



Customer Satisfaction On E-Banking Service Quality In Malaysia

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Abstract

Rapid technological developments and advances in the digital economy created good value for electronic banking. Online banking, which is also known as e-banking, becomes essential in the year 2020 due to Covid outbreaks which can reduce the customer and employee interface and ensure all transactions can continue to be conducted cashless. Consequently, e-banking has become popular with the purpose of continuing routine transactions such as paying bills, top up, online transfers to others or for shopping purposes. Apart from that, customer satisfaction is also important to businesses' success, which can reduce customer losses. High customer satisfaction also can increase customer loyalty and directly can generate more revenue. The main purpose of this research is to study the factor influencing customer satisfaction with e-banking service quality in Malaysia. This research has included five independent variables: efficiency, website design, security or privacy, reliability, and responsiveness to explain customer satisfaction towards E-banking services. A minimum of 138 target respondents will be interviewed through a set of questionnaires via Google Forms. The data collected were then keyed into the SPSS software and further analyzed by using the Smart PLS software. The analysis result revealed that all independent variables except efficiency were found to have a significant relationship to influencing customer satisfaction towards E-banking services. This research study was important to the banking sector and for those other researchers that are interested in this topic research.

Keywords *E-Banking; Customer Satisfaction; Security; Privacy; Reliability*

INTRODUCTION

The Covid-19 pandemic brought a huge impact around the world no matter in business, human health, finances and so on. People need to have social distance practising to protect themselves and avoid the spread of the virus. Hence, it has disrupted the in-person banking service and increased the physical threat between the banker and consumers. In contrast, the usage of e-banking is increasing due to people wanting to conduct cashless payments and solve their financial problems even if the brick-and-mortar store cannot operate (Khairina, 2022). For traditional banking, people need to go to physical banks to do their routine transactions like fund transfers, withdrawing money, and so on. E-banking makes people more convenient; they just need to perform routine transactions through their smartphones. However, the user of e-banking is also increasing due to people wanting to reduce social distancing and avoid the spread of Covid-19. According to the statistics from Bank Negara Malaysia, the population penetration rate of internet banking has increased to 122.4% in 2021 (Statista, 2021).

Aside from that, there are bridge gaps between different previous studies that come out with different results; the independent variables might have a significant relationship with customer satisfaction in a particular study and might be found out it is not significant in another study. The independent variables that will be tested in this study were efficiency, reliability, website design, security and privacy, and responsiveness. In summary, the main objective of this study is to

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investigate the factors influencing e-banking service quality in the Malaysian context. The remainder of the paper is continued with the discussion of the literature review, followed by research methods and discussion of findings and lastly, the conclusion of this study paper.

LITERATURE REVIEW

The Customer Satisfaction

Jamal (2007) discussed that customer satisfaction was one of the important factors that were affected in the marketing field study today. El-Adly (2019) stated that customer satisfaction was one of the ultimate goals sought by service organizations since customer satisfaction can bring long-term benefits such as positive word of mouth, customer loyalty, and sustained profitability. However, satisfaction occurs when customers compare their perception of the performance of the actual product or service with their expectations. Otherwise, according to Li et al. (2021), customer satisfaction is an abstract and vague concept. The real appearance of happiness may differ from product to product, from person to person, and from service to service. Customer satisfaction also refers to the extent to which customers' needs, desires and expectations for services and products are met (Ali & Omar, 2016; Parilla & Abadilla, 2023). Consistent with these definitions, customer satisfaction is the customer's attitude towards the use of any form of electronic banking services. They conducted several studies to identify the main tools that have a material impact on customer satisfaction. SERVQUAL was one of the most widely used tools for determining customer satisfaction which was developed by Parasuraman et al. (1985).

In addition, there was a lot of research to find out the positive relationship between customer satisfaction and e-banking service quality such as Aghdaie and Faghani (2012) applied the SERVQUAL model to examine the relationship between customer satisfaction and mobile banking service in Iran. They found that the dimension of reliability, tangibility, responsiveness, and empathy had a positive relationship between customer satisfaction and e-banking service quality, while assurance did not in the mobile banking service that was provided by the bank in Iran. Moreover, Ejigu (2016) conducted a research study about e-banking service quality and its impact on customer satisfaction in Ethiopia. The researchers examined the e-banking service quality in terms of responsiveness, reliability, assurance, tangible, and empathy, but it found that the consumers in Ethiopia were only satisfied with four service qualities only, which were tangibility, responsiveness, reliability, and empathy.

Besides that, Firdous (2017) did research on customer satisfaction with Internet banking service quality in dimensions of fulfilment, efficiency, responsiveness, system availability, privacy, website design, and contact in India. She found out all of the dimensions have positive relationships with customer satisfaction, and key integrated determinants of the quality of Internet banking services were privacy, efficiency, and website design. Other than that, Hammoud et al. (2018) had done research on the impact of e-banking service quality on customer satisfaction in the dimensions of efficiency, security and privacy, responsiveness and communication, and reliability in Lebanese. They found that these four dimensions had a positive relationship between customer satisfaction and e-banking service quality.

Malaysia also has many researchers who had done research on this topic. For instance, Amin and Isa (2008) found that the service quality in the dimensions of tangible, assurance, reliability, empathy, responsiveness, and compliance with Syariah had positive relationships with customer satisfaction in Malaysia Islamic Banking, and reliability was the key driver of service quality. Furthermore, Amin (2016) did research on online banking service quality and its influence on online customer satisfaction and loyalty. They did the research by having dimensions of personal need, site organization, user-friendliness, and efficiency of a website that will influence online customer satisfaction and loyalty, and they found out the efficiency of website key drivers of

internet banking service quality.

Efficiency

Efficiency was one of the dimensions of the e-banking service quality of E-S-QUAL. However, E-S-QUAL was one of the scales that evaluated the e-service quality (Zemblyte, 2015). According to Jun and Cai (2001), efficiency was defined as the degree to which a decision-making unit can increase output without increasing inputs or reduce inputs without reducing outputs. Efficiency is also related to the operation of internet services, which refers to the ability of consumers to easily obtain reliable and relevant information on a website (Khan et al., 2014), and efficiency has become one of the dimensions that can affect customer satisfaction. Furthermore, Ismail Hussien and Abd El Aziz (2013) stated that efficiency refers to the customers visiting the website and finding the products and related information they want with minimal effort. Salihu and Metin (2017) stated that efficiency was understood as the faster performance of logging in and using e-banking and ATM cards, and effectiveness can be affected by the management and the organizational culture within the organization. Most of the customers will be referred to efficiency when they find the product they want. In general, the literature on bank efficiency can be divided into scope efficiency and scale efficiency. Ebire and Onmonya (2021) stated that efficiency was the speed and ease of accessing the e-banking service. One of the advantages of electronic banking is that it allows customers to perform self-service. Customers can view account details, fund transfers, bill payments and so on. It will increase the satisfaction of the customer due to them not needing to wait their time to go to the physical bank.

Firdous (2017) showed that the dimension in the efficiency of e-service quality had a high correlation with customer satisfaction compared with another dimension in New Delhi, India, while Hammoud et al. (2018) also found that efficiency also brings a positive relationship with the customer satisfaction in the Lebanese banking sector. Moreover, Reddy and Megharaja (2021) examined the efficiency dimensions of service quality with customer satisfaction, and they found that efficiency was the essential dimension affecting customer satisfaction in the Lebanese banking sector, and higher efficiency will lead to high customer satisfaction. The outcome of Singh (2019) also found that efficiency was the second-highest impact on customer satisfaction in India. Sameena and Saroja (2019) examined the efficiency dimension of e-banking service quality with customer satisfaction of MNC banks in Chennai, Tamilnadu. They found that the efficiency dimension has the strongest impact on customer satisfaction compared to other dimensions. Otherwise, the results of efficiency dimensions of e-banking service quality had most highly influenced customer satisfaction in Saravanan and Leelavathi's (2020) research in Chennai District. Besides that, Beshir and Zelalem (2020) also found there was a positive relationship between the efficiency dimension with customer satisfaction when they examined it in the Commercial Bank of Ethiopia (CBE) in Bahir Dar. Yau et al. (2021) also stated that efficiency had a positive impact on customer satisfaction in Hong Kong Banking Sector.

In Malaysia, Amin (2016) found that the dimension of e-service quality of efficiency was the key driver that affects customer satisfaction. The results showed that efficiency with the customers could complete the transition without waiting any time, and easily obtaining reliable and relevant information can bring the experience of customer satisfaction. Hence, the banks should focus more on these dimensions and create a competitive advantage to gain more customers. Similarly, the findings of Sohail and Shaikh (2008) and Herington and Weaver (2009) also showed that the efficiency of websites was the key factor that influences customer satisfaction, and customers pay more attention to the speed of download and how fast the transaction completes.

H1: There is a significant relationship between efficiency and customer satisfaction with e-banking services in Malaysia.

Reliability

Reliability was one of the elements of the seven dimensions of e-SERVQUAL. Salihu and Metin (2017) stated that reliability was one of the key elements that will affect customer satisfaction with e-banking service quality, and reliability represented the range of products or services and information provided. Reliability is also referred to as the ability of employees to correctly fulfil their promises and perform the right service to the customer on time the first time (Tien et al., 2021). Umer et al. (2020) noticed that reliability was the ability to perform an agreed task accurately and without error. According to Rudgard (2016), the HSBC e-banking website was attacked by the network, and it greatly caused customer dissatisfaction. Thus, these aspects of protection and confidentiality were considered secure. Therefore, some investigators have also identified reliability as an important determinant of digital banking performance. Otherwise, Umer et al. (2020) also examined reliability with customer satisfaction, and they found it had a positive relationship, and the outcome that more accurate and reliable information can lead to high customer satisfaction.

Next, the result of the Hammoud et al. (2018) showed that reliability had the strongest relationship with customer satisfaction compared to other dimensions, such as efficiency, security or privacy, and responsiveness in the Lebanese banking sector. Husnain and Toor (2017) examined the dimensions of reliability of e-service quality in Pakistan's banking sector, and the finding showed that reliability was the most significant with customer satisfaction. Besides that, the examination of the relationship between customer satisfaction and reliability in the banking sector of Hanoi City, Vietnam, showed a positive relationship (Nguyen et al., 2020). The outcome of the research of Das and Ravi (2021) between reliability and customer satisfaction was a positive correlation which the e-banking user always concerned about accurate and reliable information. Tabash et al. (2019) found that reliability had a positive relationship with customer satisfaction in Islamic banking in Saudi Arabia. The researchers mentioned that reliability was the critical dimension of e-service quality which included the characteristics of the product, information about profitability, and all records management through Shariah-compliant mode. Therefore, the banks should properly emphasize this as a message to customers due to most of them subscribe to Islamic banking because it offers products that conform to Shariah-compliant mode.

Reddy and Megharaja (2021) examined the impact of the reliability of e-service quality on customer satisfaction in the Lebanese banking sector. They found that the positive relationship between them and reliability was the stronger dimension that would affect customer satisfaction. Then, other researchers also found out the reliability dimension of e-banking service quality had a positive relationship with customer satisfaction of MNC banks in Chennai, Tamilnadu (Sameena & Saroja, 2021). Rahman et al. (2017) also mentioned that reliability had the strongest relationship with customer satisfaction. There were also got a few studies that stated that there was no relationship between reliability and customer satisfaction, such as according to the studies of Inzamm and Tahir (2020), Sharma et al. (2020) and Beshir and Zelalem (2020).

H2: There is a significant relationship between reliability and customer satisfaction with e-banking services in Malaysia.

Responsiveness

Responsiveness was one of the elements of the E-recS-QUAL. Tien et al. (2021) mentioned that responsiveness was expressed through the desire and willingness of employees to serve customers in a timely manner. Moreover, Top and Ali (2021) stated that responsiveness belonged to the speed and quality of a company's products based on the interests of its customers. It determined the quality of customer service and communication provided. Responsiveness was essential for improving the profitability of a product due to the speed and right made customers

very happy and satisfied. This issue also brought an impact on customers' trust, loyalty and satisfaction. Not only that, responsiveness can retain customers' interest and responding in a timely manner can help to improve customer satisfaction and loyalty (Ali & Raza, 2017; Sirait & Purnama, 2022). According to Hammoud et al. (2018), responsiveness can separate into 4 categories. First, the online banking system can be standardized and run properly; second, online banking can guide the customers to deal with any failures; third, it can provide a quick way to handle any errors in online banking transactions; and fourth to quickly respond to any customer inquiries.

Referring to Hammoud et al. (2018) examined the dimensions of responsiveness of e-service quality, and they found that responsiveness brings a positive relationship with customer satisfaction in the Lebanese banking sector. Besides that, Firdous (2017) noticed the responsiveness on the ability to respond quickly to customer complaints, immediately mailing transaction slips and quickly calling back customers to solve their problems has a positive correlation with customer satisfaction in Internet banking in New Delhi, India. Apart from that, the outcome of Sharma et al. (2020) and Rahman et al. (2017) also stated that responsiveness had a positive relationship towards customer satisfaction in e-banking service quality.

The result of Husnain and Toor (2017) on the examination of the responsiveness dimension of e-service quality in the banking sector of Pakistan had more significant customer satisfaction compared to the assurance, empathy and tangible dimensions. Moreover, Nguyen et al. (2020) examined the responsiveness dimensions in Hanoi City, Vietnam, and they found it had a positive relationship between customer satisfaction and responsiveness. Other than that, Beshir and Zelalem (2020) also found out there was a positive relationship between the responsiveness dimension with customer satisfaction in the Commercial Bank of Ethiopia (CBE) in Bahir Dar. Besides that, Yau et al. (2021) also stated that the website design had a positive impact on customer satisfaction in Hong Kong Banking Sector.

Furthermore, Das and Ravi (2021) examined responsiveness and customer satisfaction and obtained the result of a positive relationship, while Umer et al. (2020) also found a positive relationship between responsiveness and customer satisfaction and the outcome of more quickly responding to the customers can lead to high customer satisfaction. According to Tabash et al. (2019), they found that responsiveness had a positive relationship with customer satisfaction, and responsiveness also was the key factor that affected customer satisfaction in Islamic banking in Saudi Arabia. The outcome of Singh (2019) also mentioned that the responsiveness dimensions was the highest impact on customer satisfaction in India.

Referring to Reddy and Megharaja (2021), the research on the dimension of responsiveness of e-banking service quality also impacted customer satisfaction. The outcome of the result was that effective communication and timely response when customer-facing problems would significantly affect customer satisfaction. Besides that, Saravanan and Leelavathi (2020) found a positive relationship between responsiveness and customer satisfaction in e-banking service in Chennai District, while Sameena and Saroja (2021) also found that responsiveness had a positive relationship with customer satisfaction in MNC banks in Chennai, Tamilnadu.

On the contrary, Munusamy et al. (2010) mentioned that responsiveness had a relationship but no significant effect on customer satisfaction in Malaysia. Aside from that, Famiyeh et al. (2018) also found that was no relationship between responsiveness with customer satisfaction.

H3: There is a significant relationship between responsiveness and customer satisfaction with e-banking services in Malaysia.

Security and Privacy

Security and privacy were the essential elements in the dimension of service quality of e-SERVQUAL. Sathiyavany and Shivani (2018) stated that security and privacy referred to the site's

safe interaction with customers, credit and payment, as well as an encrypted shared data area. Privacy and security play a vital role in establishing electronic trust in order that it can reduce customers' concerns about personal information abuse. Therefore, a good security and privacy service that is provided by e-banking can increase customer satisfaction. Not only that, the security or privacy of the website will encourage and motivate customers to continue to use it.

Hammoud et al. (2018) also examined the dimension of security and privacy, and the results showed that privacy and security had a positive relationship with customer satisfaction in the Lebanese banking sector. Besides that, the researchers made the recommendation on the manager's need to improve the system to prevent sharing data with other parties in order to protect customer's privacy and security due to privacy and security has significantly affected customer satisfaction Top and Ali (2021).

According to Das and Ravi (2021), they mentioned that privacy and security were part of the e-banking user's concern. They were concerned about the privacy of personal information and secure financial transactions when using e-banking. There were researchers who found that dimension of privacy and security had a positive relationship with customer satisfaction in Islamic Banking in Saudi Arabia, and they found that privacy and security issues were the most concern for the e-banking user (Tabash et al., 2019). In keeping with the outcome of Sharma et al. (2020), they also stated that security and privacy had a positive relationship towards customer satisfaction in e-banking service quality. Yau et al. (2021) also stated that security and privacy had a positive impact on customer satisfaction in Hong Kong Banking Sector.

Reddy and Megharaja (2021) also found that the security and privacy dimensions of e-service quality had a positive relationship with customer satisfaction even though the impact was lower than other variables in their research in the banking sector of Lebanon. Sameena and Saroja (2019) also got the same result as Reddy and Megharaja (2021) regarding the security and privacy dimensions that affected customer satisfaction in MNC banks in Chennai and Tamilnadu. Otherwise, Saravanan and Leelavathi (2020) examined the security and privacy dimensions of e-service quality with customer satisfaction and found out it had a positive relationship between them in Chennai District. The studies of Beshir and Zelalem (2020) also stated that more secure e-banking systems would attract more customers to use them.

H4: There is a significant relationship between security and privacy and customer satisfaction with e-banking services in Malaysia.

Website Design

The website design was one of the elements of W-S-QUAL. W-S-QUAL was one of the models with the instrument used to measure website quality. According to Sathiyavany and Shivani (2018), website design is concerned with the visual aesthetics of web pages and aims to create an attractive and pleasant appearance. There were some elements that affected the quality and success of websites, such as colour, graphics, image and animation video quality, symbols, and so on. Besides that, Sathiyavany and Shivani (2018) also stated that if the customers do not appreciate the quality of the website design will reduce the time that customers visit the websites, and the website design will bring a positive impact on customers' trust in financial institutions. Website design refers to the interaction of the customer with all the components within the website, such as user navigation, information content, providing adequate information, information nature, graphic types and customer order processes, which are all the components that will positively affect customers satisfaction (Prisca & Wulandari, 2022).

According to Rita et al. (2019), a good website design should emphasize usability by providing the beauty of the design; it reflects a strong image and the brand, which can attract customers to visit it. They examined the relationship between customer satisfaction and website

design and found that website design has a higher impact on customer satisfaction compared to other dimensions. Besides that, Yau et al. (2021) also stated that the website design had a positive impact on customer satisfaction in Hong Kong Banking Sector. Jovovic et al. (2016) examined the dimension of website design, and they found out it had a positive relationship between them. Firdous (2017) examined the dimension of website design of the e-service quality in internet banking in New Delhi, India, and he found that how easy to browse and use the website and the website compensates for the customer's problems had a strong positive correlation with the customer satisfaction. According to Saravanan and Leelavathi (2020), the ease of using the website and compensation to customers when facing problems in using the website had a strong correlation in affected customer satisfaction in Chennai District. Otherwise, Das and Ravi (2021) found that website design was the most influential dimension in customer satisfaction, especially for young people. Young people trust the bank's online transactions and pay less attention to reliability, security and privacy, and communication and responsiveness dimensions.

H5: There is a significant relationship between website design and customer satisfaction with e-banking services in Malaysia.

RESEARCH METHOD

The target population in this research study was the users of e-banking services who were living in Malaysia. The target respondents were anonymous and cryptonyms and not limited to their demographic information such as age, gender, race, education, and income. Otherwise, the sample size of this research study targeted 200 respondents to fill up the online survey questionnaire based on the G-Power analysis. G-Power analysis showed that the minimum total sample size for this research is 138 respondents. The questionnaire measurement items for four independent variables include efficiency, reliability, security and privacy, and responsiveness and the dependent variable was adopted from Hammoud et al. (2018). Then, the measurement items for website design were adopted from Marete et al. (2014) and Rita et al. (2019). Furthermore, the scales that will be used in this research include the nominal scale in the section the respondent can answer the demographic questions and the 5-point Likert scale, which includes Strongly Disagree (1), Agree (2), Neutral (3), Disagree (4), Strongly Disagree (5) is used to measure the questionnaire items.

FINDINGS AND DISCUSSION

The female respondents occupied 74%, which was 148 out of the 200, while the male occupied 26%, which was 52 out of 200. It means that there are more female respondents than male respondents. The majority of the respondents were young adults 21-30 years old, which occupied 72.5% (145 of the respondents), followed by the categories of 20 and below and 31-40 years old, which had the same respondents of 20 people, which occupied 10% of each. Most of the respondents had the education level of undergraduate, which occupied 52.5% (105 of the respondents). However, fewer respondents were from the postgraduate level, which was 3 respondents (1.5%). Furthermore, 64% of the respondents (128 respondents) claimed that the length of them used e-banking was around 1-3 years, whereas 2% of the respondents (4 respondents) had used e-banking for more than 8 years. Besides that, 18.5% of the respondents (37 respondents) used e-banking between 4-7 years, followed by 15.5% of the respondents (31 respondents) who used e-banking for less than a year. The majority of the respondents had used the e-banking service between 1-5 times per month which occupied 72%, 144 of the respondents out of 200 respondents. 15% of respondents, which were 30 of the respondents, were using around 6-10 times of the e-banking service per month, followed by 13% of the respondents, and 26 respondents were using the e-banking service more than 10 times per month.

The convergent validity measurement of all the measurement items has to be tested before the Structural Equation Modelling is applied. The convergent validity analysis result was summarised in Table 1. The analysis result showed that all the item loadings range from 0.660 to 0.912. All item loadings have achieved the minimum requirement (Chin, 1998). Besides that, the composite reliability (CR), Rho_A, and average variance extracted (AVE) values for all five variables were meeting the requirement too. A strong valid model should have covered the AVE values above 0.5 and CR and Rho_A values above 0.7 (Hair et al., 2016). In conclusion, the analysis result of this study confirmed that the model constructs fulfilled the convergent validity and internal consistency. Table 2 presents the discriminant validity result. The result showed that the discriminant validity was verified and proved where all the Heterotrait-Monotrait (HTMT) criteria were lower than the required threshold value of HTMT 0.90 by Gold, Malhotra and Segars (2001). Hence, this indicates that the proposed hypotheses are supported.

Table 1. Convergent validity assessment

Model construct	Items	Loadings	AVE	CR	CA	Rho_A
Customer satisfaction	CS1	0.888	0.728	0.930	0.906	0.908
	CS2	0.791				
	CS3	0.884				
	CS4	0.847				
	CS5	0.852				
Efficiency	E1	0.763	0.557	0.898	0.867	0.872
	E2	0.770				
	E3	0.791				
	E4	0.776				
	E5	0.660				
	E6	0.711				
	E7	0.743				
Reliability	R1	0.838	0.674	0.912	0.878	0.879
	R2	0.821				
	R3	0.875				
	R4	0.825				
	R5	0.741				
Responsiveness	RS1	0.728	0.695	0.919	0.889	0.891
	RS2	0.867				
	RS3	0.865				
	RS4	0.849				
	RS5	0.850				
Security and responsiveness	SP1	0.829	0.774	0.960	0.951	0.954
	SP2	0.845				
	SP3	0.859				
	SP4	0.912				
	SP5	0.904				
	SP6	0.903				
	SP7	0.902				
Website design	WD1	0.824	0.651	0.918	0.893	0.897

WD2	0.818
WD3	0.770
WD4	0.794
WD5	0.778
WD6	0.853

Table 2. Discriminant validity of constructs

	Customer satisfaction	Efficiency	Reliability	Responsiveness	Security and privacy	Website design
Customer satisfaction						
Efficiency	0.713					
Reliability	0.761	0.800				
Responsiveness	0.638	0.446	0.511			
Security and privacy	0.595	0.556	0.691	0.398		
Website design	0.764	0.881	0.856	0.546	0.629	

Next, SMART-PLS bootstrapping was used to measure the structural model. The R2 value of the model is 0.610, which indicates that 61% of the total variation in customer satisfaction can be explained by the five independent variables. Figure 1 illustrates the overview of the model in this study. Then, the summary of the hypothesis testing result was presented in Table 3.

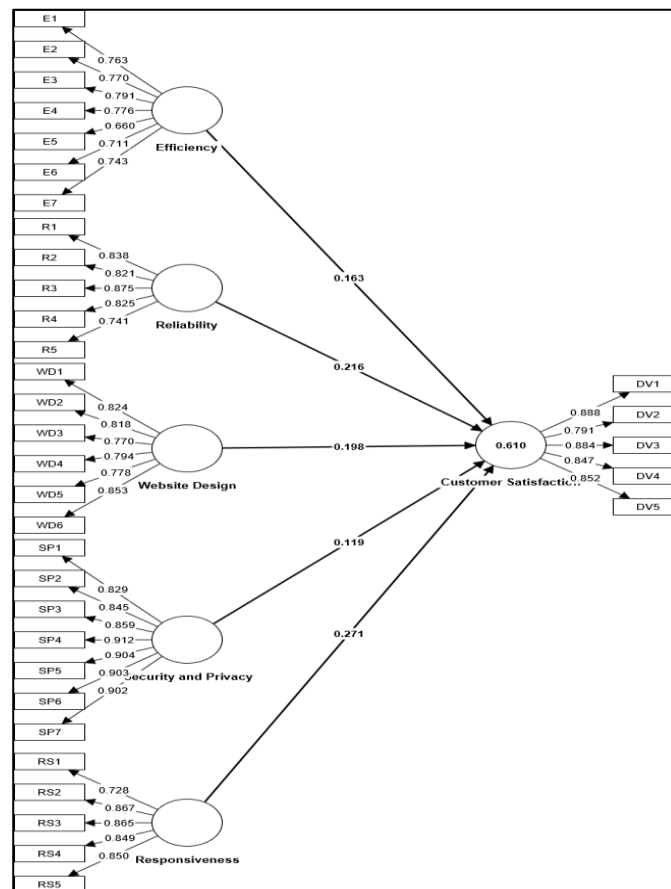


Figure 1. Structural model

Table 3. Results of the hypothesis testing

Relationship		Std Beta	Std Error	t-value	LL	UL	Decision
Efficiency Customer Satisfaction	->	0.163	0.089	1.839	-0.005	0.340	Not supported
Reliability Customer Satisfaction	->	0.216	0.093	2.319*	0.052	0.417	Supported
Responsiveness -> Customer Satisfaction		0.271	0.064	4.253**	0.139	0.391	Supported
Security and Privacy -> Customer Satisfaction		0.119	0.059	2.019*	-0.004	0.230	Supported
Website Design -> Customer Satisfaction		0.198	0.089	2.231*	0.024	0.370	Supported

**p<0.01, *p<0.05, Bootstrapping (n=5000)

The result is not reliable based on the previous study, and this may be due to the demographic characteristic of the respondents of this study. However, Firdous (2017) showed that the dimension in the efficiency of e-service quality had a high correlation with customer satisfaction compared with another dimension in New Delhi, India. Moreover, Reddy and Megharaja (2021) concluded that efficiency is the essential dimension affecting customer satisfaction in the Lebanese banking sector, and higher efficiency will lead to high customer satisfaction. Sameena and Saroja (2021) also concluded that the efficiency dimension has the strongest impact on customer satisfaction compared to other dimensions.

The result was consistent with the previous study done by Umer et al. (2020), had concluded that a positive relationship and outcome of more accurate and reliable information can lead to high customer satisfaction. The outcome of the research of Das and Ravi (2021) between reliability and customer satisfaction was a positive correlation which the e-banking user always concerned about accurate and reliable information. Tabash et al. (2019) found that reliability had a positive relationship with customer satisfaction in Islamic banking in Saudi Arabia. Reddy and Megharaja (2021) also found out reliability was the stronger dimension that would affect customer satisfaction in the Lebanese banking sector.

In keeping with the result of the previous study, Hammoud et al. (2018) also concluded that privacy and security had a positive relationship with customer satisfaction in the Lebanese banking sector. Besides that, Top and Ali (2021) concluded that privacy and security had significantly affected customer satisfaction, and they made the recommendation on the manager's need to improve the system to prevent sharing data with other parties. Das and Ravi (2021) mentioned that privacy and security were part of the e-banking user's concerns, such as the privacy of personal information and secured financial transactions when using e-banking.

The result is the same as the previous study done by Jovovic et al. (2016), had found out it had a positive relationship between them. Besides that, Firdous (2017) found that how easy to browse and use the website and the website compensates for the customer's problems had a strong

positive correlation with customer satisfaction quality in Internet banking in New Delhi, India. According to Saravanan and Leelavathi (2020), the ease of using the website and compensation to customers when facing problems in using the website had a strong correlation in affected customer satisfaction in Chennai District. Otherwise, Das and Ravi (2021) also conclude that website design is the most influential dimension in customer satisfaction, especially for young people. Young people trust the bank's online transactions and pay less attention to reliability, security and privacy, and communication and responsiveness dimensions.

The result is in line with previous results, Hammond et al. (2018) found that responsiveness brings a positive relationship with customer satisfaction in the Lebanese banking sector. Besides that, Firdous (2017) noticed the responsiveness on the ability to respond quickly to customer complaints, immediately mailing transaction slips and quickly calling back customers to solve their problems has a positive correlation with customer satisfaction in Internet banking in New Delhi, India. Umer et al. (2020) also found a positive relationship between responsiveness and customer satisfaction, and the outcome of the more quickly on responding to customers can lead to high customer satisfaction.

CONCLUSIONS

This research study has defined the factor that affected customer satisfaction with e-banking service quality and identified the relationship between the independent variables, which are efficiency, reliability, website design, privacy and security, and responsiveness and customer satisfaction. This research can help the banking sector to know which variables will affect customer satisfaction with e-banking service quality, and they can make the improvement to it. Besides that, the other researchers who are interested in this research study also can gain the benefit of using this research as a reference and guidance in order to improve their research study.

Last but not least, this research study is important to the banking sector and for those researchers that are interested in this topic research. The findings of this research provide some of the managerial implications and recommendations to the banking sector. Therefore, the banking sector also can better understand which factors that customers are concerned about and focus on making improvements to them.

LIMITATION & FURTHER RESEARCH

There are some suggestions that can help future researchers when they conduct research on this kind of research topic. First of all, future researchers can expand the sample size in order to reduce the margin of error and get the data more accurately. Other than that, the future researcher should distribute the survey questions to different ranges of age groups due to their different point of view toward the topics.

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