

สำนักหอสมุดกลาง พระจอมเกล้าลาดกระบัง

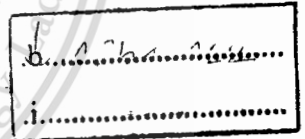
**SERVICE RESPONSE LOGISTICS
IN THAI INTERNET BANKING BUSINESS**



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**A RESEARCH DISSERTATION SUBMITTED IN PARTIAL FULFILLMENT
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KING MONGKUT'S INSTITUTE OF TECHNOLOGY LADKRABANG**

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เอกสารนี้เป็นเอกสารที่สงวนไว้สำหรับการใช้งานเพื่อการศึกษาเท่านั้น ไม่อนุญาตให้นำไปใช้ประโยชน์ด้านการค้า
ไม่ว่ากรณีใดๆทั้งสิ้น อีกทั้งห้ามมิให้ตัดแปลงเนื้อหา และต้องอ้างอิงถึงเจ้าของเอกสารทุกครั้งที่มีการนำไปใช้



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Abstract

The objectives of this project are to study the service response in Thai internet banking business and recognize the problems and obstacles occurred and also to recommend the solution in developing the internet banking or I-Banking services in commercial banks in Thailand. The Internet banking assists the customers to develop and enhance relationships with their corporate and retailed customers in terms of providing service according to customer needs and wants with lower costs and more service responsiveness. However the customers are concerned about security and reliability of transactions via the Internet. The technology must be gradually introduced to allow easy movement between technology-based and human service. Physical branches of Thai banks are not disappeared, but toward more support for customers when they face problems doing the routine transaction through technology. The Internet banking can be able to create greater customer loyalty, which is critical in the ever more competitive banking industry.

Keyword: internet banking, service response, logistics

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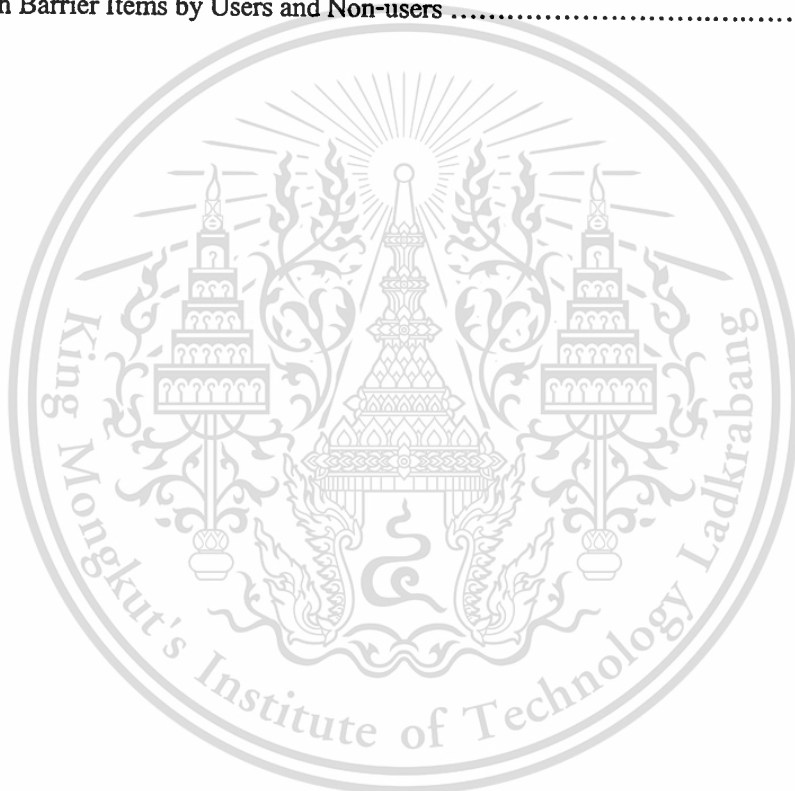
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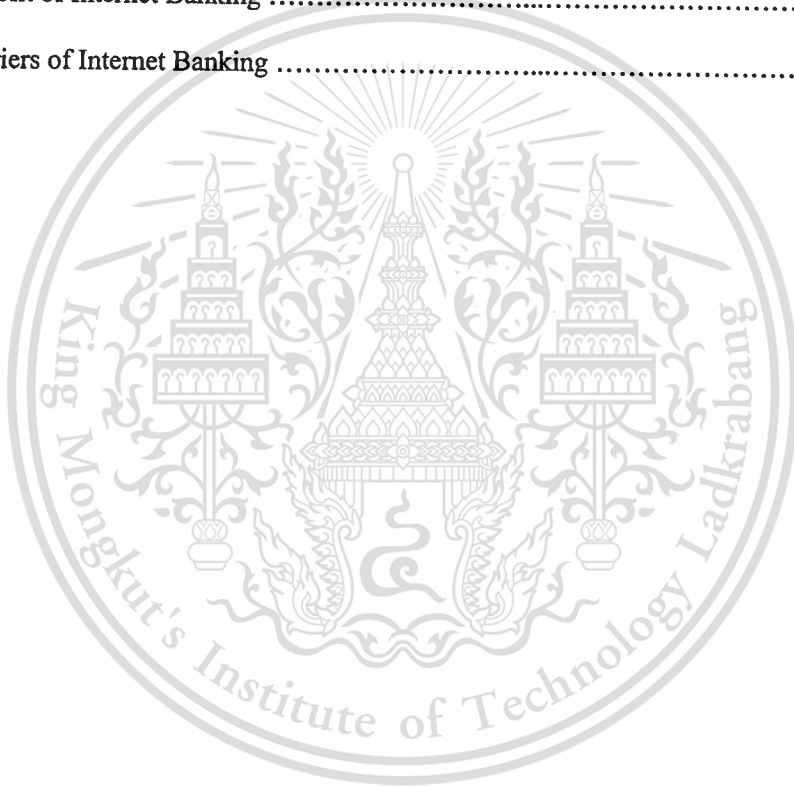
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Chapter 1

Introduction

1.1 Background

Nowadays, it is the world of globalization that rapidly and continuously changes. There are many factors; for instance, economy, social, politics, education, technology, and environment that have an effect on systems and also organizations to have a continuity improvement for getting advancement or competitive advantages themselves to survive and sustain in red ocean businesses. One of the industries that has a big impact on its business is “Financial Institution” especially in banking fields now that there are so many offshore banks investing in Thailand causes more serious competition, thus almost Thai commercial banks have to adjust and prepare for this change to get their long-term competitive advantages by reorganizing and changing working system into less hierarchy, unsophisticated work flow, and more flexibility.

Commercial bank has an important role in developing economy in our country in aspects of supporting financial loan to entrepreneurs to run their businesses smoothly by gathering money from people, moreover it is the tool of government policies that the government is the intermediary of international trade, currency exchange, issuing letter of credit (L/C), and also launching bond to individual and government section. Nowadays, banking industries have the huge improvement which is guaranteed by the increase of asset and liabilities and also their branches expansion. Furthermore, there is a development and adjust their business to be suitable and modernized in terms of policy, working style, and image for serving their customers as quickly as required by using logistics.

The importance is highly concerned in nowadays businesses as effective logistics management can help the entrepreneurs to reduce cost that creates more profit. From this concept, logistics management can build the competitive advantages and benefits to organizations by integrating logistics in their business processes to transfer materials or products to end users (link

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time and place). Efficient and effective logistics management consists of forecasting, inventory management, procurement, logistics communication, transportation and delivery to get cost effectiveness, build the differentiation in their businesses. These factors can be the arms to fight in the red ocean of business competition.

In recent years, internet has become a critical service delivery channel. Web technology can also offer the ability to automate business transactions, which may allow more response of service to customers. Many companies in the financial services sector have been quick to implement Internet capabilities, and electronic service is becoming a viable option for interaction between financial service providers and their customers. Many banks have implemented Internet banking to offer their customers a variety of online services with more convenience for accessing information and making transactions. From the banks' viewpoint, implementation of Internet banking will lead to cost reductions, improve customer service, and create long-term profit. The businesses investment in web technology is driven by expectations that Internet technology should provide better opportunities to establish a distinctive strategic position compared to the previous generation of information technology.

However, customer adoption of Internet banking has not been as strong as most banks expected. Some research shows that most retail banking customers rank Internet banking as less important than other technology-based delivery channels, such as ATMs. In Thailand, retail customers show attitudes consistent with this, and are uncertain about adopting Internet banking. It is becoming clear that the potential value of web-based service adoption for customers depends not only on the benefits, but also on overcoming a number of barriers.

Web barriers can be derived from many factors such as distrust of the web system, and lack of legal support issues. Electronic markets create new transaction risk for electronic market participants, and security is one of the crucial factors that discourage the successful implementation of electronic services. These issues are serious concerns among corporate customers in Thailand.

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In the Banking Industry, it has been in the form of online banking, which is now replacing the traditional banking practice. Online banking has a lot of benefits which add value to customers' satisfaction in terms of better quality of service offerings and at the same time enable the banks gain more competitive advantage over other competitors. There are some associated risks identified in the study that seem to hinder the success of e-banking services and thus constitute major concern to both financial institutions and customers. This paper therefore, examines, if customers' choice of banks is influenced by the quality of internet banking services provided. Stratified sampling was used; while the survey instrument was a developed questionnaire.

From all reasons above, this independent study aims to study "Service Response Logistics in Thai Internet Banking Business" to know the problems and obstacles that is now happening to find the solution to make adjustment and improvement. These are expected to be an advantage of logistics management in commercial banking business improvement and finally know the customer satisfaction level. Also get the perception in terms of benefits and barriers of the Internet in Thailand among banking customers to see how they affect adoption of Internet banking. Thailand is a good example of a middle-income country where Internet banking is in early stages of development. In general, information technology (IT) resources in much of Asia are somewhat less well developed than in the West, so it is useful to investigate how much and what kind of benefits and barriers customers perceive in such conditions, which are more representative of much of the world outside the west.

If the bank can increase the number of internet banking users, the faster and more efficient of making transaction also the operation at the traditional office will trigger that means the more effective and efficient of logistics in banking business as well. Not only the flow of transaction, but also generate cost saving for their business.

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1.2 Problem Statement

This study will identify the service response logistics in Thai internet banking business focusing on the customer satisfaction that leads to the competitive advantage of the bank to create the strategy serving the existing customers and attractive the prospect customers. The most significant point is that the more customers use internet banking, the more efficient logistics banking and operation cost saving the banks get.

1.3 Research Objective

The purpose of the study is to identify

- The benefits and barriers of the service response logistics in Thai internet banking business that leads to the advancement to generate the bank's competitive advantage.

The study aims at identifying the service response logistics in Thai internet banking business and understand overall problems and obstacles Thai internet banking services then offer the solution of improvement and adjustment of service response logistics in Thai internet banking business to attract the non-user of internet banking to become the user finally that causes the competitive advantage of the bank.

1.4 Scope of the Study

Service Response Logistics in Thai Internet Banking Business has the scope of study as these followings;

The question topic focusing on these following;

1.4.1 Internet Banking Benefit

- Product Quality
- Accessibility
- Information Sharing
- Transaction Benefit

1.4.2 Internet Banking Barriers

- Individual Barriers
- Trust
- Legal Support Barrier

1.5 Research Methodology

The means of collecting primary data by interviewing people relating service response logistics in Thai internet banking business focusing on customer satisfaction level. The survey Instrument was a developed questionnaire comprising open ended question and satisfaction level with the Likert's Scale question. The instrument was administered to about 200 respondents, while 180 finally completed and returned their questionnaire. All samples are from the users and non-users of internet banking in top five banks, ranking by Top Revenue as of 2012 of Money and Banking Magazine, these are Kasikorn Bank, Siam Commercial Bank, Bangkok Bank, Krungthai Bank, and Bank of Ayudhya respectively according to the scope of the study. Then Analyze data to get the conclusion problems and obstacles and also offer the solution of improvement customer satisfaction and adjustment of service response logistics in Thai internet banking business.

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Chapter 2

Literature Review

The study of Service Response Logistics in Thai Internet Banking Business uses these literature reviews to be the pathway of the study as the following detail;

1. Document about commercial banks in Thailand
2. Concept and theory of logistics
3. Related researches about IT banking and customer satisfaction

2.1 Document about commercial banks in Thailand

2.1.1 The meaning of commercial bank

Commercial banks are important for financial system and Thailand economy. they have the main role to develop economy, to give a hand to both government and public sector organizations. It trends to expand growth of the commercial banking business thus their function and operation were controlled by commercial banking act B.E. 2505 and there are some of the definitions are that the commercial bank means An institution which accepts deposits, makes business loans, and offers related services. Commercial banks also allow for a variety of deposit accounts, such as checking, savings, and time deposit. These institutions are run to make a profit and owned by a group of individuals, yet some may be members of the Federal Reserve System. While commercial banks offer services to individuals, they are primarily concerned with receiving deposits and lending to businesses.

Moreover, the commercial bank is the important financial institution founded for running financial business, facilitating and exchanging money.

From all above, the study focuses on the full commercial banking. So this study give the meaning of commercial bank that is the bank received the full commercial banking license from Bank of Thailand [1].

2.1.2 The Emergence of Commercial Bank

The original banks were "merchant banks" which were first invented in the Middle Ages by Italian grain merchants. As the Lombardy merchants and bankers grew in stature based on the strength of the Lombard plains cereal crops, many displaced Jews fleeing Spanish persecution were attracted to the trade. They brought with them ancient practices from the Middle and Far East silk routes. Originally intended for the finance of long trading journeys, these methods were applied to finance the production and trading of grain.

The Jews could not hold land in Italy, so they entered the great trading piazzas and halls of Lombardy, alongside the local traders, and set up their benches to trade in crops. They had one great advantage over the locals. Christians were strictly forbidden the sin of usury, defined as lending at interest (Islam makes similar condemnations of usury). The Jewish newcomers, on the other hand, could lend to farmers against crops in the field, a high-risk loan at what would have been considered usurious rates by the Church; but the Jews were not subject to the Church's dictates. In this way they could secure the grain-sale rights against the eventual harvest. They then began to advance payment against the future delivery of grain shipped to distant ports. In both cases they made their profit from the present discount against the future price. This two-handed trade was time-consuming and soon there arose a class of merchants who were trading grain debt instead of grain.

The Jewish trader performed both financing (credit) and underwriting (insurance) functions. Financing took the form of a crop loan at the beginning of the growing season, which allowed a farmer to develop and manufacture (through seeding, growing, weeding, and harvesting) his annual

crop. Underwriting in the form of a crop, or commodity, insurance guaranteed the delivery of the crop to its buyer, typically a merchant wholesaler. In addition, traders performed the merchant function by making arrangements to supply the buyer of the crop through alternative sources—grain stores or alternate markets, for instance—in the event of crop failure. He could also keep the farmer (or other commodity producer) in business during a drought or other crop failure, through the issuance of a crop (or commodity) insurance against the hazard of failure of his crop.

Merchant banking progressed from financing trade on one's own behalf to settling trades for others and then to holding deposits for settlement of "billette" or notes written by the people who were still brokering the actual grain. And so the merchant's "benches" (*bank* is derived from the Italian for bench, *banca*, as in a counter) in the great grain markets became centers for holding money against a bill (*billette*, a note, a letter of formal exchange, later a bill of exchange and later still a cheque).

These deposited funds were intended to be held for the settlement of grain trades, but often were used for the bench's own trades in the meantime. The term bankrupt is a corruption of the Italian *banca rotta*, or broken bench, which is what happened when someone lost his traders' deposits. Being "broke" has the same connotation.

In the 12th century, the need to transfer large sums of money to finance the Crusades stimulated the re-emergence of banking in western Europe. In 1162, King Henry the II levied a tax to support the crusades—the first of a series of taxes levied by Henry over the years with the same objective. The Templars and Hospitallers acted as Henry's bankers in the Holy Land. The Templars' wide flung, large land holdings across Europe also emerged in the 1100–1300 time frame as the beginning of Europe-wide banking, as their practice was to take in local currency, for which a demand note would be given that would be good at any of their castles across Europe, allowing movement of money without the usual risk of robbery while traveling [1].

2.1.3 Commercial Banking System

Recently, it is found that there are some changes in banking system to be more internationalization after crisis in B.E.2540 which significantly affect to private sectors. The main reason is changing in currency exchange system causing the domino effect to other financial institution in form of NPLs (Non-Performing Loan). The government issued the measurement to increase short-term capital to flow in their own business and to be able to progress in the long-run. So all commercial banks can be divided into 3 systems [2].

1) **Independent or Unit Banking System** is a system of banking in which the government restricts or does not permit a bank to open branch offices. Unit banking systems encourage either small, independent banks or banks that are theoretically independent but are in fact owned by a bank holding company. In the United States, unit banking is largely confined to the Midwest and Southwest but for Thailand, there are only the foreign commercial banks that are the independent banking. The pro of this system is well-response in the local because all stakeholders are the people in their own local area to oppose the monopolies. The con is lack of stability as this system cannot diverse the risk as well as other systems because the credit is limited within their local area so the success or failure depends directly on their local economic system. They have less working capital to serve for the real need of that area. The service may slow and high cost of operation. The local system may causes the loan approval by their personal relation between the local customers and the local officers.

2) **Branch Banking System** is the system that each bank has their own headquarters and also has their branches nationwide or overseas. The policies and management level people will be appointed by the headquarters. The pro of this is the stability because they have more enough working flow of capital. There are economies of scale from overall branches. They can be quick response to customers and online all data with other branches. They have the professional officer to serve all customers. The con of this system is like the monopoly source of capital because there are not too many banks and the benefit will be in someone's hand except they are public

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company. The operation may be slow because of their centralized system control. The local branches have the limited authorities to serve for their customers like launching limited amount of loan.

3) **Chain and Group Banking System** was born in the US because there are some restrictions for branch banking in the some states. The chain banking system is form of at least 2 banks with capital, owner and officers of their own.

2.1.4 The importance of Commercial Bank

The advancement of technology and free trade economic policy cause the rapid change in consumer behavior. Although Thai economy is not getting full recovery in every section, there are channels to meet the potential customers. And the commercial banks have the important roles in developing Thailand's economy like these followings [1].

1. Accepting money on term deposit
2. Lending money by overdraft, installment loan, or other means
3. Providing documentary and standby letter of credit, guarantees, performance bonds, securities underwriting commitments and other forms of off balance sheet exposures
4. Distribution or brokerage, with or without advice, of insurance, unit trusts and similar financial products as a “financial supermarket”
5. Cash management and treasury
6. Merchant banking and private equity financing
7. Traditionally, large commercial banks also underwrite bonds, and make markets in currency, interest rates, and credit-related securities, but today large commercial banks usually have an investment bank arm that is involved in the mentioned activities.

2.1.5 Commercial Banking Business in Thailand Commercial banking business in Thailand can be separated into 2 types.

1) Business with revenue, interest, and dividend; these are issuing credit and money deposit that is 80-90% of total revenue but nowadays those amount decreased to 60-70% of total revenue because of crisis in B.E.2540 that affect the stability of commercial banks which is called NPLs (Non-performing Loan) so the banks have to be more careful before launching credit or loan. Furthermore, the commercial banks reduce to launch credit to large businesses but more focus on small and medium (from wholesale Banking to retail banking). So now the real target customers are SMEs and personal loan and housing loan.

2) Business with non-interest revenue; they are fee and other revenues like personal banking, import service, export service, provident fund, credit card, transferring to overseas etc. So the detail of each function are these followings [2].

2.1 Deposits; the most important activity of the banks because it is the main source of capital for running other transaction. The bank is the debtor of customers. The benefit of deposit will be returned to customer at the specific time.

2.2 Issuing credit; the bank permits customers to take a loan and credit which create a large amount of benefit to the bank. The responsibility will be opposite to deposit method. For current account, the bank will not consider the stability of customer and investigate the source of their money but only open the first account. But for issuing credit, the bank will be carefully consider the stability of customer and guaranteed asset to make sure that the bank will get the money back with specific time and interest.

2.3 Investment in securities; another way to get the benefit of the commercial bank is purchasing bond or government note, stock or debenture, debt securities. Most people usually purchase the government bond because of it's easy to return into cash and also safety to be the guarantee of taking a loan from Bank of Thailand (BOT) or repurchase at the BOT market.

2.4 Transferring money; the bank service to make the customer more convenient in moving the money from one place to another branches or banks. Transferring to overseas need to have correspondent bank. The bank will charge the fee from this transaction.

2.5 Securities calling-in; the bank service to customers. The method is when the customer get check, draft or bill of exchange then the bank will be the third party to call in the debtor to pay to the bank's customers. The bank will charge fee at the proper rate.

2.6 Aval and guarantee; the activity that the bank will be responsible for all debt of customer after guaranteed by the bank. Before that, the bank has to carefully investigate the stability to ensure that the customer can be responsible of the debt.

2.7 Overseas business; relate to currency exchange, deposit, issuing a loan, import , export, offshore transferring, and bank note trading etc. There are both spot rate and forward rate. The important one for international trade is letter of credit.

2.8 Other businesses; they are safe renting for deposit the valuable things, payment for public utility like water, electricity, telephone, tax, credit card, and ATM etc.

Internet banking requires information technology investment by Internet banking service providers to succeed in such investments, bank customers must see value in the technology, or they are unlikely to use it much. In this section we discuss theoretical bases for evaluating the business value of information technology (IT), and review from the customer viewpoint benefits of using the web for commercial purposes. Things have not moved as quickly as some anticipated in turning these benefits into reality in the banking sector, and many bank customers still hesitate in switching to web-based service transactions. Thus, issues about web barriers are also discussed, looking first at what the literature says about them.

2.2 Worldwide Situation of Internet Banking Business

The economy of most developing countries is cash driven; meaning that monetary transactions are basically made through the exchange of bank notes and coins for goods and services. However, this trend is now giving way to a modern and sophisticated payment system where the currency and notes are converted to data, which are in turn transmitted through the telephone lines and satellite transponders. This is as a result of rapid technological progress and development in the financial market. There is faster delivery of information from the customer and service provider, thus differentiating Internet enabled electronic banking system from the traditional banking operation. This transfer process makes money to be carried in information storage medium such as cheques, credit cards, and electronic means than its pure cash form. E-banking has thus become important channel to sell Products and Services; leading to a paradigm shift in marketing practices, resulting in high performance in the banking industry. The banking industry has been undergoing changes since the mid 1990s, in the form of innovative use of information technology and development in electronic commerce. This development made e-banking pose as a threat to the traditional branch operations, despite the fact that electronic commerce is still developing and is rapidly changing. “The importance of electronic payment system in any country can never be over emphasized, due to the dramatic transformation in technological advancements that is being experienced by the global financial industry”. They further argued that this new technological development may result to digital money replacing fiduciary currency in some developed countries, for instance, e-money has become legal tender in Singapore since 2008; while the contrast is the situation in many African countries, which are still cash based.

E-marketing is described as the achievement of marketing objectives through the use of electronic communications technology. It is further identified that the key success factors in e-marketing is achieving customer satisfaction through the electronic channel in terms of the ease of use, performance and quality of service. This idea of e-marketing concept is seen as broader in scope. Digital marketing is another term which has similar meaning to “electronic marketing” and now increasingly used by Specialist Marketing Agencies. Therefore, the terms E-Marketing, Internet Marketing and Digital Marketing can be described as synonymous. Internet banking, however, is now used as the term for new age banking system. Internet banking is defined as the use of the Internet to

deliver banking activities such as funds transfer, paying bills, viewing current and savings account balance, paying mortgages and purchasing financial instruments and certificates of deposits. Internet banking is also called online banking, e-payment and e-banking. E-payment is described as a means whereby banking businesses are transacted through automated processes and electronic devices such as personal computers, telephones, and fax machines, Internet card payments and other electronic channels. The electronic communications used in Internet banking includes: Internet, e-mail, e-books, data base and mobile phones. Cell phone banking apart from Internet banking is considered the way of the future.

2.2.1 Business value of IT

An important question about business investment in IT today is whether the expected financial benefits can be realized. Many studies try to evaluate the impacts of IT investments. The impacts should be observed at each strategic business unit level [3]. They use two-stage analysis to determine the value of information technology investment: intermediate and high level output variables for measuring the IT contribution. They analyze intermediate-level variables based on factors such as capacity utilization, inventory turnover, quality, price, and new products, while high level variables or final performance variables are measured by market share and return on assets. They also suggest that IT value should be measured at the process level at which IT is implemented. The explosion both market and process-level factors, to evaluate barriers to electronic commerce investment. IT creates value flows that occur internally such as cost savings, product quality, and innovative service or product [4].

Much of the discussion of value actually focuses on benefits and off-setting barriers. For example, To defined the informational level of IT value as information technology infrastructures that assist effective operations for the firm in terms of communication, reporting, analyzing, planning, controlling, and decision-making [5]. Web Technology provides the ability to transfer information not only within the firm, but also between firms and their collaborating partners in the network, e.g., to customers or suppliers. On the other hand, found internal organizational and technological factors are more important than external factors about relationships with suppliers / customers. Four factors influencing adoption of the Internet are aggressive technology policy, compatibility of the Internet

with organization culture and infrastructure, top management support, and potential advantage. Accordingly, we examine both web-based service benefits and barriers in more detail [6].

2.2.2 Web benefits

The studies about business use of web technology showed that web technology provides a number of information benefits, as businesses use the Internet channel to provide information about product specifications, price, and service delivery methods. Specific informational benefits include quality information, easier access to information, and capabilities for information sharing [7]. There are also transaction benefits, which can provide the firm with the ability to automate business functions via the web and provide service to customers with lower costs, more responsiveness, and greater potential for customization [8].

2.2.3 Information quality

Quality information should be relevant, related to customer needs and interests so that it adds value for customers [9]. Businesses have to focus on relevant information which responds to customer needs and attracts them to keep accessing the firm website as a quality information source [10].

The informational benefit is also more valuable to customers if website owners provide accurate information [11]. Accuracy refers to “how well the information represents the phenomenon it purports to describe” [12]. Finally, quality information has to be timely, which means that up-to-date or current information must be provided.

2.2.4 Information accessibility

One of the major attractions in commercial use of the web is the ability to access information more easily. To point out that accessibility to service provider / supplier sites can create better levels of responsiveness to customers. Furthermore, if the firm website is easily accessible, customers can access information faster, encouraging them to continue connecting back to the firm website, so they can frequently check firm information [11]. In addition, to make websites most accessible, firms have

to pay particular attention to creating flexible ways to disseminate information resources to their customers [7].

2.2.5 Information sharing

Online information sharing has been conceptualized in different ways. One of the popular issues mentioned by researchers is information sharing via a virtual community. Firms can create a virtual community to serve the needs for communication and information sharing among customers who have common interests or experience, e.g., via the bulletin board. Firms can now interact with customers on a global scale, in real-time, and using two-way interaction [13]. Information sharing among customers can help enhance customer service by increasing convenience, through collection of service performance information to support management decisions, and by making possible the offering of more customized products or extra services according to customer needs [14, 15]. Moreover, information sharing should provide a selection of appropriate links or connections to other websites that give more detailed information about related topics that are interesting for customers. The objective of the connectivity is to provide customers with all the information they want. Several recent studies on electronic commerce have noted that these issues are critical. For instance, a major factor for the success of a website is the design of information interfaces and navigation that enable users to link to other websites [16].

2.2.6 Transaction benefits

Lower transaction costs: In doing business, both buyers and sellers try to minimize transaction costs. Customers perceive cost advantage if their service providers set prices lower than others without any substantial sacrifice of service quality. Cost advantage leads to superior performance if service providers can provide an acceptable level of value with lower costs to their customers. According to many observers, one of the major contributions of Internet-based service is the reduction in transaction costs as buyers and sellers can contact each other directly. Service providers can gain operational benefits by reducing time, overhead costs in operation, and also eliminate costly service participants such as company service personnel [17].

In the financial services industry, the web is used as a means of payment or money transfer. Many observers claim that this new channel reduces time and cost to both customers and banks. The web-based payment process may be perceived as more convenient, and can create saving dimensions for customers. Prior empirical research about Internet banking reveals that time and cost are key factors affecting Internet banking adoption of the bank.

There may be some economies of scale involved; for instant, cost and time saving dimensions are perceived as a larger benefit when customers use Internet banking services more often and for larger transactions [18].

2.3 Related Study Research

One research had studied about the corporate customers' perspective on business value on internet banking business [19]. In the recent time, the development in technology has affected business organizations in several ways, most especially in terms of management and control; marketing and research; operations and decision making. It is therefore, the vogue that every organization wants to tap the benefits accrue from technology development. In other word, most organizations find means of enjoying the advantages encapsulated in the new technologies. There was reduction of cost through substantial improvement in efficiency by business organizations. This resulted in banks diverting their focus towards extensive computerization and electronic operations. The electronic delivery of banking service has become ideal for banks in meeting customers' expectations and building close customer relationship. It is therefore, no doubt that e-banking will definitely overwhelm traditional banking in the near future; since more developing nations seem to direct their focus on building up their infrastructure with specific attention on e-banking, e-commerce and e-learning.

Another one had studied about customer preference for E-banking services, internet banking started with simple functions such as real time access to information about interest rate, checking account balances and computing loan eligibility [20]. However, these services have graduated to online bill payment, transfer of funds between accounts and cash management services for corporate organizations and individuals. The development experienced in Internet and other global online

networks have thus created new commercial opportunities for e-commerce and creation of completely new sets of global and national trading relationships. This consequently, led to the perception that e-banking and e-commerce are now an inevitable aspect of financial services. This research also proposed a model for assessing the business value of e-banking distribution channels which applies five perspectives: customer, marketing, finance, technology, and strategy perspectives. These perspectives can be used to evaluate business value along two viewpoints, internal and external. The internal view means that the e-banking distribution channel is considered as a resource providing efficiency, effectiveness, market expansion, and competitive advantages to the financial service provider. Business value from the external view derives from the customer viewpoint, and is measured by the extent to which the e-banking channel supports the relationship between the bank and its customer. We will primarily be looking at this external, customer viewpoint in most of the discussion below, as we focus on customer adoption of the Internet services, not service supplier adoption.

The other research had studied about the use of e-banking that has brought many benefits amongst which include: there are no barrier limitations; it is convenient; services are offered at minimal cost; it has transformed traditional practices in banking; the only way to stay connected to the customers at any place and any time is through internet applications; it results in high performance in the banking industry through faster delivery of information from the customer and service provider; customers prefer the use of e-banking because it saves time; it makes possible the use of innovative product or service at a low transaction fees and it encourages queue management which is one of the important dimensions of e-banking service quality [21]. Basically, there are certain issues raised in current literature on e-banking that are considered as major problems of Internet banking amongst which include: the case of Internet criminals and fraudsters attempt to steal customer information through various methods such as phishing and pharming. In other word, there is increased concern about privacy and security of customers' information as a result of the fragility of information collected and held electronically and transferred via computer – mediated communications. Other problems are: fund transfers make it very easy for criminals to hide their transactions; there is inaccessibility to e-banking due to poor internet penetration, customer inflexibility to new technology, low educational level, poor computer literacy and constructive use of

Internet services; language, cultural and logistical barriers; different legislation and information overload to customers. As a result of the aforementioned problems, online banking services have thus become a crucial concern of financial institutions during this era of sophisticated technological breakthrough. The fact therefore remain that the various electronic banking services and products have no doubt exposed customers to new ways of convenience rather than the conventional banking.



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Chapter 3

Methodology of the Study

The study of service response logistics in Thai internet banking business has the methodology respectively as below;

1. Data Collection Method
2. Data Collection Tools
3. Data Arrangement and Data Analysis

3.1 Data Collection Method

Collecting data from primary source by making a questionnaire survey distribute to 200 respondents by hand within Bangkok area, while 180 finally completed and returned their questionnaire. All samples are from the users and non-users of internet banking in top five banks, ranking by Top Revenue as of 2012; Money and Banking Magazine, these are Kasikorn Bank, Siam Commercial Bank, Bangkok Bank, Krungthai Bank, and Bank of Ayudhya respectively according to the scope of the study and distributed 40 questionnaires for each bank equally. Then Analyze data to get the conclusion problems and obstacles and also offer the solution of improvement customer satisfaction and adjustment of service response logistics in Thai internet banking business. The questionnaire contain both demographic questions and the satisfaction level emphasizing on the service response logistics in Thai internet banking business and comply with the secondary data from several sources e.g. annual reports of commercial banks, academic articles, journals, newspapers, and also surfing on the internet.

3.2 Data Collection Tools

Data collection tool is the questionnaire survey about commercial banks to consider all detail to cover the aim of study. The cluster of the questionnaire based on these following;

3.2.1 Internet Banking Benefit

- Product Quality
- Accessibility
- Information Sharing
- Transaction Benefit

3.2.2 Internet Banking Barriers

- Individual Barriers
- Trust
- Legal Support Barrier

3.3 Data Arrangement and Data Analysis

3.3.1 From the question topic above, using the statistical calculation by SPSS (Statistics Package for the Social Sciences) and the Liker's Scale questionnaires that scaling responses in survey research, such that the term is often used interchangeably with rating for this questionnaire ranges from 1 to 5 (Strongly Disagree to Strongly Agree) to know the customer satisfaction to indentify the problem focusing on the 2 group of respondent. They are user and non-user.

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Hypothesis Testing of the Mean of Users and Non-User

Use the formula : T – test (Pooled Variance)

$$t = \frac{\bar{x}_1 - \bar{x}_2}{\sqrt{S_p^2 \left[\frac{1}{n_1} + \frac{1}{n_2} \right]}} \quad \text{when } df = n_1 + n_2 - 2$$

S_p^2 = Pooled Variance

$$S_p^2 = \frac{(n_1 - 1)S_1^2 + (n_2 - 1)S_2^2}{n_1 + n_2 - 2}$$

Thus;

$$t = \frac{\bar{x}_1 - \bar{x}_2}{\sqrt{\frac{(n_1 - 1)S_1^2 + (n_2 - 1)S_2^2}{n_1 + n_2 - 2} \left[\frac{1}{n_1} + \frac{1}{n_2} \right]}}$$

\bar{X} = the mean of sampling

S = standard deviation of sampling

N = the number of sampling

Sig. = the probability calculating from the hypothesis statistic testing

The Hypothesis;

H_0 : The users and non-users have not different satisfaction level

H_1 : The users and non-users have different satisfaction level

The value of t (Independent Samples t-test) at the significant level 0.05

If the sig. value less than 0.05 – Reject H_0

3.3.2 Find the linkage and relation of all data for the data interpretation with the customer satisfaction analysis.

3.3.3 Present the result of the analysis according to the scope of study in form of description and explanation the benefit and barrier for improving the internet banking services to response the customers.



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Chapter 4

Results

The results of the study of “Service Response Logistics in Thai Internet Banking Business” are these followings.

4.1 The information the commercial banks in Thailand

Commercial bank is the most important financial institute in Thailand in aspects of deposited money and loan compared with other financial institutes according to the commercial banking act B.E. 2505 indicating that the commercial bank is “public company limited” no need to use “company” but only “limited” in its official name. Commercial banks serve the customers as these below.

4.1.1 Money Deposit

(1) Current Account /Checking Account/ Demand Deposit

This type of deposit requires some money in account of customers. The bank will give check to customers, thus they can use under their authority without carrying any cash on hands. Most of business owners use their account because of convenience.

(2) Savings Deposit the customers can be allowed to deposit with their saving books only.

(3) Time Deposit is fixed the time for your deposit and has to inform the bank before the date of deposit. This type of deposit will offer the higher interest rate than savings account.

(4) Other Deposits such as home savings, educational savings etc. is the account that indicates the clear purpose of customer’s saving and allows to withdraw at the specific time.

4.1.2 Loan is the important role of commercial bank. There are 3 types.

(1) **Direct Loan** is the loan that fix the time of payment in terms of by period with the interest.

(2) **Overdraft: O.D.** the bank will allow the borrowers with current account to get the loan over their own money in the account. The borrowers have to pay interest for only the overdraft made.

(3) **Discounting Bill** the bank will buy the note payable from the customer before the ended time and discount the value by the time. The customer will get the cash immediately.

4.1.3 Money Transfer the bank can serve for the customer into 2 types. They are normal transfer (by check or draft) and immediate transfer (by telex, on-line)

4.1.4 Money Collection the bank will collect the money as the draft note or check at the payment time to make the customers more convenient to collect the money by themselves since the banks have their own branches nationwide.

4.1.5 Security safe the bank will offer the safety room for rent thus the customer can rent for keeping their jewelry and contract etc.

4.1.6 Currency exchange the bank will offer exchange service on their rate.

4.1.7 Letter of credit (L/C) is the document issued by the commercial bank that the customers contact regularly to make payment to seller overseas or within Thailand.

4.1.8 Bangkok International Banking Facilities (BIBF) there are 2 types.

(1) **Out-out financing** : get the money from overseas countries to invest in other countries

(2) **Out-in financing** : get the money from overseas countries to invest in Thailand.

4.1.9 Other services i.e. credit card, guaranteed contract, business and investment consultation, and miscellaneous payments.

4.2 Business Structure of Thailand Commercial Banks

From the source of related knowledge and the expert interview about the commercial banks, this is the conclusion of the business structure, working and operational system, the business resources, finally, channel and marketing strategies.

4.2.1 Working and Operational System

- (1) **Full-serviced Bank** ; for the high competency banking institution and can serve all groups of customers and almost all kinds of transactions, thus the bank has to guarantee by the minimum capital at least 5,000 MB.
- (2) **Restricted Bank**; the public companies limited that have the competency with not too much capital. Consequently, they aim at serving the retail customers and SMEs but they have the limit about the foreign money and high risk transactions. They are required for the minimum capital at 250 MB, less than that of the full-serviced banks.
- (3) **Subsidiary**; the public companies limited that have the majority shareholders from one of the foreign banks with either direct or indirect of minimum 95% of the stock sold.
- (4) **Full Branch**; the branch of the foreign bank which was allowed to do the business in Thailand. The first operation started in 2431 B.E. with the service of deposition and loan under the same condition of other Thai commercial banks. The exception is that this bank must have the only one branch with the only one ATM machine at its own office since another ATM machine at the other places is like the new branch. The services of this bank and other commercial banks are alike such as bank guarantee, money transfer, international trade, money exchange, and credit card service, etc.

From the above information of all kinds of bank, these are the name of each kind.

A. Commercial Bank with the minimum required capital at 5,000 MB.

- 1) Bangkok Bank
- 2) Krung Thai Bank
- 3) Krungsri Ayudthaya Bank
- 4) Kasikorn Bank
- 5) Kiatnakin Bank
- 6) Thai Military Bank
- 7) Tisco Bank
- 8) Siam Commercial Bank
- 9) CIMB Thai
- 10) Thanachat Bank
- 11) Siam City Bank
- 12) UOB Bank
- 13) Standard Charter (Thailand)
- 14) ICBC Bank

B. Retail Bank with the minimum required capital at 2 MB.

- 1) Thai Credit Retail Bank
- 2) Land and House Bank

C. Subsidiary

- Mega International Commercial Bank

D. Full Branch

- 1) Credit Agricole Corporate and Investment Bank
- 2) JP Morgan
- 3) Citibank Thailand
- 4) Sumimoto Mitsui Banking Corporation
- 5) Deutsche Bank
- 6) The Royal Bank of Scotland N.V.
- 7) BNP Paribas
- 8) Mizuho Corporate Bank

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- 9) The Bank of Tokyo - Misubishi UFJ
- 10) Bank of China
- 11) American National Association
- 12) RHB
- 13) Indian Overseas
- 14) Overseas Chinese Banking Corporation
- 15) HSBC

From all information, the conclusion can be illustrated in this chart below.



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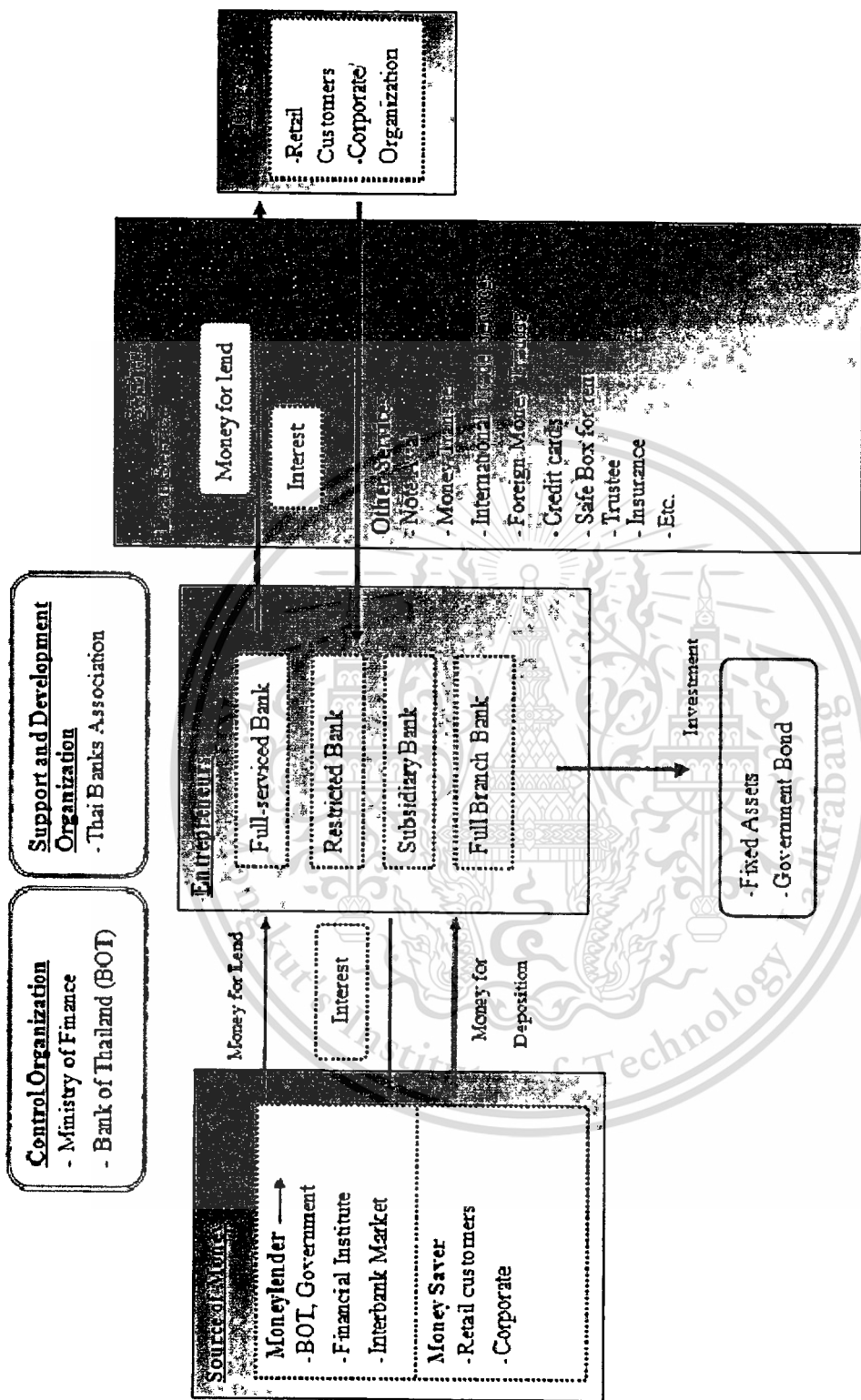


Figure 4.1 Business Structure of Thailand Commercial Bank

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The Business Resources

Actually, it is not different in all types of banks but the significant point is the required capital and the expert of business. For the commercial full-serviced bank, the foreign shareholders are not more than 25% or 49% for the extra permission. In term of subsidiary bank, there are the portion of foreign shareholder more than 95% and forced to have the Thai nationality executives more 3/4 of all commission. Moreover, they can request for foreigner executives. The policy and management of these subsidiary and foreign banks will be more internationally more than depending on that of national policy of the base country.

Target Market

- 1) **Full-serviced Bank**; they can serve all types of customers and almost all transactions. The critical targets are public people, who would like to deposit, loan, issue credit card, domestic and international money transfer, SMEs entrepreneurs and emphasizing on Thai customers.
- 2) **Restricted Bank**; they aim at serving the retail customers and family transactions such as car and house buying and leasing, moreover, SMEs business and focusing on Thai customers as well.
- 3) **Subsidiary**; is under the affiliation of the foreign bank but registered in Thailand with the permission from Ministry of Finance and Bank of Thailand. The shareholders must be the foreigners for more than 95%, emphasizing on their own customers of their original country or supporting the country's transactions.
- 4) **Full Branch**; is the branch from foreign countries that serves for the deposition and loan with the same service of other commercial banks but there is the only one branch and only one ATM machine. They aim at serving the foreigners investing in Thailand and international transactions.

Channel and Marketing Strategies

The main target is the corporate customers while the retail customers will come to the bank themselves. Nowadays, the competition is so serious among all commercial bank especially in full-serviced banks. The important competitive advantages are the image of trust and reliability of services

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such as covering all needs of customers in aspects of domestic and international transactions, the timeliness, and the satisfaction and also the physical image of the bank offer including branches nationwide.

4.3 The Internet Banking Services in Thailand

4.3.1 **The Siam Commercial Bank;** the first bank of Thailand that generated the internet banking name “SCB Easy” through the website www.scbeasy.com

4.3.2 **The Bangkok Bank;** in the name of “Bualuang iBanking” via this website www.bangkokbank.com/ibanking

4.3.3 **The Krung Thai Bank;** operated in this name “Krung Thai Internet Banking” through the website www.ktb.co.th/ibhtdocs/mn01.htm

4.3.4 **The Bank of Ayudhya;** there is “Krungsri Online” in this website www.krungsrionline.com

4.3.5 **The Kasikorn Bank;** there is KBank e-Internet in the website www.kasikornbank.com/Producthome

4.3.6 **The Thai Military Bank;** use its name of internet banking is “TMB Direct Internet Banking” via the website www.tmbdirect.com

4.3.7 **The Asia Bank;** use the name as “Asia Cyber Banking” through the website www.bankasia4u.com

4.3.8 **The Citibank;** operated the internet banking called “Citibank Online” via the website www.citibank.com/thailand/thai/ctbonline/intro.htm

4.4 Service Response Logistics in Thai Internet Banking Business

This section considered the discussions on respondents' profile, quality of internet banking services by banks, effect of customers' relationship on bank services and customers' level of education as it influence the adoption of internet banking services.

The survey data revealed that about 61% of the respondents were male while 39% were female. This tends to indicate that there are more male customers than the female customers or probably males have more banking culture than their female counterpart during the period of study. Also, the survey data revealed that 70% respondents are married; while 27% are single or never married and 3% are widow. Men normally have more reasons to save than their female counterpart and thus develop early saving culture in order to meet with most of their desire and wants. This consequently results to most men having an account with the banks and benefiting from other services provided by the banks. It was also revealed that greater proportion (67%) of the respondents are between 31 – 50 years age bracket, while 5% are above 50 years old and 28% are 30 years and below. The majority of the bank customers are therefore adult, some of whom are still in their prime age and have many productive and useful years to serve in their places of work.

In the survey it was revealed that 86% of the respondents were employed while 14% are unemployed. The few unemployed respondents are students, spouse of foreigners and pensioners who had retired from work. These set of people are captured in the study thus making the sample present a fair representation of the population under study. In terms of Foreign Missions, Banks and Multi-national Companies, they all make use of banks for most of their money transfer and financial transactions.

4.5 Quality of internet banking Services

All samples are from top five banks, ranking by Top Revenue as of 2012; Money and Banking Magazine, these are Kasikorn Bank, Siam Commercial Bank, Bangkok Bank, Krungthai

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ไม่ว่ากรณีใดๆทั้งสิ้น อีกทั้งห้ามมิให้คัดแปลงเนื้อหา และต้องอ้างอิงถึงเจ้าของเอกสารทุกครั้งที่มีการนำไปใช้

Bank, and Bank of Ayudhya respectively according to the scope of the study and distributed 40 questionnaires for each bank equally. From totally 200 questionnaires, the return respondent is 180 people as the figure shown in the table 4.1. The users are the existing internet banking user and the non-users are not the existing internet banking user but they used to have some experience about it.

Table 4.1: The Number of Users and Non-Users from the Selected Bank

Bank's Name	Number of Users	Number of Non-Users	Total for Each Bank (people)
Kasikorn Bank	32	7	39
Siam Commercial Bank	28	8	36
Bangkok Bank	29	10	39
Krungthai Bank	26	10	36
Bank of Ayudhya	20	10	30
Grand Total (people)	135	45	180

This point attempts to examine whether customers' choice of banks is influenced by the quality of internet banking services and products provided. Out of the 180 respondents under surveyed, 75% indicated they do internet banking service with their banks compare to 25% that do not.

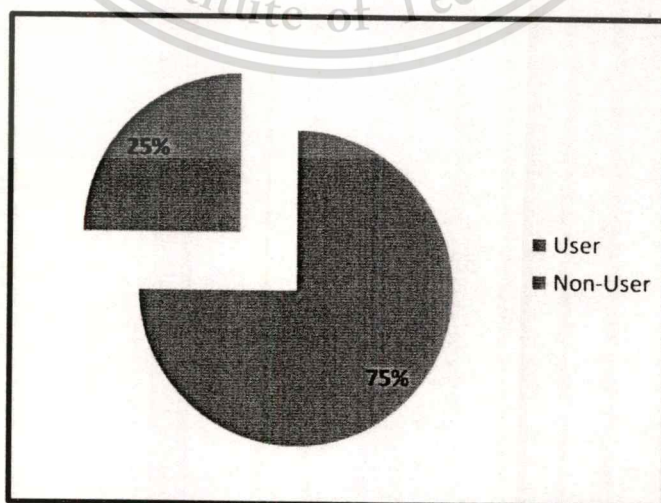


Figure 4.2: The Portion of Internet Banking User

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From the questionnaire, it can be concluded about the number and ratio of people who satisfied with the internet banking of that bank as shown in table 4.2. The ratio of satisfaction is derived from the comparison between the number of satisfaction and the total number for each bank.

Table 4.2: The Number and Ratio of Service Satisfaction

Bank's Name	Number of Satisfaction	Number of Dissatisfaction	Total for Each Bank (people)	Ratio of Satisfaction
Kasikorn Bank	30	9	39	77%
Siam Commercial Bank	28	8	36	78%
Bangkok Bank	27	12	39	69%
Krungthai Bank	25	11	36	69%
Bank of Ayudhya	17	13	30	57%
Grand Total (people)	127	53	180	

From the table 4.2, the satisfaction ratio of the Siam Commercial Bank is the highest follow by the Kasisorn Bank, the Bangkok Bank as well as the Krungthai Bank, and the least one is Bank of Ayudhya. This ratio reflects the internet banking services of each bank significantly. There are 71% respondents that indicated they were satisfied with the internet banking services provided by their banks while 29% are not satisfied as this figure 4.3 shown.

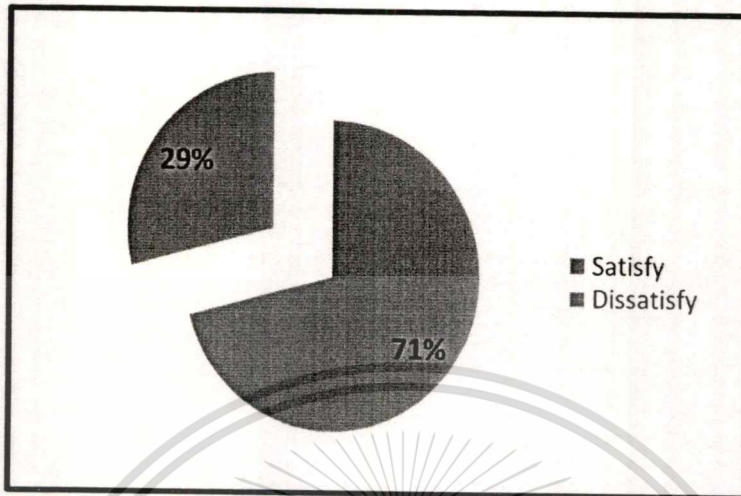


Figure 4.3: The Portion of Customer Satisfaction

The following benefits of internet banking are identified from the study: speedy transfer (30%); efficient transactions (24%); regular check of transaction and statement details (15%); easy access (12%); saves transaction costs (10%); lower transaction fees (6%) and offers third party facility of fund transfer (3%)

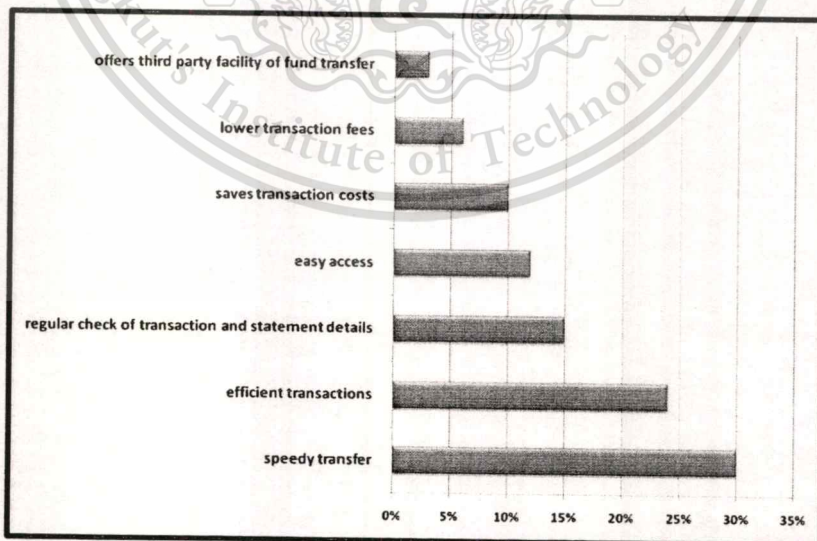


Figure 4.4: The Benefit of Internet Banking

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The reasons given by the respondents that are not comfortable are: security concern (37%); lack of knowledge (25%); unreliability (20%) and preference for face to face contact (18%).

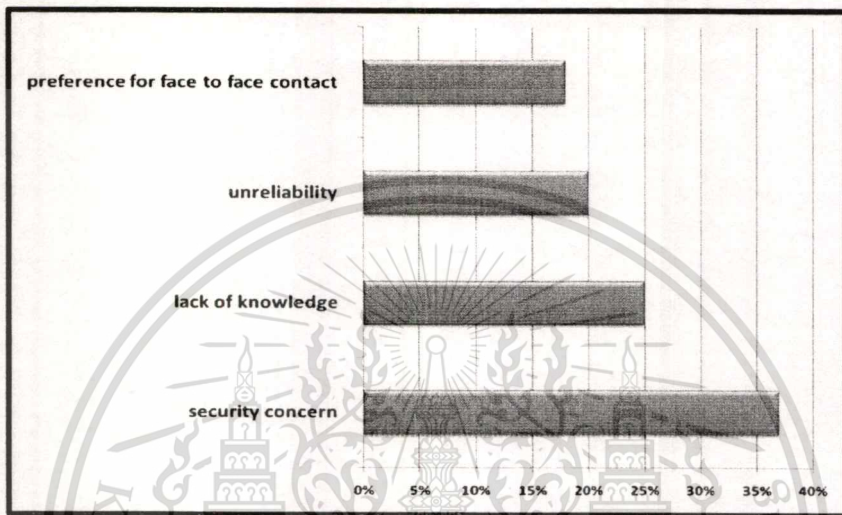


Figure 4.5: The Barriers of Internet Banking

The questionnaire content the twenty-four statements were used to measure customer satisfaction of Internet banking benefits. The questions are measured by a Likert's scale ranging from 1=strongly disagree to 5=strongly agree. The last section is general information about respondent demographic data. Focusing on the user and non-user that contains of 135 people (75%) and 45 people (25%) respectively. From the hypothesis testing, the result is shown in the table 4.3

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Table 4.3: Means on Benefit Items by Users and Non-users

Items	Overall Mean	Non-Users mean	Users Mean	Sig.
Product quality				
1. Internet banking provides accuracy	3.90	3.60	4.17	.000
2. Internet banking provides relevant information/ transaction	3.80	3.35	4.11	.000
3. Internet banking provides up to date information	4.16	4.00	4.21	.094
Accessibility				
4. Internet banking is easy to access with my convenience	3.90	3.70	4.08	.002
5. Internet banking has more flexible ways to search for information	4.05	3.86	4.20	.006
Information sharing				
6. Internet banking provides link to other websites	3.45	3.64	3.31	.039
7. Internet banking provides systems to assist me to share my experiences with other customers of my bank more efficiently	2.58	2.67	2.52	.345
8. Internet banking provides systems to assist me to share my experiences with my bank more efficiently	2.92	3.11	2.77	.026
Transaction benefit				
9. Internet banking provides more responsive service	4.11	3.95	4.23	.025
10. Internet banking transactions save more time	4.29	4.14	4.40	.055
11. Internet banking transactions have lower cost	3.87	3.68	4.02	.023
12. Internet banking can make me feel enjoyable that I can control processes of financial transactions on my own via the Internet	3.70	3.49	3.86	.006
13. Internet banking provides customized services according to my company needs and wants	3.43	3.06	3.71	.000

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From Table 4.3, on almost all questions, users agreed more strongly than non-users except about information sharing. Neither users (3.64) nor non-users (3.31) showed much agreement that Internet banking provides an information sharing benefit. Users agreed quite strongly that Internet banking provides up-to-date information (4.00) and can save time (4.14), as did non-users (4.4). Agreement with the cost saving benefit was not quite as strong in either case, but nevertheless, respondents felt that Internet banking transactions can have responsive service, again, with somewhat less strength of agreement among non-users. Non-users were not much less in agreement on the service customization aspect.

The first significant variable in the model was the factor variable product quality. The product quality benefit factor had different satisfaction level on the product quality for both the accuracy and relevant of information and transaction but perceived the same satisfaction on the providing of up-to-date information, which is perhaps the best way to decide relative importance of usage or decision to use. The second is the accessibility, the users and non-users had the different satisfaction level for both the convenience and the flexibility way to search for the information. The third is information sharing, they had not different satisfaction about the link to other websites and the system assistance but had the different in terms of information sharing with other customers. This is probably due to the very strong traditions of business secrecy. Finally the transaction benefit, they had not different satisfaction in every topic except the time saving.

Table 4.4: Means on Barrier Items by Users and Non-users

Items	Overall Mean	Non-Users mean	Users Mean	Sig.
Individual Barriers				
1. I lack the ability to fully use Internet banking.	2.26	2.39	2.16	.164
2. I lack experience in information technology usage to fully use Internet banking.	2.31	2.40	2.15	.098
3. I lack knowledge to extensively adopt Internet banking.	2.15	2.32	2.03	.006
4. I lack know how in information technology Gadgets to fully use Internet banking.	1.87	2.04	1.74	.046
Distrust				
5. I do not trust web/internet security.	3.16	3.58	2.84	.000
6. I do not trust business practice of this bank via the Internet regarding privacy policy.	3.09	3.44	2.82	.000
7. Internet transactions cannot be accurately transmitted.	2.31	2.59	2.10	.000
8. I have negative attitudes toward Internet banking adoption.	2.02	2.31	1.80	.001
Legal support barrier				
9. Thai courts lack the ability to trace for evidence and to resolve fraudulent electronic transaction cases efficiently.	4.01	4.15	3.90	.083
10. Thai law cannot sufficiently protect bank customers with fair liability in the case of financial loss via Internet banking.	3.90	4.02	3.80	.143
11. Thai law cannot protect customer privacy sufficiently.	3.85	3.98	3.76	.161

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Table 4.4 reports the findings from the 11 barrier questions of the three concepts barriers. Internet banking users and nonusers both evaluated organization barrier with fairly low mean scores. User respondents strongly disagree that they lack know-how in information technology software or gadget and knowledge to extensively adopt Internet banking. However, the two groups showed no significant difference in experience in information technology barriers to fully use of Internet banking. These results suggest that beliefs about transaction benefit and information benefit issues, in particular, should be key elements driving adoption of Internet banking. Conversely, distrust of the web system and legal support issues are drawback to adoption.

The first topic is individual barriers, the users and non-users had not different satisfaction in aspects of ability and experience of usage. However, they had different satisfaction in lacking of knowledge, know-how and gadget to support them. The second - the trust barrier, they had totally not different satisfaction level in this topic. The trust is very important to adoption. Eventually the legal support barrier, they had not different satisfaction in all aspects.

4.6 Developing strategy for implementation

Nowadays, information quality benefit is the strongest component of adoption – customers who perceive better information quality are more likely to use Internet banking. Transaction benefits of Internet banking are also outstanding as a main factor to customers which prefer these benefits of Internet banking, in which saving time, responsiveness of service, service customization, cost saving of making financial transaction via the internet banking are considered components of transaction benefit dimension. Users realize Internet banking to be significantly more customizable, enjoyable, responsive, and cost saving than non-users. However, one must be careful thinking about this in the Thai context, because use of the Internet for banking transactions is not yet so far extensive.

Actually, the satisfaction ratio of Thai bank which is the provider of internet banking service provider can be the most advantage of each bank to be the database for improve their services. Thai Internet banking providers currently make much provision for information sharing, and there seems to need to rush ahead in providing such service for individual consumers who prefer to share their experiences or chat via the virtual space contrary to the corporate customers that need business secrecy. If the bank can increase the number of internet banking users, the faster and more efficient of making transaction also the operation at the traditional office will trigger that means the more effective and efficient of logistics in banking business as well. Not only the flow of transaction, but also generate cost saving for their business.

Customers who distrust the technology, the security, or the business practices are less likely to adopt internet banking. This is also consistent with the orientation toward interpersonal relationships in Asian business – the relationships are primarily about trust building thus the Thai commercial banks have create trust by using public relations or advertising campaigns that make the customer feel free and do not against for adopting internet banking services. Maybe make a short demonstration by sales representatives or create just the catchy word or phrases to attract non-user customers. Besides, the bank should offer these customers to use internet banking services by the rewards or collecting point at time of making transaction via internet or IT gadgets, then bring those collecting points to get such as the dinner vouchers, movie tickets etc.

Banks have to visibly demonstrate concern for security, reliability, and liability with concrete solutions to reduce or eliminate costs to customers in case transactions fail or are processed inaccurately. Frequently, these are not purely technical issues, but rather, are related to customer psychology and beliefs, which may or may not be consistent with the actual technology and system. Although most Thai Internet banking service providers currently use many security features, they need to provide knowledge to their customers about bank intention to protect security of the network in order to generate a higher level of trust of the web system. All customers, even users, believe that problems will occur, so it is about what customers believe the bank will do when the problems do

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arise. The web-based service channel must be well integrated into other channels so that customers can easily interact with people who are trained to handle problems efficiently, and banks must adopt strong customer orientations.

4.7 The problems concerning about the internet banking services

The internet banking is one of the services that generate revenue and benefit to the bank now that it has lower cost than hiring the offers. Moreover, it can serve the customers for 24 hours a day that cut the time condition of service. Online Banking offer customers such benefits as convenience and flexibility at a lower cost. On the other hand internet banking doesn't succeed easily as these problems.

4.7.1 Security: although the banks try to add more security system for online banking, mobile banking, and ATMs, there are many cases that the personal data was stolen to commercial and abuse purpose. This is like the crime in economy system that significantly affects the growth of the internet banking.

4.7.2 Corruption: it relates PASSWORD and PIN. These are frequently stolen as well. The easy access to the account brings to other transaction process that causes the large problems.

4.7.3 Lack of Interaction: Although the commercial banks provide online and internet banking services to serve their customers, the customers are more likely to go to get the service from the bank's officer. This is because they trust to make the transaction with person and can get the good advice.

4.7.4 The network infrastructure: However, the accessibility through the network of Internet banking is sometimes quite slow because of the low speed of network infrastructure. Banks also realize that this is one of the usage barriers to customer adoption. Unfortunately, the Thai Internet banking system hardly provides virtual space for their customers to

share their experiences. To provide virtual space for customers needs additional investment on information technology. Currently, Internet banking systems require intensive investment of information technology, while customer adoption of Internet banking is not so high to cover the investment costs.



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Chapter 5

Conclusions and Recommendations

5.1 Summary

The results of the study of “Service Response Logistics in Thai Internet Banking Business” are these followings. The customers were quite positive about Internet banking benefits, generally, non-users are not as strongly positive about the benefits, but they are still fairly favorable.

This study has shown the various benefits accruing to internet banking; and that many people are increasingly using this service. The service ranges from bill payments, online deposits and account opening, ticket booking to fund transfer. This facility has made it easy for people to arrange for their travel bookings and tickets online, without going to the book reservation center or office any more. There are lot of issues raised in the study which border on the legal support for the internet transaction security, theft and fraudulent practices with regard to the use of internet banking services. These issues if not addressed can jeopardized the success of this innovative and laudable financial services in the banking industry.

Evaluating their internet banking customers, banks can judge that Internet banking assists them to develop and enhance relationships with their corporate and retailed customers in terms of providing service according to customer needs and wants with lower costs and more service responsiveness. However, Internet banking was not perceived in general as offering considerable cost-savings, but only the time-saving component of the cost benefit. The key barrier is legal support that link to the customers’ trust as well. The customers are concerned about security and reliability of transactions via the internet.

Providing customers the widest choices for interaction and transaction channels, such as by adding web-based services via the internet banking is essential for service providers to stay competitive in most developed markets. Unlikely that the human factor can be taken out of high level financial service interactions completely. The technology must be gradually introduced in ways that allow easy movement between technology-based and human service. Physical branches of Thai banks are not disappeared, but their function might gradually shift away from routine transactions, but toward more support for customers when they face problems doing the routine transaction through technology. The Internet banking can be able to create greater customer loyalty, which is critical in the ever more competitive banking industry.

Evaluating the internet banking customers, banks can judge that internet banking assists them to develop and enhance relationships with their customers in terms of providing service according to customer needs and wants with lower costs and more service responsiveness. The transaction benefits do influence adoption of the non-users. However, internet banking was not perceived in general as offering considerable cost-savings for the users, but only the time-saving component of the cost benefit.

Internet banking has become important thing in the banking industry and it will be experiencing transformation from cash based system to a “paperless” system, which is more convenient and reliable. If the bank can increase the number of internet banking users, the faster and more efficient of making transaction also the operation at the traditional office will trigger that means the more effective and efficient of logistics in banking business as well. Not only the flow of transaction, but also generate cost saving for their business.

The paper therefore, recommends the following measures to abate the current level of decadence and difficulty being experienced in the utilization of internet banking services in our financial institutions and banking industry.

- The internet banking should be easily accessible by the users; this should be in terms of approach or convenience, availability, understanding and suitability. The users should not need the service of a specialist to conduct their transaction using internet banking. It should also be suitable for all categories of customers even the physically challenged.
- The banks should lessen the hierarchy of command and transaction process that are not significant to fasten the queue of service and give the most satisfaction to customers.
- Provide more electronic devices to decrease the traffic of customers in the rush time. It also is the alternative way of making transaction that will increase the efficiency and satisfaction of service.
- The commercial banks use technology and internet that generates cost reduction, better service, and convenience to customer. The banks should improve the security system and legal support that significantly affects the customers' trust and decision to choose the service.
- The commercial banks should develop the IT system to make it as the strategy to attractive the customers and give them more satisfaction. Moreover, IT system can raise the efficiency and effectiveness and also generate more benefit and revenue to the organization to compete with other international banks investing in Thailand. There should be proper maintenance of the system used by the banks in order to forestall cases of complete breakdown of the system, which can result to loss of material or information that are of vital importance to the customers and the organizations concerned.
- The improvement of internet connectivity is very essential for the success of internet banking. The banking industry therefore, needs to ensure regular internet connections with sustained power supply for this objective to be achieved.

- The banks have to concern for security, reliability, and liability with concrete solutions to reduce or eliminate costs to customers in case transactions fail or are processed inaccurately. Frequently, these are not purely technical issues, but rather, are related to customer psychology and beliefs, which may or may not be consistent with the actual technology and system. The banks have to provide knowledge to their customers about bank intention to protect security of the network in order to generate a higher level of trust of the web system.
- E-security serves as a serious concern not only to the banking industry but also the e-commerce. There are various measures that can be put in place to ensure more security using internet banking services such as installation of encrypted software, verification system for customer's identification cards, frequent change of password, examining test questions and using mixed password.
- Financial institutions and banks should endeavor to renew lost materials most especially where there is loss of material due to corruption of data in the system. They should have back up storage for their data because there may be problem anytime; which can result to loss of material and information. This is highly critical concern not only for the individual users, but also the corporate customers with far more loss happened.
- Customers need to be given more sustained public education concerning the use of internet banking services such as proper maintenance of ATM cards, how to make various online transactions without giving room for internet fraudsters, and ensuring more security for their online transactions. Besides, the legal knowledge about the internet and other electronics transactions is very useful for the general since the people will be more careful and provision for the further legal support if the any problems occur.

- There must be instructors for the customers to prevent from the personal data stolen by other ones and provide the officer to serve all customers to understand general banking services.
- The banks should learn and make more research focusing on services to recognize the customers' need to have the best service for all groups of their customers.
- All customers, even users, believe that problems will occur, so it is about what customers believe the bank will do when the problems do arise. The web-based service channel must be well integrated into other channels so that customers can easily interact with people who are trained to handle problems efficiently, and banks must adopt strong customer orientations.
- The legal supports for electronics transaction in Thailand are not rather strong and efficient thus not only the financial institutions but also all business units in Thailand have to cooperate for this issue in corporation with the government sectors. This legislation issue will lead to the global business trust for our country.
- Customer Relation is the strongest point to differentiate their own service and make them outstanding among competitors. The customers always trust and feel free to contact the bank that gives them a good relation.

5.2 Research Limitation

Even through the methodology applied in this study was carefully chosen and designed there are still some limitations. Firstly, the samples of questionnaire are only in Bangkok area that may cause the differentiation of internet banking adoption between Bangkok and upcountry. Furthermore, some people do not know well about the internet banking or do not have frequency chance to use it, this may cause the inaccuracy of understanding all question statement.

5.3 Recommendation for Future Work

The suggestion for further study is to require a larger sample nationwide in Thailand for the purpose of higher accuracy and get more thoroughly aspects. Besides, it requires to investigate issues related to online banking in deeper manner and what strategies should adopt by each bank that they can enhance level of electronics satisfaction (e-satisfaction) and electronics loyalty (e-loyalty) wit respect to online banking. This all leads to the more convenient and efficient of the logistics in banking industry. Eventually, to get more detail and benefit of study, it can be use more advance statistical analysis to bring it to use in multi-proposed function in banking industry.

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Appendix A Questionnaire

เอกสารนี้เป็นเอกสารที่สงวนไว้สำหรับการใช้งานเพื่อการศึกษาเท่านั้น ไม่อนุญาตให้นำไปใช้ประโยชน์ด้านการค้า
ไม่ว่ากรณีใดๆทั้งสิ้น อีกทั้งห้ามมิให้ดัดแปลงเนื้อหา และต้องอ้างอิงถึงเจ้าของเอกสารทุกครั้งที่มีการนำไปใช้

The form of the questionnaire

“Service Response Logistics in Thai Internet Banking Business”

1. Gender

Male

Female

2. Age

30 years and below

31-50 years

above 50 years

3. Working Status

Working

Non-working

4. Marital Status

Single

Married

Divorced

Widow/ Widower

5. Do you currently use/ have ever used Internet banking?

Yes

No If no, please indicate your reason for non-usage

.....

6. Which bank is your internet banking transaction occurred?

The Bangkok Bank

The Siam Commercial Bank

The Bank of Ayudhya

The Krungthai Bank

The Kasikorn Bank

other

7. Are you satisfied with the internet banking services of your current used bank?

Yes

No

8. Do you feel that traditional banking system is better than internet banking?

Yes

No

If yes, please describe

.....

Likert's scale ranging from 1=strongly disagree to 5=strongly agree.

Topic	Degree of Agreement				
	Strongly Disagree	Disagree	Moderate	Agree	Strongly Agree
Product Quality					
Internet banking provides accuracy	1	2	3	4	5
Internet banking provides relevant information/ transaction	1	2	3	4	5
Internet banking provides up to date information	1	2	3	4	5
Accessibility					
Internet banking is easy to access with my convenience	1	2	3	4	5
Internet banking has more flexible ways to search for information	1	2	3	4	5
Information sharing					
Internet banking provides link to other websites	1	2	3	4	5
Internet banking provides systems to assist me to share my experiences with other customers of my bank more efficiently	1	2	3	4	5
Internet banking provides systems to assist me to share my experiences with my bank more efficiently	1	2	3	4	5
Transaction benefit					
Internet banking provides more responsive service	1	2	3	4	5
Internet banking transactions save more time	1	2	3	4	5
Internet banking transactions have lower cost	1	2	3	4	5
Internet banking can make me feel enjoyable that I can control processes of financial transactions on my own via the Internet	1	2	3	4	5
Internet banking provides customized services according to my company needs and wants	1	2	3	4	5

เอกสารนี้เป็นเอกสารที่สงวนไว้สำหรับการใช้งานเพื่อการศึกษาเท่านั้น ไม่อนุญาตให้นำไปใช้ประโยชน์ด้านการค้า
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Topic	Degree of Agreement				
	Strongly Disagree	Disagree	Moderate	Agree	Strongly Agree
Personal Adoption					
I lack the ability to fully use Internet banking.	1	2	3	4	5
I lack experience in information technology usage to fully use Internet banking.	1	2	3	4	5
I lack knowledge to extensively adopt Internet banking.	1	2	3	4	5
I lack know how in information technology Gadgets to fully use Internet banking.	1	2	3	4	5
Trust					
I do not trust web/internet security.	1	2	3	4	5
I do not trust business practice of this bank via the Internet regarding privacy policy.	1	2	3	4	5
Internet transactions cannot be accurately transmitted.	1	2	3	4	5
I have negative attitudes toward Internet banking adoption.	1	2	3	4	5
Legal support					
Thai courts lack the ability to trace for evidence and to resolve fraudulent electronic transaction cases efficiently.	1	2	3	4	5
Thai law cannot sufficiently protect bank customers with fair liability in the case of financial loss via Internet banking.	1	2	3	4	5
Thai law cannot protect customer privacy sufficiently.	1	2	3	4	5

เอกสารนี้เป็นเอกสารที่สงวนไว้สำหรับการใช้งานเพื่อการศึกษาเท่านั้น ไม่อนุญาตให้นำไปใช้ประโยชน์ด้านการค้า
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The logo of King Mongkut's Institute of Technology Ladkrang is a circular emblem. It features a central sunburst with rays emanating from a central point. Below the sunburst are three tiered, pagoda-like structures. The entire emblem is surrounded by a decorative border with floral and geometric patterns. The text "King Mongkut's Institute of Technology Ladkrang" is written in a circular path around the inner edge of the emblem.

Appendix B Internet Banking Fee Rate

เอกสารนี้เป็นเอกสารที่สงวนไว้สำหรับการใช้งานเพื่อการศึกษาเท่านั้น ไม่อนุญาตให้นำไปใช้ประโยชน์ด้านการค้า
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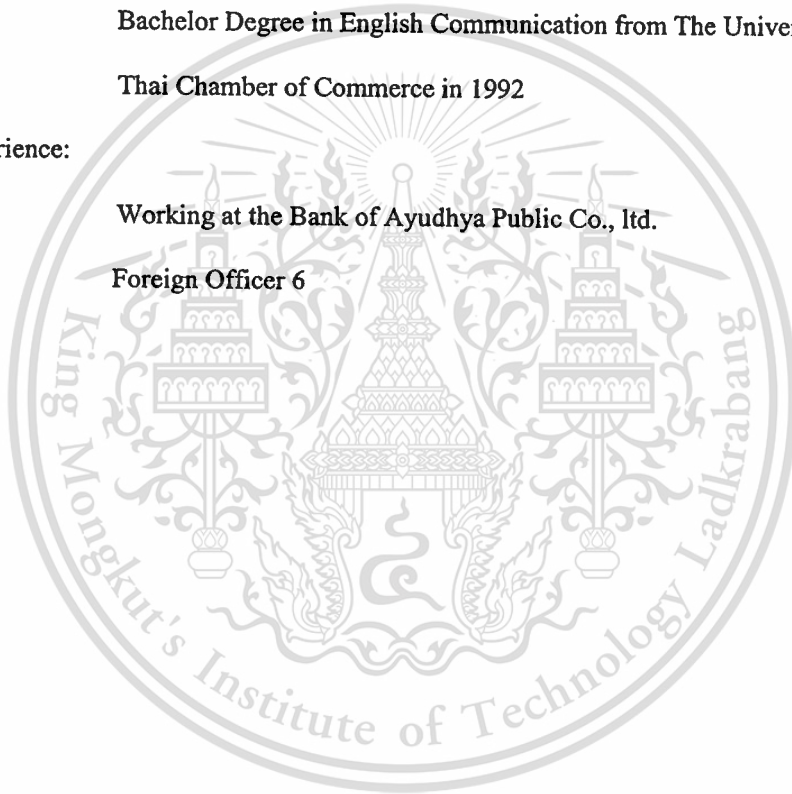
Internet Banking Fee Rate (Bank of Thailand)

Financial Institution	Applying Fee	Annual Fee	Transfer money to the same bank (within the district)
Bangkok Bank	Free of Charge	Free of Charge	20 THB/transaction Now free of charge
Krungthai Bank	Free of Charge	Free of Charge	- Free of charge within the owner's account - To other person's account; 10 THB/transaction *Start from the 11 th transaction in the same day
Bank of Ayudhya	Free of Charge	Free of Charge	Free of Charge
Kasikorn Bank	Free of Charge	Free of Charge	15 THB/transaction *Start from the 11 th transaction in the same day
Siam Commercial Bank	Free of Charge	Free of Charge	Free of Charge

เอกสารนี้เป็นเอกสารที่สงวนไว้สำหรับการใช้งานเพื่อการศึกษาเท่านั้น ไม่อนุญาตให้นำไปใช้ประโยชน์ด้านการค้า
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เอกสารนี้เป็นเอกสารที่สงวนไว้สำหรับการใช้งานเพื่อการศึกษาเท่านั้น ไม่อนุญาตให้นำไปใช้ประโยชน์ด้านการค้า
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