A STUDY ON CUSTOMER SATISFACTION TOWARD ONLINE BANKING IN MALAYSIA

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A Study On Customer Satisfaction Toward Online Banking In Malaysia

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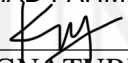
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ABSTRACT

This study was conducted to examine the factors influencing customer satisfaction toward online banking usages such as convenience, security, and service quality. The main objective of this study is to identify the relationship between convenience, security, and service quality with satisfaction among online banking users in Malaysia. A total of 385 questionnaires were collected. Using SPSS tools containing Frequency Analysis, Reliability and Validity Test, Descriptive Statistics, Spearman Correlation Analysis, and Multiple Regression Analysis, data analysis was carried out. The result shows the correlation between convenience, security, and service quality and satisfaction are significant. In conclusion, the findings of this study prove that there is a correlation between convenience, security, and service quality and customer satisfaction toward online banking in Malaysia. Also, based on Multiple Regression Analysis, all the factors (service quality, convenience and security) are closely influencing customer satisfaction toward online banking in Malaysia. This study gave implications to the bankers and future researchers. Because the conclusions are primarily focused on customer perspectives, bankers may be able to build a better plan to improve their competitive edge. Future researchers who want to conduct a comparative study might be able to acquire better and more trustworthy results if they consider the constraints of this one.

CHAPTER 1

INTRODUCTION

1.1   BACKGROUND OF THE STUDY

The introduction of internet technology has drastically altered how firms and enterprises around the world do business and deliver services today. Through the usage of the internet, electronic commerce (EC) has altered business marketing strategies in terms of how they sell and distribute their products to the end consumer. Internet banking (IB), often known as online banking, is a type of EC that has been used by banks all around the world. IB refers to the use of internet technology in the delivery of banking and financial services that makes use of the internet's omnipresence.

Customers will find internet banking convenient, which will encourage them to use the banking website to complete transactions more quickly and easily (Goh Mei Ling et al. 2016). According to Statista.com, the following is the percentage of internet users that use online banking in Malaysia in 2020:
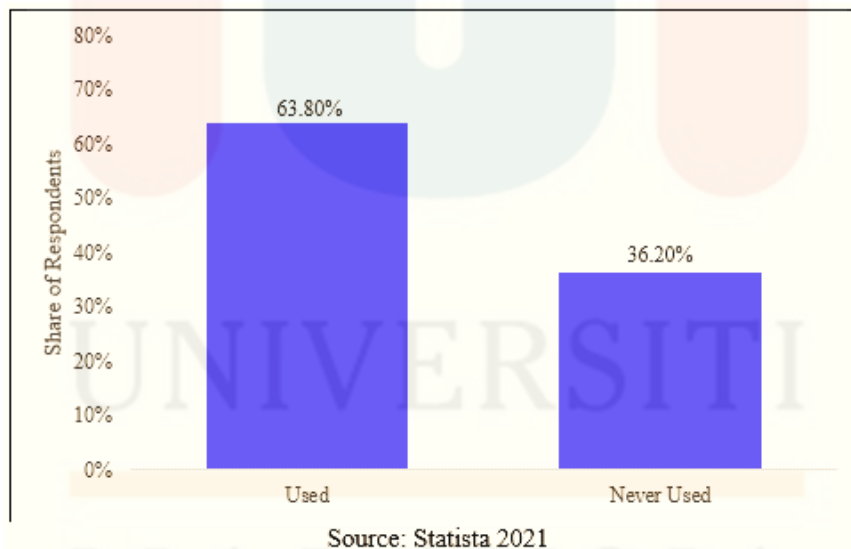
Figure 1.1: Share of Internet Users Who Use Online Banking in Malaysia in 2020

More than 63% of respondents said they utilized online banking and 36% said they utilized electronic banking such as debit cards, ATMs, and electronic financial transfers. According to Bank Negara Malaysia's data (2020), the graph below also shows the internet banking and mobile banking penetration rate as the share of the population in Malaysia from 2019-2020.

Table 1.1: Internet and Mobile Banking: Penetration, Volume, and Value

	Internet Banking Penetration to Population (%)	Mobile Banking Penetration to Population (%)	Mobile Banking		Internet Banking	
			Volume (Mil)	Value (RM MIL)	Volume (Mil)	Value (RM MIL)
Jan 19	90.2	44.5	31.7	13,039.50	91.3	721.7
Feb 19	91.4	45.2	29.9	11,816.00	79.3	528.2
Mar 19	92.5	46.3	35.6	14,400.30	94.1	664.7
Apr 19	93.5	47.1	34	14,731.70	93	693.8
May 19	94.5	47.9	38.6	16,148.90	101.6	667.9
June 19	91.8	47.8	35.2	14,910.90	86.9	591.4
July 19	92.8	48.9	41.9	17,563.90	101.4	691.3
Aug 19	93.9	49.9	44	17,903.80	100.6	730.9
Sept 19	94.7	50.2	45.3	18,868.70	99.3	672.5
Oct 19	95.8	51.1	49.8	20,524.50	108	714.8
Nov 19	96.7	51.8	49.5	20,641.80	106.2	724.7
Dec 19	97.6	52.9	54.3	23,295.60	111.5	786.5
Jan 20	98.5	53.7	56.2	26,225.60	109.4	771
Feb 20	99.5	54.6	53.6	24,142.40	104.1	661.2
Mar 20	100.3	53	61	26,022.70	111.7	748.9
Apr 20	101.2	54.1	69.3	23,766.90	119.7	669.8
May 20	105	55.1	86.2	33,437.90	137.8	597.2
June 20	106.2	55.9	77.4	36,112.30	127.6	727.5
July 20	107.4	57.5	82.1	40,441.30	136.3	810.1

Source: Bank Negara Data (2019 - 2020)

Individual online banking members climbed to 33.6 million in July 2020, up from 30.8 million in January 2020 according to statistics. This represents a 9% growth over the same seven-month period last year which is three times the 3% growth. In July 2019, the population's internet banking penetration rate grew to 107.4% up from 92.8% the previous month. Meanwhile, the population penetration rate of mobile banking is improving, although it is still lower than that of internet banking. In July 2020, 57.5% of the population had access to mobile banking. It has climbed every month since March 2020, when it was 53%. The rate of 57.5% was higher than the previous year's rate of 48.9% in July.

Online banking allows consumers to do any financial transaction via the internet using any electronic device. Online banking has made a significant contribution to the evolution of the banking system because it eliminates the need to visit the bank's physical location for any small or large transaction while mobile banking is a type of internet banking that allows users to conduct transactions using their mobile devices such as smartphones or tablets. Because all

we need is a smartphone, mobile banking allows us to do any financial transaction at any time and from anywhere. For example, short message service, smartphone application, or the web are all options for mobile banking while Internet Banking makes use of the bank's website. Because mobile banking is extremely difficult, it has some restrictions in terms of functionality but internet banking has far more functionalities than mobile banking.

Besides, the customers can also use online banking to view their account history and transactions from anywhere. This method is the easiest way to see if a transaction has cleared their account. It also enables them to learn about any illegal transactions more quickly, allowing them to challenge them right away. The status of many financial institutions' pending transactions will be displayed. These are transactions that began on the current business day or after the previous business day closed but have yet to be completed. Aside from that, when customers and business owners transfer money between accounts online, they can do so rapidly. It's handier than visiting a bank or using an automated phone service that asks them to submit information when requested.

1.2   PROBLEM STATEMENT

The development of information and communication technology, which is increasingly advanced today, has brought great changes to the life sector. There are several sectors that have undergone changes due to developments in information and communication technology, including economic, social, cultural, and educational developments. In the banking world, it is also inseparable from the influence of this information technology. The clear evidence of this influence is the existence of online banking which is now growing rapidly.

Banks need to emphasize customer satisfaction ratings and take action to improve the quality of service. To become a global leader in customer service, the Malaysian banking industry must meet its CSI goal of at least 80.0 points where the incentive score of the CSI banking industry is 74.3 points. In general, customer satisfaction is considered good at 75.0 points, while customer satisfaction is considered excellent at 80.0 points or higher. However, in Malaysia, the score point for quality service towards the use of online banking is not well published and there is still ambiguity on how far online banking is fully satisfying the user through the quality service offered. For example, Berita Harian publishes about the level of Islamic banking customer satisfaction in Malaysia that reached 81% in 2020 (Bernama, 2020). The researchers took this opportunity to investigate the extent to which the CSI data advertised

through the news was true and not exaggerated in covering up the deficiency of online banking in Malaysia.

Convenience is a great advantage of online banking. During the Covid-19 crisis, customers tend to conduct business through internet banking rather than going to the bank. Data from Bank Negara Malaysia shows a faster increase after the lockdown period of Covid-19. For example, the number of Internet banking subscribers increased from 30.8 million in January 2020 to 33.6 million in July 2020. This represents an increase of 9% over the same period of 7 months for internet banking in 2019, which is triple the 3% increase at 92.8% in July 2019 and 88.2% in July 2018, the population's usage was 107.4% (Joyce G., 2020). However, how far convenience will affect customer satisfaction towards online banking In Malaysia still needs to be investigated.

Even though the convenience might satisfy the customer, the risk is another situation that needs to be concerned. Security is one of the biggest challenges facing online banking especially due to cybercriminals. Without adequate security, the use of online banking services is threatened (Masrek, Syafiq, Halim, Khan & Ramli, 2018). With online banking, cybercriminals only need to identify certain personal information to break into a person's account and steal their money. This can be done anonymously and presents less physical danger than in the past. In fact, in 2019 the number of cybercrime cases in Malaysia was 3,787 and increased by 10% to reach 4,194 in 2020 and this number continued to increase in the first quarter of this year with a total of 1 300 reported cybercrime cases. Thus, this study discusses the importance of understanding and being aware of the issues of privacy and information security when doing business using internet banking.

In addition, customer satisfaction can be the deciding factor for the success or failure of a business. The competition of internet banking transactions is fierce and banking institutions can gain or lose customer loyalty through their one 'click' action. Banks must satisfy their customers to be more competitive in the market. The best quality of service will give the bank big profits. For example, if a customer feels that the experience of interacting with a service provider such as a manager or employee when purchasing goods or services can meet his or her wants and expectations, then the level of quality of the interaction is achieved. This situation suggests that customer wants and expectations are important standards for determining the level of interaction quality practiced by an organization (Matthew 2017; Nguyen et al. 2018).

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Therefore, an in-depth study of customer satisfaction factors on the use of online banking is crucial to maintaining online banking service quality as customer satisfaction is very important due to the increasing competition in the banking industry. This study will identify some factors such as service quality, convenience, and security that can affect the customer satisfaction of online banking users.

1.3   RESEARCH QUESTIONS

This research will try to find the answer to the following questions:

RQ1: What is the relationship between service quality and customer satisfaction toward online banking?

RQ2: What is the relationship between convenience and customer satisfaction toward online banking?

RQ3: What is the relationship between security and customer satisfaction toward online banking?

RQ4: What are the factors influencing customer satisfaction toward the use of online banking?

1.4   RESEARCH OBJECTIVES

The purposes of this study are:

RO1: To examine the relationship between service quality and customer satisfaction toward online banking.

RO2: To investigate the relationship between convenience and customer satisfaction toward online banking.

RO3: To study the relationship between security and customer satisfaction toward online banking.

RO4: To examine the factors influencing customer satisfaction on the use of online banking.

1.5   SCOPE OF THE STUDY

The scope of this study is to focus on customer satisfaction toward online banking in Malaysia. The scope of the study was limited to Malaysian citizens who have experience using internet banking. It means that all Malaysians that use online banking are involved in this study. The goal of this study was to discover what factors influence customer satisfaction with online banking. The questionnaire will be used as a survey and references for this study which will be administered to online banking users.

1.6   SIGNIFICANCE OF THE STUDY

At a time when the country is facing the Covid-19 pandemic, the use of internet banking has increased drastically, including in our country. According to statistics released by United Overseas Bank (UOB) in 2020, the number of customers using online banking services has increased by 106% in the past three years. Thus, this study was conducted to analyze customer satisfaction toward three aspects which are service quality, convenience, and security in online banking. The study also suggests that banks providing online banking services should improve service quality and customer satisfaction to ensure that customers remain loyal and will continue to attract new customers.

This study can also be used by institutions to improve or improve the existing weaknesses and make internet banking one of the innovations that are the choice of society. Banks must develop a variety of strategies to meet the needs of their customers to ensure that the quality of the services provided is always at an excellent level. Customer satisfaction is critical to increasing competition in the banking sector. Even customer satisfaction will increase the bank's reputation for providing services.

In addition, the information from the results of this study can provide an overview and can help future researchers make the next study and can be used as a reference source to produce a better-quality study. Thus, future researchers can also expand the scope of the study and increase the number of other factors that will be studied.

1.7 DEFINITION OF TERMS

1.7.1 Online Banking

Internet banking is a branch of the banking business that uses computer technology to improve customer service and aid in the development of banking practices (Rahmath and Hema, 2010). Furthermore, Internet banking can assist users in better managing their funds (Bank Negara Malaysia, 2007). In many industrialized nations, retail banking offers internet banking, allowing consumers to conduct transactions without leaving their homes or offices (Munusamy et al., 2010). Banks are increasingly introducing online banking and consumers are growing more frequent on the internet every day, which is a fantastic fit for the development of online banking (Raza, 2011).

1.7.2 Service Quality

According to (Parasuraman et al.1988), service quality is defined as an examination of the entire performance of a specific service provider against the general consumer expectations of how enterprises in that sector function. In other words, service quality is defined as the difference between customer service performance expectations before service meetings and their perception of service obtained (Saha and Zhao 2007).

1.7.3 Convenience

Convenience has been characterized as the most crucial element in customers' adoption of Internet banking services (Sakthivel 2008; ACNielsen 2005; Pew 2003). Convenience was often described as lifestyles, the use of the place of work and home use, such as not driving, not waiting, saving time, and access to resources 24 hours a day. (Sharman & Kirsty 2006; Pew 2003).

1.7.4 Security

The extent to which a website protects the security of its customers' financial and personal information is referred to as security assurance, and this is an area that has seen a rise in study interest (Kimery and McCord 2002; Miyazaki and Krishnamurthy 2002). Displaying a privacy statement and information about the security of the shopping mechanisms, as well as giving a privacy statement and information about the security of the shopping mechanisms, can help to assure security. Despite the importance of security in online banking, there are numerous techniques for protecting encrypted data packets over the internet (Kolsaker and Payne 2002; Dong-Her et al. 2004).

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1.7.5   Customer Satisfaction

Customer satisfaction is commonly considered the core of success in today's highly competitive banking sector. According to Njei Zephan (2018), customers are the kings and queens of every business. Additionally, customer satisfaction is the overall customer assessment of a product or service based on its long-term purchasing and consumption experience. The most significant factor in establishing the quality of banking services is customer satisfaction. Increasing customer satisfaction leads to decreased operational and service expenses, as well as the opportunity for banks to extend their product offering and future growth services.

1.8   ORGANIZATION OF THE PROPOSAL

Customer satisfaction with internet banking in Malaysia was the focus of this study. The first chapter includes an introduction to internet banking, as well as the study's problem statement, research objectives, research question, study scope, significance, and definition terms. Chapter 2 discusses the literature review of the study, while chapter 3 analyzes the title which is the discussion about the methodology, which is data collection, questionnaire, and regression procedure of customer satisfaction towards online banking usage.

CHAPTER 2

LITERATURE REVIEW

2.1 INTRODUCTION

The researchers briefly discussed the seven sections of the study's background, problem statement, research purpose, and research question in the preceding chapter. After that, the scope of the study and significance of the study is then followed by the definition of words and structuring of the proposal in order to identify the benefits of this research.

For this chapter, the researchers attempted to review the relevant literature and research related to the factors that influence customer satisfaction towards online banking in Malaysia. The first chapter, namely the underpinned theories before discussing the previous study, consists of independent variables that are the factors influencing customer satisfaction towards online banking such as service quality, convenience, and security, and also dependent variables that depend on other factors that are measured, which is customer satisfaction. The next part depicts the hypothesis which is followed by the adoption of a conceptual framework for the case study which is the primary emphasis of the research discussed in this paper.

2.2 UNDERPINNING THEORY

Technology Acceptance Model (TAM)

Technology Acceptance Model (TAM) is a model introduced by Fred Davis in 1986 with his dissertation entitled "A Technology Acceptance Model for Empirically Testing New End-User Information Systems: Theory and Results" at the Sloan School of Management, Massachusetts Institute of Technology. The main key to the acceptance of information technology by its users is the evaluation of the usefulness of the technology. Thus, the TAM model can explain that user perceptions will determine their attitudes in the usefulness of the use of information technology. This model more clearly illustrates that the acceptance and use of information technology are influenced by the perception of benefits and the perception of ease of use. In addition, Davis also provides a basic framework for exploring the influence of external factors on these two variables.

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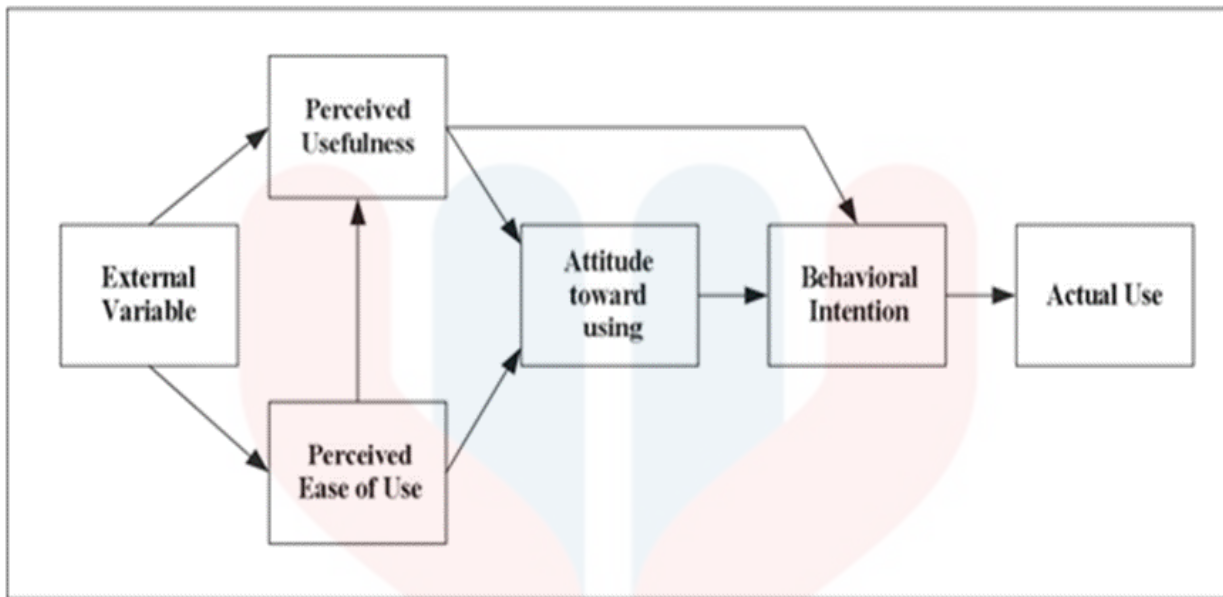
Source: Davis, Bagozzi, and Warshaw (1989: 985)

Figure 2.1: Technology Acceptance Model (TAM)

The TAM model is an extension of the TRA model and can be explained by two important beliefs which are, perceived usefulness and perceived ease of use (Kwak, 2011). Perceived usefulness and perceived ease of use are related to attitudes toward the adoption of new technologies, which influence consumer acceptance, intentions, and behaviors. Perceived usefulness and perceived ease of use reflect beneficial aspects of the use of information technology as they are considered tools to achieve valuable outcomes.

In the banking sector, technology and competition have expanded customers' choice of banking products and suppliers. Accordingly, banks are increasingly providing products and services at a convenient time and low cost to their customers through various channels such as online banking. Online banking refers to a system that allows bank customers to use the bank website to access general information about their bank accounts and banking products and services without the interference or inconvenience associated with sending letters, faxes, original signatures, and phone confirmations (Dr. M. Sakthivel Murugan, 2017). Several studies have been undertaken to look into the impact of online banking service quality on overall customer satisfaction. SP Loke (2012), GM Ling (2016), AJY Lee (2017), none of these studies have been conducted to evaluate service quality, convenience and security specifically in Malaysia.

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Service Quality

The importance of quality of service has been emphasized in the telecommunication sector, one of the fastest-growing sectors of the mobile telecommunication market, which has accelerated the growth of commercial and industrial sectors and contributed to the development of the national economy. The growth rate of telecommunications use has doubled, especially regarding the number of service subscribers (Ojo, 2010). About this study, Twaissi and AlKilani (2015) investigated the effect of perceived service quality on two behavioral intentions across service quality dimensions. In general, TAM is a major component of predicting the intention to introduce technology, and it is predicted that both ease of use and usefulness perception affect the intention (Shin, 2015) and deteriorate the user's perceived value along with the behavioral intention (Shin, 2015). 2015). Wang & Wu 2014)

Convenience

In the marketing literature, consumer convenience refers to any product that saves consumers time and effort. Like personal computers, ubiquitous computing isn't radically new, but it will make everything faster and easier while reducing stress and mental gymnastics. Davis proposed a tool to measure "perceived usefulness," which is "getting things done quickly." Therefore, it can be concluded that there is a positive relationship between perceived convenience and perceived utility. KS Namahoot (2018), in a study on internet banking, suggested that the expected convenience in the use of internet banking is an important quality attribute, which means that people can use online banking at any time at any well-equipped place via the internet because of. "Anytime" and "anywhere" are the hallmarks of ubiquitous computing technology.

Security

Security is very important to a consumer's decision to use an online banking service. Security is generally defined as the state of being protected from or protected from harm. Despite the many benefits of online banking, security concerns often prevent customers from using it because many customers find that their financial assets are at risk. Security generally relates to organizations providing a certain level of security to consumers, and risk generally relates to consumer confidence in adopting new technologies. According to P.C. Lai (2018), perceived usefulness and ease of use, as well as a direct link to the consumer's purpose to use the system, can all help to increase security.

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2.3 PREVIOUS STUDY: THE FACTORS INFLUENCING CUSTOMER SATISFACTION TOWARD ONLINE BANKING

The factors influencing customer satisfaction toward online banking usage are service quality, convenience, and security.

2.3.1 Service Quality

This idea examines the characteristics and benefits derived from purchases or services. In exchange for a high-quality service, customers may be paid specific rates or fees. Customers are satisfied when they see that the service's performance or quality is comparable to the price they paid (Hussein 2016). Customers feel treated properly in this situation because the price paid for the service is proportionate to the quality of the theatre. Pitt, Watson, and Kavan (1995) claim that the quality of service is the most important factor in determining customer satisfaction. Parasuraman, Zeithaml, and Berry (1988) developed the SERVQUAL model, which is the most widely used in customer satisfaction surveys. Businesses that do not employ internet services are assessed and measured using the standard SERVQUAL approach.

According to (Hussein 2016), the input-output ratio of one firm's service can be compared to the input-output ratio of another firm's service. Furthermore, the corporation should investigate competitors' input-output ratios, as it is only reasonable for a company that provides greater quality service to charge more. To be competitive and promote customer satisfaction, banks should offer online banking services that are superior and of higher quality than those offered by competitors. Regarding our findings, there is a considerable association between customer satisfaction and security, convenience, and service quality. The quality of online banking services has a significant impact on users. Due to the current state of affairs in Malaysia, every bank wishes to keep and retain its most valuable customers for the long term. Facts show that in the banking industry either public or private, and international banks), too much rivalry makes it difficult for bank management to develop customer satisfaction plans.

This study of customer satisfaction trends in online banking will provide bank executives with information on customer satisfaction trends to guarantee that after implementing these trends in their banks, they will try to improve client satisfaction with a more concentrated approach. It is time for bank executives to realize that customers are more than just customers, they are more than what the banking industry believes. As a result, they must comprehend issues such as service quality, security, and convenience, all of which

contribute to customer satisfaction with online banking. In the end, we expect that this paper will provide crucial information to bank management in Malaysia on internet banking.

2.3.2 Convenience

Convenience is a feature of internet banking that allows users to access their accounts at any time and from any location. Previous research has found a link between online banking convenience and consumer happiness, as well as identifying convenience as an important factor of online banking. (AJY Lee 2017). Given the significance of service fairness in mediating the relationship between service convenience and customer satisfaction, it is logical to argue that service convenience is strongly linked to service fairness (Roy, Lassar, & Shekhar 2016).

It is hardly unexpected that Malaysian customers are friendly to digital natives, according to (Omar Faridi 2020). With 80% of the population under the age of 50, it is a demographically young country. In addition, the Malaysian government is actively supporting development and investment in the country's digital economy, which accounts for around a fifth of GDP. As a result of these circumstances, a digital-first customer base has emerged. According to a FICO study, the digital or online account opening is swiftly becoming a common practice in Malaysia, with 78% of survey respondents preferring digital banking platforms to more traditional financial services. Around 5% of respondents said they'd like to use a daily online transaction account, while 45% said they'd utilize online services for credit cards and 25% said they'd use digital platforms to get personal loans.

According to (Subhashish Bose 2020), Malaysian households frequently utilize internet banking. This finding could be explained by younger generations assisting their seniors with their banking, particularly if they are less mobile and cannot reach a branch. As customers' reliance on online services develops in reaction to Covid-19, we foresee more swings in adoption and, indeed, an acceleration and acceptance of opening bank accounts digitally, Bose concluded. Banks must carefully assess any sources of friction in their application process to guarantee that customers do not abandon the processor or switch to a competitor.

2.3.3 Security

Every day, cyber attempts on banking websites occur. While hearing that is distressing, there is a silver lining. As a result of these attacks, banks are constantly improving their systems to deal with them successfully. Furthermore, even if hackers are successful in stealing money from your account, you will most likely be safe. According to the bank rate, if you preserved

your personal information and reported the loss immediately, the bank is likely to repay your account. According to the same source, banks are required by federal law to repay stolen funds if they are notified within 60 days (Rob Berger 2021). Based on the equity theory, users are aware of the benefits of information security, even though some do not exercise security (Montesdioca and Macada 2016).

The more internet banking consumers believe that online banking transactions are secure, the more inclined they are to utilize the service more frequently (Tran and Corner 2016). To maintain the security of electronic transactions, several technologies have been developed. The 125-bit RSA encryption key technology to web browsers is the most prevalent way used to safeguard online transactions in the usage of digital certificates and firewalls. The desire of a user to engage in online money and personal information exchanges is heavily dependent on trust. Customers who trust their bank's privacy protection can build a long-term relationship with them. According to (Goh 2016), security and privacy have little impact on a customer's satisfaction with online banking.

2.3.4 Customer Satisfaction

In the last two decades, customer satisfaction has become a prominent area of marketing that has gotten a lot of attention from practitioners and academics. Satisfaction, according to Kotler (2016), is a person's assessment of a product's perceived performance concerning expectations. The customer gets dissatisfied if the performance falls short of expectations. Customers are content if it meets their expectations, and delighted if it exceeds their expectations. In simple terms, a person's feelings of joy or disappointment as a result of comparing a product's performance to his or her expectations are referred to as satisfaction. Customer satisfaction is defined as a customer's overall assessment of a product or service based on their purchasing and consuming experiences throughout time. The quality of services provided by bankers in the banking business has a significant impact on consumer satisfaction. The degree of customer satisfaction rises, resulting in lower operational and service costs. This gives banks the option to diversify their product portfolios and services in preparation for future growth (Sanyal 2016).

2.4   HYPOTHESIS STATEMENT

Several testable statements or hypotheses can be drawn by the researchers such as:

H1: There is a relationship between service quality and customer satisfaction toward online banking.

H2: There is a relationship between convenience and customer satisfaction toward online banking.

H3: There is a relationship between security and customer satisfaction toward online banking.

H4: Service quality, convenience, and security influence customers' satisfaction towards online banking.

2.5   CONCEPTUAL FRAMEWORK

Based on the discussion and the previous article, the Conceptual Framework for this study is as below:
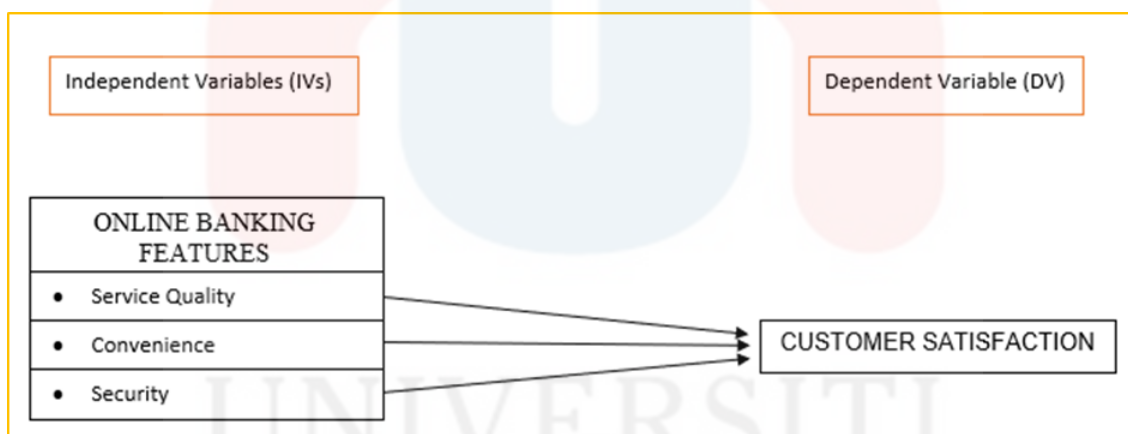
Figure 2.2: Conceptual Framework between Independent Variables (IVs) and Dependent Variable (DV)

2.6   CONCLUSION

This chapter focuses on previous researchers' active research projects. These results help to provide a deeper understanding of online banking. The theories and literature review were used to create hypotheses. In the following chapter, the methodologies used in this study are discussed.

CHAPTER 3

RESEARCH METHODS

3.1. INTRODUCTION

This chapter will discuss the outlines of the research that was conducted in order to finish this study. It includes the information regarding the design of the research study, the target population, the size of the sample collected, sampling method, research instruments, measurement scales, and data analysis of the research study.

3.2. RESEARCH DESIGN

The research design of this study is a quantitative method by using the e- questionnaire which was made in Google form. The questionnaire was distributed to a random sample of primarily Internet banking users through social networking sites such as WhatsApp and email contacts. Through the e-questionnaire, the researchers can access the relationship between independent variables and dependent variables from the data collected. The researchers use a regression method for analyzing the data that has been collected. The questionnaire consists of the demographic profile, factors influencing customer satisfaction toward online banking.

3.3. DATA COLLECTION METHODS

This study used a random sample method to select respondents who were primarily Internet banking users. The poll was designed to reach a random sample of people across Malaysia, but the actual number of questionnaires gathered only made-up 69% of the total sample size. Structured questionnaires were used to collect data, and the questions were prepared and pre-tested on people from varied backgrounds in Malaysia. The information gathered will be used to determine the factors that influence the uptake of online banking services.

3.4. STUDY POPULATIONS

The term "population" refers to the group of people that the researcher is interested in studying. According to (Ahmad and Al- Zu'bi 201 l), online banking provides a better level of ease, allowing users to access internet banks at any time and from any location. According to Bank Negara Malaysia's estimates, 33.6 million people will use internet banking in 2020. In Malaysia, the majority of the population uses online banking. The target population is Malaysians who conduct their business through internet banking

3.5. SAMPLE SIZE

Based on the Krejcie and Morgan (1970) table, the researchers agreed on a sample size of 385 respondents. In the probability sampling technique, a sample is picked using random selection so that each population element has a chance to be chosen.

Table 3.1: Table for Determining Sample Size of a Known Population

N	S	N	S	N	S	N	S	N	S
10	10	100	80	280	162	800	260	2800	338
15	14	110	86	290	165	850	265	3000	341
20	19	120	92	300	169	900	269	3500	346
25	24	130	97	320	175	950	274	4000	351
30	28	140	103	340	181	1000	278	4500	354
35	32	150	108	360	186	1100	285	5000	357
40	36	160	113	380	191	1200	291	6000	361
45	40	170	118	400	196	1300	297	7000	364
50	44	180	123	420	201	1400	302	8000	367
55	48	190	127	440	205	1500	306	9000	368
60	52	200	132	460	210	1600	310	10000	370
65	56	210	136	480	214	1700	313	15000	375
70	59	220	140	500	217	1800	317	20000	377
75	63	230	144	550	226	1900	320	30000	379
80	66	240	148	600	234	2000	322	40000	380
85	70	250	152	650	242	2200	327	50000	381
90	73	260	155	700	248	2400	331	75000	382
95	76	270	159	750	254	2600	335	1000000	384
Note: N is Population Size, S is Sample Size									

Source: Krejcie & Morgan, 1970

3.6. SAMPLING TECHNIQUE

The researchers use basic random sampling as the sampling method. The researcher ensures that it is easy to understand the findings are easily understood and the results are forecast. In addition, during the simple random sampling technique, the highly similar population is more suitable. Besides, researchers focus on the student, the working people, and the unemployed as the best sample. The researchers used the distribution of questionnaires as a sample in this investigation. The process of handing out questionnaires is a good way to get information from responders. This is because, among other things, the distribution approach for surveys can deliver an efficient and accurate result at a lower cost.

3.7.   RESEARCH INSTRUMENT DEVELOPMENT

In this study, the researchers used primary data from the results of consumer online questionnaires through Google Form as data was in the form of an ordinal scale. It is split into three parts which are Section A, Section B, and Section C. Respondents' demographic profiles are in Section A, Section B involves the detailed aspects which are service quality, convenience, and security. The last section, Section C, contains overall customer satisfaction using online banking. Both Section B and C measure ranges from 1 = Strongly Disagree to 5 = Strongly Agree and 1 = Very Unsatisfied to 5 = Very Satisfied

Measurement of variables is carried out using a Likert scale, positive responses refer to respondents who either rate 4 or 5 on a 5-point Likert scale and vice versa. In this quantitative study, questionnaires and instruments are the tools that are the primary sources of data being analyzed to answer the questions or hypotheses in the investigation. In this study, the researchers created their entries to create a series of question tables representing some aspect of a measured variable or construct.

3.8.   PILOT STUDY

Ideally, the pilot study sample size should be 10% of the sample size for the main study. For example, if your sample size for the main study is 400 then it should be 40, if it's 500 then the pilot sample should be 50, so on and so forth. (Connelly, L. M., 2008). Through this study, online questionnaires were given to 39 targeted respondents as the sample size for this study is 385 respondents before carrying out the real survey in order to conduct the pilot test. Once the pilot study data were entered into the SPSS Data Editor, its accuracy was rechecked.

Cronbach's alpha reliability test was performed on the collected data. Cronbach's alpha test is used to determine the reliability of the collected data. Cronbach's alpha is a measure of internal consistency or reliability between various items, measurements, or ratings. In other words, it estimates the reliability of the response of the questionnaire, the instrument, or the rating evaluated by the subject, which will indicate the stability of the tool (Bujang MA et al., 2018). Researchers generally use pilot studies to evaluate the acceptability of their planned methods and procedures. (Polit & Beck 2017).

Table 3.2: The Reliability Test of Service Quality

Cronbach's Alpha	N of Items
0.922	5

Table 3.2 shows the reliability analysis for service quality. Cronbach's alpha coefficient presents a value of 0.922. Hence, the questionnaire is reliable and can be used for the research.

Table 3.3: The Reliability Test of Convenience

Cronbach's Alpha	N of Items
0.759	5

Table 3.3 shows reliability analysis for convenience. Cronbach's alpha coefficient presents a value of 0.759. Hence, the questionnaire is reliable and can be used for the research.

Table 3.4: The Reliability Test of Security

Cronbach's Alpha	N of Items
0.910	5

Table 3.4 shows the reliability analysis for security. Cronbach's alpha coefficient presents a value of 0.910. Hence, the questionnaire is reliable and can be used for the research.

Table 3.5: The Reliability Test of Customer Satisfaction

Cronbach's Alpha	N of Items
0.894	5

Table 3.5 shows the reliability analysis for customer satisfaction. Cronbach's alpha coefficient presents a value of 0.894. Hence, the questionnaire is reliable and can be used for the research.

The table above shows the results of the pilot tests for all variables. Reliability testing was performed before researchers distributed questionnaires to respondents. Reliability tests analyzed credible questions from questionnaires. In the questionnaire, the researcher designed 20 questions. Section B has 3 factors, the service quality had 5 questions, convenience had 5 questions, security had 5 questions, and lastly, Section C is questions related to satisfaction were 5 questions. Section A is the demographic section and has 6 questions to collect the data. As a result of the above reliability test, most of Cronbach's alpha cost factors showed an acceptable reliability level of 0.7 or higher. In general, a reliability test for the entire survey was adopted.

3.9. PROCEDURE FOR DATA ANALYSIS

Data analysis is the systematic use of statistical or logical methods to characterise, display, summarise, and evaluate data. In order to answer the research objectives, a computer software tool called Statistical Package for Social Sciences (SPSS) was used to analyse and interpret data. The findings are then used to back up the research's four hypotheses. The data for this study was collected using frequency analysis, reliability and validity tests, descriptive analysis, Spearman correlation analysis, and multiple linear regression analysis.

3.9.1 Reliability and Validity Test

In this study, a Reliability Test is used to ensure that all respondents are at ease when answering the questions, allowing them to choose the best responses that best describe their points of view. The term "reliability" relates to measurement quality that is error-free and produces consistent results (Sekaran, 2003). Cronbach's Alpha is used in this study to assess the consistency of coefficients that estimate the measuring scale's consistency. A Cronbach's Alpha reliability coefficient of less than 0.6 is considered poor reliability; 0.60 to 0.70 is considered acceptable reliability; 0.7 to 0.8 is considered high reliability; and greater than 0.8 is considered exceptionally good reliability. (Zikmund, Barry, Jon, & Mitch 2010).

Table 3.6: Rules of Thumb about Cronbach's Alpha Coefficient

Alpha Coefficient Range	Strength of Association
< 0.6	Poor
0.6 to < 0.7	Moderate
0.7 to < 0.8	Good
0.8 to < 0.9	Very Good
0.9 >	Excellent

Source: Hair et al. 2015

3.9.2 Descriptive Analysis

In this part, the respondents are asked to specify their gender, nationality, status, race, age, and income. To enable the analysis, the SPSS software will be used.

3.9.3 Spearman Correlation Analysis

This study contains three independent variables and one dependent variable which are service quality, convenience, security, and customer satisfaction towards online banking. Correlation analysis is to determine how independent variables interrelate with dependent variables.

3.9.4 Multiple Linear Regression Analysis

Customer satisfaction with internet banking is predicted using multiple linear regression. There are three explanatory variables used in this study which are service quality, convenience and security. The linear relationship between the explanatory (independent) variables and the response (dependent) variable is represented by MLR.

3.10. CONCLUSION

This chapter discusses the research methodology used. This research is quantitative research. The study's population comprises persons in Malaysia who utilize online banking. The sampling technique used is known as simple random sampling. The method of collecting data used is by e-questionnaire through Google Form. The questionnaire is divided into three sections; Section A for demographic input, Section B for responses on questions related to the study conducted and Section C for overall customer satisfaction.

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CHAPTER 4

RESEARCH FINDINGS

4.1   INTRODUCTION

This chapter describes the results from the analysis of the data collected from the survey administered to 385 respondents. The results were based on frequency analysis, reliability analysis, descriptive analysis, Spearman's correlation analysis, and Multiple linear regression. This study aims to analyze the objective of this research.

The Statistical Package for Social Science (SPSS 26.0) tool is used to evaluate the data gathered. The reliability analysis, descriptive analysis, Spearman's Correlation Coefficient, and Correlation Analysis were all performed during the pilot test. The questionnaires were found to be reliable and valid for the current investigation.

4.2   PRELIMINARY ANALYSIS

There are 39 people from the acquaintances of the researchers who have been selected as respondents to undertake the pilot test. The survey was distributed online using the Google Form link on October 6, 2021. As a result, several respondents were giving their opinions and suggestions to improve the questions during the period.

Table 4.1: Reliability Test for Pilot Testing

Variables	Construct	Cronbach's Alpha	N of Items
IV 1	Convenience	0.759	5
IV 2	Security	0.910	5
IV 3	Service Quality	0.922	5
DV	Customer Satisfaction	0.894	5

It can be concluded that the overall range of Cronbach's Alpha falls within the value of 0.759 and 0.910. Independent variable 1 which is convenience, shows the lowest value at 0.759 but still indicates an acceptable level of reliability. Meanwhile, for most of the constructs which are all variables security, service quality, and customer satisfaction can be rated as excellent levels of reliability. The data collected through the questionnaire were analyzed through correlation analysis and regression analysis. Before correlating the data collected, descriptive analysis was performed to identify the demographic characteristics of respondents.

4.3   DEMOGRAPHIC PROFILE OF RESPONDENTS

Table 4.2: Demographic Information of Respondents

		Frequency	Percentage (%)
Gender	Male	124	32.2
	Female	**261**	**67.8**
Race	**Malay**	**282**	**73.2**
	Chinese	43	11.2
	Indian	58	15.1
	Bisaya	1	0.3
	Bumiputera Sarawak	1	0.3
Age	15 – 20 Years Old	32	8.3
	21 – 30 Years Old	**128**	**33.2**
	31 – 40 Years Old	59	15.3
	41 – 50 Years Old	115	29.9
	51 Years Old and above	51	13.2

Monthly Income	**Below RM 1,000**	**96**	**24.9**
	RM 1,001 – RM 2,000	63	16.4
	RM 2,001 – RM 3,000	81	21.0
	RM 3,001 – RM 4,000	76	19.7
	More than RM 4,001	69	17.9
Experience using Online Banking	Less than 1 year	67	17.4
	1 – 3 years	144	37.4
	More than 3 years	**174**	**45.2**
Type of Online Banking that is frequently used	**Maybank2U**	**127**	**33.0**
	Bank Islam IB	114	29.6
	CIMB Clicks	48	12.5
	MyBSN	40	10.4
	I-Rakyat	34	8.8
	I-Muamalat	19	4.9
	RHB	2	0.5
	Public Bank	1	0.3

Descriptive analysis was used to analyze all the demographic data of the respondent which are gender, race, age, monthly income, experience using online banking, and type of banks. It is observed that out of 385 respondents, there was more female than male respondents as the results show that 67.8% of the respondents are female and the rest 32.2% are male respondents.

As for the race of respondents, 282 respondents (73.2%) are Malays, 58 respondents (15.1%) are Indians, 43 respondents (11.2%) are Chinese, and the remaining 2 respondents (0.6%) are Bisaya and Bumiputera Sarawak.

Next, there are 32 respondents (8.3%) that are 15 - 20 years old, 129 respondents (33.2%) are 21 - 30 years old, 59 respondents (15.3%) that are 31 - 40 years old, 115 respondents (29.9%) are 41 - 50 years old, and last 51 respondents (13.2%) are 51 years old and above.

For monthly income, 96 respondents (24.9%) which is the most gain below RM1,000 monthly, 63 respondents (16.4%) have the range between RM 1,000 - RM 2,000 as their monthly income, 81 respondents (21.0%) have monthly income at RM 2,001 - RM 3,000, 76 respondents (19.7%) have RM 3,001 - RM 4,000 as their monthly income and the rest 69 respondents (17.9%) earn more than RM 4,001 monthly.

Most of the respondents (45.2%) at 174 have more than 3 years' experience using online banking followed by 144 respondents that have used online banking for a range of 1 – 3 years and the lowest at 67 respondents (17.4%) only experience online banking less than 1 year.

There are 127 respondents (33%) that choose Maybank as their frequent online banking use which is the highest choice, Bank Islam IB as the second with its user at 114 respondents (29.6), also 48 respondents (12.5%) choose CIMB Clicks. Both MyBSN and i- Rakyat have almost the same respondents at 40 respondents (10.4%) and 34 respondents (8.8%). 19 respondents (4.9%) have chosen their frequent use of online banking in i- Muamalat. RHB has 2 respondents (0.5%) that use their service while Public Bank has the lowest respondent for the type of convenience bank that frequently uses at 1 person (0.3%)

4.4 DESCRIPTIVE ANALYSIS

Table 4.3: Descriptive Statistics

	N	Maximum	Minimum	Mean	Std. Deviation
INDEPENDENT VARIABLES CONVENIENCE					
1. Online banking websites are always convenient to me for any transactions	385	2	5	4.72	0.516
2. Internet banking does not take me a lot of effort to use	385	2	5	4.65	0.573
3. Online banking services allow me to access my account at any time and anywhere	385	2	5	4.71	0.581
4. I feel that online banking services are provided in various language	385	1	5	4.48	0.764
5. The website offers unique features that meet my needs to operate easier	385	2	5	4.61	0.604
SERVICE QUALITY					
6. I feel that the service delivered through the online banking websites is fast	385	2	5	4.62	0.588
7. It is easy for me to find all my important information from the bank's website	385	2	5	4.52	0.658
8. The information provided on the bank's website is adequate and accurate to me	385	2	5	4.50	0.662
9. I feel that the bank's site provides a confirmation of the service that has made	385	3	5	4.55	0.585
10. Online banking web page do not freeze or delay after I have put in all my information	385	1	5	4.43	0.740

SECURITY					
11. Online banking service provides high protection for my banking transactions	385	1	5	4.50	0.704
12. Online banking services do not allow other devices to access my accounts easily	385	2	5	4.47	0.714
13. I feel that online banking service is secure from any fraud or hacking	385	1	5	4.25	0.900
14. I feel secure while making transactions through Internet banking	385	2	5	4.34	0.737
15. My online banking site does not share my personal information with other sites	385	2	5	4.54	0.657
DEPENDENT VARIABLE CUSTOMER SATISFACTION					
16. I was satisfied with the transaction processing via online banking services	385	2	5	4.62	0.569
17. The online banking services provided meet my expectation and requirement	385	2	5	4.59	0.598
18. The current online banking services provided are useful for me	385	3	5	4.62	0.562
19. I prefer using online banking services instead of visiting the branch for doing my transactions	385	3	5	4.67	0.548
20. I think I made the correct decision to use the online banking services	385	3	5	4.69	0.554
Valid N (listwise)	**385**				

The mean values for independent variables are shown in Table 4.3 for convenience. The highest mean score is 4.72, as indicated in the table above, Online banking websites are always convenient to me for any transactions and it is shown that most Malaysians that use online banking think that using online banking is convenient for them. Meanwhile, the lowest mean score is 4.48 which is why I feel that online banking services are provided in various languages and it shows that most Malaysians are not very familiar with any language on online banking applications.

Aside from the mean values for independent variables, service quality is an important consideration. The highest mean score is 4.62, as indicated in the table above which is I feel that the service delivered through the online banking websites is fast and it shows that most Malaysians use online banking because it allows them to use it in any condition. Meanwhile, the lowest mean score is 4.43. Online banking web pages do not freeze or delay after I have put in all my information, it shows that sometimes online banking can be frozen.

It also displays the mean values for security's independent variables. The highest mean score is 4.54, as shown in the table above which is because my online banking site does not share my personal information with other sites and it shows that most Malaysians that use online banking believe that their system is very strict. Meanwhile, the lowest mean score is 4.25 which means that I feel that online banking service is secure from any fraud or hacking, it shows that their online banking has a risk of being hacked.

Finally, the mean values for the dependent variable's consumer satisfaction are presented. The highest mean score is 4.69, as seen in the table above which is I think I made the correct decision to use the online banking services and it shows that the Malaysians are using online banking because it is a good decision to choose. Meanwhile, the lowest mean score is 4.59 which is the online banking services provided that meet my expectation and requirement and it shows that the service of online banking is not like their expectation.

Table 4.4: The Overall Mean Score for All Variables

Items	Mean	Std. Deviation (SD)	N
Dependent variable			
Customer satisfaction	4.64	0.57	385
Independent variables			
Convenience	4.63	0.61	385
Service Quality	4.52	0.65	385
Security	4.42	0.74	385

According to table 4.4, there is a higher mean score of 4.64 which is a descriptive analysis statistic of customer satisfaction while the second highest mean score is 4.63 which is a descriptive analysis statistic of convenience. The third highest mean score is 4.52 which is a descriptive analysis statistic of service quality and the last highest mean score is 4.42 which is a descriptive analysis statistic of security.

4.5   VALIDITY AND RELIABILITY TEST

Table 4.5: Results of Reliability Cronbach's Alpha for the Variables

	Total Items	Alpha Values
Convenience	5	0.711
Service Quality	5	0.852
Security	5	0.900
Customer Satisfaction	5	0.866

As indicated in table 4.5, the alpha value represents the result from 0.900 to 0.711. This alpha number can be accepted because it is greater than 0.7, according to HR-Guide, LLC (2018), if the alpha value is less than 0.50, it cannot be accepted, 0.60 and above is normal, 0.70 is more than normal, 0.80 is good, and 0.90 is better. The independent and dependent reliability coefficients for this investigation are shown in Table 4.5. The reliability analysis alpha value for the dependent variable customer satisfaction construct is 0.866, which is a reasonable interpretation. As a result, this outcome indicates that the reliability is recognised. Furthermore, the reliability coefficient for independent variable convenience constructs has an alpha value of 0.711, which is in the better range, indicating that the reliability is acceptable. Aside from that, the dependability coefficient for the service quality construct has an alpha value of 0.852, which is within the acceptable range of goods. Finally, the alpha value of the reliability coefficient for the security construct is 0.900, indicating that reliability is acceptable.

4.6   NORMALITY TEST

This analysis is performed to determine whether the entire data of the respondents obtained is "well-modeled", that is distributed in a normal distribution or not.

Table 4.6: Test of Normality

	Kolmogorov-Smirnov[a]		Shapiro-Wilk	
	Statistic	Sig.	Statistic	Sig.
Convenience	0.203	0.000	0.813	0.000
Service Quality	0.192	0.000	0.847	0.000
Security	0.211	0.000	0.846	0.000
Customer's Satisfaction	0.214	0.000	0.780	0.000

If the ($p>0.05$) is regarded as a normal result by the Kolmogorov-Smirnov test and the Shapiro-Wilk test, it is considered an abnormal result by the Shapiro-Wilk test. The p-value of Kolmogorov-Smirnov, which is assessed for all independent and dependent variables, should be ($p=0.000$) for a significant value. While, for the Shapiro-Wilk test all the significant values are ($p=0.000$) which is less than 0.05, thus in both tests of this study all the independent variables (convenience, security, and service quality) and dependent variables (customer satisfaction) are abnormal for the correlation analysis. Thus, Spearman Correlation Analysis should be implemented to identify the relationship of two variables in this study.

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Figure 4.1: The Histogram Graph of Independent Variable: Convenience
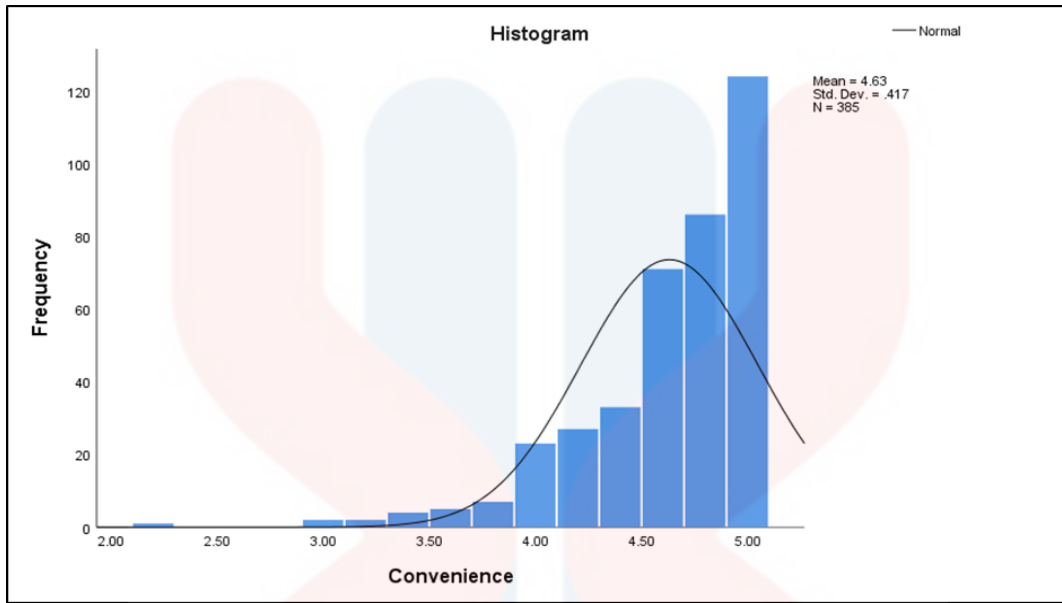
Based on Figure 4.1, the histogram graph shows the respondent data for convenience is abnormal. The average value (mean) for the entire data of the respondent is 4.63, this shows that most of the respondents give 'agree' answers to all the statements stated in the survey questions. The 4.63 scale is between 4 (agree) and 5 (strongly agree). The value of standard deviation for the entire respondent data is 0.417.

Figure 4.2: The Histogram Graph of Independent Variable: Service Quality
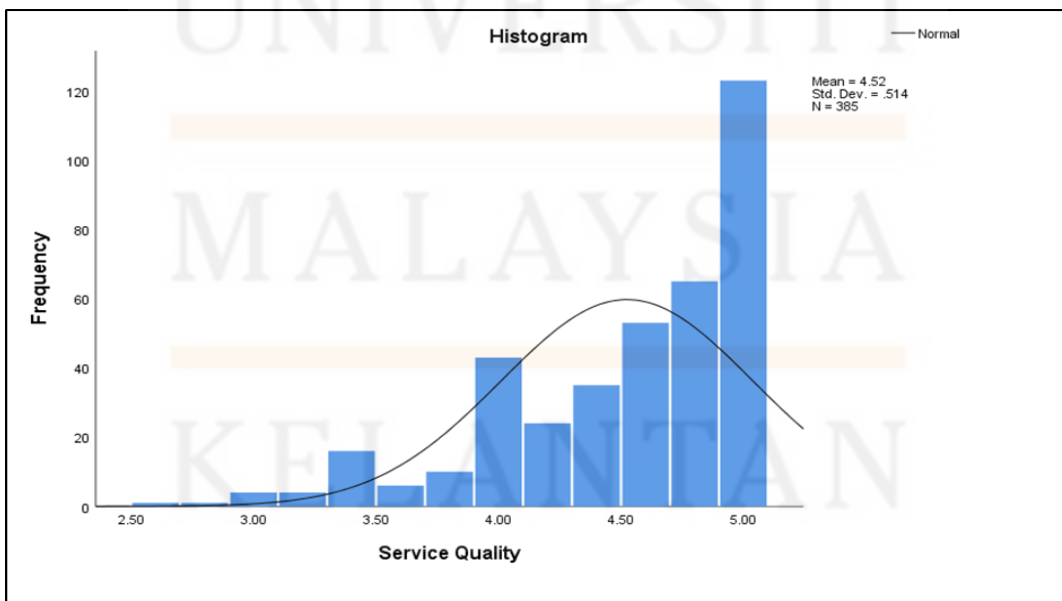
Based on Figure 4.2, the histogram graph shows the respondent data for service quality is abnormal. The average value (mean) for the entire data of the respondent is 4.52, this shows that most of the respondents give 'agree' answers to all the statements stated in the survey questions. The 4.52 scale is between 4 (agree) and 5 (strongly agree). The value of standard deviation for the entire respondent data is 0.514.

Figure 4.3: The Histogram Graph of Independent Variable: Security
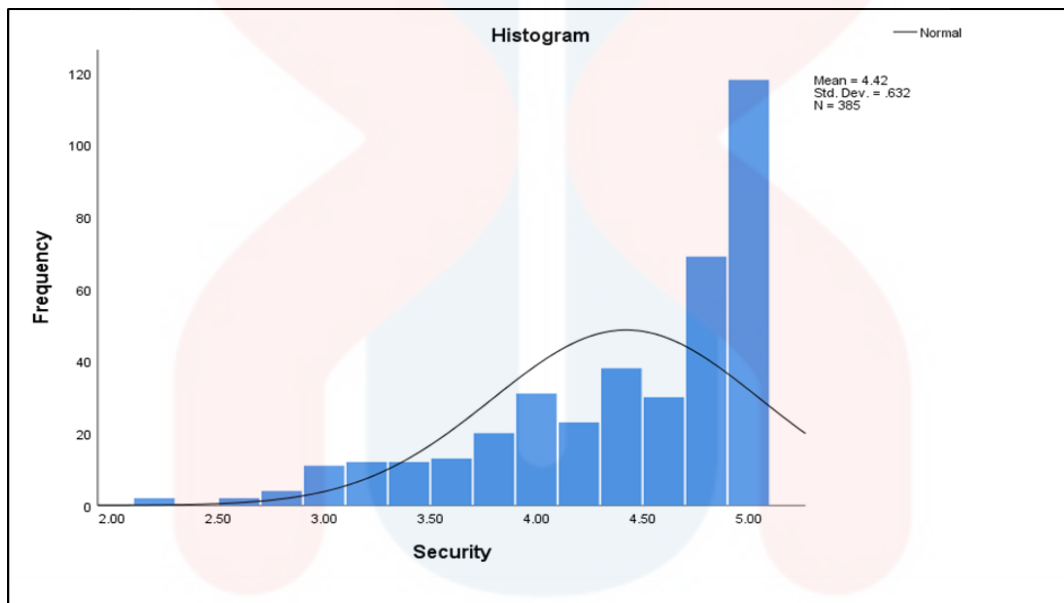
Based on Figure 4.3, the histogram graph shows the respondent data for security is abnormal. The average value (mean) for the entire data of the respondent is 4.42, this shows that most of the respondents give 'agree' answers to all the statements stated in the survey questions. The 4.42 scale is between 4 (agree) and 5 (strongly agree). The value of standard deviation for the entire respondent data is 0.632.

Figure 4.4: The Histogram Graph of dependent Variable: Customer Satisfaction
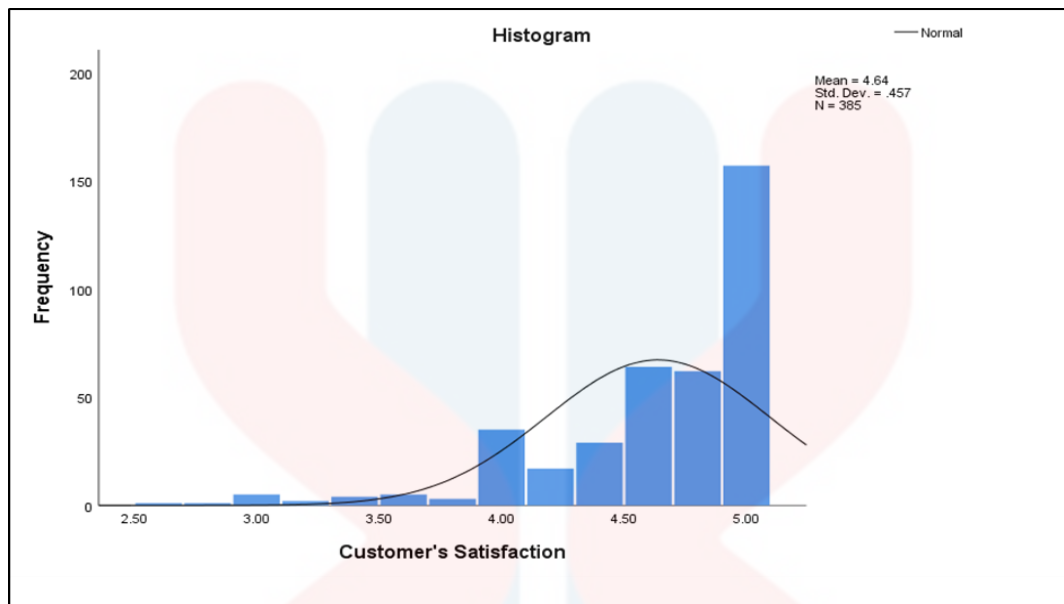
Based on Figure 4.4, the histogram graph shows the respondent data for customer satisfaction is abnormal. The average value (mean) for the entire data of the respondent is 4.64, this shows that most of the respondents give 'agree' answers to all the statements stated in the survey questions. The 4.64 scale is between 4 (agree) and 5 (strongly agree). The value of standard deviation for the entire respondent data is 0.457.

4.7   SPEARMAN CORRELATION ANALYSIS

One of the most important analyses that examined the linear relationship between the two variables was Spearman's correlation analysis. The researchers performed correlation analysis to determine the link between dependent and independent variables (consumer satisfaction) (service quality, convenience, and security).

Table 4.7: Spearman Correlation Coefficient

Spearman	Correlation
≥ 0.70	Very Strong Relationship
0.40 – 0.69	Strong Relationship
0.30 – 0.39	Moderate Relationship
0.20 – 0.29	Weak Relationship
0.01 – 0.19	No or not Negligible Relationship

Table 4.8: The Spearman Correlation Result

		Convenience	Service Quality	Security	Satisfaction
Convenience	Spearman correlation	1	.622**	.535**	.515**
	Sig. (2 tailed)		.000	.000	.000
	N	385	385	385	385
Service Quality	Spearman correlation	.622**	1	.706**	.668**
	Sig. (2 tailed)	.000		.000	.000
	N	385	385	385	385

Security	Spearman correlation	.622**	.706**	1	.616**
	Sig. (2 tailed)	.000	.000		.000
	N	385	385	385	385
Satisfaction	Spearman correlation	.515**	.668**	.616**	1
	Sig. (2 tailed)	.000	.000	.000	
	N	385	385	385	385

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

Table 4.8 shows the Spearman correlation coefficient, significant value, and the total number of instances (385). The P-value was 0.000, which was less than the 0.01 threshold for significance. The correlation value of convenience is 0.515** indicated a strong relationship between convenience and customer satisfaction towards online banking. Next, the correlation value of service quality is 0.668**, indicating that service quality and customer satisfaction with online banking have a high link. Finally, the security correlation value of 0.616** revealed a high link between security and customer satisfaction with online banking.

4.8 HYPOTHESIS TESTING

4.8.1 Service Quality

H_0 = There is no relationship between service quality and customer satisfaction toward online banking

H_1 = There is a relationship between service quality and customer satisfaction toward online banking

According to table 4.8, customer satisfaction with Online Banking will be positively influenced by service quality. Spearman Correlation tests revealed that H1 was not rejected. According to the results of the significant value $p<0.05$, customer pleasure is linked to convenience. As a result, H1 is approved. The positive Spearman Correlation score of 0.668** indicates that there is a strong link between service quality and customer satisfaction. It shows 66.8% of dependent variables are influenced by independent variables (service quality). Thus, the correlation between service quality and customer satisfaction toward online banking is significant. So, the null hypothesis was rejected.

Result Hypothesis Accepted:

H_1 = There is a relationship between service quality and customer satisfaction toward online banking

4.8.2 Convenience

H_0 = There is no relationship between convenience and customer satisfaction toward online banking

H_1 = There is a relationship between convenience and customer satisfaction toward online banking

According to table 4.8, it is shown that there is a positive relationship between customers' satisfaction and convenience. Spearman Correlation tests revealed that H1 was not rejected. According to the results of the significant value p<0.05, consumer happiness with Online in Malaysia is related to convenience. As a result, H1 is approved. The positive Spearman Correlation score of 0.515** indicates that the association between performance expectations and satisfaction is substantial. It reveals that independent variables influence 51.5 percent of dependent variables (convenience). As a result, there is a strong link between convenience and satisfaction. So, the null hypothesis was rejected.

Result Hypothesis Accepted:

H_1 = There is a relationship between convenience and customer satisfaction toward online banking

4.8.3 Security

H_0 = There is no relationship between security and customer satisfaction toward online banking

H_1 = There is a relationship between security and customer satisfaction toward online banking

According to table 4.8, security is related to customer satisfaction toward online banking in Malaysia. Spearman Correlation tests revealed that H1 was not rejected. Security is associated to consumer satisfaction with online banking in Malaysia, according to the results of the significant value p0.05. As a result, H1 is approved. The positive Spearman Correlation score of 0.616** indicates that the association between security and satisfaction is very high. It reveals that independent variables influence 61.6 percent of dependent variables (security). As a result, there is a strong link between security and satisfaction. So, the null hypothesis was rejected.

Result Hypothesis Accepted:

H₁ = There is a relationship between security and customer satisfaction toward online banking

4.8.4 Customer Satisfaction

H0 = Service quality, convenience, and security do not affect customers' satisfaction towards online banking.

H1 = Service quality, convenience, and security influence customers' satisfaction towards online banking.

According to Table 4.9, the R-squared multiple linear regression value of the driving factor of online banking customer satisfaction in Malaysia is 0.774, customer satisfaction in Malaysian internet banking is strongly linked to service quality, convenience, and security. The R-squared coefficient of determination is 0.599, meaning that changes in four independent variables can explain 59.9% of the variation in online banking customer satisfaction. Therefore, H1 is accepted. The positive value of the R-squared coefficient of determination is 0.599 or 59.9% shows the strong positive relationship between service quality, convenience, and security toward customer satisfaction. Thus, the correlation between independent variables and dependent variables is significant. So, the null hypothesis was rejected.

Result Hypothesis Accepted:

H₁ = Service quality, convenience, and security influence customers' satisfaction towards online banking.

4.8 MULTIPLE LINEAR REGRESSION

Multiple linear regression has been developed to predict the factors leading to customer satisfaction in online banking in Malaysia. This study uses three independent variables namely service quality, convenience and security.

Table 4.9: Model Summary

Mode 1	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.774 [a]	.599	.596	.29040

a. Predictors: (Constant), IV3, IV1, IV2

According to Table 4.9, the R-squared multiple linear regression value of the driving factor of online banking customer satisfaction in Malaysia is 0.774, indicating that service quality, convenience, and security are closely related to customer satisfaction in online banking in Malaysia. The R-squared coefficient of determination is 0.599, indicating that 59.9% of the change in online banking customer satisfaction can be explained through changes in four independent variables. However, the 40.1% change in online banking customer satisfaction cannot be explained. This suggests that other key criteria have an impact on customer satisfaction with online banking, but they are not taken into account in this study.

Table 4.10: ANOVA

Model		Sum of Square	df	Mean Square	F	Sig.
1	Regression	48.020	3	16.007	189.799	.000[b]
	Residual	32.131	381	.084		
	Total	80.151	384			

a. Dependent Variable: DV

b. Predictors: (Constant), IV3, IV1, IV2

For ANOVA table F-value need to be analysed, F-value is equal to 189.799 at three (3) degrees of freedom with P value significant at 0.000 (0.000<0.05). By mean, three independent variables namely service quality, convenience, and security predict the percentage of factors that influence the customer satisfaction toward online banking in Malaysia.

Table 4.11: Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1. (Constant)	1.137	.166		6.866	.000
Convenience	.288	.053	.264	5.441	.000
Service Quality	.251	.051	.282	4.950	.000
Security	.233	.035	.322	6.645	.000
a. Dependent Variable: DV					

Based on table 4.11, the results show that the significant value for convenience is 0.000 where P < 0.1 is significant. Meanwhile, the β value for convenience is 0.264 which is the weakest factor in influencing customer satisfaction. Besides, security is significant where the significance value is 0.000 where P < 0.1 and obtained the highest β value, 0.322 which is the strongest factor in influencing customer satisfaction. Meanwhile, the significance value for service quality is 0.000 and can indicate significance due to value 0.000 < 0.1 with the β value 0.282.

4.9 CONCLUSION

The data collected in this study highlight customer satisfaction towards online banking in Malaysia. There are 385 respondents that are involved in this study. According to the result, the majority of the respondents are Malay while the minority of the respondents are in the category of Chinese and Indian.

The highest Spearman Correlation value between customer satisfaction towards online banking is 0.668 which is service quality followed by 0.616 which is security and lastly 0.515 which is convenience. Hence, the relationship between security, convenience, and service quality with customer satisfaction is strong and has a positive correlation. All of the independent variables in this study (convenience, security, and service quality) were significant. According to the findings, convenience, security, and service quality all influence customer satisfaction toward online banking.

Based on R-squared multiple linear regression, the driving factor of online banking customer satisfaction in Malaysia is 0.774, indicating that service quality, convenience, and security are closely related to customer satisfaction in online banking in Malaysia.

CHAPTER 5

DISCUSSION

5.1 INTRODUCTION

In this chapter, researchers will discuss key findings, implications of the study, limitations of the study, and suggestions for future research. The key findings will explain the summary of the finding from chapter 4 of this research. Researchers also will discuss the research objective and research question along with independent variables of whether this research is achieved or not. Researchers will explain the struggle or problem that faced during doing this research in the limitation of the study. Researchers also will discuss the recommendation for future research in this chapter.

5.2 KEY FINDING

This study explained convenience, service quality, and security as the factors of determining customer satisfaction towards online banking in Malaysia and the results show that all the research objectives have been achieved.

RO1: To examine the relationship between service quality and customer satisfaction toward online banking.

H_1 = There is a positive relationship between service quality and customer satisfaction toward online banking

For an example of independent variables in research objective 1, which is to examine the relationship between service quality and customer satisfaction toward online banking, the result shows positive value 0.668** Spearman Correlation shows that the relationship between convenience and customer satisfaction is a significant outcome. According to Hussein (2016), a hypothesis supported by previous studies is that customers are satisfied when they perceive that the performance or quality of a service is worth the price paid. Service quality aims to provide better service to customers so that not only the customer but also his needs are satisfied when using a particular service. With the supported previous study, it can be decided that service quality has a strong influence on customer satisfaction.

RO2: To investigate the relationship between convenience and customer satisfaction toward online banking.

H_1 = There is a positive relationship between convenience and customer satisfaction toward online banking

Next, research objective 2 stated to investigate the relationship between convenience and customer satisfaction toward online banking and the result shows the positive value of the Spearman correlation at 0.515** which indicated a strong relationship between convenience and customer satisfaction towards online banking. Previous research has found a link between online banking convenience and consumer happiness, as well as identifying convenience as an important factor of online banking (AJY Lee 2017). Convenience is an important service attribute that affects a customer's evaluation of the service. Convenience is very important for customer satisfaction, especially in the banking sector, as customers always seek convenience and consider it a top priority when choosing a banking method. With the supported previous study, it can be decided that convenience also has a strong influence on customer satisfaction.

RO3: To study the relationship between security and customer satisfaction toward online banking.

H_1 = There is a positive relationship between security and customer satisfaction toward online banking

Also, research objective 3 is to study the relationship between security and customer satisfaction toward online banking and proved by the positive value of Spearman Correlation at 0.668** revealed a strong relationship between security and customer satisfaction is significant. The results are also consistent with Chapter 2, which implicitly reveals the relationship between security and customer satisfaction, which is the more internet banking users believe in high-security online banking transactions, the more likely they will increase their usage of internet banking services (Tran and Corner, 2016). Customers tend to trust internet banking more when they see a higher level of security. This is because they fear that their personal financial information may be disclosed to others over the Internet and used for fraudulent purposes. With the supported previous study, it can be decided that security has a strong influence on customer satisfaction.

RO4: To examine the factors influencing customer satisfaction on the use of online banking.

H_1 = Service quality, convenience, and security influence the customers' satisfaction towards online banking

Lastly, there is research objective 4 which is to examine the factors influencing customer satisfaction on the use of online banking. The R-squared multiple linear regression value of the driving factor of online banking customer satisfaction in Malaysia is 0.774, indicating that service quality, convenience, and security are closely related to customer satisfaction in online banking in Malaysia. Similar to previous studies of customer satisfaction, convenience has a significant relationship with customer satisfaction because the convenience of services provided can directly affect customer satisfaction (Khazaei et al., 2014). Due to the high influence of trust on customers' willingness to accept transactions, according to Friedman, Khan, & Howe, 2000; Wang, Wang, Lin, & Tang, (2003), well-planned security can boost customer satisfaction in using online banking transactions. Consumer satisfaction is also influenced by the quality of services offered by bankers in the banking industry. Customer happiness grows, which leads to cheaper operational and service expenses. As a result, banks can diversify their product portfolios and services in order to prepare for future growth (Sanyal 2016). Customers' happiness with online banking is influenced by service quality, convenience, and security, according to the previous study.

5.3 DISCUSSION

5.3.1 Convenience

H_1 = There is a positive relationship between convenience and customer satisfaction toward online banking

We suppose that there is a relationship between convenience and satisfaction in the first factor analysis, which is related to convenience. For starters, the researchers discovered that in Malaysia, there is a strong link between convenience and client satisfaction with online banking. Table 4.8 of the Spearman Correlation Coefficient revealed that index r produced a significance or p-value of 0.000, which is less than alpha 0.05, in independent variable 1 (convenience).

Based on the previous study, the findings of Subhashish Bose (2020) are credible with the results. The results show that consumers use internet banking services because they believe that internet banking services are easy to use and understand, convenient, and more time-saving nowadays (Covid-19). Therefore, the finding of this study matches with the studies of convenience in chapter 2.

5.3.2 Service Quality

H_1 = There is a positive relationship between service quality and customer satisfaction toward online banking

For the service quality factor, there is significance toward service quality and satisfaction table 4.8 of the Spearman correlation coefficient in independent variable 2 (service quality) showed that index r gave a significance of p-value of 0.000 which is less than alpha 0.05, which means it showed a significant result.

According to Hussein (2016) customers are satisfied, when they perceive that the service's performance or quality is worth the money they spent, based on the prior study. Because the money paid for the service is proportionate to the quality of the theatre, the ability for service quality treated users in this case. As a result, the findings of this study are consistent with the findings of the service quality studies in Chapter 2.

5.3.3 Security

H_1 = There is a positive relationship between security and customer satisfaction toward online banking

About this factor, table 4.8 of Spearman correlation coefficient in independent variable 3 (security) showed that index r gave a significance of p-value of 0.000 which is less than alpha 0.05.

According to Goh (2016), security and privacy had a positive impact on a customer's satisfaction with online banking. To maintain the security of electronic transactions, various technologies have been developed. For example, web browser 125-bit RSA encryption key technology is the most common method of using digital certificates and firewalls to protect online transactions. Hence, the finding of this study matches with the studies of security in Chapter 2.

5.4   IMPLICATIONS OF STUDY

This study gave implications to the banks and the customers. Banks and companies today pay more attention to customer satisfaction. To increase customer satisfaction toward online banking services, banks can create an online banking management team to help solve customer problems during holidays instead of business hours. For example, when customers encounter problems with online banking transactions during holidays or non-business hours, customers can seek assistance through Internet customer service. If the operations or actions of the online customer service management team are effective and efficient, it will increase customer confidence in online banking services, thereby increasing customer satisfaction.

To improve the quality of online banking services, banks should continue to measure and update the online banking customer experience. After a customer completes a transaction through online banking, the bank can conduct a brief investigation of issues that appear on its online banking website. These pop-up questions can be designed according to the type of service the customer is using. For example, a bank might ask when a transaction took place or how fast to log in to investigate an area for improvement. Banks can improve the weak links of online banking services and improve the quality of services based on customer feedback. Services that simplify customer lives will increase customer satisfaction and retention. If the bank's information about the customer's needs is outdated, the bank may lose the customer. Therefore, it is highly recommended that banks continue to measure and update the customer experience.

5.5   LIMITATION OF STUDY

During the research, some flaws were discovered. To begin with, Malaysia's population and the total number of online banking users were both too large, and the researcher's time to manage and complete the study was insufficient. Furthermore, the researcher lacked the financial means to design a questionnaire that would include all online banking users as responders. The study also lacked solid data from respondents as not all participants expressed commitment or support for the study. Some respondents did not respond to the survey at all, forcing researchers to find other respondents to complete the survey. Furthermore, some respondents are dishonest in their responses to the questionnaire, causing the researcher to take longer to complete the study. In terms of data collection instruments, the researcher did not have the opportunity to speak with users face to face to learn about their real-life experiences. However, the researchers will continue to pursue and complete this study with caution and on time.

Researchers issued the following recommendation based on their findings. For starters, in future research, the sample size might be increased to focus on the topic of satisfaction with online banking usage. This is due to the fact that all of the responses are from Malaysia. Future researchers should undertake multi-country studies to increase the sample size. Second, elements influencing customer satisfaction with online banking usage, in addition to security, convenience, and service quality, could be additional considerations. As a result, more research on larger elements of online banking can be undertaken using a combination of quantitative and qualitative research methods to provide a more in-depth study. Finally, instead of respondents answering a scaled questionnaire online solely, use an interview method or construct some open-ended questions for them. Researchers can receive a high response rate using the interview method, uncertainties can be resolved and partial answers can be followed up on right away. As a result, this method can help to avoid misunderstandings and improve study findings.

5.6 RECOMMENDATIONS/ SUGGESTIONS FOR FUTURE RESEARCH

Based on the results of research that has been done, it can be seen that online banking services affect customer satisfaction. Thus, the better online banking services provided to customers, customer satisfaction will increase even more. There are several suggestions from researchers:

5.6.1 Banking Institutions in Malaysia

Banking institutions have to be able to maintain and improve online banking services so that they can be used optimally in increasing customer satisfaction. From the researchers' perspective, it is important to be able to increase public knowledge about what online banking services are available at every banking institution and to attract more attention for people who have not used online banking service products. For example, inconvenience, it is necessary to design an internet banking page that is easily accessible. The easy-access design referred to here is the use of text and images on web pages. Writing should be clear, easy to read, and the size of the text should not be too small or too large. Meanwhile, the image should not be too much and the colors in the image are not flashy. Too many images on each web page will result in old web pages being accessed

5.6.2 Future Researchers

For the further researchers, in order to be able to conduct research on other variables that can affect customer satisfaction other than those studied in this study. Researchers believe that many other variables influence customer satisfaction that was not examined in this study such as user privacy, service reliability, and so on. They can also conduct research on the model in this study into other industries in Malaysia, apart from the banking industry.

5.7   OVERALL CONCLUSION FOR THE STUDY

In conclusion, the findings of this study proved that there is a connection between security, convenience, and service quality and customer satisfaction toward online banking in Malaysia. Convenience showed the highest value among the non-standardized B coefficients, and among the three independent variables, convenience contributed the most to the change in online banking customer satisfaction, and the second-largest contribution was service quality. Security contributes the least because it has the smallest coefficient. It can be concluded that all the independent variables in this study which are convenience, service quality, and security have a strong correlation in determining customer satisfaction of online banking in Malaysia through multiple linear regression methods. As a result, the researchers hope that all of the knowledge given in this study may be useful for the banks and policymakers to upgrade their technical infrastructure to big data and analytics in order to better understand customer wants and provide customers with the services they expect.

REFERENCES

A.Rosland, M. Husni H., M. Zaim I. (2017). *Perkhidmatan Perbankan Internet: Kajian Terhadap Kepuasan Pelanggan*. Labuan e-Journal of Muamalat and Society. Vol. 11, pp. 30-38

Ahmad, A. E. M. K., & Al-Zu'bi, H. A. (2011). *E-Banking Functionality and Outcomes of Customer Satisfaction: An Empirical Investigation*. International Journal of Marketing Studies, 3(1), 50-65.

Aigbavboa, C., & Thwala, W. (2013). *A Theoretical Framework of Users' Satisfaction/Dissatisfaction Theories and Models*. Behavioral Sciences and Economics Issues, 2, 17-18

Ali, Gaith & Alnawafleh, Enas & A. Tambi, Abdul & Abdullah, Abdul Aziz. (2018). Review of the Impact of Service Quality and Subjective Norms in Technology Acceptance Model (TAM) among Telecommunication Customers in Jordan. Review of Public Administration and Management. 06. 10.4172/2315-7844.1000246.

Aliyu, A. A., Rosmain, T., & Takala, J. (2014). *Online Banking and Customer Service Delivery in Malaysia: Data Screening and Preliminary Findings*. Procedia – Social and Behavioral Sciences, 129, 562-570.

Amanda L.J.Y., Chia A.M., Choong L.W., Foo K.Y. (2017). *Customers' Satisfaction Towards Online Banking in Malaysia: A Primary Data Analysis*. Faculty Of Business and Finance Universiti Tunku Abdul Rahman

Anderson, R. E. (1973). *Consumer Dissatisfaction: The Effect of Disconfirmed Expectancy on Perceived Product Performance.* Journal of Marketing Research, 10(2), 38-44.

Angelova, B., & Zekiri, J. (2011). *Measuring Customer Satisfaction with Service Quality Using American Customer Satisfaction Model (ACSI Model)*. International Journal of Academic Research in Business and Social Sciences, 1(3), 232-258.

Asian Institute of Finance. (2016). *Malaysia Embraces a Shift to Digital Banking.* Retrieved from http://www.aif.org.my/symposium2016.

Bakri, A., & Elkhani, N. (2012). *Review on Expectancy Disconfirmation Theory (EDT) Model in B2C E-Commerce.* Journal of Information Systems Research and Innovation (JISRI), 2, 1-13. ISSN 2289-1358.

Banking Industry. International Journal of Academic Research in Business and Social Sciences, 8(12). https://doi.org/10.6007/ijarbss/v8-i12/5287

Bernama (2018, November 21). *46 Pct of Malaysians Insecure About Online Banking Security: Study.* NST Online. Retrieved from https://www.nst.com.my/news/nation/2018/11/433159/46-pct-malaysians-insecure-about-online-banking-security-study

Chong, H. L., Islam, M. A., Manaf, A. H. A., & Mustafa, W. M. W. (2015). *Users Satisfaction Towards Online Banking in Malaysia.* International Business Management, 9 (1), 15-27.

Clinton., Aigbavboa., & Thwala, W. (2013). *A Theoretical Framework of User's Satisfaction/Dissatisfaction Theories and Models*. 2nd International Conference on Arts, Behavioral Sciences and Economics Issues, 48-53.

Connelly, L. M. (2008). *Pilot studies*. Medsurg Nursing, 17(6), 411-2

Customer Satisfaction Index 2017 Banking Industry. (2017). Retrieved from https://www.ocbc.com.my/assets/uploads/Customer_Satisfaction_Index_2017.pdf

Danijela, V., Jasminka, D., & Srecko, R. (2015). *Customer Satisfaction Impact on Banking Services and Relationship Management Innovation.* International Review, 1(2), 83-93.

Dharmavaram, V., & Nittala, R. (2018). Service Quality and Customer Satisfaction in Online Banking. International Journal of Online Marketing, 8(2), 45–56. https://doi.org/10.4018/ijom.2018040103

Isac, F. L., & Rusu, S., (2014). *Theories of consumer satisfaction and the operationalization of the Expectation Disconfirmation Paradigm*. Academica Brancusi Publisher, 2, 82-88.

J. Goh (October 07, 2020). *Noticeable Rise in Mobile Banking Internet Banking Subscribers* Retrieved from https://www.theedgemarkets.com/article/noticeable-rise-mobile-banking-internet-banking-subscribers

J. Muller (April 7, 2020). *Share of Internet Users Who Use Online Banking Malaysia 2020* Retrieved from https://www.statista.com/statistics/788561/share-of-internet-users-who-use-online-banking-malaysia/

Jalil, M. A., Talukder, M., & Rahman, M. K. (2014). *Factors Affecting Customer's Perceptions Towards Online Banking Transactions in Malaysia.* Journal of Business and Management, 20(1), 25-44.

Joseph F. Hair (2017). *Research Methods for Business.* Retrieved from https://www.researchgate.net/publication/311574015_Research_Methods_for_Business

Joyce G. (2020, October 7). *Noticeable Rise in Mobile Banking, Internet Banking Subscribers.* The Edge Markets. Retrieved from https://www.theedgemarkets.com/article/noticeable-rise-mobile-banking-internet-banking-subscribers

Kemunto, M. P. (2015). *Online Banking Service Quality and Customer Satisfaction: A Case Study of Barclays Bank Kenya Limited.* The University Of Nairobi, Nairobi, Kenya

Kevin O.M, P. Harriet K., Wyelife M., Evans B. O. (Nov 2015). *Accessibility of Digital Banking on Customer Satisfaction: National Bank of Kenya.* IOSR Journal of Business and Management (IOSR-JBM) Volume 17, Issue 11. DOI: 10.9790/487X-171114854

Lai, P. C. (2017). Security as an Extension to TAM Model: Consumers' Intention to Use a Single Platform E-Payment. Asia-Pacific Journal of Management Research and Innovation, 13(3–4), 110–119. https://doi.org/10.1177/2319510X18776405

Li, F., Lu, H., Hou, M., Cui, K., & Darbandi, M. (2021). *Customer Satisfaction with Bank Services: The Role of Cloud Services, Security, E-Learning and Service Quality.* Technology in Society, 64, 101487. https://doi.org/10.1016/j.techsoc.2020.101487

Ling, G. M., Fern, Y. S., Boon, L. K., & Huat, T. S. (2016). *Understanding Customer Satisfaction of Internet Banking: A Case Study in Malacca.* Procedia Economics and Finance, 37, 80–85. https://doi.org/10.1016/s2212-5671 (16)30096-x

M. Caldwell (October 23, 2020). *5 Advantages of Online Banking.* Retrieved from https://www.thebalance.com/three-advantages-of-online-banking-2385804

Matthew B.L. 2017. *Hospice Informal Caregivers' Perception of a Good Death Experience: A SERVQUAL Analysis*. Services Marketing Quarterly 38(1): 1-14.

Murugan, Dr. M Sakthivel, A Study on Customer Preferences and Satisfaction Towards Internet Banking in Chennai (Feb 28, 2017). International Journal of Management, IT & Engineering, Vol. 7 Issue 2, February 2017, ISSN: 2249-0558, Available at SSRN: https://ssrn.com/abstract=3361501

Nguyen Q., Nisar T.M., Knox D. & Prabhakar G.P. 2018. *Understanding Customer Satisfaction in The UK Quick Service Restaurant Industry: The Influence of The Tangible Attributes of Perceived Service Quality.* British Food Journal 120(6): 1207-1222.

Roy, S. K., Lassar, W. M., & Shekhar, V. (2016). Convenience and satisfaction: Mediation of fairness and quality. The Service Industries Journal, 36(5-6), 239-260.

Sari, N. A. M., Yunus, N. A. M., Humaidi, N., & Nordin, A. (2019). *The Relationship between E-Service Quality and User Satisfaction Regarding the Use of Mobile Banking in The Banking Industry.*

APPENDIX A: QUESTIONNAIRE

TITLE: CUSTOMER SATISFACTION TOWARD ONLINE BANKING IN MALAYSIA

Dear Respondent,

Responden yang dihormati,

Assalamualaikum w.b.t. and Good Day.

We are students of Islamic Banking and Finance from University Malaysia Kelantan (UMK), Pengkalan Chepa. For our academic work in 2021, on a study on customer satisfaction toward online banking in Malaysia, we need your cooperation for fulfilling the questionnaire. We hope you will spend at least 5 minutes filling out the survey. We assure you that this information will be used only for academic purposes. Your participation in this survey is greatly appreciated.

Assalamualaikum dan Salam Sejahtera.

Kami merupakan pelajar Perbankan dan Kewangan Islam dari Universiti Malaysia Kelantan (UMK), Pengkalan Chepa. Sebagai tugasan akademik kami pada tahun 2021, berdasarkan kajian mengenai kepuasan pelanggan terhadap perbankan dalam talian di Malaysia, kami memerlukan kerjasama anda untuk mengisi borang soal selidik. Kami berharap anda dapat meluangkan masa sekurang-kurangnya 5 minit untuk mengisi tinjauan ini. Kami memastikan bahawa maklumat ini hanya akan digunakan untuk tujuan akademik. Penglibatan anda dalam tinjauan ini amat kami hargai.

Section A: Demographic Profile. Fill in and mark in the space provided

Bahagian A: *Profil Demografi. Isi dan tandakan pada ruangan yang disediakan*

1. Gender / *Jantina*:

Male / *Lelaki* ☐

Female / *Perempuan* ☐

2. Age / *Umur*:

15 – 20 years / *18 – 20 tahun* ☐

21 – 30 years old / *21– 30 tahun* ☐

31 – 40 years old / *31 – 40 tahun* ☐

41-50 years old/ *41-50 tahun* ☐

51 years old and above/ *51 tahun dan ke atas* ☐

3. Race / *Bangsa*

Malay / *Melayu* ☐

Chinese / *Cina* ☐

Indian / *India* ☐

Others / *Lain-lain:* _____

4. Monthly income / Pendapatan bulanan

Below RM 1000 / *RM 1000 ke bawah* ☐

RM 1000 - RM 2,000 ☐

RM 2,001 - RM 3,000 ☐

RM 3,001 - RM 4,000 ☐

More than RM 4,001 / *RM 4,001 ke atas* ☐

5. Experience using online banking / *Pengalaman anda menggunakan perbankan dalam talian?*

Less than 1 year*/ Kurang dari 1 tahun* ☐

1 – 3 years/ *1 – 3 tahun* ☐

More than 3 years/ lebih dari 3 tahun ☐

6. Please choose the conventional online banking you most frequently used *

Maybank2u ☐

MyBSN ☐

i -Rakyat ☐

Bank Islam IB ☐

CIMB Clicks ☐

i – Muamalat ☐

Others / Lain-lain: _____

SECTION B: Factors Influencing the Customer Satisfaction Toward Online Banking Usage

BAHAGIAN B*: Faktor-Faktor Yang Mempengaruhi Kepuasan Pelanggan Terhadap Penggunaan Perbankan Dalam Talian*

Instruction / *Arahan:* Please read the following statement carefully and answer according to the scale given. / *Sila baca dengan teliti pernyataan yang diberikan dan jawab mengikut skala yang diberikan.*

1	2	3	4	5
Strongly Disagree / *Sangat Tidak Setuju*	Disagree / *Tidak Setuju*	Neutral / *Neutral*	Agree / *Setuju*	Strongly Agree / *Sangat Setuju*

1. **Convenience /** *Kemudahan*

Statements / *Pernyataan*	1	2	3	4	5
a) Online banking websites are always convenient to me for any transactions / *Perbankan dalam talian selalu memudahkan saya bagi sebarang transaksi*					
b) Internet banking does not take me a lot of effort to use / *Perbankan dalam talian tidak memerlukan saya melakukan banyak kerja*					

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	1	2	3	4	5
c) Online banking services allow me to access my account at anytime and anywhere / *Perkhidmatan perbankan dalam talian membolehkan saya mengakses akaun saya pada bila-bila masa dan di mana sahaja*					
d) I feel that online banking services are provided in various languages /*saya merasakan bahawa Perkhidmatan perbankan dalam talian disediakan dalam pelbagai bahasa*					
e) The website offers unique features that meet my needs to operate easier / *Laman web ini menawarkan ciri unik yang memenuhi keperluan saya untuk beroperasi dengan lebih mudah*					

2. Service Quality/ *Kualiti Perkhidmatan*

Statements / *Pernyataan*	1	2	3	4	5
a) I feel that the service delivered through the online banking websites is fast / *saya merasakan perkhidmatan yang dihantar melalui laman web perbankan dalam talian adalah pantas*					
b) It is easy to find all my important information from the bank's website / Ianya *sangat mudah bagi saya*					

	1	2	3	4	5
untuk mencari semua maklumat penting dari laman web bank					
c) The information provided on the bank's website is adequate and accurate to me / *Maklumat yang diberikan di laman web bank adalah mencukupi dan tepat bagi saya*					
d) . I feel that the bank's site provides a confirmation of the service that has made / *Saya merasakan bahawa laman web bank memberikan pengesahan perkhidmatan yang dibuat*					
e) Online banking web page do not freeze or delay after I have put in all my information/ *Halaman web perbankan dalam talian tidak membeku atau tertunda setelah memasukkan semua maklumat saya*					

3. **Security/ *keselamatan***

Statements / *Pernyataan*	1	2	3	4	5
a) Online banking service provides high protection for my banking transactions / *Perkhidmatan perbankan dalam talian memberikan perlindungan yang tinggi untuk transaksi perbankan saya*					

b) Online banking services do not allow others device to access my accounts easily / *Perkhidmatan perbankan dalam talian tidak membenarkan peranti lain mengakses akaun saya dengan mudah*					
c) I feel online banking service is secure from any fraud or hacking / *saya merasakan perkhidmatan perbankan dalam talian adalah selamat dari sebarang penipuan atau penggodaman*					
d) I feel secure while making transactions through Internet banking / *Saya berasa selamat semasa membuat transaksi melalui perbankan Internet*					
e) My online banking site does not share my personal information with other sites / *Laman web perbankan dalam talian saya tidak berkongsi maklumat peribadi saya dengan laman web lain*					

SECTION C: Customer Satisfaction toward Online Banking

BAHAGIAN C: Kepuasan Pelanggan Ke Arah Perbankan Dalam Talian

1. **Satisfaction Using Online banking /** Kepuasan Menggunakan Perbankan dalam talian

Statements / *Pernyataan*	1	2	3	4	5
a) I was satisfied with the transaction processing via online banking services. / *Saya sepenuhnya berpuas hati dengan pemrosesan transaksi melalui perkhidmatan perbankan dalam talian.*					
b) The online banking services provided meet my expectation and requirement / *Perkhidmatan perbankan dalam talian yang disediakan memenuhi jangkaan dan kehendak saya.*					
c) I think I made the correct decision to use the online banking services / *Saya rasa saya telah membuat keputusan yang tepat untuk menggunakan perkhidmatan perbankan dalam talian.*					
d) I prefer using online banking services instead of visiting the branch for doing my transactions / *Saya memilih untuk menggunakan perbankan dalam talian daripada pergi ke bank cawangan untuk menjalankan transaksi*					

e) The current online banking services provided are useful for me / *servis perbankan dalam talian yang terkini sangat berguna kepada saya*					

-End of Questions-

-Thank You for your Cooperation-

No	Task	Feb 2021	Mar 2021	Apr 2021	May 2021	June 2021	July 2021	Oct 2021	Nov 2021	Dec 2021	Jan 2022
1.	Identify research title	█	█	█							
2.	Finding 4 main articles		█	█							
3.	Chapter 1 submission			█	█	█					
4.	1ˢᵗ review chapter 1				█						
5.	2ⁿᵈ review chapter 1				█						
6	3ʳᵈ review chapter 1				█						
7.	4ᵗʰ review chapter 1					█					
8.	Chapter 2 submission				█	█					
9.	1ˢᵗ review chapter 2				█						
10.	2ⁿᵈ review chapter 2					█					
11.	Chapter 3 submission				█						
12.	1ˢᵗ review chapter 3					█					
13.	2ⁿᵈ review chapter 3					█					
14.	Submit report					█					
15.	FYP 1 presentation					█					
16.	Data collection						█	█			
17.	Chapter 4 submission							█			
18.	1st review chapter 4							█	█		
19.	2nd review chapter 4								█		
20.	Chapter 5 submission								█	█	
21.	1st review chapter 5									█	

No.	Task										
22.	2nd review chapter 5									🟩	
23.	Turnitin check										🟩
24.	Submit report										🟩
25.	FYP 2 presentation										🟩

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