypothesis H8i, H8ii and H8iii.

H8i: eSatisfaction mediates the relationship between privacy and eLoyalty

In the indirect path of privacy towards eLoyalty (eSatisfaction as mediator), results indicated that the direct effect is significant at $t = 2.863$ and $p = 0.002$. Likewise, the indirect effect also revealed significant effect at $t = 4.376$ and $p = 0.000$. Since both results are significant, the hypothesis is supported indicated that eSatisfaction mediates the relationship between privacy and eLoyalty.

H8ii: eSatisfaction mediates the relationship between security and eLoyalty

The association of security on eLoyalty with eSatisfaction as the mediator revealed that the direct effect is significant with t value is at 1.702 and p value is at 0.045. Similarly, the indirect effect shows that $t = 2.870$ and $p = 0.002$. Therefore, both direct and indirect effects are significant; thus, the hypothesis is supported.

H8iii: eSatisfaction mediates the relationship between website quality and eLoyalty

It was conferred that the direct and indirect relationship of website quality towards eLoyalty as well as website quality on eLoyalty through eSatisfaction are significant at $t = 3.516$ and $p = 0.000$ and at $t = 8.093$ and $p = 0.000$, respectively. It is concluded that the hypothesis is supported.

Since all the indirect effects are supported, the next step is to examine the variance accounted for (VAF). As indicated earlier, the VAF falls under question 3, which is the last question or requirement for mediating analysis method as suggested by Hair *et al.* (2014). VAF was examined in order to confirm whether the mediation effect is full, partial or no effect, the VAF is calculated. VAF is performed to determine “the size of the indirect effect in relation to the total effect” (Hair *et al.*, 2014, p.225). They further noted that VAF above 80% indicates full mediation, VAF between 20 to 80% shows partial mediation and finally VAF below 20% reveals that there is almost no mediation effect. As indicated in Table 4.26, the VAF for Privacy towards eLoyalty is at 78.7% indicated partial mediation effect. Meanwhile, the VAF for WebQuality on eLoyalty also dictates full mediation effect due to the VAF values is 91.6%, which is above 80%. Likewise, Privacy on eLoyalty also showed a full

mediation effect even though the VAF is greater than 1 because of the suppressor effect (Hair *et al.*, 2014).

Table 4.26
Variance Accounted For (VAF)

	Indirect	Total Effect	VAF	Type
Privacy -> eLoyalty	0.136	0.172	0.787	Partial
Security -> eLoyalty	0.102	0.004	26.732	Full
WebQuality -> eLoyalty	0.316	0.347	0.916	Full

4.7.3 Moderating Analysis

Besides analysing the mediating effect, the moderating role was also explored. The presence of moderator was tested to foresee whether there is any change in the link between two related variables. Since the moderator is a continuous moderator and independent variables as well as moderator are both reflective, the interaction terms is recommended for the moderating analysis (Chin *et al.*, 2003; Chin, 1996). A product indicator approach which was the product term of eSatisfaction*convenience (eSat * Conv) was also applied to determine the effect of moderator would have on the relationship between two variables, usually between the predictor and the dependent variable (Hair *et al.*, 2014). In this study, convenience has been presented as the moderator between the two related constructs. Thus, the analysis was performed by including the moderator to anticipate the changes between eSatisfaction and eLoyalty. The PLS algorithm and bootstrapping techniques were applied in determining the decision of moderating or non-moderating effect. The algorithm would indicate the path coefficient and the t-value will validate the decision of significance or non-significance. Figure 4.4 illustrates the PLS model with the inclusion of the moderator. Lastly, the following sub-section describe on the analysis of the moderator and its effect on these two constructs.

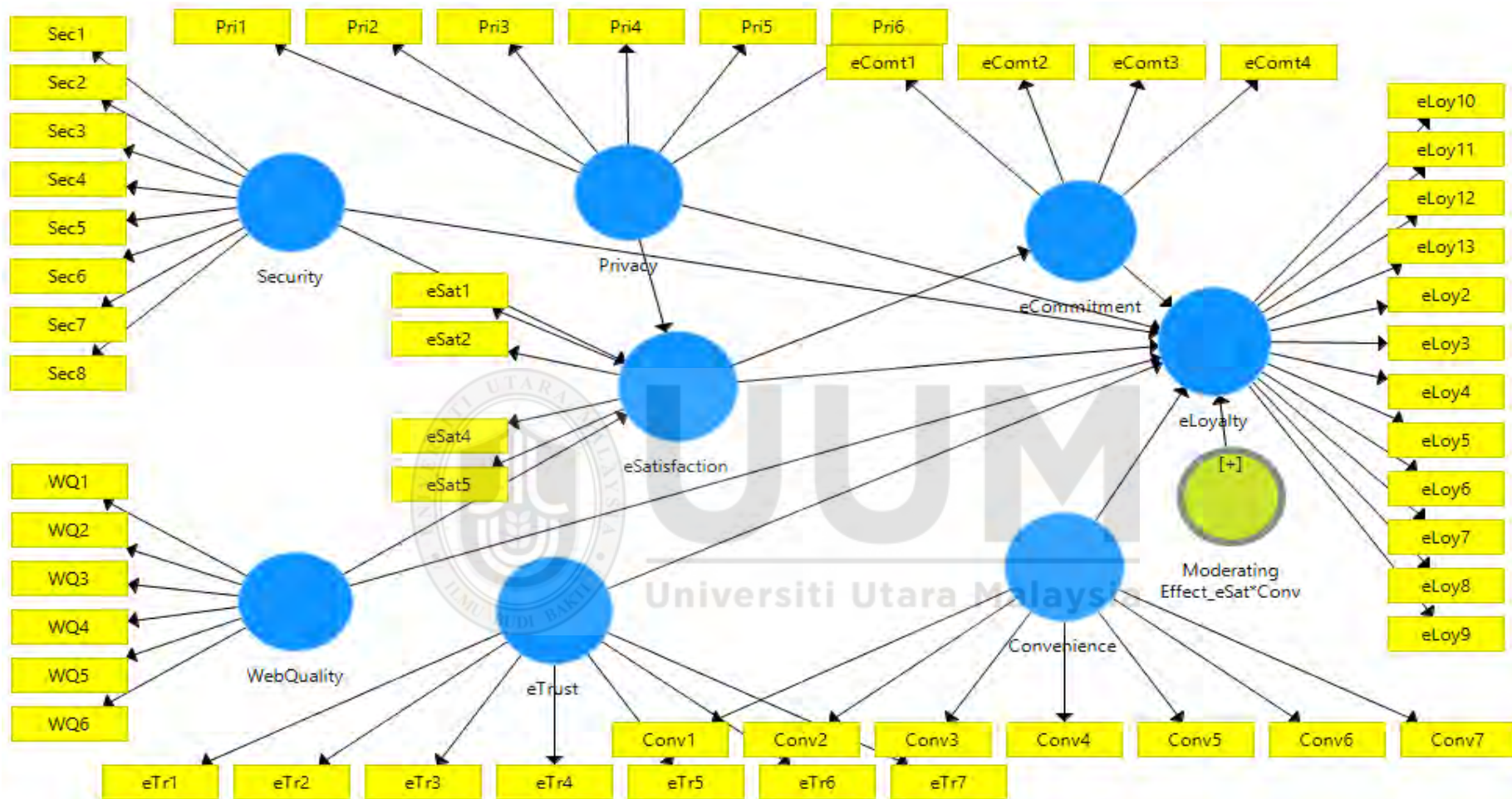


Figure 4.4
PLS Model (with moderator)

Table 4.27
Moderation Effect

Hypothesis	Relationship	Original Sample	Standard Error	t-value	P Values	Decision (Nature of Moderator)
H9	eSat * Conv → e Loyalty	0.010	0.020	0.490	0.312	Not Supported / Not Moderated

*significant at $p < 0.05$

H9: Convenience moderates the relationship between eSatisfaction and eLoyalty

Looking at the moderating effect of convenience between eSatisfaction and eLoyalty (eSat * Conv towards e Loyalty), result indicated that there is a positive relationship however the relationship was not significant at $\beta = 0.010$ and $t = 0.490$ (see Table 4.27). Based on this result, the hypothesis is not supported. In other word, convenience did not act as a moderator between eSatisfaction and eLoyalty. In some instances, the moderating or interacting factor may not reveal significant result demonstrating that the independent variable has a constant effect on the dependent variable (Dawson, 2014; Hair *et al.*, 2014). It can be concluded that in the study, eSatisfaction has a constant effect on eLoyalty. Since the moderator effect is not significant, the template on the interaction plot is not relevant for this study.

4.8 Summary

This chapter demonstrates the analysis and findings for this study. First of all, the response rate was calculated and non-response test was conducted. Then, data screening and cleaning were performed. In the section, data entry errors, treatment of missing data, test for outliers and multi-collinearity test were conducted. Later, the analysis on the descriptive statistic which is the demographic profile was presented. Then, the evaluation of measurement model was detailed out followed by the evaluation of structural model. Under measurement model, both convergent and

discriminant validity were satisfied and met all requirements. And, in the structural model, the direct effect, the mediating and moderating analysis were conveyed. As shown in various analyses in this chapter, 10 hypotheses are accepted and only one hypothesis was rejected. All of the 10 hypotheses are supported by previous literatures. Among the 10 hypotheses, the results indicate that all 7 direct effects and 3 mediation effects are supported and significant. The 7 direct relationships were eSatisfaction, eTrust eCommitment towards eLoyalty, eSatisfaction on eCommitment, privacy, security and lastly website quality towards eSatisfaction. The 3 mediation effects are eSatisfaction between privacy, security as well as website quality towards eLoyalty. One hypothesis, which is the moderating effect of convenience on eSatisfaction and eLoyalty was rejected as the result is not significant.



CHAPTER FIVE

DISCUSSIONS AND CONCLUSION

5.1 Introduction

The chapter will summarize and discuss about the research findings and take another look at the theoretical and practical contributions. In the discussion of the research findings, the direct, mediating effects as well as the moderating effect analysis are presented. It also suggests recommendations for managers and policy makers, discusses limitations of the study and offers future research opportunities in the similar research area. Lastly, this chapter will also include summary and conclusion of the study.

5.2 Recapitulations of the Study

The study was performed to investigate the relationships between privacy, security and website quality toward eSatisfaction, eSatisfaction on eCommitment as well as eTrust, eCommitment and eSatisfaction toward eLoyalty among the internet banking users in Malaysia. Also, the study examined the mediation role of eSatisfaction and the moderating effect of convenience among the internet banking users. The survey questionnaire was employed, whereby all questionnaires were adapted based on previous studies. The content and expert validations were established to ensure validity of the questionnaire. Apart from that, back-to-back translation was also performed to warrant the understanding of the local respondents. A minimum total of 768 questionnaires were distributed to the internet banking users as respondents for this study to ensure a minimum of 50% returned and completed questionnaires were

returned back. As a result, only 436 completed and usable were gathered for final data analysis, which resulting a response rate of 56.77%. The total of 436 completed and usable questionnaires have fulfilled the requirement of minimum 50% returned questionnaires as well as the respondent rate was similar to the previous study. Both SPSS and Partial Least Squares (PLS) using SmartPLS software version 3 were used to analyse the both descriptive and inferential data. Descriptive analysis was performed using SPSS software to gather information on the demographics profile of the respondents. And, inferential analysis was done to interpret the direct, mediating and moderating effects of the respondents. Some of the advantages of using SmartPLS are that the software is able to estimate multiple measurements items to explain eLoyalty, has gained its acceptance in studies on marketing and social sciences and is commonly used in analysing online researches.

Preceding to the analysis, all data were subjected to the screening and cleaning process to ensure efficient generalizability of the results. In data screening and cleaning stage, several investigations were conducted such as data entry errors, missing values, outliers and multicollinearity. Based on the data screening result, only 5 missing values were detected and remedied using the series mean method. These five missing values are one value from Pri2, another one from WQ2, three missing values are from eSat2 and one is from eL4. Furthermore, there is no error in the data entry. Also, in this study, neither outlier nor multicollinearity is found in the data. After the cleaning process, the demographics profile analysis was performed to examine the frequency distribution and level of eLoyalty among the internet banking users.

The following stage was the assessment of inferential data using SmartPLS. Basically, there are 2 stages involved in examining the data using SmartPLS. The first stage is called measurement model. In this stage, both convergent and discriminant validity will be examined. In convergent validity test, three items were analysed namely the outer loading, AVE and composite reliability test. In conclusion, the convergent validity is confirmed because all three conditions are met. In addition, in discriminant validity test, analysis on the cross loading was performed using Fornell & Larcker's criterion. Similarly to the convergent validity test, the discriminant validity test was established and satisfied after one item which is eSat3 was deleted as it did not fulfill the requirement under the discriminant test.

The second stage is known as the structural model evaluation. In this evaluation, the coefficient of determination (R^2), f^2 effect size, predictive relevance (Q^2) and path coefficients tests were performed. All R^2 , f^2 and Q^2 values were confirmed and met the requirement. The analysis on path coefficients or structural relationships indicated that all direct relationships (H1, H2, H3, H4, H5, H6 and H7) are positive and supported. Looking at the mediation effect, all direct (when the mediator was excluded) and indirect effects (through the mediator) are significant and supported showing that eSatisfaction mediates the relationship between privacy and eLoyalty, security and eLoyalty, and lastly, website quality and eLoyalty. Thus, H8i, H8ii and H8iii are supported. In contrast, the moderating effect of convenience was not supported indicating that convenience does not affect the strength between eSatisfaction and eLoyalty. Thus, H9 is not supported. In other words, eSatisfaction revealed to have a constant effect on eLoyalty.

5.3 Discussions

Next, the detailed discussions on research question as well as the hypotheses testing will be presented. The discussion section emphasizes on the direct relationships as well as the results and findings of all hypothesized mediator effect (direct and indirect influence) and moderator effect. As mentioned earlier, the study has concluded that all direct relationships were supported. This specified that eSatisfaction, eTrust and eCommitment have significant and positive influence on eLoyalty as well as eSatisfaction towards eCommitment. Furthermore, privacy, security and website quality towards eSatisfaction revealed similar results where all three direct relationships are significant and positive. Correspondingly, the mediating effect of e-satisfaction of privacy, security and website quality towards eLoyalty were confirmed which indicating that eSatisfaction plays as a significant intervening role between privacy and eLoyalty, security and eLoyalty as well as between website quality and eLoyalty. In contrast, with regard to the moderating role of convenience, the hypothesized moderating relationship was rejected and not supported due to the non-significant result.

5.3.1 Level of eLoyalty

In this study, the first research question is to measure the level of online Loyalty among the internet banking users. The study has concluded that the level of eLoyalty among the internet banking users is quite high with the mean score of 5.312 out of 7.0 scale. Among the eight variables, eSatisfaction was denoted as having the highest mean score, followed by website quality. The gender category between male and female did not reveal any significant difference towards online loyalty. The same

result also applied to other categories such as age group, marital status, academic qualification as well as monthly income. No significant difference was observed among these indicators towards their level of online loyalty. The causes of the insignificant result towards the level of eLoyalty might be due to users' demographic backgrounds such as gender, age group, marital status, academic qualification and income produce similar behavioural characteristics when they are performing their online banking transactions. Thus, their levels of eLoyalty do not show any significant difference irrespective of their demographic differences. Regardless of their demographic backgrounds such as gender, age group, marital status, academic qualification and income, the internet banking users developed their eLoyalty in the similar way.

In addition, Chi *et al.* (2009) have also supported that the different categories in age and income reveal no significant difference towards destination image, satisfaction and loyalty. Another study by Yalçın (2005) has concluded that there is no significant difference in loyalty intention by gender and marital status. Similarly, Adewale's (2015) analysis on subscriber profiles has indicated that gender, age, income level and education background produce non-significant difference. Thus, based on these findings, it is suggested that any measurement of online loyalty can be extended to all customer groups regardless of their demographic profile. Next, Zuliana and Izah's (2012) study has also supported that gender, age and education levels have no significant difference towards online usage. In other word, customer perceptions were similar regardless of their backgrounds and equal variance was assumed for all these groups for measurement of online loyalty. The underlying justification of the result may be due to the respondents having similar behaviour (recommendation), attitude (liking) and cognitive (thinking) towards online banking

loyalty. Thus, this indicates that the specified demographic profiles do not show any differences towards online banking loyalty level.

On the other hand, category under the employment status revealed significant difference in term of the level of online loyalty towards the internet banking service. This could be due to each category under the employment status might have different level of online loyalty when they are answering the eLoyalty items. Due to their differences in their employment status, these factors might affect their attitudes towards online loyalty. Similar to this study, Yalçın (2005) has established that occupation or employment status reveals significant different in loyalty intention. It is also claimed that, an individual with higher employment status may have different characteristics and personality than those in the less prestigious occupation status that may lead them to have different psychological differences towards certain subject matter such as loyalty (Ramli Saad *et al.*, 2013). Thus, in this study, it has been established that differences in categories under the occupation status have an influence on eLoyalty level. The plausible reason may be due to those at different categories of the employment status may only utilize part of the services offered by the online banking providers. Those in different category of the employment status may have different internet banking needs. Some may only use the basic online banking transactions such as money transfer and bill payment. In addition, others may utilize similar services plus some other additional services such as unit trust, investment, stocks, fund allocation and foreign currency account. Thus, this may affect their differences towards online loyalty level.

In summary, in term of significant difference on demographic characteristics, the study has concluded that internet users who belong to the different age, marital

status, academic qualification and income did not have significant difference in their level of online loyalty. In contrast, the respondents who belong to different occupation group may react or respond differently in term of their online loyalty. Thus, indicating that occupational status generated significant difference toward eLoyalty.

5.3.2 Privacy, Security, and Website Quality towards eSatisfaction

In addition, the second research question is to examine the direct influence of privacy, security and website quality on eSatisfaction. The analysis has determined that all these three direct relationships namely privacy, security, and website quality towards eSatisfaction were supported and significant.

5.3.2.1 Privacy towards eSatisfaction

The finding on the direct effect of privacy towards eSatisfaction is consistent with previous studies which have confirmed the presence of relationship between these two variables (Ala'Eddin Mohd Khalaf Ahmad & Al-Zu'bi, 2011; Poon, 2008; Sanayei, Shaemi, *et al.*, 2011). The underlying explanation for the finding is due to privacy has been raised as critical factor especially when a product or service is riding on online technology. Online customers need some surety that their private information will be safe then only they will be satisfied with the online services. Moreover, issues on customer protection, intrusion of personal information should be controlled before customer can feel satisfied with the product or services offered might it be in the offline or online setting. Furthermore, several studies have supported that privacy is an essential determinant for customer satisfaction. As

indicated by Parasuraman and Zinkhan (2002), it is noted that privacy matter has significant impact on both satisfaction and confidence among the online customers. Poon (2008) has also remarked that customers are inclined to feel dissatisfied if privacy issue is not well-managed.

Additionally, it is also supported by Wang *et al.* (1998) that one of the biggest concerns and fears of performing online transaction is the invasion of privacy even though many safety measures have been carried out by the online service providers. Customers concern on privacy has created difficulty (Lardner, 1999; Norizan & Nor Asiah, 2010; Semeijn *et al.*, 2005) for both online providers and policymaker in promoting the online businesses. It is very critical to make continuous refinement on privacy issue especially among the regular users in order to satisfy them (Wolfenbarger & Gilly, 2003). A study by Ribbink *et al.* (2004) on online books and CD stores among students, graduates and academicians in Europe has discovered that assurance of security has a significant and direct effect on satisfaction. Similarly, in most online contexts such as online banking (Ala'Eddin Mohd Khalaf Ahmad & Al-Zu'bi, 2011; Sanayei, Shaemi, *et al.*, 2011), online usage (Lardner, 1999; Norizan & Nor Asiah, 2010; Semeijn *et al.*, 2005) and online retailing Sadeh *et al.* (2011), privacy too has an effect on customer satisfaction.

Apart from that, an initiative by Bank Negara Malaysia has been introduced known as the Financial Fraud Alert Web Site. "Financial Fraud Alert Web Site" is the interactive on-line service operated by Bank Negara Malaysia ("BNM") on the World Wide Web of the Internet, consisting of information services and content provided by BNM, affiliates of BNM and other third parties. "Subscriber" refers to each person who establishes or accesses a connection ("Account") for access to

and/or use of Financial Fraud Alert Web Site” (Bank Negara Malaysia, 2010). The main purpose of the initiative is to ensure protection on customer personal information or customer data. Bank Negara Malaysia as well as banks themselves are serious in reducing and safeguarding matter pertaining to privacy. Their efforts have led customers to become more satisfied from the perspective of privacy matter related to online banking services and facilities.

In practice, banks are only allowed to obtain customer personal information that are relevant and required for the purpose of banking and financial need. Only permitted information are being collected and distributed to other parties through a legitimate procedure. Personal information will not be disseminated unless consent is given by the customers according to the law. Furthermore, any authorized access to the private or personal information will be protected from time to time. This is because customers always seek for guarantee that their personal information is well-guarded by their internet banking service provider. According to Bank Negara Malaysia, banks must take serious measurements in protecting customer privacy. This is especially critical when banks are riding on internet platform. It is recommended by BNM that all banks which are offering internet banking services must implement related privacy rules and practices. Apart from that, the internet banking users must also play their role in knowing what types of information are needed by the banks before providing any required information. Privacy matters are essential because of its implication on customer satisfaction. If they feel that their privacy is being guarded, they will most probably feel satisfied with the online banking services. Thus, it is crucial for all concerns on privacy to be minimized or eliminated.

5.3.2.2 Security towards eSatisfaction

In this study, the finding of the direct effect between security and eSatisfaction has revealed a significant relationship. This finding is supported by several other previous studies (Ala'Eddin Mohd Khalaf Ahmad & Al-Zu'bi, 2011; Casaló *et al.*, 2007; Momeni *et al.*, 2013; Poon, 2008; Rahimi *et al.*, 2012). Referring to Park and Kim (2003), their study has concluded that security has an impact on satisfaction among the internet shoppers; thus, it is essential to ensure the feeling of security among the online users. It has been remarked that security on both personal and financial information has the strongest influence on customer satisfaction (Ala'Eddin Mohd Khalaf Ahmad & Al-Zu'bi, 2011; Sanayei, Ranjbarian, *et al.*, 2011). Another supporting article on online simulation study has also conferred the direct influence of online security on eSatisfaction (Yoon, 2002). Moreover, affirmative security features have encouraged customers to feel satisfied with their purchase and thus influence them to repurchase and revisit the online providers (Semeijn *et al.*, 2005). Furthermore, studies on the direct relationship between security and satisfaction at other geographical areas such as Korea, Tehran and India have also proven the significant relationship between these two variables.

The rationalization of this finding might be due to customers always want to feel secured while transacting their online banking activities. Thus, the sense of security will most probably lead to feeling satisfied with the online banking services. Looking at the security aspect, customers are mostly concerned on security matters especially when they are transacting online. Security is also associated with the risk customers have to face when they are dealing with especially when they are making online transaction or purchase. Thus, banks and governments should continuously

ensure that their online services are safe and secured. Furthermore, many efforts especially by BNM and internet banking providers have been implemented to ensure security in the online banking services. All online banking transactions should be secured in order to maintain and enhance customer online satisfaction and loyalty. Due to this, banks have continually reminded customers to protect their personal username and password as well as the security code. Safety measures should be enforced by keeping the information in one's hand. It has been made known to customers that regular change of password and PIN must be done if any suspicious activities are detected.

In addition, banking users should not respond to any request of username or passwords through any kind of communication due to many fake attempts are still happening and widespread. A regular check on transaction history should also be done regularly. Also, it is strongly recommended that bank customers should enter the direct URL website to perform their internet banking activities and should not use any hyperlink or being re-directed from another webpage. Next, banks are also enforcing security measurement at all cost in order to protect from unauthorised access. For instance, the risk or security issue can be overcome with web security features such as installing firewall, symbols or logos that protect the web from being hacked or attacked by hackers or viruses. Currently, banks too have installed secure protocol and encryption technology to ensure safe usage and transaction among their customers. Further measurement of safety and secured features are also being monitored and regulated by Bank Negara Malaysia. If customers feel secured, they are most likely to feel satisfied with the product or service offered.

5.3.2.3 Website Quality towards eSatisfaction

The third direct relationship towards eSatisfaction is the website quality. The finding of this study displayed that there was a significant relationship between website quality and eSatisfaction. Thus, website quality is an important determinant of eSatisfaction. Furthermore, this relationship substantiates with other researches' findings (Ala'Eddin Mohd Khalaf Ahmad & Al-Zu'bi, 2011; Floh & Treiblmaier, 2006; Jayawardhena & Foley, 2000; Lii, 2009; Momeni *et al.*, 2013; Rahimi *et al.*, 2012). In addition, these authors have concluded that online banking services that offer better website quality will be able to influence customer online satisfaction.

Looking at the preceding literatures, website quality is one of the important constructs in determining customer satisfaction. Customers are always looking for better website quality such as more interaction, improved content and better structure from online services when they are performing online activities. Furthermore, customers among the e-banking users are looking for better features of the web quality such as easiness and faster transaction (Floh & Treiblmaier, 2006; Pikkarainen *et al.*, 2004). Thus, it is crucial for online providers to focus on improvement of the quality of their websites. Website quality is important not just in creating and enhancing satisfaction but also in attracting more visitations and purchases. Most online studies such as in the Austrian e-banks (Floh & Treiblmaier, 2006), online shopping experience (Wolfenbarger & Gilly, 2003), online investment (Bhattacharjee, 2001), online shopping services (Lin & Sun, 2009) and online environment (Negash *et al.*, 2003) have validated the influence of website quality towards eSatisfaction. Some of these researchers have extended their study toward online Loyalty.

The underlying reasons for finding on website quality and eSatisfaction are because from the online context, the only way that customers can view or evaluate the company is through its website. On the other hand, in the offline setting, the quality of a company can be seen through its brick-and-mortar business which is referring to the company building or store, the tangible products and in-store environment. Thus for the online companies or service providers, it is essential for them to build better quality and reputation through their website. Website quality can become a strategic tool to enchant and satisfy customers and in turn lead them to make their purchase or transaction. Certainly, it is important to ensure that the website is user-friendly, easy to navigate, attractive visual and interactive.

For online banking services, the first visual that the customer see is the website thus it can become a stepping stone for customer to move on to the stage which is to utilise the service. In addition, the website quality features include three major components such as web design, web structure and web content. The design of the web should include user-friendly features that are easy to operate and read. With regards to the web structure, the loading time and waiting time of task completion should also be faster. And lastly, the web content must deliver adequate and relevant information as well as easier completion of any online activities. If these three components are well-managed, companies are able to improve its customer online satisfaction since it has been proven that website quality does affect customer satisfaction. Customers will also return to the same internet banking services if the web quality meets or is above their satisfaction.

In conclusion, in this study, these three relationships namely privacy, security and website quality towards eSatisfaction have been proven and are significant among

the internet banking users in Malaysia. The results of the finding are also consistent with previous studies.

5.3.3 eSatisfaction and eCommitment

The third research objective was to analyse the influence of eSatisfaction on eCommitment. It was established that the path coefficient between eSatisfaction and eCommitment has a consistent result with other previous findings (Hennig-Thurau *et al.*, 2002; Luarn & Lin, 2003; Nusair *et al.*, 2011). Similarly, past literatures in the offline setting also proven that satisfaction has an influence on commitment (Afsar *et al.*, 2010; Evanschitzky & Wunderlich, 2006; Jumaev *et al.*, 2012; Lim & Nik Kamariah, 2012).

In the past studies, it has been noted that both online and offline customer satisfaction have an impact on commitment. With regards to the online context, studies among the online customers have remarked that there is a positive and significant effect of satisfaction towards commitment (Nusair, 2008; Nusair *et al.*, 2010). According to these researchers, they further remarked that investing more initiatives on customer satisfaction will lead to a higher commitment level among the online customers. Similarly, in the online service retailer setting, satisfaction does have substantial impact on online commitment (Luarn & Lin, 2003). Analysis in the brick and mortal context has also concluded with similar result. A study on Malaysian retailing has revealed that satisfied customers display a significant level of commitment and consequently affect customer purchase (Lim & Nik Kamariah, 2012). Similar results were also confirmed in other settings such as such DIY retailer (Evanschitzky & Wunderlich, 2006), service industry (Hennig-Thurau *et al.*, 2002),

hotel business (Back & Parks, 2003), financial institution (Sharma & Patterson, 2000) and banks (Afsar *et al.*, 2010; Jumaev *et al.*, 2012).

The explanation for the finding is that satisfied customers will have the tendency to be committed or connected with the brand, product or service produced by the company. It has been agreed that with some degree of satisfaction, the level of commitment might be improved as well. Furthermore, it is crucial to enlighten customer and make them feel satisfied because it will lead them to be committed to the brand, product or service. Most of the time, the committed customer will have an intention to deliver positive word of mouth about the company to friends and relatives. Therefore, it is also noted that satisfaction along with commitment can further strengthen customer loyalty and enhance successful mutual relationship. Studies on different offline and online settings such as retailing, hotel, service provider, online travel and online business have also confirmed the influence of commitment towards brick and mortar's as well as virtual's product and service loyalty. Customer satisfaction is noted as a critical tool in generating committed customers as well as in winning them over the competitors. Therefore, it is strongly urged that businesses invest more in building customer satisfaction because of its significant impact on commitment and last but not least on loyalty.

5.3.4 eSatisfaction, eTrust and eCommitment on eLoyalty

5.3.4.1 eSatisfaction towards eLoyalty

Moreover, under the fourth research objectives, there are three questions that will be explored. The first question was to examine the impact of eSatisfaction on eLoyalty. The result between eSatisfaction towards eLoyalty has indicated a significant path

and was consistent with other academicians' findings (Casaló et al., 2007, 2008b; Floh & Treiblmaier, 2006; Ghane et al., 2011; Lii, 2009; Momeni et al., 2013; Rahimi et al., 2012). Most of these previous researches are conducted in contexts such as banking and financial institutions as well as online banking services and online retailing.

In most literatures, satisfaction has been claimed as an essential and main predictor of loyalty. This construct has become more critical especially in today challenging and globalization business transaction. In the banking context, studies among the bank customers have established the significant role of satisfaction towards customer loyalty (Alrubaiee & Al-Nazer, 2010; Ehigie, 2006; Kantsperger & Kunz, 2010; Leverin & Liljander, 2006; Ndubisi & Chan, 2005). Satisfied customers tend to become loyal to certain products and services if they are happy and pleased with the products or services. Another important indicator of satisfaction is customer shopping experience. Customers who go through a pleasant shopping experience can easily become loyal towards the firm. Also, customer satisfaction is shown to have a major contribution in preserving customers (Graf & Perrien, 2005; Kaur *et al.*, 2012). It is further argued that satisfaction not only result in customer loyalty but their satisfaction will also lead to positive recommendations to others. Therefore, strategy in enhancing satisfaction must be reinforced and any source of dissatisfaction must be prevented to avoid customer churn.

The underlying reasons for this positive relationship are due to eSatisfaction has a strong tendency to influence both online and offline loyalty. The feeling of satisfaction which is derived from customer purchase experience stimulates them to become loyal to the particular product or service. Furthermore, satisfaction has an

effect not just on loyalty but also on retention. In addition, building customer satisfaction is critical because of its impact towards successful relationship. There also other substantial benefits of satisfaction such as it will lead to repetition of purchase, constructive recommendation and good word of mouth to others. Thus, companies must take precaution and preventive actions to avoid customer dissatisfaction. This is due to dissatisfied customers will most probably churn away to the competitors. Any customer complaints and dissatisfactions must be remedied the soonest possible because of its impact on churn and disloyalty. Consequently, it is critical to maintain and enhance online satisfaction because of its influence on online loyalty.

5.3.4.2 eTrust on eLoyalty

Next, the second question under the third objectives was to observe the effect of eTrust towards eLoyalty. As the result, the finding exhibited that there is a significant and positive association between eTrust and eLoyalty. The relationship between eTrust and eLoyalty is also similar to other studies (Al-Agaga & Md Nor, 2012; Corbitt *et al.*, 2003; Flavián & Guinalú, 2006; Floh & Treiblmaier, 2006; Ghane *et al.*, 2011; Lii, 2009; Rahimi *et al.*, 2012; Yee & Faziharudean, 2010; Yu Chao *et al.*, 2009).

Online trust has become essential especially in the era of online technology. Several scholars have established the relationship between these two associated variables. There is an increased concern towards customer trust especially in banking industry (Ruin, 2010). Thus, studies have been conducted to examine this relationship. Researches among different industries such as the banks (Al-Agaga & Md Nor,

2012; Alrubaiee & Al-Nazer, 2010; Lii, 2009; Rahimi *et al.*, 2012; Samsudin *et al.*, 2009; Yee & Faziharudean, 2010), airline industry (Sirdeshmukh *et al.*, 2002), online firms (Anderson & Srinivasan, 2011; Eastlick *et al.*, 2006; Luarn & Lin, 2003; Ribbink *et al.*, 2004; Yu Chao *et al.*, 2009) have confirmed the significant association between trust and loyalty. It is further claimed that the element of trust plays a significant role towards customer behaviour especially in the online context and they will easily move to the competitors if they do not trust their existing online firms (Jarvenpaa *et al.*, 2000; Reichheld & Scheffer, 2000).

Next, there are several underlying reasons why eTrust is likely to drive customer online loyalty. Trust has become one of the tools to examine the internet service providers because there is a very limited tangible indicator in the virtual context. Customer trust is much more needed particularly in the online businesses and services because customers only able to view the products and services online. Consequently, trust becomes essential in the internet technology businesses which also include the internet banking service. This is due to the fact that feeling of trust is able to build customer loyalty both in the offline and online environments. Thus, much focus and weight have been invested on online trust because of its impact on both relational and loyalty aspects.

In addition, while performing online purchase and transaction, customers often experience limited physical touch and verification of either the product or service. Thus, trust is very critical as the internet banking services involved customer's risk and money. If trust is built among the internet banking users, this feeling will lead to online loyalty. Companies are able to indicate high level of trust in the online services which will lead to a lower switching cost among their customers. In the case

of online banking loyalty, it is also critical for the customer to build their trust on the physical bank itself in order to generate better and firmer trust on its internet banking service. Online trust level can be shaped if the internet banking services are able to demonstrate integrity, benevolence and competence in delivering their online banking services (Flavián & Guinalú, 2006). Trust also acts as an assurance that the services are safe and the risks are minimized. Therefore, online customer trust is needed and essential when they are performing online transaction and thus it will eventually lead to customer online loyalty.

5.3.4.3 eCommitment and eLoyalty

Finally, the third question and last question under the fourth objective is to explore the relationship between eCommitment towards eLoyalty. In this study, the path between eCommitment on eLoyalty is found to be positive and significant. This finding is also supported by several other researchers (Eastlick *et al.*, 2006; Luarn & Lin, 2003; Mukherjee & Nath, 2007; Nusair *et al.*, 2010; Park & Kim, 2003). Their studies were conducted in environments such as banking, online business and retailing and e-commerce.

Former literatures and studies have supported the relationship of the path between commitment and loyalty. Commitment has been revealed to have a substantial impact on customer behaviour especially on customer loyalty, switching behaviour and purchase intention. Commitment plays an important role especially from the firm's perspective because commitment is needed to achieve customer loyalty. It is also critical for the firms to focus on keeping their customers as it is widely known that the cost of hiring new customer is extremely high compared to the cost of

maintaining the existing ones. Studies have been conducted in several areas such as in the insurance industry (Nor Azila & Azli, 2005), banking sector (Afsar *et al.*, 2010) as well online travelling (Luarn & Lin, 2003) where these studies have confirmed the significant and positive relationship between commitment and loyalty.

In addition to the important benefits of eSatisfaction and eTrust, eCommitment factor is capable in building continuous association between customer and the product or service. The plausible reason is that commitment is an essential construct because of its impact on loyalty and continual relationship. If customers feel committed and connected to a product or service, they are most likely to associate themselves or stay loyal to this product or service. Thus, the construct needs to be sustained and further enhanced. Moreover, commitment can create positive acceptance and behaviour towards the particular brand as well as the company because commitment generates feeling of attachment. Hence, customers will have the desire to purchase or transaction online with the online retailers or services. There are several methods that be inculcated to instil commitment which are through continuous and effective communication, satisfying as well as delighting the customers at par or above their expectations.

As indicated earlier, the fourth research question was to explore all direct relationships between eSatisfaction, eTrust and eCommitment on eLoyalty. The study has verified and confirmed that all three variables specifically eSatisfaction, eTrust and eCommitment had significant effect on eLoyalty. Furthermore, all results were verified by other researchers' studies. In summary, if customers feel satisfied, are able to trust and be committed with the company, they will generally become loyal and the tendency of churning away can be minimized.

5.3.5 Mediating Effect of eSatisfaction between Privacy, Security and Website Quality

Regarding the fifth research question, three hypotheses were designed to assess the mediation effect of eSatisfaction between privacy and eLoyalty, security and eLoyalty and website quality and eLoyalty. This study indicated that eSatisfaction is a significant mediator variable for all three paths between privacy, security and website quality towards eLoyalty through eSatisfaction (mediator). In testing the mediation effect of eSatisfaction, both direct and indirect effects were applied. The direct effect is to foresee the effect between two related variable by removing the mediator effect from the model while the indirect effect is to test the relationship between two related variable with the inclusion of another mediated variable in the model (Hair *et al.*, 2014).

In this study, the mediating result was analysed using SmartPLS to compare both the direct and indirect effects. The study has verified the existence and significance of mediator for all three hypotheses. The result obtained is established with other similar studies where they too have concluded the mediation effect of eSatisfaction (Caruana, 2002; Chang & Polonsky, 2012; Ghane *et al.*, 2011; Kuo *et al.*, 2012; Lee, 2010; Lii, 2009; Lin & Sun, 2009; Lo *et al.*, 2010; Maznah Wan Omar, 2009; Vesel & Zabkar, 2009; Yang & Peterson, 2004). In addition, the result also has been verified with other previous findings that applied similar independent variables with the study such as privacy, security and/or website quality (Hur *et al.*, 2011; Ribbink *et al.*, 2004; Sanayei, Shaemi, *et al.*, 2011).

It is remarked that there are only few studies that examined the mediating role of online satisfaction between privacy and online loyalty, security and eLoyalty as well

as website quality towards e-loyalty. With regards to the mediation effect of eSatisfaction between privacy and online loyalty, the previous study on online banking users has revealed that satisfaction has a significant mediating effect (Sanayei, Shaemi, *et al.*, 2011). Similarly, in the context of website quality towards eLoyalty among online sport fans, online satisfaction is significant in mediating the relationship between these two associated variables (Hur *et al.*, 2011). Other studies in the online context such as e-commerce (Yang & Peterson, 2004), online shopping websites (Lin & Sun, 2009) and online leisure service (Chang & Polonsky, 2012) have also proven the mediating effect of eSatisfaction. Looking at the online banking context, some studies have confirmed the mediation effect of eSatisfaction (Ghane *et al.*, 2011; Lii, 2009). In addition to the online researches, offline studies analysing satisfaction as mediator have also concluded with similar results. These studies include researches on service quality (Caruana, 2002), retailing (Maznah Wan Omar, 2009), banking (Lo *et al.*, 2010) and seafood product (Olsen, 2002).

In this study, three variables which are also the antecedents of eSatisfaction namely privacy, security and website quality had significant influence towards eLoyalty through the mediation effect of eSatisfaction. As discussed earlier, the effect of privacy on eLoyalty (via eSatisfaction) has revealed partial mediation effect. In the case of partial mediation, both direct effect and indirect effect (via eSatisfaction) are found to be significant. Pertaining to the partial mediation, privacy has a direct effect on eLoyalty and at times, privacy through eSatisfaction will also have an influence on eLoyalty.

On the other hand, the path of security on eLoyalty (via eSatisfaction) has indicated full mediation effect. In the study, the inclusion of the mediator will drop the effect

of direct relationship between security and eLoyalty. Moreover, full mediation specified that in order to obtain eLoyalty, customers must feel satisfied with the internet banking service before they become loyal because the direct relationships (security towards loyalty) are weaker even though their direct paths are significant. Similarly, the path of Website Quality towards eLoyalty (via eSatisfaction) has revealed full mediation effect. In this path, eSatisfaction is gained through website quality and thus, eLoyalty is gained through eSatisfaction. In both full mediating effects, the intervening effect (eSatisfaction) displays a dominant role between security on eLoyalty and website quality to eLoyalty due to full mediation effect.

This professes that the justification for both partial and full mediation result are due to the reason that internet users are highly concerned over their privacy, security and the website quality while they are performing their online banking activities. Their concerns on these three factors have an effect on online satisfaction, which in turn influencing online loyalty. In the study, internet users' satisfaction can be gained through privacy, security and website quality. Subsequently, online loyalty is gained through online satisfaction. Thus, in order to gain online loyalty, the internet banking users must feel that online banking service providers are concerned about users' private information and protect them and respect the users' rights and consent. Also, the online banking providers must ensure safety measurement such as integrity, confidentiality and authenticity of the online banking service. In addition to that, the website design, structure and content must also be well-managed. In summary, privacy, security and website quality have an influencing impact on online banking loyalty through online customer satisfaction.

5.3.6 Moderating Effect of Convenience on eSatisfaction towards eLoyalty

The sixth and the last research question is to explore the moderating role of convenience towards the relationship between eSatisfaction and eLoyalty. In the previous literatures section, it has been noted that customer are motivated by convenience factor when purchasing or deciding to repurchase the same product or service. It has been supported in both offline and online context, convenience does moderate the relationship between these two related factors. For instance in an offline scenario, a study on commercial hotel in Taipei (Kuo *et al.*, 2012), specialty retailing store in North American (Seiders *et al.*, 2005), hardware store (Chang *et al.*, 2013) and home delivery service in Taiwan (Hsu *et al.*, 2010) have proven that convenience moderates the relationship between the two related variables. In addition, similar result is also obtained in a study among the online commerce customers (Anderson & Srinivasan, 2003).

In both offline and online contexts, most researches analysing convenience as the moderator have confirmed its positive and significant effect on the dependent variable. In an offline context, several studies in different contexts have remarked the significant effect of convenience. These offline studies also include the hotel industry (Kuo *et al.*, 2012), retailing (Seiders *et al.*, 2005), hardware service (Chang *et al.*, 2013) and home delivery (Hsu *et al.*, 2010). Similarly, Anderson and Srinivasan (2003) have extended their study among customers of online companies. They too have confirmed the significant effect of convenience as moderator between eSatisfaction and eLoyalty. According to their study, a high level of convenience will enhance the relationship between online satisfaction and online loyalty.

In this study, the moderator effect was analysed using SmartPLS by employing the bootstrapping technique. The product-indicator approach was applied by interacting eSatisfaction and convenience constructs. In this study, in contrast to all the previous literatures and findings, the moderating effect of convenience on eSatisfaction towards eLoyalty was found to be non-significant. It has been supported that in some cases the moderating role may not show significant result due to the constant effect between independent and dependent variable (Dawson, 2014; Hair *et al.*, 2014). Therefore, in this study, there is a constant effect between eSatisfaction and eLoyalty without any interacting effect of convenience. In other word, convenience does not have a moderating effect from eSatisfaction towards eLoyalty.

There might be some reasons why convenience does not act as a moderator in this study. Whereas, previous studies and literatures have revealed that convenience plays a significant role as a moderator. The non-consistent result between this study and other previous studies might be due to the nature of the study as well as the demographic factors. One plausible reason is that the internet banking users are more concerned of technology uncertainty, fraudulent, risk security and trust worthiness of the service in spite of the convenience offered. Thus, in this study, convenience does not have an interaction effect. Their fear of losing their money and private information are greater than the convenience of the service. Another justification may be due to the reason that this study is performed in Malaysia and is conducted among the internet banking users which is in the different context from other previous studies. Looking at the previous studies, their studies are conducted in an offline setting, different industry and outside of Malaysia. One study was employed among the commercial hotel customers and concluded that convenience acts as a moderator between satisfaction and purchase intention.

Another study was conducted in a speciality retailing shop among its customers which revealed significant moderating effect of convenience between satisfaction and repurchase behaviour. In another research in a hardware service environment, convenience has a moderating impact on intention towards re-visit. All these studies were conducted outside of Malaysia. Similarly, looking at the online perspective, one previous study was employed among the online retailing customers and is also concluded that convenience moderates the relationship between online satisfaction and online loyalty. Thus it can be inferred that the nature which are the online setting, banking environments as well as internet banking users in Malaysia somehow affect the non-significant result of convenience as moderator compared to other previous studies which produced significant result.

5.4 Implications of the Study

Overall, the study has resulted in several contributions to the body of knowledge. These contributions have fallen under two major categories which are theoretical and practical contributions. These two contributions will be further discussed in the subsequent sub-sections.

5.4.1 Theoretical Contributions

The empirical analysis on direct, mediating and moderating effect towards eLoyalty are among the main theoretical contributions of the research, especially in the internet banking scenario among the Malaysian internet banking users. The first and main theoretical contribution is fulfilling the gap by the inclusion of a moderator

between eSatisfaction and eLoyalty. The moderation effect discussed in the study is convenience.

In the study, convenience is introduced to examine the interacting effect between eSatisfaction and eLoyalty. The concept of convenience as moderator has been studied in the offline contexts such as among the specialty retailing, hardware service, commercial hotel and home delivery service. However, there were only some limited studies on convenience as moderator were conducted in the online context. Thus, little is known about the moderation effect on convenience especially in the online setting. So far based on the researcher knowledge, only one study on convenience construct as moderator has been conducted in the online retailing context by Anderson and Srinivasan (2003). They have concluded that convenience moderates the relationship between eSatisfaction and eLoyalty. Hence, by including and examining convenience factor, this study is among the first to foresee the moderating effect of convenience between eSatisfaction and eLoyalty particularly among the online banking users in Malaysia.

In addition, other previous studies that include convenience as moderator covered only selected geographical areas such as North American, Taiwan and Taipei. Furthermore, these studies were also conducted in other type of contexts but not in the online banking context. In contrast to the previous researches, it is concluded that in this study, convenience does not act as moderator between eSatisfaction and eLoyalty. As a result, eSatisfaction has a constant effect on eLoyalty without any moderating effect (convenience). As discussed in earlier section, the justification for the finding was due to the nature of the research area which was the internet banking service as well as the respondents. The internet banking users were found to be more

concern on security, privacy and web quality of the services regardless of the convenience being offered.

Secondly, the inclusion of eSatisfaction as mediator also contributed in term of theoretical aspect. In this study, the mediator construct between two associated variables is not vastly researched in Malaysia. Furthermore, eSatisfaction was introduced because of its effect on the relationship between the independent variables (privacy, security and website quality) and dependent variable (eLoyalty). The mediation effect was included in this study because it can provide some insights or clarifications on the relationship between privacy and eLoyalty, security and eLoyalty as well as website quality and eLoyalty. The mediation effect will reveal significant information such as whether the two related variables have no, partial or full mediation effect. In this study, it was found that eSatisfaction has a partial mediation effect between privacy and eLoyalty. In addition, full mediation effect of eSatisfaction was revealed between the relationship of security and eLoyalty as well as website quality and eLoyalty.

As mentioned earlier, the mediation path between privacy and eLoyalty through eSatisfaction has resulted in partial mediation effect. In this case, both direct and indirect effect between privacy and eLoyalty are found to be significant. In this study, eLoyalty can be acquired directly through privacy and eLoyalty can be also enhanced through the mediation effect of eSatisfaction from the antecedent of privacy. Moreover, full mediation effects were found in the other two mediation paths which were security and eLoyalty (mediated by eSatisfaction) and website quality and eLoyalty (mediated by eSatisfaction). In the case of full mediation, both direct effects between security towards eLoyalty and website quality on eLoyalty

were weaker even though these hypotheses are supported. This specifically explained that in these two mediation paths, online Loyalty was obtained through eSatisfaction which concluded that internet banking users must feel satisfied before they become loyal towards the internet banking services.

Other than that, the study also includes the prominent variables such as eTrust, eSatisfaction, eCommitment towards eLoyalty. These factors are essential because of their influences on the endogenous construct. Looking at eTrust, the construct has gained much attention among the marketers and academicians due to its effect on customers as well as businesses. Trust has become more important especially when customers are engaging with the online companies on the account of customers have limited verification on authenticity of the services, products and companies in the online context. It is also noted that online trust has positive implications on relationship and loyalty. Next, eSatisfaction too has been considered as essential in gaining customer loyalty. Satisfied customers are inclined to continuously use the product or service and thus prevent them from churning to the competitors. In addition, eCommitment has been highlighted to have an impact in influencing the tendency to make purchase and enhance loyalty. Besides that, committed customer will feel more attached towards the product or service and thus lead to loyalty.

Furthermore, both mediating and moderating effects were analysed in the study to anticipate the simultaneous effect of both mediator and moderator. It has been claimed that it is pertinent to foresee both mediator and moderator effects because these effects may provide better explanation of the end result of online loyalty (Yee & Faziharudean, 2010). In addition, the study involved a more comprehensive model with direct, mediating and moderating effect analysis. The direct effects discussed in

the study were between privacy, security, website quality towards eSatisfaction, eSatisfaction on eCommitment and eTrust, eSatisfaction, eCommitment influence towards eLoyalty. The analysis of eSatisfaction as mediator and convenience as moderator were also examined.

Based on all these explanations, this study has contributed theoretically by adding up the empirical evidences support towards related research area. The study also includes the presence of direct effects, a mediator, a moderator and both simultaneous effects of mediator and moderator and a more comprehensive model.

5.4.2 Practical Contributions

The second contribution of this study is the practical contributions. The study is foreseen to provide guidance in term of the managerial perspective thus deliver improvement for Malaysian internet banking industry. Malaysian bank managers well as the policy makers can get some understandings and insights on how to manage customer online loyalty among the internet banking users. Improvements on internet banking will assist bank managers to attract more online users as well as enhancing online customer satisfaction and loyalty.

Initially, this study will assist managers of internet banking services on how to ensure the sustainability and improvement of customer online satisfaction, online commitment and online loyalty. Looking at the perspective on customer online satisfaction, managers and policy makers can extend their effort on the improvement of privacy, security and website quality aspects because these three constructs contribute positively and significantly toward eSatisfaction. In addition, managers as

well as the policy makers can structure better methods and strategies to strengthen these three aspects especially in the internet banking environment. Improvement on these three aspects could help in gaining, sustaining as well as improving customer online loyalty toward a particular internet banking service. This improvement will benefit most internet banking services as it can help to sustain the current users as well as gain new users. This is practically efficient because the cost of acquiring new customer is much higher as compared to sustaining the existing users.

Secondly, eSatisfaction is an essential antecedent in order to create customer eCommitment. Thus, bank managers and policy makers must ensure customer satisfaction before making these users committed or attached in using the internet banking services. Customer eCommitment is essential because customer will feel attached to the internet banking services thus avoid them from changing to other operators as well as prevent them from changing their belief about the current internet banking service. In any circumstances, prevention of any mistake is better as any dissatisfaction could lead to customer churn. Therefore, better and efficient strategies and policies will help to retain current and gain new internet banking users; thus, enhance online loyalty.

Looking at the perspective on eLoyalty, all three antecedents such as eSatisfaction, eCommitment and eTrust played essential roles in determining online Loyalty. Bank managers and the policy makers can investigate essential elements in eSatisfaction, eCommitment and eTrust to ensure and strengthen customer online loyalty among the internet banking users. Building up customer loyalty is seen as necessary because loyalty will lead to positive word-of-mouth and encouragement from the

existing users to others. Also, customer loyalty will create individual liking or favouritism as well as consistent and persistent usage of the internet banking service.

As a conclusion, the findings suggest significant contributions from both theoretical and practical perspectives. Therefore, it is pertinent for bank managers and policy makers to understand and strategize on these variables to improve and enhance the current situation in the internet banking service.

5.5 Limitations and Future Research

It is common to have some limitations in most researches including in this study. However, these limitations can be considered as a recommendation or an opportunity for future studies. The sample for this study is only limited to internet banking users in the Northern Region which include Perak, Penang, Kedah and Perlis. The finding may not be generalized to the internet banking users in other Regions as well as other online services or businesses. Possibly, it can be suggested that a larger sample of internet banking users could be obtained from other regions because the result from other regions and banks might reveal different output. In addition, only three most visited online banking websites were chosen in the study. It is further proposed that the study on other smaller banks and even foreign banks that offer internet banking services can reveal different end result based on the factors examined in the study. Their attitude and behavior towards online banking might differ, thus affecting the final result of their online loyalty.

This study only used one instrument which is the questionnaires to collect data. Perhaps, future study could use qualitative or mix-method to support the results of

this study. The advantage of qualitative research is researcher may explore more details on issues or factors involving online loyalty due to the nature of qualitative method. The result from either qualitative or mix-method might provide significant impact on online satisfaction and online loyalty among the internet banking users in Malaysia.

It is also recommended that other mediator or moderator could be considered in future studies. This will offer further understanding of other mediator and moderator effects on eLoyalty. Furthermore, a larger sample size can be also undertaken to those who are interested in analysing changes or significant effects of convenience (moderator) towards online loyalty. Perhaps, a larger sample might reveal the changes in the moderation effect. In addition, more antecedents can be introduced besides privacy, security, website quality and eTrust to foresee any changes in online Loyalty. The presence of other antecedents may be able to explain the online environment more profoundly.

It is also suggested that future studies can be addressed to examine any significant differences among categories under the demographic characteristics. This is due to the online loyalty level might differ among each category of respondents based on their demographic profiles. If there is any significant differences, customized and better strategic implementations could be realized to approach different category of respondents in order to achieve better or higher level of loyalty.

5.6 Conclusion

This study is an extended research to determine the direct, indirect (mediator) and moderating effect towards eLoyalty especially among the internet banking users in Malaysia especially in the Northern area. Eleven hypotheses were developed based on previous literatures. In this study, eight constructs were used, whereby three constructs which are privacy, security and website quality were antecedents of eSatisfaction, eSatisfaction is linked to eCommitment, another three constructs namely eSatisfaction, eCommitment and eTrust are directed towards eLoyalty. Moreover, eSatisfaction is the mediator between privacy, security and website quality towards eLoyalty and convenience is the moderator between eSatisfaction and eLoyalty.

All direct relationships such as privacy, security and website quality were found to have influences on customer eSatisfaction. Thus, the internet banking providers must exert effort in improving these aspects in order to build eSatisfaction. Similarly, the link between eSatisfaction and eCommitment also revealed positive and significant path coefficient. The result between eSatisfaction, eCommitment toward eLoyalty also produced positive and significant impact. Therefore, internet banking providers as well as the policy makers must ensure that these factors are improved in order to enhance customer online loyalty among the internet banking users. Next, the mediation effect of eSatisfaction was tested and confirmed among all three relationships between two associated variables. The mediation effect of eSatisfaction between Privacy towards eLoyalty resulted in partial mediation effect, security towards eLoyalty as well as website quality on eLoyalty revealed full mediation effects. Lastly, the moderator of convenience did not moderate the relationship

between eSatisfaction and eLoyalty. Thus, the result exhibited a constant effect between eSatisfaction and eLoyalty. In conclusion, based on the above results, the study contributed significantly in term of theoretical and practical contributions. The study has pointed some limitations as well as suggestions for future research.



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**APPENDIX A
QUESTIONNAIRES**



Dear Respondent,

I am currently a student of University Utara Malaysia (UUM) undertaking a research investigating the online satisfaction and online loyalty toward internet banking. Your response is extremely important to the success of this research. Please take a few minutes to give your most thoughtful answers. Each of your opinion is greatly appreciated and your response will be treated as “Strictly Confidential” and will be used for academic purpose only.

Finally, I am highly thankful for your cooperation, time and effort in answering the questionnaires.

Yours Sincerely,
Norhidayah bt. Ali
Student of PhD Program (No. Matrik: 94318)

Responden yang Dihormati,

Saya adalah seorang pelajar Universiti Utara Malaysia (UUM) yang menjalankan penyelidikan berkaitan e-kepuasan dan e-kesetiaan terhadap perbankan internet. Maklumbalas dari anda adalah amat penting dalam menjayakan kajian ini. Sila luangkan beberapa minit untuk memberi jawapan yang bernas bagi anda. Setiap satu daripada pendapat anda amatlah dihargai dan respon anda akan dianggap sulit dan akan digunakan untuk tujuan akademik sahaja.

Akhir sekali, saya sangat berterima kasih di atas kerjasama, masa dan usaha anda menjawab soal selidik ini.

Yang Benar,
Norhidayah bt. Ali
Penuntut Program PhD (No. Matrik: 94318)

Questionnaires / Soalan Kaji Selidik

Section A: General Information (Please tick ✓ your answer)

Bahagian A: Maklumat Am (Sila tandakan ✓ jawapan anda).

1. **Are you a bank customer?** / Adakah anda seorang pelanggan bank?
 Yes / Ya
 No / Tidak (If no, thank you for your time in participating in the survey/ Jika tidak, terima kasih kerana meluangkan masa dalam kaji selidik ini)

2. **Gender / Jantina**
 Male / Lelaki
 Female / Perempuan

3. **Age group / Kumpulan umur**
 Less than 20 / Bawah 20
 20 – 29
 30 – 39
 40 – 49
 50 & above / 50 & ke atas

4. **Marital status / Status perkahwinan**
 Single / Bujang
 Married / Berkahwin
 Divorced / Duda atau Janda
 Others (please specify) / Lain-Lain (sila nyatakan) _____

5. **Academic qualification / Kelayakan akademik**
 PMR / LCE or below / PMR/LCE atau di bawah
 SPM / MCE
 Certificate / Diploma / Sijil / Diploma
 Degree/ Professional Certificate / Ijazah / Sijil Profesional
 Postgraduate / Pasca Siswazah
 Others (please specify) / Lain-Lain (sila nyatakan) _____

6. **Employment Status / Status Pekerjaan**
- Student / Pelajar**
 - Self-Employed / Bekerja sendiri**
 - Professional / Profesional**
 - Manager / Pengurus**
 - Management level / Pihak Pengurusan**
 - Academician / Ahli akademik**
 - Technician / Juruteknik**
 - Clerical support employee / Pekerja sokongan perkeranian**
 - Service and sales employee / Pekerja perkhidmatan dan jualan**
 - Skilled employee- agricultural, forestry, fishery and craft / Pekerja mahir-pertanian, perhutanan, perikanan dan pertukangan**
 - Plant and machine operator and assembler / Operator loji dan mesin dan pemasang**
 - Others (please specify) / Lain-lain (sila nyatakan) _____**
7. **Monthly income / Pendapatan bulanan**
- RM3,000 and below / RM3000 dan ke bawah**
 - RM3,001 – RM6,000 / RM3,001 - RM6,000**
 - RM6,001 – RM9,000 / RM6,001 – RM9,000**
 - RM9,001 – RM12,000 / RM9,001 – RM12,000**
 - RM12,000 and more / RM12,000 dan ke atas**
8. **Are you an internet banking users? / Adakah anda seorang pengguna perbankan internet?**
- Yes (If yes, please proceed to Question 9 onwards) / Ya (Jika ya, sila terus ke Soalan 9 dan seterusnya)**
 - No / Tidak (If no, please state the reason(s) of not using the internet banking services) / (Jika tidak, sila nyatakan sebab atau sebab-sebab tidak menggunakan perkhidmatan perbankan internet)**
 - I am concern about the privacy of my private information.**
Saya bimbang mengenai privasi maklumat peribadi saya.
 - I am concern about the security risk of the service.**
Saya bimbang mengenai risiko keselamatan perkhidmatan.
 - The website design (such as information, design and interaction) is low in quality.**
Reka bentuk laman web (seperti maklumat, reka bentuk dan interaksi) adalah kurang berkualiti.
 - I do not trust the internet banking service**
Saya tidak percaya kepada perkhidmatan perbankan internet.
 - Others (please specify) _____**
Lain-lain (sila nyatakan) _____

9. **Internet banking usage frequency** / *Kekerapan penggunaan perbankan internet*
- 1-3 times per month** / *1-3 kali sebulan*
 - 4-6 times per month** / *4-6 kali sebulan*
 - 7-9 times per month** / *7-9 kali sebulan*
 - more than 9 times per month** / *Lebih dari 9 kali sebulan*
10. **Number of years using internet banking** / *Bilangan tahun menggunakan perbankan internet*
- Less than 1 year** / *Kurang daripada 1 tahun*
 - 1 years – 3 years** / *1 tahun - 3 tahun*
 - More than 3 years - 6 years** / *Lebih daripada 3 tahun - 6 tahun*
 - More than 6 years** / *Lebih daripada 6 tahun*
11. **Latest time usage of internet banking** / *Penggunaan terkini perbankan internet*
- Less than 1 week ago** / *Kurang daripada 1 minggu yang lalu*
 - 1-2 weeks ago** / *1-2 minggu yang lalu*
 - More than 2 - 4 weeks ago** / *Lebih daripada 2 - 4 minggu yang lalu*
 - 1-2 months ago** / *1-2 bulan yang lalu*
 - More than 2 months ago** / *Lebih daripada 2 bulan yang lalu*
12. **Internet banking accounts** / *Akaun perbankan internet*
- Maybank Berhad
 - CIMB Bank Berhad
 - Public Bank Berhad
13. **Decision to use internet banking services is influenced by: (You can tick more than one)** / *Keputusan untuk menggunakan perkhidmatan perbankan internet dipengaruhi oleh: (Anda boleh tandakan lebih daripada satu)*
- Own-self** / *Diri sendiri*
 - Friends** / *Rakan-rakan*
 - Co-workers** / *Kawan sekerja*
 - Family** / *Keluarga*
14. **Intention to use Internet Banking Services in the future?** / *Niat untuk menggunakan perkhidmatan perbankan internet pada masa akan datang?*
- Yes** / *Ya*
 - Not sure** / *Tidak pasti*
 - No** / *Tidak*

Section B (Please circle your answer)

The statement below indicates your behaviors towards factors leading to loyalty towards your internet banking services. Please read carefully each statement and place your response by circling the appropriate column.

Bahagian B (Sila bulatkan jawapan anda)

Kenyataan di bawah menunjukkan tingkah laku anda terhadap faktor-faktor yang membawa kepada kesetiaan terhadap perkhidmatan perbankan internet anda. Sila baca dengan teliti setiap kenyataan dan bulatkan respon anda pada ruangan yang bersesuaian.



a) **Privacy (P) / Privasi**

1	2	3	4	5	6	7
Strongly Disagree	Disagree	Disagree Somewhat	Neither Agree nor Disagree	Agree Somewhat	Agree	Strongly Agree
<i>Sangat Tidak Setuju</i>	<i>Tidak Setuju</i>	<i>Agak Tidak Setuju</i>	<i>Neutral</i>	<i>Agak Setuju</i>	<i>Setuju</i>	<i>Sangat Setuju</i>

Privacy (P)	To what extent						
1. This internet banking service shows concern for the privacy of its user. <i>Perkhidmatan perbankan internet menunjukkan keprihatinan terhadap privasi pengguna.</i>	1	2	3	4	5	6	7
2. I feel safe when I send personal information to this internet banking services. <i>Saya berasa selamat apabila saya menghantar maklumat peribadi kepada perkhidmatan perbankan internet ini.</i>	1	2	3	4	5	6	7
3. This internet banking service abides by personal data protection laws. <i>Perkhidmatan perbankan internet mematuhi undang-undang perlindungan data peribadi.</i>	1	2	3	4	5	6	7
4. This internet banking service only collects user personal data that are necessary for its activity. <i>Perkhidmatan perbankan internet hanya mengumpul data peribadi pengguna yang perlu untuk aktivitinya.</i>	1	2	3	4	5	6	7
5. This internet banking service respects the user rights when obtaining personal information. <i>Perkhidmatan perbankan internet menghormati hak-hak pengguna apabila mendapatkan maklumat peribadi.</i>	1	2	3	4	5	6	7
6. This internet banking services will not provide my personal information to other companies without my consent. <i>Perkhidmatan perbankan internet ini tidak akan memberikan maklumat peribadi saya kepada syarikat lain tanpa kebenaran saya.</i>	1	2	3	4	5	6	7

<p>7. This internet banking service will ask user's permission before sending any advertisements.</p> <p><i>Perkhidmatan perbankan internet akan meminta izin pengguna sebelum menghantar iklan.</i></p>	<p>1 2 3 4 5 6 7</p>
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b) **Security (S) / Keselamatan**

1	2	3	4	5	6	7
Strongly Disagree	Disagree	Disagree Somewhat	Neither Agree nor Disagree	Agree Somewhat	Agree	Strongly Agree
<i>Sangat Tidak Setuju</i>	<i>Tidak Setuju</i>	<i>Agak Tidak Setuju</i>	<i>Neutral</i>	<i>Agak Setuju</i>	<i>Setuju</i>	<i>Sangat Setuju</i>

Security (S)	To what extent						
<p>1. This internet banking service has mechanisms to ensure the safe transaction of its users' information. <i>Perkhidmatan perbankan internet ini mempunyai mekanisme untuk memastikan transaksi yang selamat bagi maklumat pengguna.</i></p>	1	2	3	4	5	6	7
<p>2. This internet banking service shows great concern for the security of any transactions. <i>Perkhidmatan perbankan internet menunjukkan keprihatinan bagi keselamatan segala urusan niaga.</i></p>	1	2	3	4	5	6	7
<p>3. This internet banking service has sufficient technical capacity to ensure that no other organization will supplant (imitate) its identity on the internet. <i>Perkhidmatan perbankan internet mempunyai kapasiti teknikal yang mencukupi untuk memastikan tiada organisasi lain dapat menggantikan identitinya di internet.</i></p>	1	2	3	4	5	6	7
<p>4. I am sure of the identity of this internet banking service when I establish contact via the internet. <i>Saya pasti tentang identiti perkhidmatan perbankan internet ini apabila saya berhubung melalui internet.</i></p>	1	2	3	4	5	6	7
<p>5. When I send data to this internet banking services, I am sure that they will not be intercepted by unauthorized third parties. <i>Apabila saya menghantar data ke perkhidmatan perbankan internet ini, saya pasti bahawa mereka tidak akan dipintas oleh pihak ketiga yang tidak dibenarkan.</i></p>	1	2	3	4	5	6	7

<p>6. This internet banking service has sufficient technical capacity to ensure that the data I send will not be intercepted by hackers. <i>Perkhidmatan perbankan internet ini mempunyai kapasiti teknikal yang mencukupi untuk memastikan bahawa data yang saya hantar tidak akan dipintas oleh penggodam.</i></p>	<p>1 2 3 4 5 6 7</p>
<p>7. When I send data to this internet banking website, I am sure they cannot be modified by a third party. <i>Apabila saya menghantar data ke laman web perbankan internet ini, saya pasti mereka tidak boleh diubah suai oleh pihak ketiga.</i></p>	<p>1 2 3 4 5 6 7</p>
<p>8. This internet banking website has sufficient technical capability to ensure that the data I send cannot be modified by a third party. <i>Laman web perbankan internet ini mempunyai keupayaan teknikal yang mencukupi untuk memastikan bahawa data yang dihantar tidak boleh diubah suai oleh pihak ketiga.</i></p>	<p>1 2 3 4 5 6 7</p>



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c) Website Quality (WQ) / Kualiti Laman Web

1	2	3	4	5	6	7
Strongly Disagree	Disagree	Disagree Somewhat	Neither Agree nor Disagree	Agree Somewhat	Agree	Strongly Agree
<i>Sangat Tidak Setuju</i>	<i>Tidak Setuju</i>	<i>Agak Tidak Setuju</i>	<i>Neutral</i>	<i>Agak Setuju</i>	<i>Setuju</i>	<i>Sangat Setuju</i>

Website Quality (WQ)	To what extent						
1. Learning to operate this internet banking website is easy for me. <i>Pembelajaran tentang mengendalikan laman web perbankan internet ini adalah mudah bagi saya.</i>	1	2	3	4	5	6	7
2. The display pages within this internet banking website are easy to read. <i>Laman-laman paparan dalam laman web perbankan internet ini adalah mudah untuk dibaca.</i>	1	2	3	4	5	6	7
3. This internet banking website loads quickly. <i>Muatnaik di laman web perbankan internet ini adalah cepat.</i>	1	2	3	4	5	6	7
4. When I use this internet banking website, there is very little waiting time between my actions and the internet banking services website's response. <i>Apabila saya menggunakan laman web perbankan internet ini, masa menunggu adalah sangat sedikit antara tindakan saya dan tindak balas laman web perkhidmatan perbankan internet ini.</i>	1	2	3	4	5	6	7
5. This internet banking website adequately meets my information needs. <i>Laman web perbankan internet ini memenuhi secukupnya maklumat yang saya perlukan.</i>	1	2	3	4	5	6	7

<p>6. It is easier to use this internet banking website to complete my banking needs compared to using other mediums (i.e. ATM and counter service).</p> <p><i>Ianya lebih mudah untuk menggunakan laman web perbankan internet ini untuk melengkapkan keperluan perbankan saya berbanding menggunakan medium lain (i.e. ATM dan perkhidmatan kaunter)</i></p>	<p>1 2 3 4 5 6 7</p>
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d) **e-Satisfaction (eS) / e-Kepuasan**

1	2	3	4	5	6	7
Strongly Disagree	Disagree	Disagree Somewhat	Neither Agree nor Disagree	Agree Somewhat	Agree	Strongly Agree
<i>Sangat Tidak Setuju</i>	<i>Tidak Setuju</i>	<i>Agak Tidak Setuju</i>	<i>Neutral</i>	<i>Agak Setuju</i>	<i>Setuju</i>	<i>Sangat Setuju</i>

e-Satisfaction (eS)	To what extent						
1. I am completely happy with my internet banking services. <i>Saya amat gembira dengan perkhidmatan perbankan internet ini.</i>	1	2	3	4	5	6	7
2. I am very pleased with what this internet bank services do for me. <i>Saya amat berpuas hati dengan segala yang dilakukan oleh perkhidmatan perbankan internet ini.</i>	1	2	3	4	5	6	7
3. My experiences with this internet banking services have always been satisfying. <i>Pengalaman saya dengan perkhidmatan perbankan internet ini adalah sentiasa memuaskan.</i>	1	2	3	4	5	6	7
4. Overall, I am very satisfied with my internet banking services. <i>Secara keseluruhan, saya amat berpuas hati dengan perkhidmatan perbankan internet ini.</i>	1	2	3	4	5	6	7
5. If I had to do it all over again, I would still choose to use this internet banking services. <i>Jika saya terpaksa melakukannya sekali lagi, saya masih memilih untuk menggunakan perkhidmatan perbankan internet ini.</i>	1	2	3	4	5	6	7

e) **e-Trust (eT) /e-Amanah**

1	2	3	4	5	6	7
Strongly Disagree	Disagree	Disagree Somewhat	Neither Agree nor Disagree	Agree Somewhat	Agree	Strongly Agree
Sangat Tidak Setuju	Tidak Setuju	Agak Tidak Setuju	Neutral	Agak Setuju	Setuju	Sangat Setuju

e-Trust (eT)	To what extent						
1. This internet banking provider is honest. <i>Pembekal perbankan internet ini adalah jujur.</i>	1	2	3	4	5	6	7
2. This internet banking provider will keep its promise. <i>Pembekal perbankan internet ini akan mengotakan janjinya.</i>	1	2	3	4	5	6	7
3. This internet banking provider puts customer interest first before its own. <i>Pembekal perbankan internet ini mengutamakan kepentingan pelanggan.</i>	1	2	3	4	5	6	7
4. This internet banking provider demonstrates its belief that “the customer is always right”. <i>Pembekal perbankan internet ini menunjukkan kepercayaan bahawa "pelanggan sentiasa betul".</i>	1	2	3	4	5	6	7
5. This internet banking provider is competent in carrying out its online banking transactions. <i>Pembekal perbankan internet adalah kompeten (atau cekap) dalam menjalankan transaksi perbankan internet.</i>	1	2	3	4	5	6	7
6. This internet banking provider is capable in carrying out its online banking transactions. <i>Pembekal perbankan internet ini mampu menjalankan transaksi perbankan internet.</i>	1	2	3	4	5	6	7
7. This internet banking provider knows how to provide excellent internet banking services. <i>Pembekal perbankan internet ini tahu bagaimana untuk menyediakan perkhidmatan perbankan internet yang terbaik.</i>	1	2	3	4	5	6	7

f) **e-Commitment (eC) / e-Komitmen**

1	2	3	4	5	6	7
Strongly Disagree	Disagree	Disagree Somewhat	Neither Agree nor Disagree	Agree Somewhat	Agree	Strongly Agree
Sangat Tidak Setuju	Tidak Setuju	Agak Tidak Setuju	Neutral	Agak Setuju	Setuju	Sangat Setuju

e-Commitment (eC)	To what extent						
1. I will not change my preference for this internet banking service. <i>Saya tidak akan menukar pilihan saya untuk perkhidmatan perbankan internet ini.</i>	1	2	3	4	5	6	7
2. It would be difficult to change my belief about this internet banking service. <i>Itu adalah sukar untuk mengubah kepercayaan saya terhadap perkhidmatan perbankan internet ini.</i>	1	2	3	4	5	6	7
3. Even if close friends recommend another online banking service, I would not change my preference for this internet banking service. <i>Walaupun kawan-kawan rapat mengesyorkan perkhidmatan perbankan internet yang lain, saya tidak akan menukar pilihan saya untuk perkhidmatan perbankan internet ini.</i>	1	2	3	4	5	6	7
4. To change my preference from this internet banking service would require major rethinking. <i>Untuk menukar pilihan saya daripada perkhidmatan perbankan internet ini memerlukan pemikiran yang lama.</i>	1	2	3	4	5	6	7

g) Convenience (C) / Kemudahan

1	2	3	4	5	6	7
Strongly Disagree	Disagree	Disagree Somewhat	Neither Agree nor Disagree	Agree Somewhat	Agree	Strongly Agree
Sangat Tidak Setuju	Tidak Setuju	Agak Tidak Setuju	Neutral	Agak Setuju	Setuju	Sangat Setuju

Convenience (C)	To what extent						
1. I want the convenience offers by this internet banking services. <i>Saya inginkan kemudahan yang ditawarkan oleh perkhidmatan perbankan internet.</i>	1	2	3	4	5	6	7
2. I enjoy the flexibility of this internet banking services. <i>Saya menikmati fleksibiliti perkhidmatan perbankan internet.</i>	1	2	3	4	5	6	7
3. I am interested in taking advantage of the ease of this internet banking services. <i>Saya berminat untuk mengambil kesempatan tentang mudahnya perkhidmatan perbankan internet.</i>	1	2	3	4	5	6	7
4. I would like to do transaction at my own pace while transacting the internet banking services. <i>Saya ingin melakukan transaksi mengikut rentak saya sendiri semasa menjalankan transaksi perkhidmatan perbankan internet.</i>	1	2	3	4	5	6	7
5. I would like to do transaction at my own feasibility while transacting the internet banking services. <i>Saya ingin melakukan transaksi pada kebolehlaksanaan saya sendiri semasa menjalankan transaksi perkhidmatan perbankan internet.</i>	1	2	3	4	5	6	7
6. I would like to do transaction at my own time while transacting the internet banking services. <i>Saya ingin melakukan transaksi mengikut masa saya sendiri semasa menjalankan transaksi perkhidmatan perbankan internet.</i>	1	2	3	4	5	6	7

<p>7. I would like to do transaction at my own place while transacting the internet banking services.</p> <p><i>Saya ingin melakukan transaksi di tempat saya sendiri semasa menjalankan transaksi perkhidmatan perbankan internet.</i></p>	<p>1 2 3 4 5 6 7</p>
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h) e-Loyalty (eL) /e-Kesetiaan

1	2	3	4	5	6	7
Strongly Disagree	Disagree	Disagree Somewhat	Neither Agree nor Disagree	Agree Somewhat	Agree	Strongly Agree
Sangat Tidak Setuju	Tidak Setuju	Agak Tidak Setuju	Neutral	Agak Setuju	Setuju	Sangat Setuju

e-Loyalty (eL)	To what extent						
<p>1. I seldom consider switching to another internet banking services after using this internet banking service. <i>Saya jarang mempertimbangkan untuk beralih kepada satu lagi perkhidmatan perbankan internet selepas menggunakan perkhidmatan perbankan internet ini.</i></p>	1	2	3	4	5	6	7
<p>2. As long as the current service continues, I doubt that I would switch internet banking services. <i>Selagi perkhidmatan perbankan internet sekarang berterusan, saya yakin saya tidak akan menukar kepada perkhidmatan perbankan internet yang lain.</i></p>	1	2	3	4	5	6	7
<p>3. I try to use the internet banking services whenever I need to do any transaction. <i>Saya akan cuba menggunakan perkhidmatan perbankan internet ini setiap kali saya perlu melakukan sebarang transaksi.</i></p>	1	2	3	4	5	6	7
<p>4. When I need to do any transaction, this internet banking services is my first choice. <i>Apabila saya perlu melakukan sebarang transaksi, perkhidmatan perbankan internet ini adalah pilihan pertama saya.</i></p>	1	2	3	4	5	6	7
<p>5. I like using this internet banking services. <i>Saya suka menggunakan perkhidmatan perbankan internet ini.</i></p>	1	2	3	4	5	6	7
<p>6. To me this site is the best internet banking services to do transaction with. <i>Bagi saya laman web ini adalah perkhidmatan perbankan internet yang terbaik untuk melakukan sebarang transaksi.</i></p>	1	2	3	4	5	6	7

<p>7. To me this is my favorite internet banking services <i>Bagi saya perkhidmatan perbankan internet ini adalah kegemaran saya.</i></p>	1	2	3	4	5	6	7
<p>8. I say positive things about this internet banking services to other people. <i>Saya mengatakan hal-hal positif mengenai perkhidmatan perbankan internet ini kepada orang lain.</i></p>	1	2	3	4	5	6	7
<p>9. I recommend this internet banking services to someone who seeks my advice. <i>Saya mencadangkan perkhidmatan perbankan internet ini kepada seseorang yang meminta nasihat.</i></p>	1	2	3	4	5	6	7
<p>10. I encourage friends and relatives to do transaction with this internet banking services. <i>Saya menggalakkan rakan-rakan dan saudara-mara untuk melakukan transaksi dengan perkhidmatan perbankan internet.</i></p>	1	2	3	4	5	6	7
<p>11. I have always used this internet banking service. <i>Saya sentiasa menggunakan perkhidmatan perbankan internet ini.</i></p>	1	2	3	4	5	6	7
<p>12. I am currently using this internet banking service. <i>Saya kini menggunakan perkhidmatan perbankan internet ini.</i></p>	1	2	3	4	5	6	7
<p>13. I will always want to use this internet banking service again. <i>Saya akan sentiasa ingin menggunakan perkhidmatan perbankan internet ini lagi.</i></p>	1	2	3	4	5	6	7

APPENDIX B
KMO and Bartlett's Test

Privacy		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.791
Bartlett's Test of Sphericity	Approx. Chi-Square	120.093
	df	21
	Sig.	0
Security		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.804
Bartlett's Test of Sphericity	Approx. Chi-Square	168.358
	df	28
	Sig.	0
Website Quality		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.67
Bartlett's Test of Sphericity	Approx. Chi-Square	100.502
	df	15
	Sig.	0
eSatisfaction		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.825
Bartlett's Test of Sphericity	Approx. Chi-Square	131.775
	df	10
	Sig.	0

eTrust		
<hr/>		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.846
Bartlett's Test of Sphericity	Approx. Chi-Square	151.988
	df	21
	Sig.	0

eCommitment		
<hr/>		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.722
Bartlett's Test of Sphericity	Approx. Chi-Square	63.944
	df	6
	Sig.	0

Convenience		
<hr/>		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.773
Bartlett's Test of Sphericity	Approx. Chi-Square	202.503
	df	21
	Sig.	0

eLoyalty		
<hr/>		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.903
Bartlett's Test of Sphericity	Approx. Chi-Square	397.566
	df	78
	Sig.	0

**APPENDIX C
MISSING VALUES**

Univariate Statistics

	N	Mean	Std. Dev.	Missing		No. of Extremes	
				Count	Percent	Low	High
Pri1	436	5.179	1.100	0	0.0	1	0
Pri2	435	4.749	1.205	1	0.2	5	0
Pri3	436	5.007	1.121	0	0.0	6	0
Pri4	436	5.025	1.169	0	0.0	7	0
Pri5	436	5.069	1.078	0	0.0	34	0
Pri6	436	4.940	1.223	0	0.0	1	0
Pri7	436	4.665	1.275	0	0.0	5	0
Sec1	436	5.259	1.068	0	0.0	0	0
Sec2	436	5.227	1.094	0	0.0	0	0
Sec3	436	4.954	1.212	0	0.0	4	0
Sec4	436	5.023	1.184	0	0.0	1	0
Sec5	436	4.842	1.188	0	0.0	2	0
Sec6	436	4.755	1.183	0	0.0	1	0
Sec7	436	4.674	1.235	0	0.0	2	0
Sec8	436	4.732	1.197	0	0.0	2	0
WQ1	436	5.422	1.108	0	0.0	27	0
WQ2	435	5.363	1.099	1	0.2	28	0
WQ3	436	5.030	1.133	0	0.0	0	0
WQ4	436	4.970	1.171	0	0.0	1	0
WQ5	436	5.094	1.067	0	0.0	1	0
WQ6	436	5.530	1.202	0	0.0	22	0
eSat1	436	5.289	1.080	0	0.0	27	0
eSat2	433	5.314	1.051	3	0.7	21	0
eSat3	436	5.161	1.177	0	0.0	41	0
eSat4	436	5.307	1.084	0	0.0	25	0
eSat5	436	5.427	1.119	0	0.0	22	0
eTr1	436	5.092	0.983	0	0.0	0	0
eTr2	436	5.041	0.998	0	0.0	1	0
eTr3	436	4.970	1.040	0	0.0	2	0
eTr4	436	4.899	1.132	0	0.0	5	0
eTr5	436	5.204	0.974	0	0.0	15	0
eTr6	436	5.374	1.024	0	0.0	17	0
eTr7	436	5.328	1.026	0	0.0	15	0
eComt1	436	5.046	1.181	0	0.0	4	0
eComt2	436	4.890	1.025	0	0.0	2	0

	N	Mean	Std. Deviation	Missing		No. of Extremes	
				Count	Percent	Low	High
eComt3	436	4.787	1.144	0	0.0	3	0
eComt4	436	4.906	1.185	0	0.0	2	0
Conv1	436	5.493	1.049	0	0.0	21	0
Conv2	436	5.399	1.027	0	0.0	18	0
Conv3	436	5.408	1.099	0	0.0	23	0
Conv4	436	5.404	1.032	0	0.0	16	0
Conv5	436	5.378	1.060	0	0.0	19	0
Conv6	436	5.507	1.049	0	0.0	21	0
Conv7	436	5.562	1.041	0	0.0	19	0
eL1	436	4.908	1.181	0	0.0	5	0
eL2	436	4.986	1.087	0	0.0	1	0
eL3	436	5.195	1.149	0	0.0	36	0
eL4	435	5.207	1.255	1	0.2	3	0
eL5	436	5.356	1.186	0	0.0	32	0
eL6	436	5.211	1.131	0	0.0	0	0
eL7	436	5.147	1.139	0	0.0	0	0
eL8	436	5.204	1.101	0	0.0	0	0
eL9	436	5.252	1.064	0	0.0	27	0
eL10	436	5.236	1.092	0	0.0	0	0
eL11	436	5.227	1.167	0	0.0	35	0
eL12	436	5.369	1.142	0	0.0	30	0
eL13	436	5.365	1.117	0	0.0	33	0

**APPENDIX D
T-TEST**

Independent Samples Test (Gender)						
	Levene's Test for Equality of Variances		t-test for Equality of Means			
	F	Sig	t	Sig. (2-tailed)	95% Confidence Interval of the Difference	
					Lower	Upper
Equal variances assumed	1.21	0.271	0.016	0.987	-0.191	0.194
Equal variances not assumed			0.016	0.987	-0.191	0.194



**APPENDIX E
ANOVA TEST**

AGE GROUP (years)	Sum of Squares	Mean Square	F	Sig.
Between Groups	3.992	0.998	1.093	0.36
Within Groups	385.468	0.913		
Total	389.46			

MARITAL STATUS	Sum of Squares	Mean Square	F	Sig.
Between Groups	3.765	1.255	1.376	0.249
Within Groups	385.695	0.912		
Total	389.46			

ACADEMIC QUALIFICATION	Sum of Squares	Mean Square	F	Sig.
Between Groups	5.84	1.168	1.282	0.271
Within Groups	383.62	0.911		
Total	389.46			

MONTHLY INCOME	Sum of Squares	Mean Square	F	Sig.
Between Groups	4.833	1.208	1.326	0.26
Within Groups	384.627	0.911		
Total	389.46			

EMPLOYMENT STATUS	Sum of Squares	Mean Square	F	Sig.
Between Groups	33.247	3.022	3.521	0
Within Groups	356.213	0.858		
Total	389.46			

APPENDIX F
Loadings and Cross Loadings (before deletion)

Items	Convenience	Privacy	Security	WebQuality	eCommitment	eLoyalty	eSatisfaction	eTrust
Conv1	0.844	0.460	0.568	0.615	0.601	0.668	0.623	0.565
Conv2	0.887	0.537	0.619	0.700	0.660	0.745	0.713	0.615
Conv3	0.872	0.498	0.581	0.612	0.609	0.675	0.639	0.570
Conv4	0.836	0.439	0.549	0.540	0.565	0.636	0.597	0.535
Conv5	0.859	0.447	0.546	0.588	0.572	0.643	0.594	0.571
Conv6	0.871	0.431	0.534	0.586	0.566	0.659	0.604	0.563
Conv7	0.848	0.422	0.511	0.571	0.562	0.631	0.583	0.543
Pri1	0.514	0.779	0.594	0.495	0.563	0.548	0.560	0.495
Pri2	0.427	0.750	0.585	0.454	0.500	0.536	0.505	0.468
Pri3	0.349	0.772	0.526	0.376	0.444	0.454	0.458	0.442
Pri4	0.384	0.777	0.520	0.460	0.484	0.457	0.492	0.425
Pri5	0.469	0.857	0.662	0.543	0.542	0.541	0.630	0.538
Pri6	0.320	0.741	0.600	0.487	0.445	0.431	0.534	0.504
Pri7	0.372	0.623	0.544	0.481	0.426	0.482	0.505	0.522
Sec1	0.628	0.634	0.784	0.601	0.531	0.600	0.636	0.590
Sec2	0.629	0.662	0.820	0.643	0.561	0.612	0.692	0.633
Sec3	0.514	0.648	0.803	0.561	0.589	0.550	0.583	0.639
Sec4	0.538	0.622	0.838	0.607	0.552	0.566	0.596	0.640

Sec5	0.474	0.572	0.802	0.551	0.544	0.508	0.507	0.631
Sec6	0.527	0.607	0.809	0.554	0.613	0.569	0.585	0.577
Sec7	0.437	0.608	0.821	0.536	0.572	0.499	0.541	0.598
Sec8	0.453	0.602	0.840	0.601	0.582	0.529	0.584	0.640
WQ1	0.568	0.550	0.592	0.812	0.566	0.606	0.663	0.604
WQ2	0.592	0.538	0.650	0.847	0.559	0.603	0.670	0.643
WQ3	0.494	0.423	0.477	0.774	0.508	0.554	0.586	0.570
WQ4	0.502	0.470	0.550	0.802	0.574	0.557	0.588	0.628
WQ5	0.591	0.552	0.665	0.806	0.614	0.631	0.663	0.634
WQ6	0.618	0.463	0.509	0.773	0.567	0.642	0.713	0.518
eComt1	0.616	0.588	0.659	0.661	0.873	0.783	0.711	0.670
eComt2	0.614	0.571	0.616	0.629	0.855	0.690	0.650	0.645
eComt3	0.526	0.544	0.560	0.535	0.823	0.693	0.552	0.543
eComt4	0.579	0.480	0.522	0.558	0.847	0.665	0.565	0.568
eLoy1	0.477	0.496	0.521	0.537	0.605	0.684	0.539	0.543
eLoy2	0.595	0.564	0.574	0.620	0.728	0.812	0.642	0.584
eLoy3	0.653	0.583	0.586	0.638	0.716	0.838	0.707	0.630
eLoy4	0.662	0.533	0.529	0.625	0.707	0.862	0.700	0.569
eLoy5	0.734	0.549	0.589	0.626	0.692	0.872	0.716	0.592
eLoy6	0.613	0.527	0.536	0.581	0.698	0.858	0.661	0.590
eLoy7	0.598	0.587	0.598	0.604	0.750	0.877	0.728	0.630

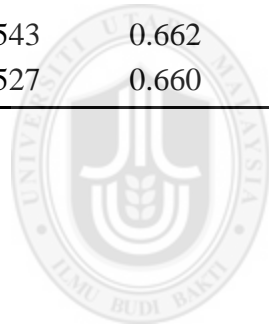
eLoy8	0.661	0.546	0.594	0.663	0.696	0.832	0.696	0.621
eLoy9	0.712	0.567	0.581	0.655	0.730	0.855	0.691	0.658
eLoy10	0.717	0.543	0.593	0.688	0.706	0.854	0.718	0.670
eLoy11	0.688	0.550	0.593	0.646	0.717	0.871	0.724	0.648
eLoy12	0.681	0.517	0.560	0.635	0.695	0.864	0.701	0.595
eLoy13	0.685	0.598	0.645	0.686	0.724	0.875	0.729	0.675
eSat1	0.671	0.652	0.674	0.717	0.639	0.709	0.892	0.642
eSat2	0.634	0.650	0.666	0.752	0.627	0.711	0.907	0.642
eSat3	0.640	0.614	0.651	0.757	0.661	0.728	0.898	0.666
eSat4	0.666	0.617	0.664	0.718	0.660	0.743	0.904	0.664
eSat5	0.638	0.594	0.615	0.684	0.701	0.771	0.877	0.608
eTr1	0.538	0.549	0.651	0.620	0.628	0.636	0.583	0.835
eTr2	0.573	0.507	0.662	0.637	0.594	0.595	0.570	0.867
eTr3	0.509	0.538	0.617	0.610	0.603	0.624	0.615	0.856
eTr4	0.430	0.476	0.545	0.567	0.540	0.543	0.537	0.761
eTr5	0.601	0.568	0.657	0.649	0.594	0.632	0.624	0.849
eTr6	0.627	0.563	0.662	0.678	0.631	0.634	0.646	0.847
eTr7	0.582	0.556	0.660	0.618	0.621	0.618	0.644	0.856

APPENDIX G
Loadings and Cross Loadings (after deletion)

Items	Convenience	Privacy	Security	WebQuality	eCommitment	eLoyalty	eSatisfaction	eTrust
Conv1	0.844	0.449	0.569	0.615	0.601	0.668	0.623	0.565
Conv2	0.887	0.524	0.619	0.700	0.660	0.745	0.713	0.615
Conv3	0.872	0.494	0.582	0.612	0.609	0.676	0.639	0.570
Conv4	0.837	0.421	0.550	0.540	0.565	0.642	0.597	0.535
Conv5	0.859	0.438	0.546	0.588	0.572	0.649	0.594	0.571
Conv6	0.871	0.415	0.534	0.586	0.566	0.660	0.604	0.563
Conv7	0.848	0.410	0.511	0.571	0.562	0.636	0.583	0.543
Pri1	0.514	0.801	0.594	0.495	0.563	0.548	0.560	0.495
Pri2	0.427	0.764	0.585	0.454	0.500	0.534	0.505	0.468
Pri3	0.349	0.804	0.526	0.376	0.444	0.446	0.458	0.442
Pri4	0.384	0.792	0.520	0.460	0.484	0.447	0.492	0.425
Pri5	0.469	0.860	0.662	0.543	0.542	0.540	0.630	0.538
Pri6	0.320	0.716	0.600	0.487	0.445	0.425	0.534	0.504
Sec1	0.628	0.629	0.785	0.601	0.531	0.603	0.636	0.590
Sec2	0.629	0.642	0.820	0.643	0.561	0.613	0.692	0.633
Sec3	0.514	0.626	0.803	0.561	0.589	0.543	0.583	0.639
Sec4	0.538	0.587	0.838	0.607	0.552	0.561	0.596	0.640
Sec5	0.474	0.538	0.802	0.551	0.544	0.503	0.507	0.631
Sec6	0.527	0.597	0.809	0.554	0.613	0.565	0.584	0.577
Sec7	0.437	0.596	0.820	0.536	0.572	0.489	0.541	0.598
Sec8	0.453	0.584	0.839	0.600	0.582	0.520	0.584	0.640

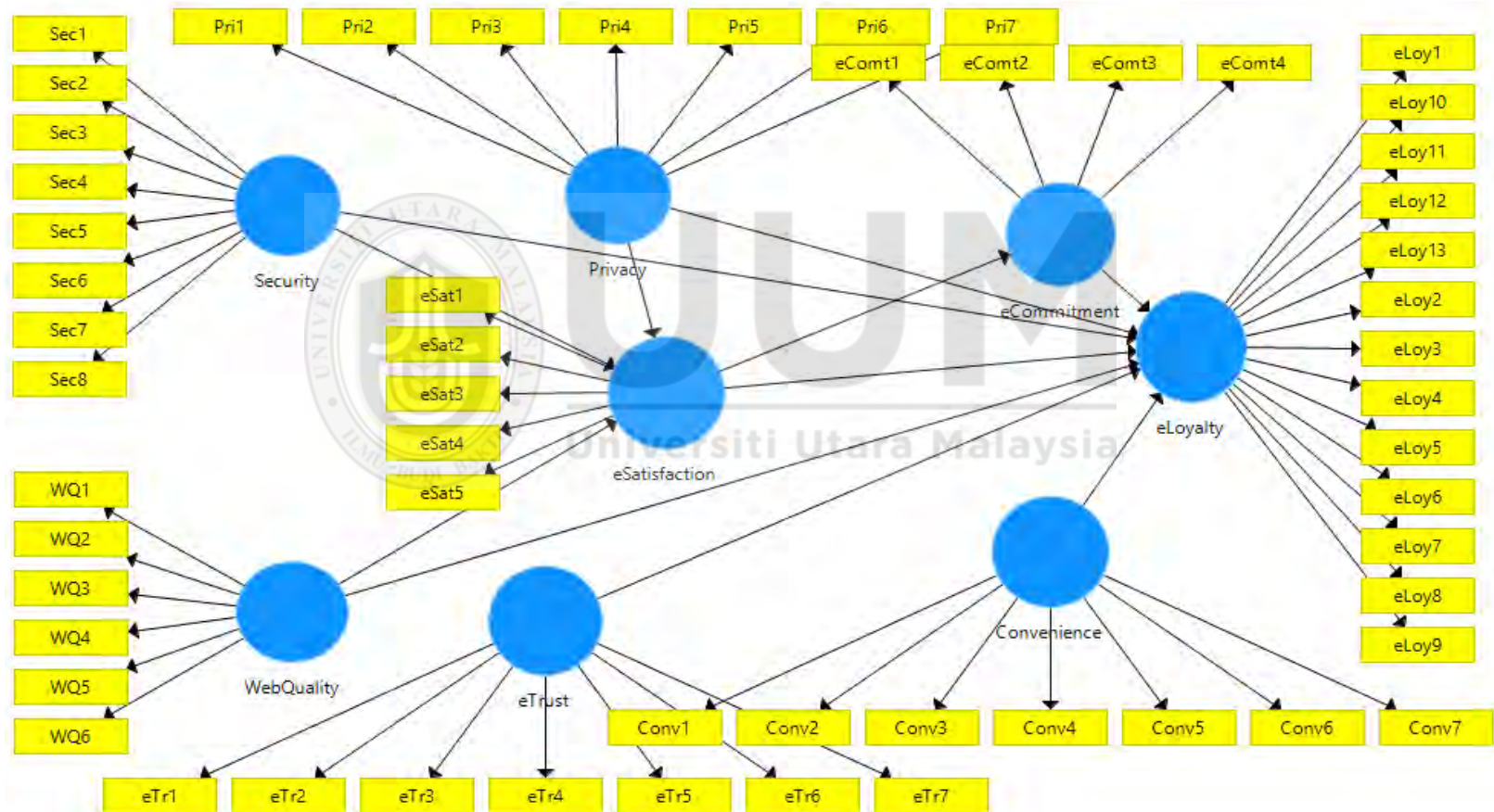
WQ1	0.568	0.533	0.593	0.813	0.566	0.605	0.663	0.604
WQ2	0.592	0.520	0.650	0.847	0.559	0.602	0.670	0.643
WQ3	0.493	0.396	0.477	0.774	0.508	0.552	0.586	0.570
WQ4	0.501	0.451	0.550	0.802	0.574	0.553	0.588	0.628
WQ5	0.590	0.522	0.665	0.806	0.614	0.624	0.663	0.634
WQ6	0.618	0.446	0.509	0.773	0.567	0.643	0.713	0.518
eComt1	0.616	0.568	0.659	0.661	0.873	0.780	0.711	0.670
eComt2	0.614	0.560	0.616	0.629	0.855	0.687	0.650	0.645
eComt3	0.526	0.540	0.560	0.535	0.823	0.688	0.552	0.543
eComt4	0.578	0.473	0.522	0.558	0.847	0.662	0.565	0.568
eLoy2	0.717	0.518	0.593	0.688	0.706	0.858	0.718	0.670
eLoy3	0.688	0.537	0.594	0.646	0.717	0.878	0.724	0.648
eLoy4	0.681	0.505	0.561	0.635	0.695	0.871	0.701	0.595
eLoy5	0.685	0.575	0.645	0.686	0.724	0.879	0.729	0.675
eLoy6	0.595	0.548	0.574	0.620	0.728	0.799	0.642	0.584
eLoy7	0.653	0.570	0.587	0.638	0.716	0.836	0.707	0.630
eLoy8	0.662	0.516	0.529	0.625	0.707	0.867	0.700	0.569
eLoy9	0.734	0.525	0.590	0.626	0.692	0.877	0.716	0.592
eLoy10	0.613	0.506	0.536	0.581	0.698	0.857	0.661	0.590
eLoy11	0.598	0.566	0.598	0.604	0.750	0.874	0.728	0.630
eLoy12	0.661	0.515	0.594	0.663	0.696	0.831	0.696	0.621
eLoy13	0.712	0.542	0.581	0.655	0.730	0.858	0.691	0.658
eSat1	0.671	0.631	0.674	0.717	0.639	0.708	0.892	0.642
eSat2	0.634	0.635	0.666	0.752	0.627	0.709	0.907	0.642

eSat3	0.640	0.582	0.652	0.757	0.661	0.728	0.898	0.666
eSat4	0.666	0.593	0.664	0.718	0.660	0.744	0.905	0.664
eSat5	0.638	0.583	0.615	0.684	0.701	0.774	0.877	0.608
eTr1	0.538	0.515	0.651	0.620	0.628	0.634	0.583	0.835
eTr2	0.573	0.482	0.662	0.637	0.594	0.591	0.570	0.867
eTr3	0.509	0.507	0.617	0.610	0.603	0.616	0.615	0.855
eTr4	0.430	0.449	0.545	0.566	0.540	0.539	0.537	0.761
eTr5	0.601	0.541	0.657	0.649	0.594	0.630	0.624	0.849
eTr6	0.627	0.543	0.662	0.678	0.631	0.632	0.646	0.848
eTr7	0.582	0.527	0.660	0.618	0.621	0.614	0.644	0.856

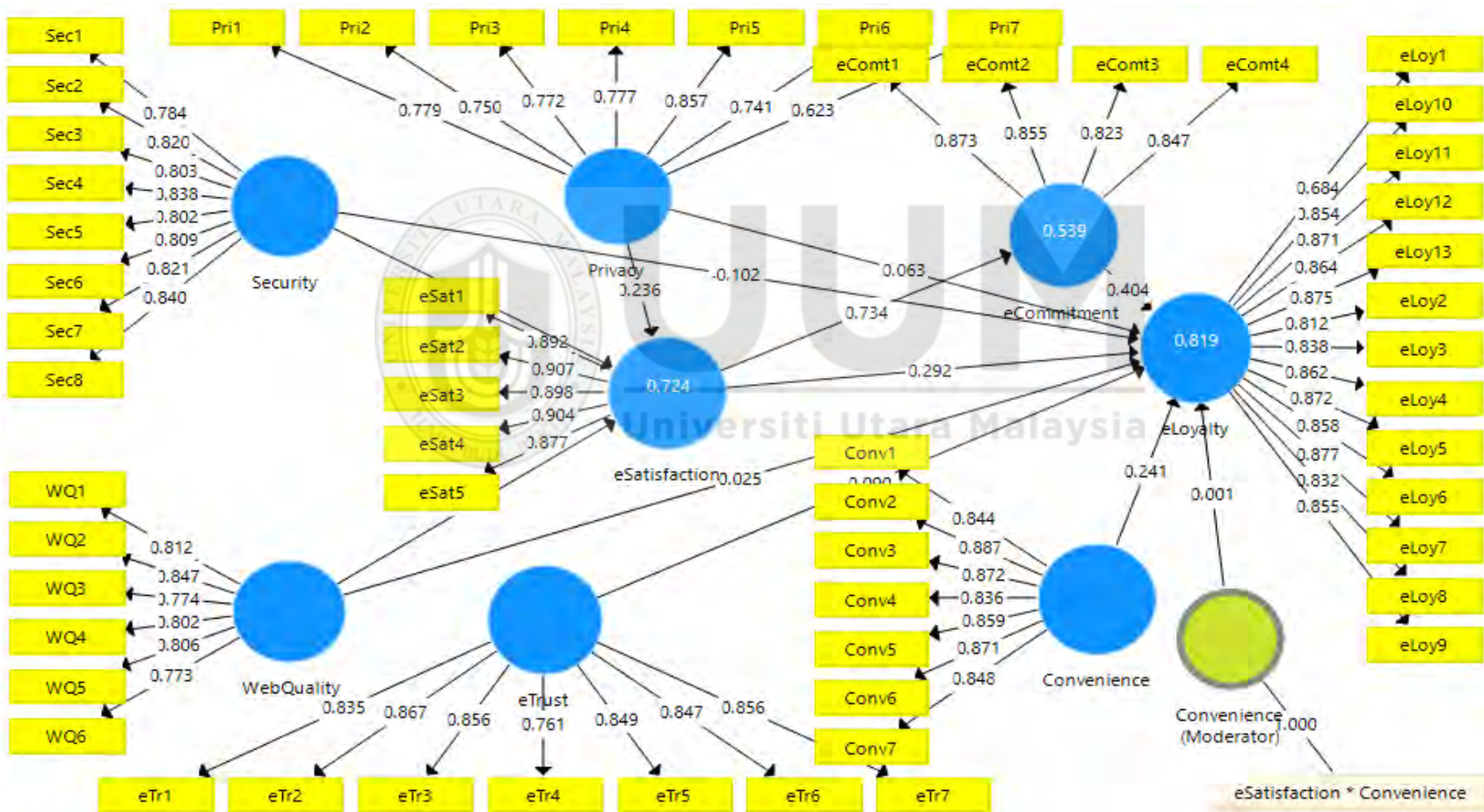


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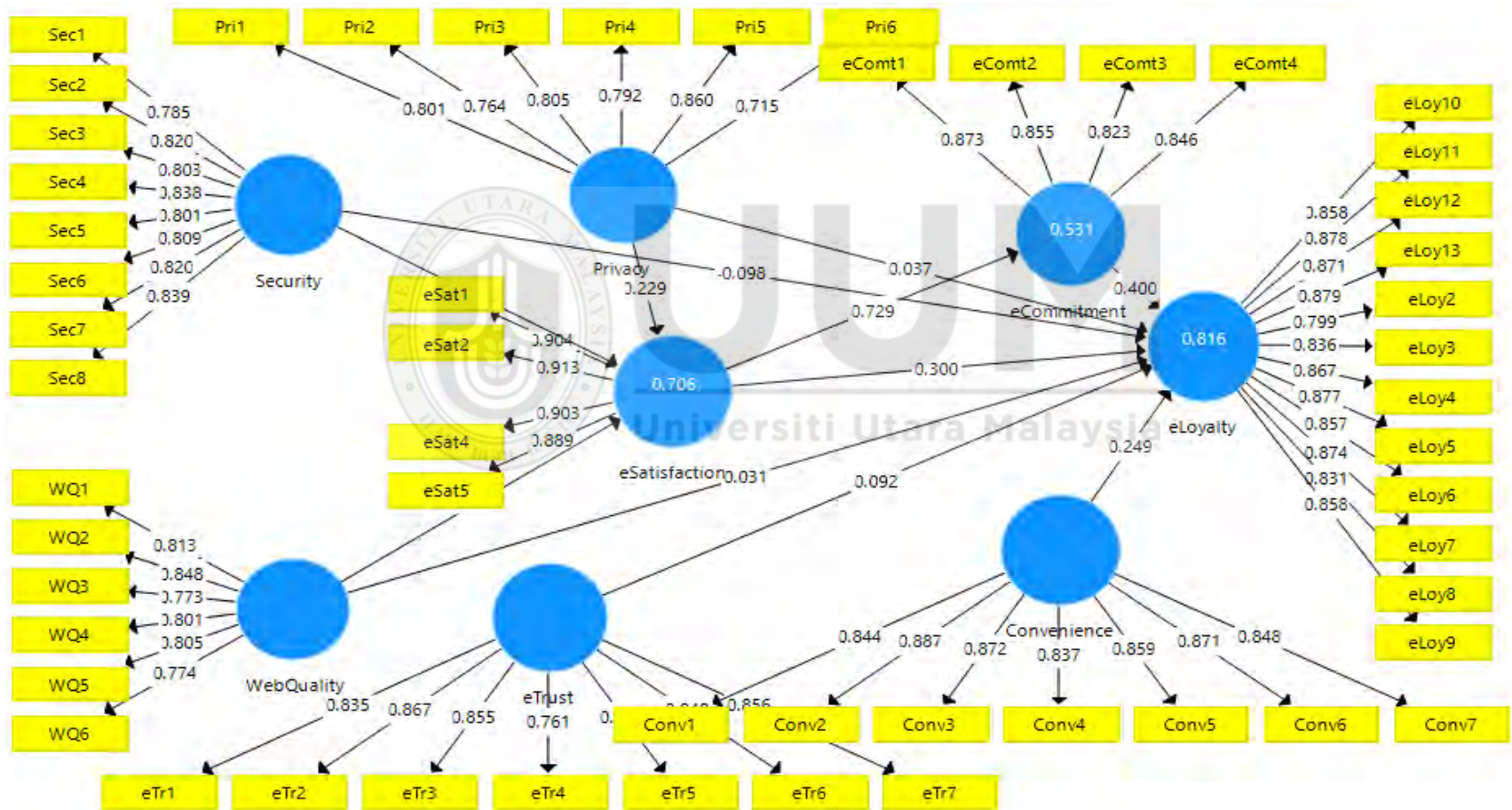
APPENDIX H Original Study Model



APPENDIX I
ITEMS LOADING, PATH COEFFICIENT AND R² VALUES FOR ORIGINAL STUDY MODEL



APPENDIX J
ITEMS LOADING, PATH COEFFICIENT AND R² VALUES (after deletion)



APPENDIX K
COEFFICIENT OF DETERMINATION (R² VALUE)

