ACCEPTANCE OF INTERNET BANKING AMONG FELDA SETTLERS IN BUKIT TANGGA

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MASTER OF SCIENCE (BANKING)

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ABSTRACT

Using an already developed model for measuring the quality of online services and its acceptance, the author of this thesis has developed and later on modified a theoretical model (instrument) for measuring the quality and acceptance by people of online banking services particularly in FELDA Bukit Tangga. Using quantitative research method including the design and distribution of a set of questionnaire, empirical data was collected on which statistical analysis has been performed. As a result of the conducted analysis, the initial theoretical model has been modified, so that the final version of the model (instrument) for measuring quality and acceptance of online banking services includes four quality dimensions (Service Performance, Website Characteristics, Communication and Efficiency) with total of 29 items (questions). Furthermore, based on the modified theoretical model, people's acceptance with different aspects of the online banking services has been evaluated. Based on the results of the Analysis of the Empirical data, managerial recommendations are given. Suggestions for further research on internet banking acceptance were also offered.

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ABSTRACT

Even though internet banking had been introduced in Malaysia since year 2000, the spread of its usage among Malaysian is relatively low. Most of the studies had forgotten the gap between urban and FELDA settlers in Malaysia to justify the spread of internet banking services. This research is carried out to measure the perception of FELDA settlers on internet banking usage. The causes will be identified and analyzed through exploratory research in order to increase the number of internet banking users among FELDA settlers. Through this research, it will help FELDA settlers to utilize the infrastructure provided by the Government under Goverment Transformational Plan (GTP) and improving banking operations by expanding the usage of internet banking which is more cost effective for banks.

This research will focus on FELDA settlers perception towards internet banking utilization in their daily life and what will be the main factors which encourage FELDA settlers to use it. The focus of this research are the level of internet banking utilization and formula to increase the frequency of it among FELDA settlers.

Qualitative exploratory research using questionaire will be applied and 100 respondents will be selected in order to gather the related data or informations among FELDA settles community.

Based on reviews from articles, journals and past research, the causes of this research identified through these resources are the ease of use and preceived usefulness of internet banking, wealth protection and ICT literacy had contributed to this scenario.

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CHAPTER ONE

INTRODUCTION

1.0   INTRODUCTION

In this chapter, we defined the meaning of FELDA settlers and internet banking concept based on the characteristics and their definitions. Followed by background of the study and the important part of this study in this chapter is problem statement. In this chapter, we also will highlight the research questions and objectives followed by the problems and limitations that the researcher will face to complete this study. Then, the scope of this study and the significance of this research will be explored. Lastly, the importance terms needs will be defined.

1.1   Background

Globalization and deregulations have increased competition in the marketplace, as nowadays it has become much easier for companies to cross borders and compete internationally. With increased competition, organizations have to constantly try to increase their productivity and decrease their costs. One way for them to achieve that is by investing in information technology (Fredriksson, 2003)

The recent development of information technology has led to major changes in the way services are delivered to the customers. Nowadays, customers are using more and more self-service options, which are more convenient and fast. In addition, the advent and use of the Internet has changed considerably the daily activities of most people, such as shopping and banking. The popularity of banking services delivered over the Internet (online banking services) is increasing in recent years (Fredriksson, 2003). Malaysia, home to the largest total number of online banking users in the study, climbed 16 percent to 2.7 million visitors in January 2011.

Online services, including online banking services, are becoming an attractive alternative to visiting service outlets or phoning call centres for increasing number of customers. Some of the reasons for customers to prefer online services (as online banking services) are :

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convenience, feeling more in control and saving time. As far as online services are concerned, it is quite easier for customers to evaluate and compare the benefits of competing services (Santos, 2003). In addition, the switching costs are very low, that is why retaining the customer in the Internet space is vital importance (Frederick F.Reichheld, 2000). In order for service providers to retain their e-customers, they should have better understanding of how customers perceive and evaluate the quality of the electronically offered services. Businesses that have been experienced and successful in offering e-services are starting to apprehend that besides website presence and low price, the important success or failure factors also include the electronic service quality. Although the literature on service quality is abundant, very little research has been conducted on the evaluation of the quality of services delivered over the Internet.

1.2   Problem Statement

Internet banking served over banks customers across geographical and time restrictions. It also became the most preferred banking method among people nowadays to meet with their lifestyle routine. By offering Internet banking services, traditional financial institutions seek to lower operating costs, improve customer banking services, retain customer, reduce their branch networks, and downsize the number of their service staff (Parisa, 2006). Across markets in Southeast Asia, visitation to online banking sites increased strongly in the past year, growing by double-digits percentages across all six countries measured.

Malaysia, home to the largest total number of online banking users in the study, climbed 16 percent to 2.7 million visitors in January 2011. Hong Kong's online banking audience grew 18 percent to 1.5 million visitors, representing 35.5 percent of the total online population and ranking as the most highly penetrated online banking market in the region. Indonesia posted the largest percentage increase, growing 72 percent to 749,000 unique visitors.

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The uptake of Internet banking in the Malaysian banking industry is still in its infancy. It was only in June 1, 2000, that the Malaysian Central Bank provided the first legal framework for locally owned commercial banks to offer Internet banking services. Foreign owned banks were barred from engaging in Internet banking until January 1, 2002. Maybank, the largest locally owned commercial bank, launched its own portal (www.maybank2U.com) on June 15, 2000. It has emerged as the first domestic bank to offer a comprehensive list of banking services through the Internet, including customer enquiries, fund transfer, payment of bills, credit card payment, checking services, fixed deposits and summary of accounts transaction. A review of the Malaysian banking websites on the Internet revealed that other banks such as Hong Leong Bank, RHB Bank, Public Bank, Ambank, Bumiputera Commerce Bank, Southern Bank, Alliance Bank, Citibank and HSBC are following suit in offering online banking services.

Despite of the rapid changing in the trend of dealing with banks, a study is needed to identify the spread of internet banking usage among various backgrounds of users. In this study, we will focus on the user from FELDA settlers. For urban users, the number of customers is larger due to several factors such as educational background, IT literacy and internet accessibility in urban areas.

There is little empirical research conducted in Malaysia to assess the popularity of Internet banking among Malaysian community. How popular is Internet banking in Malaysia? What factors inhibit or encourage FELDA consumers to use the banking services provided over the Internet? Understanding FELDA communities attitude and behaviour towards Internet banking is critical if local banks are to encourage their patrons to use these services and therefore reap the benefits to remain competitive.

The background of FELDA settlers of Malaysia may contribute to the effectiveness of internet banking usage among them. Most of the FELDA settlers involved in agricultural sector and came from various educational backgrounds, which lead to their pattern of internet usage. Some of them still practice traditional banking and make them closely attached to the nearest

bank's branch to do banking business. This study conducted to understand the factors influencing the behaviour in internet banking usage among FELDA settlers in Bukit Tangga.

1.3   Research Question

1.3.1   How was Internet Banking being accepted among FELDA settlers in Bukit Tangga?

1.4   *Research Objective*

1.4.1   To determine the acceptance of Internet Banking among FELDA settlers in Bukit Tangga.

1.5   Conceptual Model
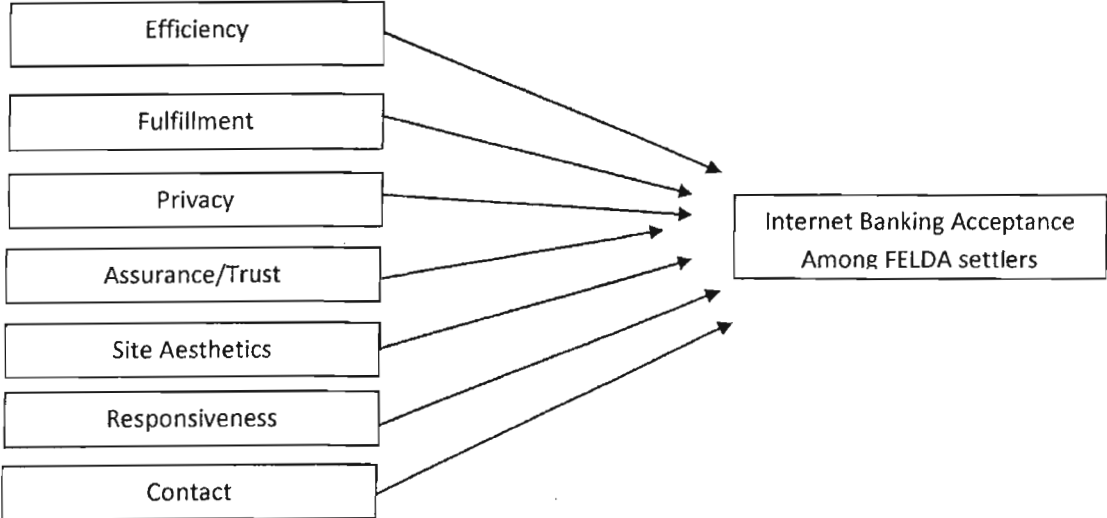
1.6   **Delimitations**

This research intends to identify the factors of penetration for the usage of internet banking among Felda settlers which represents the rural community in Malaysia. Based on the objectives and research questions provided in this research, several limitations have been identified.

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About 100 questionnaire has been distributed to selected location among Felda Settlers in order to facilitate the collection of data. In order to ensure that the result of the data is acceptable to represents the population of Felda Settlers, the questionnaire has been equally distributed in 370 FELDA settlers families at Felda Bukit Tangga from the total of 112, 635 families of Felda settlers in Peninsular Malaysia.

1.7   Definition of the key terms

The author will present a short description of the following terms which appear a lot throughout the thesis so that the reader has clear understanding of their meaning and able to understand easily the contents of this thesis.

1.7.1   Online Banking Services (E-Banking Services)

Banking services delivered over the Internet. These include opening/closing of account, domestic/foreign money transfer, standing orders, direct debit, debit card application, loan application, credit card application, insurance investment, mutual funds investment, foreign/domestic equity investment, deposit account opening, life insurance contract, traffic insurance contract and etc. (Centeno, 2003).

- E-Service Quality

Santos (2003) defines e-service quality as customer's overall evaluation and judgement of the excellence and quality of e-service offerings in the virtual marketplace.

- E-SQ (E-S-Qual and E-RecS-Qual) Instrument

An instrument developed specifically for measuring online services (e-services) quality. It includes two scales : the E-S-QUAL scale consist of 4 dimensions with 22 attributes, including efficiency, fulfilment, and privacy and the E-RecS-QUAL scale which consist of 3 dimensions with 11 attributes, including responsiveness, compensation and contact

Furthermore, the following terms will be used interchangeably along the thesis as they are used to represent the same things:

- ➤ E-services and online services
- ➤ E-services quality and online service quality
- ➤ Model and Instrument
- ➤ Items and Questions and Variables
- ➤ Factor and Quality Dimension

Introduction
- Background
- Problem Discussion
- Purpose
- Research Questions
- Limitations
- Definitions

Theoretical Framework
- E-Services
- Online Systems Quality
- E-Banking Services
- E-SQ (E-S-QUAL and E-RecS-QUAL)
- Instrument

Methodology
- Research Approach
- Sample selection
- Data Collection
- Reliability and Validity

Empirical Data and Analysis
- Descriptive Analysis
- Cronbach's Alpha Test of Reliability on the Modified Theoretical Model
- Modified Theoretical Model
- Descriptive Statistics Analysis (based on the modified model)

Conclusion and Discussions
- Conclusions
- Discussions
- Recommendations
- Further Research

Figure 1.1 Outline of the Thesis (Disposition Model according to JIBS writer, 2006)

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1.8   Summary

Banking environment could be different among areas. The different can be measured from many aspects such as products or service offered, service quality, availability of the service and the security of the system applied by banks. Although studies of people adopting behaviour and perception among FELDA settlers may differ from other communities, but yet there is no research been carried out. This research is a comprehensive study that the beliefs of individuals, their attitudes, subjective norms and perceived of Internet Banking. The study will reveal the internal factors influences FELDA settlers using the online banking which enclosed by the intrinsic and extrinsic motivation. Perhaps, the research will contribute positive effect to both banking industry and people to improvise the online banking application among FELDA settlers.

CHAPTER TWO

LITERATURE REVIEW

2.0   Introduction

Chapter two contains literature that was reviewed for this research in order to give the insight on what is being study and how other research findings may be relevant for this research. This chapter defines the surface of each terms within the research subjects before establishing methodology to conduct the research and gather the findings in the following chapters.

2.1   Background of Internet Banking

The precursor for the modern home online banking services were the distance banking services over electronic media from the early 1980s. The term online became popular in the late '80s and referred to the use of a terminal, keyboard and TV (or monitor) to access the banking system using a phone line. 'Home banking' can also refer to the use of a numeric keypad to send tones down a phone line with instructions to the bank. Online services started in New York in 1981 when four of the city's major banks offered home banking services using the 'videotex' system. Because of the commercial failure of 'videotex' these banking services never became popular except in France where the use of 'videotex' (Minitel) was subsidized by the telecom provider and the UK, where the Prestel system was used.

The UK's first home online banking service was set up by Bank of Scotland for customers of the Nottingham Building Society (NBS) in 1983. The system used was based on the UK's Prestel system and used a computer, such as the BBC Micro, or keyboard connected to the telephone system and television set. The system (known as 'Homelink') allowed on-line viewing of statements, bank transfers and bill payments. In order to make bank transfers and bill payments, a written instruction giving details of the intended recipient had to be sent to the NBS who set the details up on the Homelink system. Typical recipients were gas, electricity and telephone companies and accounts with other banks. Details of payments to be made were input into the NBS system by the account holder via Prestel. A cheque was then sent by NBS to

the payee and an advice giving details of the payment was sent to the account holder. BACS was later used to transfer the payment directly. Stanford Federal Credit Union was the first financial institution to offer online internet banking services to all of its members in October 1994.

Today, many banks are not relying on counter-based transactions. Unlike their predecessors, these internet banks able to reduce the underlying brick and mortar bank branches and widen their market spread across geographical boundaries. Instead, they typically differentiate themselves by offering better interest rate and more extensive online banking features.

2.1.1 The Definition and Characteristics of E-Services

The importance of the service sector in recent year is reflected in the increased part of services of the national economies. There is a dramatic shift toward services in the world of economy and the number and diversity of services providers increases constantly. In the competitive environment, the service companies have to be faster, leaner, work more efficiently and provide better service quality in order to stay competitive.

In the 1960s, 70s and 80s a range of definition was proposed. According to Grönroos (2000), a service is a process consisting of a series of more or less intangible activities that normally, but not necessarily always, takes place in interactions between the customer and service employees and/or physical resources or goods and/or systems of the service provider, which are provided as solutions to customer problems.

Services have many characteristics that distinguish them from physical goods. As stated by Grönroos (2000) some of the main differences between services and physical goods are that services are processes; they are intangible and heterogeneous; they cannot be kept in stock and there is no transfer of ownership; production, distribution and consumption are simultaneous processes in the service context; the core value is produced in buyer-seller interactions and most importantly in service contexts customers participate in the production

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process. This last characteristic of service that customers participate in the production process is of utmost importance when the issue of service quality is discussed. The reason is that because of the participation of customers in the production of the service, the quality of the service is directly perceived by the customer in the time of production. That is why service quality can be defined as the quality as it is perceived by customers and therefore the measurement of service quality has been a real challenge for service providers.

2.1.2 E-Service Quality

E-service quality is defined as overall customer assessment and judgement of e-service delivery in the virtual marketplace (Santos, 2003). Businesses that have been experienced and successful in offering e-services are starting to apprehend that besides website presence and low price, the important success or failure factors also include the electronic service quality (Zeithaml, 2002). One of the reasons for the increase importance of e-services quality is that over the Internet, it is much easier for customer to compare different service offerings than through traditional channels (Santos, 2003). Thus, customers of online services expect equal or higher levels of service quality than the customers of traditional services (Santos, 2003).

The importance of delivering high quality e-services has been recognized by many companies, but still there is the problem of how the quality of online services is defined, which its determinants are and how it can be actually measured. There are many models and methods for measuring the quality of traditional services (Oppewal, 2000), but there is little study made on the quality services delivered over the Internet (Cox and Dale, 2001). Recently, there are two approaches to study e-services that can be distinguished. The first approach suggests the study of e-service quality on the basis of already existing services quality theory (Grönroos, 2000) (Zeithaml, 2002). The other approach suggests the study of e-service quality through empirical research and the development of new categories of e-services (Richard , 2000).

For example, according to Van Riel, Laljander and Jurriens (2001), some researchers have tested the SERVQUAL instrument on different e-services as web-based service, internet

retail and electronic banking. Despite that, there are still some doubts among researchers whether the SERVQUAL instrument can be applied measuring the quality of online services. Because the SERVQUAL tool dimensions and attributes were developed for traditional services where direct contact between employees and the customers occur, many researchers believe that the items of the instrument and their content would need to be refined before they can be meaningfully applied in the online service context. According to Zeithaml et al.(2000) additional dimensions may also be needed in order for the full construct of e-service quality to be evaluated.

Yang (2001) proposed in his research the use of seven online service quality dimensions which align with those of the SERVQUAL scale. These dimensions include reliability, responsiveness, and access, ease of use, attentiveness, credibility and security. Besides the application of already existing models on the e-service quality measurement, some researchers have recently proposed new quality dimensions, specific for the online services.

For example, in a recent study on the quality of online services of 23 travel agencies, Kaynama and Black (2000) have used seven quality dimensions derived from SERVQUAL: responsiveness, content and purpose (derived from reliability), accessibility, navigation, design and presentation (all derived from tangibles), background (assurance), and personalization and customization (derived from empathy).

Furthermore, Ziethaml et al. (2000) made research with focus groups consisting of people with experience in online shopping. As a result of the study they defined eleven e-quality dimensions (the so-called E-SQ instrument): reliability, responsiveness, access, and flexibility, ease of navigation, efficiency, assurance/trust, security/privacy, price knowledge, site aesthetics and customization/personalization. Later in 2002, Zeithaml et al. revised the E-SQ model and decreased the online service quality dimensions to seven. These dimensions are as follows: efficiency, fulfillment, privacy, responsiveness, compensation and contact (Parasuraman, Ziethamal, and Malhotra, 2005)

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Based on the SERVQUAL scale, Barnes and Vidgen (2001) have developed the WebQual Index with 24 measurement items, which is specifically established for online service quality measurement. The Index includes the following seven online service quality dimensions: reliability, competence, responsiveness, access, credibility, communication and understanding the individual. Similarly, Madu and Madu (2002) made a literature review, on the basis of which they proposed 15 dimensions of online service quality: performance, features, structure, aesthetics, reliability, storage, serviceability, security and system integrity, trust, responsiveness, product differentiation and customization, web store policies, reputation, assurance and empathy.

2.2   Online System Quality

2.2.1   Definition and Importance in Relation to the Study of E-Service Quality

Discussing online services, we cannot measure their quality, simply from researching the online service quality dimensions. The reason for that is online services is quite different from the traditional services, where an interpersonal service encounter takes place. In an interpersonal service encounter, where customers have direct contact with service personnel, the way service personnel behave talks, smiles and etc will influence to a high extent the satisfaction of the customers with the service delivered. In the virtual space customers communicate with the company through an information system. By using the Internet as a service delivery channel, companies should be aware of the fact that some aspects of the human interaction of traditional service settings cannot be replaced by technology (Cox and Dale, 2001). Such aspects, according to J. Cox and B.G. Dale (2001) are for example courtesy, friendliness, helpfulness, care, commitment, flexibility and cleanliness. The absence of these aspects of human interaction through which quality can be delivered to customers will have to be compensated by other quality factors, for example different features of the company's website, through which the online services are delivered. That is why a literature review on the online systems quality is necessary for the purpose of this study.

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2.2.2 Studies on Online Systems Quality

There is much research done on the quality of online information systems and websites in particular. Doll and Torkzadeh (1988) suggested five quality dimensions that influence customer satisfaction with the website of the given company. These dimensions are: content, accuracy, format, ease of use and timeliness. In recent years, many studies have been conducted on the success features of websites. According to a study done by D'Angelo and Little in 1998, when designing a website the following factors should be considered: navigational characteristics, visual characteristics, and practical consideration including images, background, color, sound, video, media and content. Other researchers, Liu and Arnett (2000) proposed that major determinants of a website success are the following factors: system use, system design quality, information quality and playfulness.

Studying website's quality, (Cox and Dale, 2001) have found out and proved four quality factors of a website: ease of use (the design of the website), customer confidence (how the website generates customer trust), online resources (capabilities of the website to offer products/services) and relationship services (how the website bonds with the customer and inspires loyalty). According to Abels, White and Hahn (1997), user criteria for a good website design include use, content, structure, linkage, search and appearance. Later, using the finding from Abels et al. (1999), Santos (2003) has discovered five dimensions of online systems quality: ease of use, appearance, linkage, structure and layout, content.

The features that a website should possess in order to be successful and contribute to the service quality depend to a high extent on the type of service provided. For example, the features of a website for purchasing music and books are expected to differ from those of a bank's website. As far as Internet banking websites are concerned, Jayawardhena and Foley (2000) proposed website features critical to enhance customer satisfaction: the speed to download, content, design, interactivity, navigation and security. Furthermore, Waite and Harrison (2002) have found seven dimensions that influence customer satisfaction with bank's

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websites: transaction technicalities, decision making convenience, interactive interrogation, specialty information, search efficiency, physical back-up and technology thrill.

2.3   E-Banking Services

2.3.1   The Types of E-Banking Services

E-Banking services are banking services delivered over the Internet. The services provided by banks over the Internet which once included only checking of accounts, have recently included a full range of banking services. It is not rare the case now days, when nearly all service accessible at the branch or by phone can be accessed on the Internet as well. The development of technology allows banks to offer not only "branch-based" services over the Internet, but also new added-value services which are available only via online such as electronic commerce, real-time brokerage, financial information menus, e-mail alerts and third party services (tax payment, portals or management of electricity bills) (Centeno, 2003). Figure 2.1 below shows a possible classification of Internet banking services:
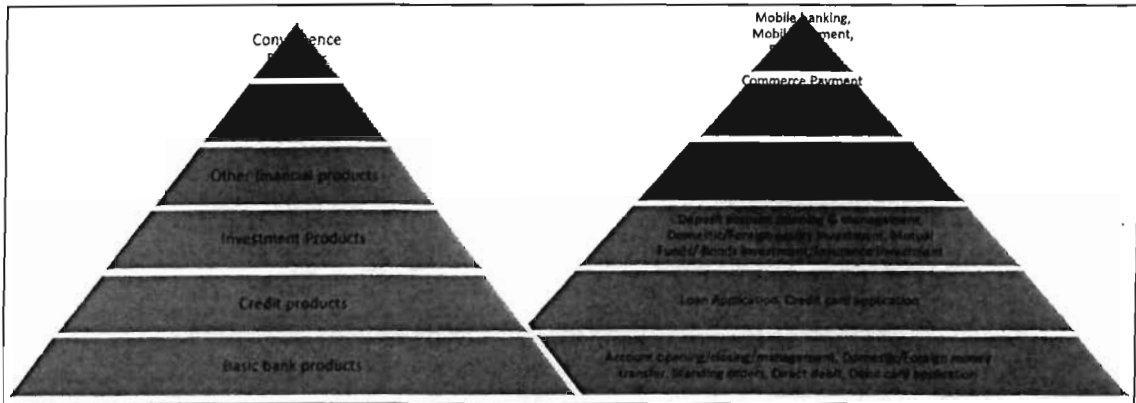
Source: Centeno, C.," Adoption of Internet Services in the Enlarged European Union : Lessons from the Internet Banking Case," European Commission Joint Research Centre, Report EUR 20822 EN, June 2003.

Figure 2.1 Classification of Internet Banking Services

The number of people using online banking services is rapidly increasing. From 2005 to 2012, Bank Negara Malaysia recorded 948.6% of increment in the volume of banking transaction via Internet. From 21.6 million internet banking transaction recorded, the amount

had increased steadily to 84.9 million in 2008. The statistic later on increased to 194.7 million in 2011 and reaching 226.5 million in volume of transaction last year in 2012.

Figure 2.2 below, presented in a report of Central Bank of Malaysia, Bank Negara shows a steady increment in e-banking services users from 2005 to 2012.
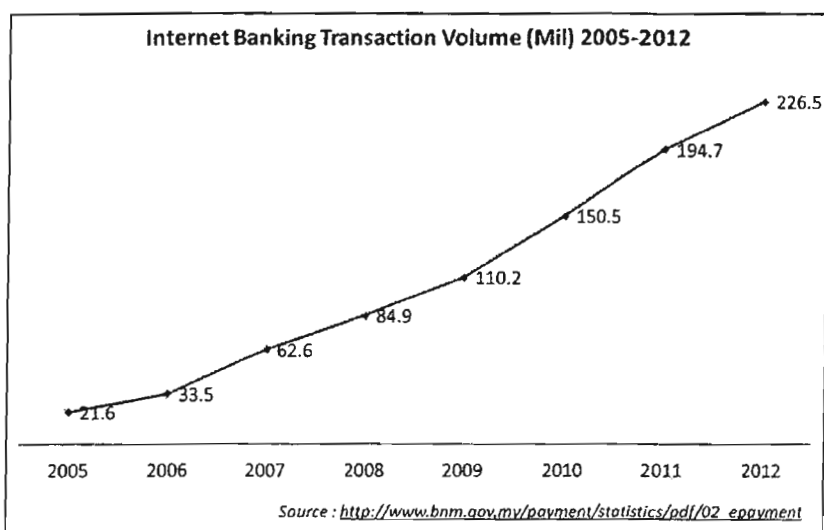
Figure 2.2 Internet Banking Transaction Volume (in millions) in Malaysia

This is an evidence of the evolution of e-banking services in Malaysia. The increased use of online banking services has many advantages for both customers and banks. For customers, e-banking services allow them to have better overview of their banking business and help them to manage their banking transactions more conveniently and fast. Additionally, customers who use Internet banking prove to be involved in more banking transactions, which is beneficial for the banks themselves. Moreover, through the Internet, the bank productivity increases as well, as the distribution and production of their services become more efficient.

As a whole, customer's motivation to use e-banking services comes from a number of factors: freedom of time and space, speed, convenience, 24 hours a day availability and price incentives (Mattila, Karjaluoto, &Pento, 2002). Despite all the advantages the Internet offers to both banks and their customers in terms of increased productivity and reduced costs, it also

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hides a lot of disadvantages and challenges for the service providers. On the Internet, the comparison between different service offerings is much easier and switching costs are lower, which makes it easier for customers to change service providers (Santos, 2003). This, on its behalf, posts a challenge for the banks to not only acquire new customers, but retain their existing ones as well. To retain its customers, banks should try to make them satisfied with their services and offerings and this can be achieved through delivering high quality services. Delivering high quality online services requires understanding of the online service quality dimensions considered crucial and trying to improve the quality of the services provided over the Internet, so that a competitive advantage is gained.

Innovative and more efficient delivery channels such as internet and mobile phones will become an increasingly essential part of a modern banking system. It will offer banking institutions significant advantage in customer retention, customer acquisition and service cost reduction. Skills and brands can be developed and promoted through these channels, which have been important for success in other high technology services such as TV/broadband banking. High technology services such as internet banking offer a unique value proposition to consumers and are growing fast globally.

The internet improves accessibility to banking products and services, and can be harnessed not just as mere delivery channels but as new business venture through the setting up of virtual banks by banking institutions. In this regard, banking institutions will be allowed and encouraged to embrace these innovative approaches. At the same time, minimum standards will be imposed to ensure that such innovations do not compromise financial stability and integrity. Thus, its regulatory framework will balance the various trade-offs between efficiency and financial system stability.

2.3.2   Studies on E-Banking services Quality

The increased importance of information and communication technology for the delivery of financial services has led to the growing interest of researchers and managers in e-

banking quality issues. Different studies consider particular service quality dimensions of simple banking websites.

For example, Jun and Chai (2001), use the critical incidents method in online banking to distinguish three central quality categories, namely, the customer service quality, online systems quality and banking service products quality. Other researchers, Broderick and Vachrapompuk (2002) tracked the usage pattern of members of an internet banking community. They found out that what influenced the service evaluation most were cues in the service setting, key events in the service encounters and the level and nature of customer participation. Unfortunately, they were not able to deduct from their research a precise and testable measurement of e-banking service quality.

Jayawardhena (2004) has done a research on the service quality in e-banking by using an adopted version of the SERVQUAL instrument for the Internet context. The study resulted in 21 items which were reduced to five quality dimensions: access, website interface, trust, attention and credibility. Conclusively, it should be noted that some research has been done to identify service quality dimensions in e-banking, but so far no model has been developed, that can be universally used and applied as far as e-banking services quality is concerned. More research in the field is necessary, in order for this to be done.

2.4   E-SQ (E-S-QUAL and E-RecS-QUAL) Instrument for Measuring Online Services Quality

E-SQ Instrument is an instrument similar to the SERVQUAL scale, developed specifically for measuring online services (e-services) quality. The model has been developed in 2000 and tested and revised in 2002 by Parasuraman, Zeithaml and Malhotra who made an exploratory study on quality perceptions of customers as far as online shopping is concerned. The development of this instrument went through three stages. During the first stage the researchers used qualitative study with six focus groups with six to seven participants in each group (Zeithaml, 2002). Furthermore, they claim the responses of focus-group participants to e-

service quality (e-SQ) dimensions were remarkably consistent across the groups, experience levels, and e-service businesses discussed. The focus groups revealed that consumers use basically similar dimensions in evaluating e-SQ regardless of the type of product or service being evaluated on the Internet (Zeithaml, 2002).

The dimensions for measuring e-service quality, found out that stage were eleven: reliability, responsiveness, access, flexibility, ease of navigation, efficiency, assurance/trust, security/privacy, price knowledge, site aesthetics and customization/ personalization. Table 2.1 below contains description of each of the above-mentioned dimensions of e-service quality.

Table 2.1 Dimensions of perceived e-SQ

E-Service Quality Dimension	Description
Reliability	Involves the correct technical functioning of the site and the accuracy of service promises (delivering when promised) and product information
Responsiveness	Quick response and the ability to get help if there is a problem or question
Access	The ability to get on the site quickly and to reach the company when needed
Flexibility	Choice of ways to pay, ship, buy, search for and return items
Ease of Navigation	The site contains functions that help customers to find what they need without difficulty, possesses a good search engine, and allows the customer to maneuver easily and quickly back and forth through the pages

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Efficiency	The site is simple to use, structured properly, requires minimum of information to be input by the customer
Assurance/Trust	The confidence the customer feels in dealing with the site and is due to the reputation of the site and the products or services it sells as well as clear and truthful information presented
Security/Privacy	The degree to which the customer believes the site is safe from intrusion and personal information is protected
Price Knowledge	The extent to which the customer can determine shipping price, total price and comparative prices during the shopping process
Site Aesthetics	The appearance of the site
Customization/ Personalization	How much and how easily the site can be tailored to individual customer's preferences, histories and ways of shopping

The above table described model resembles a lot the SERVQUAL instrument, but it also includes few new dimensions specific for the online space.

First of all, the quality dimensions of reliability, responsiveness, access, assurance and customization/ personalization are also key quality dimensions of the SERVQUAL instrument for traditional service settings. These five dimensions have the same perceptual attributes as those in traditional service quality evaluations, besides the access and reliability dimensions. These

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two dimensions have some attributes which deals with online-specific issues as well (Zeithaml, 2002).

Secondly, several of the quality dimensions of perceived e-SQ are new and most of them are related to technology: ease of navigation, flexibility, efficiency, site aesthetics and price knowledge (Zeithaml, 2002). The dimensions ease of navigation, efficiency and site aesthetics have been proved to be important for evaluating online systems quality (website quality in particular) by many researchers as shown by the author of the thesis in the part dealing with online services quality (Doll, William, and Torkzadeh, 1988).

Later, the attributes pertaining to the above-mentioned 11 dimensions of e-service quality found out in the research by Zeithaml, Parasuraman and Malhotra in 2000 were used as the e-service quality (E-SQ) domain from which the researchers drew items for the E-SQ instrument. As a second stage in the development of the E-SQ instrument Zeithaml (2000) developed a preliminary scale consisting of 121 items which was incorporated into two questionnaire versions. These questionnaires were evaluated with the help of focus groups and as a result a final, revised questionnaires consisting of 113 items was constructed. Then the researchers hired a marketing research firm to distribute the questionnaires to a random sample of Internet users who had sufficient online shopping experience. After the collection of the survey data, the data was subject to scale-reduction and refinement analyses. As a result of this procedure the initial 11 dimensions from 2000 were reduced to total 7 dimensions (Parasuraman, Ziethamal, and Malhotra, 2005).

During the research Parasuraman (2005) observed that there was missing data on some items. After an analysis of these items they concluded that they were all related to service recovery. That is why they separated those items to develop a separate e-service quality scale (ES-QUAL). The E-S-QUAL scale consists of 4 dimensions with 22 attributes and the E-RecS-QUAL consists of 3 dimensions with 11 attributes. After the development of these scales, they were empirically tested by using questionnaires distributed to sample of users of the most

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visited at that time websites in USA- amazon.com and walmart.com (Parasuraman, Ziethamal, and Malhotra, 2005)

The E-S-QUAL and E-Recs-QUAL dimensions and their description are presented in Table 2.2 and Table 2.3 below.

Table 2.2 E-S-QUAL dimensions and their description

E-S-QUAL scale	
Dimension	Description
Efficiency	The ease and speed of accessing and using the website
Fulfillment	The extent to which the site's promises about order delivery and item availability are fulfilled
Privacy	The degree to which the site is safe and protects customer information

Source: Parasuraman, Zeithaml, and Malhotra (2005)," E-S-QUAL: A Multiple- Item Scale for Accessing Electronic Service Quality", p.220

Table 2.3 E-RecS-QUAL dimensions and their description

E-RecS-QUAL	
Dimension	Description
Responsiveness	Effective handling of problems and returns through the site

Compensation	The degree to which the site compensates the customers for problems
Contact	The availability of assistance through telephone or online representatives

2.5   Definition of People's Acceptance:

User's acceptance is defined as the demonstrable willingness within a group of user to employ information technology for the tasks it is designed to support (Dillon & Morris, 1996). If people are not willing to accept the information system, it will not bring full benefits to the organization/community. Succi and Walter (1999) stated that, the more acceptation to a new information system is, the more willing they are to make changes in their practices and use their time and effort to start actually using the new information system. User's acceptance has been viewed as the pivotal factor in determining the success or failure of any information system projects (Davis, 1993). In the case of customer's acceptance of online banking, banks have invested a lot of money upgrading their services to comfort people and minimize the numbers of people whom visit the banks monthly just to pay the bills or make payments such as mortgage, car loans or bills payment. As online banking offers a lot of benefit to the people, these actually could help people to manage their schedule, budgetary and activities if they manage to apply this in their daily life.

To investigate people or user's behaviours, theories such as Theory of Research Action (TRA) and the Technology Acceptance Model (TAM) are being used to understand the actual reasons people still using the old method even the development of technologies are contribute many opportunities to people. TAM is developed from TRA which is a better model used by researchers to study user acceptance and use of technology as it is a parsimonious model that explains much of the variance in people's behavioural intention related to IT adoption and

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usage across a wide variety of context (Taylor, Shirley, and Peter, 1995). This theory focuses on technologies application and acceptance. TAM provides the suggestions on that PU, PEOU and PE of information technology. There are factors that influenced the user acceptance of online banking; three variables are chosen which are PU, PEOU and PE. Many researches have been done by researchers using variables in order to study the customer's behaviour in selecting the technology products or services such as mobile banking, SMS, multimedia messaging system (MMS) or computer and internet.

Customer's positive perception towards online banking is far more crucial mainly due to the fact that online banking is extending the banks market through geographical barrier.

2.6   FELDA Settlers

The Federal Land Development Authority or FELDA was established on 1 July 1956 under the Land Development Ordinance 1956. Its functions as allocated under the Act (Amendment 1991) are as follows :

a. To carry out and implement development projects.

b. To develop, facilitate and implement development, management and economic, social, agricultural, settlement, industrial and commercial services as well as other related activities in areas where FELDA has been granted the authority to implement land development projects or in areas owned by FELDA and its companies.

c. To implement activities which can help modernize the agricultural sector in areas where FELDA has been granted the administrative authority especially in activities which are related to production, processing and the marketing of agriculture and livestock product.

d. To assist, guide, advice, manage and coordinate social, settlement, agriculture, industrial and commercial activities in FELDA areas.

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Beginning April 2004, FELDA was placed under the Prime Minister's Department and the minister responsible for it is Dato' Sri Mohd Najib Tun Razak, Prime Minister of Malaysia. The Government through SKMM has set up Community Broadband Centers (CBC) to provide collective community Internet access to remote areas identified under the Universal Service Provision (USP) program. Each CBC set up is equipped with IT equipment and personal computers connected to internet broadband access to allow rural communities to enjoy the benefits of the internet.

To further improve their social and economic status, software and training is also provided at each CBC. It is hoped that the setting up of CBCs will contribute towards achieving success in the national initiative to bridge the digital divide between urban and rural communities, in line with the objectives outlined in the National Broadband Implementation Strategy and MyICMS 886 Technology Roadmap.

To study the acceptance of Internet Banking among FELDA settlers, FELDA Bukit Tangga located at Bukit Kayu Hitam, Kedah had been chosen by the author. The respondent of this study has been classified based on their demographic background such as gender, age, educational background and monthly income to identify the acceptance of internet banking within the perimeter of FELDA Bukit Tangga.

2.7   Summary of Theoretical Framework

The theoretical framework of this thesis has been developed in a way to introduce the reader in the field of services, introducing first the concepts of services and traditional services in general as well as what kind of research has been done on measuring the quality and their acceptance of traditional services. Furthermore, the concepts and studies concerning the measurement of the quality and acceptance of e-banking services in particular have also been presented in order to give theoretical background and deeper information about the subject of the underlying study. Presenting theoretical background on both e-services and traditional services has been done with the intention of the reader to understand the importance of measuring service quality and what are the determinants of online banking acceptance, how it

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was developed in time and how it is changing because of the increased use of online services, where the conditions and characteristics of the service itself change. Finally, the author has presented the reader the E-SQ instrument for measuring online services, based on which the rest of the thesis will be developed.

In order to develop an instrument for measuring the quality of online banking services, the author of the thesis decided to use a basis of the E-SQ (E-S-QUAL and E-Recs-QUAL) instrument created by Ziethaml, Parasuraman and Malhotra in 2002 for measuring quality of online services.

However, the author of the thesis find the modified E-S-QUAL and E-Recs-QUAL scales not completely covering all the issues for measuring quality of online banking services. A modified version of these scales will be used in the study. In table 2.4 below, the author make comparison (according to the presented above definitions of the different quality dimensions) between the dimensions of the scale from 2000 and those from 2002. The aim of this is to show which dimensions of the scale from 2000 are covered in the final version of the scales from 2002 and which are not. Through support from other studies, the author of the thesis would like to show the importance of some dimensions from the research in 2000 which are not present in the scales from 2002. The author has decided to add some of these dimensions to dimensions of the E-S-QUAL scale in order for a better picture of the service delivery process to be captured.

Table 12.4 Comparison of E-SQ (2000) versus E-S-QUAL and E-RecS-QUAL (2002) dimensions

E-SQ Instrument dimension	E-S-QUAL and E-RecS-QUAL scales dimensions (2002)
Reliability	Fulfilment
Responsiveness	Responsiveness
Access	Efficiency/Contact

Flexibility	.
Ease of navigation	Efficiency
Efficiency	Efficiency
Assurance/Trust	
Security/Privacy	Privacy
Price Knowledge	
Site Aesthetics	
Customization/personalization	
	Compensation

From Table 2.4 above it can be seen that more than half of the dimension from 2000 are covered in the modified version of the instrument from 2002. Still, there are some dimensions which have not been included and which the author of the thesis deem important for the evaluation of the quality of online banking services.

For example, the author finds the issue of assurance and trust (credibility) of high importance as far as financial services are concerned. That is why the assurance/trust dimension is included in the study. Furthermore, many researchers have found assurance (credibility) to be considered as a quality dimension for the evaluation of e-services quality (Cox and Dale, 2001) (Madu, 2002) and (Jun, 2004).

In addition, the studies on online system quality and those on online service quality show that the site aesthetics (appearance) is considered important for evaluating the quality of a website and the service delivered through that website (Santos, 2003). For that reason, the author of the thesis will include the site aesthetics dimension into their study. Both, the

assurance/trust and site aesthetics dimensions have been added to the E-S-QUAL scale's dimensions.

Conclusively, the author of this thesis has used adapted and slightly modified versions of the E-S-QUAL and E-RecS-QUAL scales developed by Parasuraman et al. In 2002 in order to develop an instrument for measuring the quality and people's acceptance of online banking services. All the dimensions included in the study have been described and used based on the researchers of Parasuraman, Zeithaml and Malhotra from both, 2000 and 2002. As a result of the slight changes made, the author constructed the following model for measuring the quality service and people's acceptance of online banking.
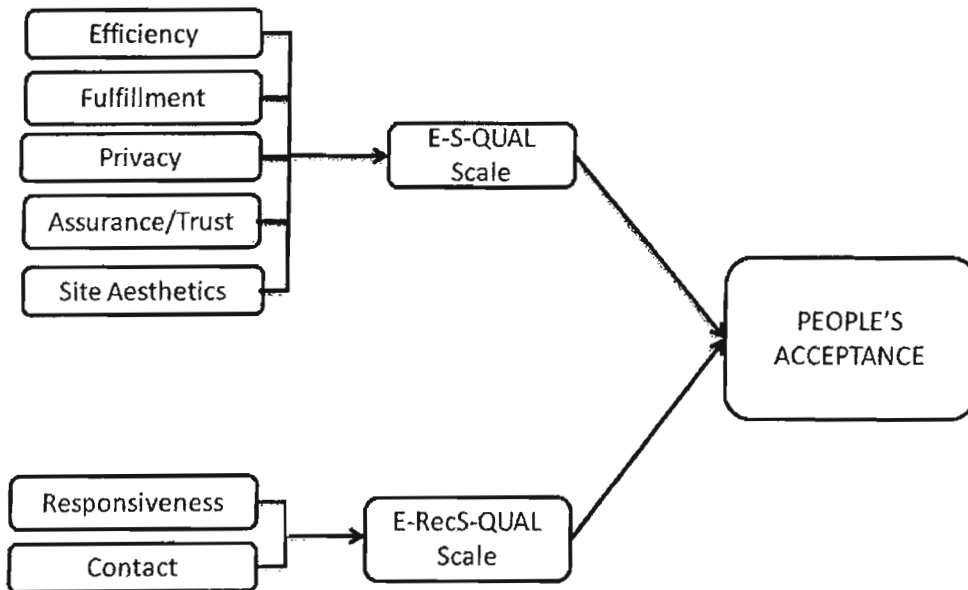
Figure 2.3 Model for correlation of the quality of online banking services and people's acceptance (adapted from Parasuraman, 2000 and 2002)

2.8   Summary

For most people in Malaysia, internet banking is already a new practice in their daily living. Malaysian government is focusing on the accessibility on online services especially internet banking to enhance the quality of living in rural areas. FELDA settlers have been chosen by the author as the sample of rural community in Malaysia to study the acceptance of internet banking. Identifying the level of acceptance among rural communities will enable banks to formulate strategies to cater larger market scope despite of establishing new branches which clearly will add larger cost in expanding bank's operation.

Online service's quality is one of the key success factors in determining the level of acceptance in internet banking. In this study, the author had identified independent variables such as efficiency, fulfillment, privacy, assurance/trust, site aesthetics, responsiveness and contact to determine the level of acceptance, which is the dependent variable for this study. The details of the research methodology for this study explained in Chapter Three.

CHAPTER THREE

METHODOLOGY

3.0   Introduction

This chapter covers research methodology which consists of the research design, hypotheses and the sampling procedure, data collection method, questionnaire and data analysis

3.1   Research Approach

This study had used quantitative research method, which is based mainly on the primary data collected through questionaire. The questionaire has been personally administered on a sample size of 100 FELDA settlers at FELDA residents in northern region of peninsular Malaysia namely FELDA Bukit Tangga, Bukit Kayu Hitam, Kedah.

The questionnaire has been designed on the basis of the study of Parasuraman et. Al (2000, 2002). The respondent of the study were 100 FELDA settlers. Parasuraman (2000, 2002) identified eleven dimensions of service quality which are reliability, responsiveness, competence, understanding the customer and tangibles. Upon considering the above study, the author has constructed four dimensions (reliability, responsiveness, tangibles and empathy) which cover the 14 parameters.

Items from previous studies were modified for adaptation to the customer satisfaction on conventional banking context. The measure using a five point Liket scale ranging from 1 (strongly disagree) to 5 (strongly agree). The questionnaire was split into three sections: demographics, service quality questions and customer satisfaction question. The demographic questions in the survey included age, occupation, education and gender. Answers to these questions provide a good picture of the respondent's (customers) background.

The service quality questions covered service quality facets such as : bank location, bank environment, delivery of promised services, prompt service, security with respect to transactions, and personal attention from employees, product range and attitude of employees.

3.1.1 Quantitative Research Method

The research strategy should be chosen according to the research questions in the particular situation. Each strategy has its own advantages and disadvantages, because of its specific approach to collect and analyse empirical data. The type of question posed the degree of focus on historical or contemporary events and the control over actual behavioural elements should be the main grounds on which the appropriate research method is chosen.

Quantitative research approach is based on the development of testable hypotheses and theory which can be generalized across settings. Quantitative investigations tend to measure "how often" or "how much". This approach allows generalization of conclusions and flexibility in the treatment of data, in terms of comparative analysis, statistical analysis and repeatability of data collection in order to verify reliability (Amaratunga, 2002).

Taking into consideration the description of the quantitative research approach stated above, which is used to measure "how much" across settings and allows for statistical analysis on the collected data, the author of the thesis have chosen this method for the purpose of this thesis. First of all, through the use of quantitative research method, the author would like to measure "how much" customers of online banking service are satisfied with the provided online services among FELDA settlers in Bukit Tangga. Furthermore, this method will allow statistical analysis of the collected data, on the basis of which an instrument for measuring quality of online banking services will be developed. To collect the quantitative data the survey method has been used and eventually the data has been analysed by using statistical techniques. The combination of the quantitative method with the survey method is found appropriate from the author, as a large population has been studied and general conclusions have been drawn for the entire population of FELDA Bukit Tangga.

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3.2   Sample Selection

Since the author is facing with a large number of FELDA settlers all over across the country to analyse the research subject, the author have decided to do the survey at the nearest FELDA residents at University Utara Malaysia. There are several FELDA residents in the northern tip of peninsular Malaysia namely FELDA Bukit Tangga, FELDA Chuping, FELDA Laka Selatan etc. The selection of FELDA residents near UUM is considered as a minor study of to draw general assumption for the whole FELDA settlers. Thus, the author chose FELDA Bukit Tangga to study the level of Internet Banking acceptance. Random sampling had been done by the author, which means "every member of the target population has an equal chance of being selected" (Oakshott, 1998). This sampling method was also chosen in order to avoid occurance of bias in the chosen sample population.

3.3   Data Collection

In getting data of this study, the author collected primary data which had been directly taken from the people who lived in FELDA Bukit Tangga. Primary data include data through a survey with customers of online banking services among FELDA Bukit Tangga settlers. For that purpose a questionnaire has been design. Over the years, different methods have been developed on how to measure acceptance level of Internet Banking. For this study, the author has distributed 100 questionnaires which were randomly distributed at the area. The survey has been conducted on face to face basis whereas the author of this study directly explained his intention in getting the primary data from the people of FELDA Bukit Tangga. A few targeted locations were chosen by the author to meet with them such as mosque, coffee stall, school and rural internet center in the respective location. From 100 questionnaires distributed randomly by the author, the response rate received from the respondents was 100% since the author had conducted the survey on face to face basis. The survey was conducted in two weeks period starting from 12th May 2013 to 25th May 2013.

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The population is customers of banks among FELDA settlers in three FELDA residential areas in Kedah. As they were expected to come from the various personal backgrounds, the findings may represent better sample distribution. In fact, for this research to produce a realistic outcome, the collation of data has to be distributed over a population. Thus, the survey questionnaires are designed to apply to a heterogeneous population, where targeted respondents come from the general open public from different genders, age groups, education backgrounds, different banks and income.

Owing to the fact that different levels of society have different expectations and needs, therefore, the idea of choosing respondents from different backgrounds will most certainly generate a more reliable outcome towards service quality by conventional banks. While some respondents promptly to the survey, others took a little bit time to of digest the questions and enquiries.

3.4   Data Analysis

Although perceptions-only measures have been shown to demonstrate better predictive validity than perception-expectation measures, the perception-expectation measures do seem to yield data about the quality of given service which is richer and more informative (Schnieder & White, 2004). Despite its benefits, survey including the measurement of expectations and acceptance individually is too complicated, time consuming and tedious. Taking into consideration the time – and resource- limits of this study, the author have decided to measure directly the divergence between customer's expectations and perceptions using only one scale. Using this approach makes the questionaire much easier to construct, administrate and analyse. In addition, it is thought to be easier for the customer to respond to such questionaire including only one scale.

When constructing the questionaire, the author of the thesis have use a slightly modified version of the E-SQ instrument (E-S-QUAL and E-RecS-QUAL) for measuring e-service quality (E-SQ), developed by Parasuraman et al. in 2002. The author have added the

assurance/trust and site aesthetics dimensions from the E-SQ instrument from 2000 to the E-S-QUAL scale and they have dropped the compensation dimension from the E-RecS-QUAL scale. All the dimensions and their attributes included in the questionaire have been described and used based on the researchers of Parasuraman, Zeithaml and Malhotra from both 2000 and 2002.

As mentioned above the questionaire is designed to measure the divergence between the expectations and perceptions (perceived quality) of customers of the online banking services they use along the quality dimensions found in the E-SQ instrument developed by Parasuraman et al. in 2002. For this purpose, the author have used the five-point Likert Scale, ranging from "1= Strongly Disagree" to "5= Strongly Agree".

The questionaire consists of 29 questions and demographic information about the respondents, including gender, age, marital status, educational background and average monthly income.

3.4.1 Analysis Technique

The statistical software SPSS version 18 was employed to ensure the relevant issues is examined in a comprehensive manner. Both simple and advanced statistical tools and methods are used where appropriate for analyzing the relationship among the variables in the model. Therefore, usage of statistical technique is accordance to commonly accepted research assumptions and practices.

The collected data in the study has been presented and analysed using Descriptive Statistics, Cronbach's Alpha test of Reliability and Factor Analysis with Principal Component Analysis as an extraction method. In order to prove the internal reliability of the instrument used, the author of this thesis performed Cronbach's Alpha Test of Reliability. When performing this test, the author have grouped the different items (questions) pertaining to the different quality dimensions and performed the test on each dimension. Applying this test specifies whether the items pertaining to each dimension are internally consistent and whether they can be used to measure the same construct.

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Furthermore, using the Principal Component Analysis (PCA) helps the author to decide whether the division and description of the initial dimensions pertaining to the theoretical model are appropriate. With the help of the PCA, some of the items of the initial theoretical model were removed and the number of dimensions were reduced to four. Using the above stated techniques resulted in the modification of the initial model. For the convenience of the reader, a brief description of Cronbach's Alpha Test of Reliability and Principal Component Analysis is presented below.

3.4.1.1 Cronbach's Alpha Test of Reliabilty

Cronbach's Aplha Test of Reliability is the most popular estimate for measuring the internal consistency (reliability) of items in a scale, in other words it measures the extent to which the responses collected for given item correlate highly with each other (Garson, 2002). The result of this test produce an a-score is which a number between 0 and 1 is. According to Garson (2002), the higher the a-score is, the more reliable the measured construct is. Furthermore, according to Nunnally and Bernstein (1994) a-score exceeding 0.7 indicates high internal reliability of the scale items, but there are still researchers who use different cut-off a-score like 0.8 or even 0.6 (Garson, 2002). Finally, what is important to be considered is that the a-scores increase when the number of items in a scale increases (Garson, 2002).

3.4.1.2 Principal Component Analysis

The Principal Component Analysis (PCA) is a method involving mathematical procedure used to identify patterns in a data set. It means that the method is used to reduce the dimensionality of the original data, which means to summarize the original data that is initially contained into a given number of variables (questions on the different quality dimensions in this case) into a new set of dimensions so that minimum amount of information is lost (Grosuch, 1983). This is done by defining the so-called Principal Components (PC) also called

factors that are variables explaining the maximum variability of a data set (Li, Shi, Liao, & Yang, 2003). The first principal component explains the most variance in the data and each succeeding principal component explains as such of the remaining variability as possible.

According to Chatfield and Collins (1980), there are two main reasons for using Principal Component Analysis (PCA): reduction of the dimensionality of the data set and formulation of new meaningful variables to describe the problem. In the underlying study each quality dimension pertaining to be used theoretical model is described with the help of given number of questions which customers are asked to answer. The use of PCA in this case is expected to show the author whether the used questions describe each quality dimension adequately and whether some groups of questions pertaining initially to given quality dimensions can be regrouped into less number of dimensions so that the conducted study becomes more precise.

3.5   Reliability and Validity

When developing and evaluating an instrument and when conducting research in general, there are two important issues that have to be examined- the reliability and validity of the study.

3.5.1   Reliability

An instrument is considered reliable when the outcome of the measuring process is reproducible. According to Zikmund (2000) reliability can be defined as the degree to which measure are free from error and therefore yield consistent results.

There are two aspects of the reliability issue: external and internal reliability. According to Hardy and Bryman (2004), external reliability means that the studied variable does not fluctuate greatly over time, which means that it is stable. This kind of reliability can be tested through test-retest reliability, which means measuring the same scale twice in different periods and see to what extent the two sets of data have yielded the same replies of the respondents.

Furthermore, according to Hardy and Bryman (2004), internal reliability means that all the constituent indicators of a variable are measuring the same thing, which means that the

variable is coherent. One of the most popular methods for estimating internal reliability, also applied in this thesis is Cronbach's Alpha (a) Test of Reliability.

3.5.2 Validity

An instrument is valid when the outcome of the measuring process has really measured what it was designed to measure. According to Eriksson and Wiederscheim-Paul (1997), validity can be defined as the ability of a scale or measuring instrument to measure what is intended to be measured. According to Hardy and Byrman (2004), there are different types of validity:

- Face Validity – Requires a thorough examination of the wording of the items of a criterion on which people tend to differ. This includes concurrent and predictive validity: the instrument and their connection to the relevant frame of reference used in the particular study. Face validity can also be examined using the opinion and judgments of experts concerning the items and wording used.

- Criterion-related validity – evaluates a scale in terms of a criterion on which people tend to differ. This includes concurrent and predictive validity.

- Construct validity – requires an examination of the theoretical inferences that might be made about the underlying construct (Hardy and Byrman, 2004).

In this thesis, the face validity has been applied, where the validity of the study has been proven through thorough pre-testing, rewording and re-evaluation of the instrument used.

3.6 Summary

This chapter reviews all parts of the theoretical framework and research methodology will be used in this study. With theoretical framework provides dependent variable and independent variables interact with each other. Although in part of methodology, researcher describes how research approach adopted in the study, provide details in research subjects based on population and size sample, about questionnaire, how the questionnaire will be administered. The statistical methods are the process of analysing the data. In this part, the researcher will discuss the finding of the data and try to interpret them within data collected

will be analyse using SPSS Version 18.0 and the results of statistically analysis are explained in Chapter Four.

CHAPTER FOUR

EMPIRICAL DATA ANALYSIS

4.0 Introduction:

In the following chapter on empirical data and analysis, the results from the conducted survey and the following analysis presented. The results of the survey include descriptive statistics of the collected data and Cronbach's Aplha Test of Reliability to test the reliability of the used model (instrument). The collected data been analysed by using Principal Component Analysis. Furthermore, analysis of Descriptive Statistics and Correlation and Regression are also included in this part.

Conducting the survey of this study, 100 questionnaires have been distributed. The questionnaires were completely return to the author since the author conducted the survey by face to face meeting and closely monitor the distribution of the questionnaires. Then, Cronbach's Alpha Test of Reliability and Principal Component Analysis (PCA) were performed both, with the completed questionnaires. The intention was for the author to see whether there would be some differences in the results. Based on this pre-analysis, in the case of the a-scores (Cronbach's Alpha Test of Reliability results), the differences in the data collected is so small that it can be disregarded.

In the PCA case, the pre-analysis showed that there were differences in the Principal Component Analysis result. The pre-analysis showed that only three factors should be extracted. The author of this thesis has decided to base the analysis in the thesis on the response from the questionnaires consisting 100 respondents of FELDA settlers.

4.1 Analysis of Respondent's Characteristics

This is the initial step to get the overview of the demographic information from the respondents. The characteristics of the respondents are very crucial to determine the trend of online banking customer towards the pertaining problem. The demographic variables are including gender, age, educational background, marital status and monthly income.

4.1.1 Gender

The portion of the gender comprises male and female. The result from the data analysis could be seen as the table below :

Table 4. 1 : Distribution Frequency of Gender

Details	Frequency	Percentage (%)
Male	53	53%
Female	47	47%
Total	100	100%

Table 4.1 shows that the distributions of gender are equal. The frequency of male is 53 of 53%percent of the total sample and the frequency of female respondents recorded is 47 or 47%. The closeness number of the gender shows that the equality of the online banking customers among FELDA settlers in terms of gender.

4.1.2 Age

The table 4.2 shows the distribution of age captured from FELDA settlers.

Table 4. 2 : Distribution of Age

Age Range	Frequency	Percentage (%)
18-22 years old	17	17%
23-27 years old	28	28%
28-32 years old	27	27%

33-37 years old	16	16%
38-42 years old	7	7%
43 years old and above	5	5%
Total	100	100%

Based on the above Table 4.2, the majority of the respondents, 28% from total respondents are from age 23 to 27 years old. 27% were recorded from the respondents aged 28-32 years old, 17% from aged 18-22 years old, 16% of the respondents are aged at 33-37 years old. The rest were recorded 7% and 5% each of them were aged 38-42 years old and 43 years old and above. Noted that 100% of the respondents recorded are the second and third generation of FELDA settlers whereas they were born and raised in the FELDA residential areas. The second and following generation of FELDA settlers has received the basic facilities in the community such as water supplies, electricity, communication line and other public facilities. They also received basic education requirement provided by the Ministry of Education at their place.

4.1.3 Educational Background
Table 4. 3: The Frequency and Percentage of Respondents Based On Educational Background

Educational Background	Frequency	Percentage (%)
SPM	21	21%
STPM	12	12%
Diploma	26	26%
Bachelor Degree	39	39%

Master	2	2%
PhD	0	0%
TOTAL	100	100%

Table 4.3 shows the analysis of respondents based on educational background. Based on the result, most of the respondent holds Bachelor Degree in various fields were recorded at 39%. 26% of them holds diploma qualification, 21% holds SPM qualification and 12% and 2% each of them holds STPM and PhD qualification as their educational background. Based on this figure, educational background has an important role in determining the level of IT literacy among the community of FELDA settlers.

4.1.4 Marital Status

Table 4. 4 : The Frequency and Percentage of The Respondent Based on Marital Status

Marital Status	**Frequency**	**Percentage (%)**
Single	42	42%
Married	58	58%
Divorced/Widow	0	0%
Total	100	100%

Based on the table 4.4, the majority of the respondents are married person which is 58 percent. Meanwhile 42 percent from the respondent whom still single.

4.1.5 Monthly Income

Table 4. 5: The Frequency and Percentage of Income

Monthly Income	Frequency	Percentage (%)
< RM1000	18	18%
RM1100 – RM 2000	28	28%
RM2100 – RM 3000	33	33%
RM 3100 – RM 4000	15	15%
RM4100 – RM5000	5	5%
>RM5000	1	1%
TOTAL	100	100%

The monthly income of the respondents can be classified into six groups. Based on the table 4.5 shows the majority of the respondents are in the income group between RM2100 – RM3000 per month that is 33 percent. Meanwhile 28 percent of the respondents are in the income range RM1100- RM2000 per month. Besides that, 15 percent is in the group of income between RM 3100 – RM 4000 and 18 percent of them is in the income group below than RM 1000.

4.2 Cronbach's Alpha Test of Reliability

In order to prove the internal reliability of the model used, the author of the thesis performed Cronbach's Alpha Test of Reliability. When performing this test, the author has grouped the different item pertaining to the different quality dimensions and performed the test on each dimension.

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Applying this test specifies whether the items pertaining to each dimension are internally consistent and whether they can be used to measure the same construct (dimension). Performing this test results in a so-called a-score, a number between 0 and 1, which interpretation determines the internal reliability of the measured variables. According to Nunnally and Bernstein (1994), a-score exceeding 0.7 indicates high internal reliability of the scale items. Despite that, there are still researchers who use different cut-off a-scores like 0.8 or even 0.6 (Garson, 2002).

Table 4. 6 : Realibility TEST

Variables	Cronbach's Alpha
Efficiency	.918
Fulfillment	.841
Privacy	.594
Assurance/ Trust	.357
Responsiveness	.706
Contact	.655
People's Acceptance	.895

What can be seen from the table above, the a-scores of Efficiency, Fulfillment, Assurance/Trust, Responsiveness, Contact and Acceptance are all above 0.7, which indicates that these dimensions are quite reliable and that the items pertaining to each of these dimensions can be used to measure the constructs to which they pertain.

The a-score of the Privacy dimension is .594, which is so close to 0.7 that it can be regarded as pretty reliable. As far as the Privacy dimension is concerned, it has an a-score of 0.594 which is less than 0.7.

According to Garson (2002), the a-scores increase when the number of items in the scale increases, which implies the assumption that the yielded lower than 0.7 a-scores on some of the dimensions could be very small number of items pertaining to each of these dimensions. All of the dimensions with lower than 0.7 a-scores have 2 items each, but that is so because the size of the questionnaire was expected not to be that long and because of the time constraints and the conditions under which the survey was conducted. The author assumes that if each of these dimensions was described using more items, the result would have been different, but that was confined by the conditions under which the survey was performed.

Furthermore, performing the Cronbach's Alpha Test of Reliability showed that removal of any of the items pertaining to the dimensions that include more than two items would not increase the a-score of the given dimension.

4.3   Correlation Analysis

This study is examining nature of the relationship that exist between independent variables, namely efficiency, fulfilment, privacy, trust, site aesthetics, responsiveness and contact while dependent variables is people's acceptance. To determine the relationship amongst variables, Pearson Correlation was run. As a result, a correlation matrix is presented in the table below. As can be seen from the table below, all independent variable show a positive and significant relationship to customer satisfaction. This means perceive higher level satisfaction with dimensions six of service quality will result in higher overall customer satisfaction.

Table 4. 7 Correlation Matrix[a,b]

		EFF	FUL	PRI	ASS	AES	RES
Correlation	EFF	1.000	.972	.888	.909	.923	.889
	FUL	.972	1.000	.874	.892	.903	.874
	PRI	.888	.874	1.000	.859	.771	.833
	ASS	.909	.892	.859	1.000	.878	.740
	AES	.923	.903	.771	.878	1.000	.870
	RES	.889	.874	.833	.740	.870	1.000
	CON	.830	.823	.763	.832	.844	.889
	ACC	.889	.879	.859	.828	.909	.916

a. Determinant = .000

4.4 Hypothesis Testing

As mentioned earlier, they are six hypothesis formulated for the present study. To test the first five hypothesis, correlation test was used. Refer to the table above, out of the ten relationship hypothesis, nine of them are supported. The result reveal a significant and positive relationship between customer satisfaction and (1) tangibility (r=0.590, p=.000), (2)e

Table 4. 8 Hypothesis Testing

Hypothesis		Results
H1 : Efficiency	⟶ People's Acceptance	Accepted
H2 : Fulfilment	⟶ People's Acceptance	Accepted
H3 : Privacy	⟶ People's Acceptance	Accepted
H4 : Assurance/Trust	⟶ People's Acceptance	Accepted

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H5 : Site Aesthetics	⟶	People's Acceptance	Accepted
H6 : Responsiveness	⟶	People's Acceptance	Accepted
H7 : Contact	⟶	People's Acceptance	Accepted

4.5   Multiple regression analysis

The result from Table 4.9 indicates that the multiple regression coefficients (R) of the six independent variable of service quality in the people's acceptance model are .895 and adjusted R square is .007. This means that 89.5 % of the variance in customer satisfaction has been significantly explained by the six factors of people's acceptance. Thus, the result of this analysis supports the hypothesis that the variables have significant affect positively to the FELDA settler's acceptance of internet banking. In regression analysis, beta values of each independent variables significant contribution and influence on the internet banking acceptance among FELDA settlers was addressed and the result are shown in Table 4.9.

Table 4. 9: Result of Regression Linear Test

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.216[a]	.047	.007	.500

a. Predictors: (Constant), CON, PRI, AES, RES, FUL, ASS, EFF

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1.166	4	.292	1.167	.331[a]
	Residual	23.744	95	.250		
	Total	24.910	99			

a. Predictors: (Constant), CON, PRI, AES, RES, FUL, ASS, EFF

b. Dependent Variable: ACC

Coefficients[a]

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	1.506	.210		7.178	.000
Monthly Income	-.103	.073	-.236	-1.417	.160
Educational Background	.010	.048	.024	.212	.833
Marital Status	.174	.142	.172	1.226	.223
Age	-.024	.066	-.065	-.365	.716

a. Dependent Variable: ACC

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4.6   Summary

In this part, the researcher will discuss the findings of the data that were analysed by the SPSS Version 18.0. Overall, the analysis process involved the test of Reliability, Frequency Distribution and Descriptive Statistics in order to achieve the objective and analyses the hypotheses of the study. The reliability alpha value is 0.956 means the study data is reliable to use. This chapter discussed the findings of this study using statistical analysis. The author has used the correlation analysis to test the hypotheses. The result of the hypothesis testing indicated that all the hypotheses are supported. There is a positive effect and significant relationship between e-service quality and the acceptance of internet banking among people of FELDA Bukit Tangga.

CHAPTER FIVE

CONCLUSION AND RECOMMENDATIONS

5.0   Introduction

In the following chapter on conclusion and recommendations, conclusions and discussions of the underlying study will be made. Furthermore, the author of the thesis give recommendations to bank's managers and give suggestions for further research in this field.

5.1   Discussion of Findings

Discussion of findings included discussion of the research results, objectives, and hypothesis. The demographic testing over the factors influence people using the internet banking has been implemented. The testing included the demographic variables gender, age, educational background, marital status and monthly income. The first objective is to know the factors that influence people using the online banking based on demography background. The result show that the educational background is indirectly influenced by the factors of E-S-QUAL and E-RecS-QUAL usage of the online banking. Since people with better educational background tend to explore more on technology and utilize them in daily living, the group seems to be the most frequently using the online banking. Internet banking had become one of the culture among those FELDA settlers with higher level of educational background since they realize the need to use it. They could manage their time and their expenses wisely through online banking.

The result also revealed that the usage factor is the main factor motivates people deal with online banking particularly in banking environment. The usage factor used to identify the average monthly use and the number of time that user spend on the system. Besides, it also wants to know the average frequently use of online banking and tasks the user use the online banking. Thus, the usage factor has influenced people to use the online banking frequently to settle their monthly expenses, bills, and other banking transactions.

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5.2 Recommendations

In the underlying study, the author have made and attempt to develop a model for measuring services quality of online banking among FELDA settlers. The conducted research showed that some changes were necessary to the initial theoretical model in order for higher reliability and consistency to be achieved. Furthermore, it should be taken into consideration that this attempt has led to a preliminary constructed model which needs to be further tested and modified based on surveys conducted with higher number of respondents from different zone and national contexts.

In addition, because of the time and resource constraints of the conducted study, the model was constructed to include limited number of quality dimensions and especially items (29 questions in total) so that the survey would be more convenient and easy to conduct. Although, the author believe that such surveys with FELDA settlers are better to be short as precise as possible, it would be also good if this thesis provokes interest in other researchers to develop more elaborated model based on the presented in this work instrument for measuring online banking services among FELDA settlers.

Finally, it should be considered also that the developed instrument can be used to measure the satisfaction level of customers with different aspects of service quality of online banking in Malaysia and people's acceptance, but does not show the relative importance of each of these aspects in relation to the others, which would be interesting to be measured and included in further researches as well. Next in this chapter, the author will present the practical implications of their findings and will give suggestions for further research.

5.3 Managerial Implications

As stated in the previous part on Discussions, there is a need for further research and testing of the developed instrument in order for better understanding of the quality dimensions of online banking services and their relative importance to be achieved. Despite that, the findings from the present study have few importance for practitioners.

The analysis of this work includes implications for bank's manager as far as the satisfaction level of their customers with different aspects of the online banking service is concerned. Showing with which features of the online services the customers are satisfied and with which highly dissatisfied, can be used by bank's managers as a guideline for necessary actions leading to improvements of the quality of the online services that they offer.

Furthermore, what seems to be the case from the results of the analysis is that banks perform relatively well on issues of their online services such as Service Performance and Efficiency which are not specific for the Internet context but are typical for the traditional settings as well. In comparison, their performance seems to be not that satisfactory as far as an aspect of the online services such as Website Characteristics is concerned, which is highly specific for the online space. The conclusion is that managers might undervalue these aspects of the service quality of online banking among FELDA settlers and people's acceptance and concentrate their efforts more on traditional features of the services. This implies lack of understanding of and experience with the specific features and the requirement of the online space. What is advisable for managers in this case is to gain better understanding and pay more attention to the Internet specific features of their online banking services, because they are very important part of the customer's experience and consequently of customer satisfaction with the online services. Because of the lack of human interaction over the Internet, bank's managers should not forget that the website is the medium of interaction between the bank and its customers as far as the online banking services are concerned, and as such it should represent the total quality effort of the bank.

In addition, the Contact dimension should also be given higher concern from managers, because it includes the way banks respond to their customer's requests and the easiness with which the bank is accessed by telephone when needed. Both these aspects might play crucial role in the recovery part of the service delivery process. Many studies have proven the importance of the recovery process for the total perception of service quality and if done well, the recovery can have positive effects on the development of trusting relationships with customers and can lead to increased customer satisfaction. As this dimension showed high

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dissatisfaction of customers and taking into consideration the importance it can have on the overall perceived quality, it can be recommended that managers make immediate corrections and improvements in order to enhance to total customer satisfaction.

Finally, it should be remembered that although the other dimensions such as Service Performance and Efficiency have relatively percentage of people whose expectations have been met, in order for loyalty and positive word-of-mouth to be created, banks should strive to exceed their customer's expectations. Conclusively, the aspects connected with these dimensions can also be improved so that the expectations of customers are not only met, but exceeded, because in the contemporary competitive business environment, banks as service providers should strive for excellence.

5.4   Further Research

Because of the time-constraints and the specific conditions under which the study has been conducted, only 100 questionnaires were used to collect the data and test the theoretical model used to measure service quality of online banking acceptance among FELDA settlers. Although the reliability and validity of theoretical model used in the conducted study has been proven to be satisfactory accepted, it should be accepted as a preliminary scale and tested further with higher number of respondents within the perimeter of FELDA's territory in Malaysia. Furthermore, because of the circumstances of the conducted study, the number of items used in the model to describe each quality dimension is limited and reduced on purpose because of resource and time constraints. Further research aimed at creating a more elaborated and detailed instrument for measuring quality of online banking services based on the developed framework in this work instrument might be conducted.

In addition, the author of the thesis have chosen to target people within the perimeter of FELDA settlement and there are basically three generations living in this settlement which might be differ in terms of their response in the internet banking utilization. A survey based on the developed instrument might be conducted to target respondents from other regions within FELDA areas.

The underlying study was conducted in FELDA settlement in northern region of Peninsular Malaysia. It might just be relevant for the online services offered by selected banks and the experience of certain FELDA settler's internet banking users. It would be interesting to conduct similar research in the bigger scope as well.

Furthermore, the presented modified theoretical model was developed especially for the services quality of online banking among FELDA settlers in northern region of Malaysia and their acceptance. It would be interesting and challenging to test the model on other types of online services, of course with the necessary modifications and changes relevant for the new area of interest.

Finally, the developed instrument measures only the level of customer satisfaction with different quality dimensions characterizing online banking services, but does not show the relative importance of each dimension in comparison to the others. To what extent is given aspect of the online banking services important for achieving customer satisfaction? Is there a difference in the requirements for given aspects of the online banking services among different kind of respondents-different age groups, occupation, gender among FELDA settlers in all FELDA settlement all over Malaysia? These and other related questions seem worth investigating.

5.5   Conclusion

The research was conducted to identify the factors that influence the services quality of online banking among FELDA settlers in Bukit Tangga and their acceptance.

Taking into consideration, the huge investments that made by banks in internet infrastructure, customer satisfaction and retention are tuning into the crucial factors for success in online banking meaning that the generation of positive customer value on the internet requires the establishment of long-term customer relationships. One of the ways for achieving high customer satisfaction and gaining the loyalty of customers is for banks to offer high quality services. That is why being able to measure and evaluate the quality of their online banking services is deemed important for banks in order for them to take action to correct

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those features of their online services which customers don't find that satisfaction in using it. In the other hand, this study also reveal the necessary action needed to be done in order to cater the specific need among FELDA settlers as one of the community in Malaysia whom contributed to the development of agriculture industry and nation building.

Based on previously conducted studies, the author of the thesis have decided to apply a slightly changed version of a model developed by Parasuraman, Zeithaml and Malhotra for measuring quality of online services to the banking context and see if and what should be changed in that model in order for an instrument to be developed for measuring the services quality of online banking among FELDA settlers and their acceptance in particular. Furthermore, based on the applied and later modified theoretical model, the author made an attempt to evaluate the level of customer's satisfaction with the quality of different aspects of the online banking services the customers use. The findings had shown that the demographic variable educational background was influenced by the factors of E-S-QUAL and E-RecS-QUAL usage of the online banking. Besides that, it also revealed that the usage is directly motivates people to deal with online banking particularly in banking environment. People use online banking because they feel that online banking is very useful service and it comes with very friendly or ease to use, at the end, it will make people enjoy to use the service. For the future studies, the researcher suggests to examine the other factors such as security, availability of service or service quality of online banking. There are many researches done to examine these factors at other places. By doing these researches hopefully it can help organizations such as bankers especially to upgrade or build the better online banking systems.

For the purpose of the study, a survey has been conducted with 100 FELDA settlers, from which the responses from them had been use for the analysis. To analyse the data and test its reliability, Cronbach's Alpha Test of Reliability proved the relative reliability of the dimensions used in the model. Conducting the Principal Component Analysis led to some changes in the initial theoretical model : the number of dimensions was decreased to four, including Service Performance, Website Characteristics, Communication and Efficiency, and three of the items pertaining to the initial theoretical model – Q2*, Q11* and Q15* were

dropped from the model. Finally, the initial two scales of the model were combined into final scale.

Thus, the final version of the developed model in this study instrument for measuring the quality of online banking services consists of one scale with total of four quality dimensions: Service Performance, Website Characteristics, Communications and Efficiency. According to the conducted study, these are the service quality dimensions that banks should consider when evaluating the quality of their online banking services. Furthermore, seventeen items were used to describe these four dimensions. Banks might use the seventeen items described in this work to measure the quality of their online services along the four different dimensions of service quality presented in the study.

After modifying the theoretical model, in order to evaluate how customers perceive the quality of the different aspects of the online banking services that they use, the author of the thesis analysed the Descriptive Statistics data presented in the study. Furthermore, the level of satisfaction of customers with the different quality dimensions pertaining to be modified theoretical model was evaluated, in order to be concluded which aspects of the online banking services need improvement and attention and to give recommendations to bank's managers. In addition, the satisfaction level of customers of banks included in the study. The results have shown that despite some slight differences, the overall conclusions and the ranking of the different quality dimensions as far as customer's satisfaction level is concerned does not change. This leads to the conclusion that considering the satisfaction of customers with the different quality dimensions of the online banking services, the conclusions made and the recommendations given to bank's managers in this study can be considered applicable to different banks.

Based on the performed evaluations mentioned above, the following conclusions can be made. Find of all, most customers have shown dissatisfaction of indifference with the following aspects of the online banking services: prompt responses of the bank to customer's request; design of the bank's website; quickly solution of customer's problems; the easiness to reach the

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bank by telephone and the easiness to find what the customer needs on the website. Secondly, banks seems to perform very well on the Service Performance and Efficiency dimensions of the offered online service as those dimensions rank highest on satisfaction of customers. Finally, the aspects consistently ranking highest on dissatisfaction are Communication and Website Characteristics which should be considered from bank's managers for immediate amendment.

Furthermore, what is interesting to be observed is that the aspects of online services on which banks rank higher in satisfaction of customers like service Performance and Efficiency are not specific for the Internet context, but are typical for the traditional settings as well. In comparison, the aspect of the online services on which bank rank higher in dissatisfaction like the Website Characteristics dimension is more Internet-specific. A reason for that might be that banks do not consider this feature important for the quality of their online services and have concentrated their efforts on the other aspects of the online services. Nevertheless, because of the lack of human interaction in the online space, it should not be forgotten that the website is the "moment of truth" between customers and their banks as far as online services are concerned, and as such the website should be consistent with the total quality efforts of the service provider, meaning that a high quality website is an important aspect of the offered online banking services. The findings had shown that the demographic variable education background influenced by factors of E-S-QUAL and E-RecS-QUAL usage of the online banking. Besides that, it also revealed that the usage is directly motivates people to deal with online banking particularly in banking environment. People use online banking because they feel that online banking is very useful service and it comes with very friendly or ease to use, at the end it will make people enjoy to use the service. For the future studies, the researcher suggests to examine the other factors such as security, availability of service or service quality of online banking. There are many researchers have been done to examine these factors at other place or other community. By doing these researches we hope that they can help organization such as banks especially to upgrade or build the better online banking systems.

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