

Investigating Factors that Influence Internet Banking Services in the Banking Industry

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Abstract- Online banking or Internet banking is a common phenomenon nowadays because of its convenience. Customers can use Internet banking to practically access all the banking services offered, including deposits, transfers, and bill payments. Almost every financial institution offers various types of internet banking, which are accessible via mobile apps. This provides convenience to their consumers. This paper aims to examine the impact of Internet banking services on customer satisfaction in the banking industry. Customer satisfaction is an important factor for maintaining a long-term relationship between a company and its customers. Customer satisfaction has been proven to increase a company's profitability. However, what contributes to satisfaction needs to be explored further since previous studies are inconclusive in their findings regarding this matter. Most studies on Internet banking studies have investigated various factors including safety and reliability, transaction efficiency, customer support, service security, ease of use, performance, and service content. But, in this study, all these variables will be combined into three types of services, service security, service reliability, and service functionality and the dependent variable is customer satisfaction. The findings of the study confirm that these three factors are important to ensure customer satisfaction in using Internet banking services.

Keywords - *Internet banking, customer satisfaction, service security, service reliability, service functionality*

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I. Introduction

Customer satisfaction is a person's emotion of joy or disappointment because of comparing a product's perceived performance or outcome to his or her expectations (Kotler, Keller, Koshy, & Jha, 2012). Customer satisfaction is very important in meeting customers' expectations and assisting banks in maintaining their competitive edge. According to Fared, Darmawan, and Khairi (2021), these experiences not only contribute to a degree of satisfaction but can also influence customer views and attitudes toward a particular product or service. According to Widagdo, and Roz (2021), customer satisfaction can also be defined as a measurement that determines how happy or not customers are with a company's products, services, and capabilities. As a result, favorable Internet banking features or factors are expected to influence customer satisfaction. Society

comprehends that cultural backgrounds affect how customer depict their experiences with businesses (Abdul Halim, Zamri, & Mohd Rasid, 2018).

Customer satisfaction has been proven to increase a company's profitability. However, what contributes to satisfaction needs to be explored further since previous studies are inconclusive in their findings regarding this matter. Most studies on Internet banking studies have investigated various factors including safety and reliability, transaction efficiency, customer support, service security, ease of use, performance, and service content. But, in this study, all these variables will be combined into three types of services, service security, service reliability, and service functionality. As a service oriented company, it is vital to ensure top service quality as it will not only encourage more people to use their services but will also provide satisfaction and a good corporate image to society as a whole (Omar, Abdul Ghani, Mohd Ramly, Mohd Anim, & Nazri, 2022).

II. Literature Review

Security can be defined as a method of safeguarding and preventing hackers from gaining access to customer information and privacy. Banks are using safe electronic systems, according to Li, Lu, Hou, Cui, and Darbandi (2021), to protect their customers' financial information, especially when doing online banking. According to Lu, Huang, Dai, Maharjan, and Zhang (2019), security concerns about sharing personal information over the Internet. Meanwhile, Anouze, and Alamro (2019) highlighted that the public is concerned about Internet banking security due to the increasing complexity and unpredictability of online banking services.

Reliability refers to a service organization's ability to consistently provide high-quality service to customers from time to time (Zygiaris, Hameed, Ayidh Alsubaie, & Ur Rehman, 2022). According to Li et al. (2021) and Balinado, Prasetyo, Young, Persada, Miraja, and Redi (2021), one of the essential characteristics of service quality is that it has a substantial impact on customer satisfaction, and studies have shown that reliability is important to ensure high customer satisfaction. It is critical for companies to provide dependable service in the first place. Chan, Thong, Brown, and Venkatesh (2021) highlighted that reliability relates to the ability of the company to deliver the promised services, which are complemented by service correctness.

Service functionality has three components which are ease of use, performance, and service content. It refers to the functions that are provided by the context-aware-system such as technologies. According to Szymkowiak, Melović, Dabić, Jeganathan, and Kundi (2021), new information technologies have enabled people to undertake cooperative learning impressively and efficiently anywhere and at any time. According to a study conducted by Sun, Rabbani, Ahmad, Sial, Cheng, Zia-Ud-Din, and Fu (2020), co-creation necessitates organizations' ability to interact with customers to be closer to them. In the banking industry, there is a widespread desire to provide simple and quick services while retaining product quality and customer service.

The relationship between Service Security and Customer Satisfaction

The hazards associated with online banking are increasing. According to Lin, Wang, and Hung (2020), systems, policies, and models are being established to assess the credibility of such services to each engaged party. According to Modabberniya, Vazifehdust, and Abdolvand (2020), security and trust issues are considered the most important factors that investigate the behavioral intentions of users of online services such as e-banking. Husain, Varshney, Bhatnagar, and Kumar Satsangi (2019) discovered in their research that among the variables tested, convenience, product offering, site design, and financial security had a significant effect on e-satisfaction. Albayrak, Karasakal, Kocabulut, and Dursun (2020) and Fared et al. (2021) found that website design, interactivity, informativeness, security, responsiveness, and trust had a significant influence on customer satisfaction. Thus, the following hypothesis is proposed:

H1: There is a positive relationship between service security and customer satisfaction.

The relationship between Service Reliability and Customer Satisfaction

Almansour, and Elkrggli (2023). conducted research that found a positive association between customer satisfaction and e-banking availability, reliability, and convenience. Previous researchers also have demonstrated that the reliability dimension of service quality has a positive impact on customer satisfaction. Based on a previous study by Khatoon, Zhengliang, and Hussain (2020), they have proven that reliability has a positive relationship with customer satisfaction in the banking sector. Vencataya, Pudaruth, Juwaheer, Dirpal, and Sumodhee (2019) also found that reliability has the greatest influence in predicting customer satisfaction. Pakurár, Haddad, Nagy, Popp, and Oláh (2019) also reported a positive relationship between reliability and banking customers' satisfaction in Jordanian banks. Therefore, the following hypothesis is highlighted:

H2: There is a positive relationship between service reliability and customer satisfaction.

The relationship between Service Functionality and Customer Satisfaction

Service quality, web design and content, convenience, and speed where web design and content, have been found to influence customer satisfaction in Internet banking (Jahan, Ali, & Al Asheq, 2020). Çelik (2021) also revealed that efficiency, systems availability, fulfillment, privacy, responsiveness, compensation, and contact have a strong and significant effect on customer satisfaction. Results of a study by Chong, Chow, Chow, and Lim (2023) also discovered that product information quality, user interface quality, service information quality, purchasing process convenience, security perception, and product attractiveness have a significant influence on overall satisfaction. Thus, the following hypothesis is developed:

H3: There is a relationship between service functionality and customer satisfaction.

III. Methodology

The population of the study is the public who are using Internet banking services. The samples for the study are targeted at 120 since there are three independent variables and one dependent variable used in the study. According to Hair, Black, Babin, Anderson, and Tatham (2019), a sample size of 120 is sufficient for a study that uses a multiple regression analysis as a means for data analysis. The questionnaire items were developed by adapting the existing research instruments developed by previous researchers (Anouze, & Alamro, 2019; Li et al., 2021; Pakurár et al., 2019; Raza, Umer, Qureshi, & Dahri, 2020). The items were found highly reliable (Cronbach's alphas are more than 0.8) to measure the intended variables.

The data collection procedure for this study was done by using questionnaires and the medium is social media platforms. Google Forms were used to collect data as it is simple and more convenient for the researchers. It can also be shared without any costs and limitations. A full set of questionnaires was shared through various online media platforms, WhatsApp, Telegram, Facebook, and Instagram to get a better reach of respondents. Researchers blasted the questionnaire for five days and added another three days until it reached 120 respondents. Researchers blasted the questionnaire once or twice a day but on different platforms.

IV. Finding

From Table 1, male respondents were presented by 55 individuals which is equivalent to 36.7% and female respondents were presented by 95 individuals which is equivalent to 63.3%. Therefore, the biggest age group was for those aged between 21-24 years which is equivalent to 83 people or 55.3% and followed by those aged 25 years and above which is equivalent to 44 people or 29.3%. The lesser respondent group comprised those aged 18-20 years old with 23 frequencies or 15.3%. On the other hand, for education, the biggest frequency was for those with Degree education which involves 79 frequencies or 52.7% followed by the diploma-qualified group with 35 respondents or 23.3%, and Certificate holders with 25 respondents or 16.7%. The least and smallest group of the respondents in this survey was those with a master's education representing three individuals or 2%. Mostly, the survey was done among students. In terms of frequency used internet, most respondents used 7 hours, and above which is equivalent to 60 frequencies or 40% of the total respondents.

Table 1: Demographic Profile of Respondents

Variable	Description	Frequency	Percentage
Age	18 – 20	23	15.3
	21 - 24	83	55.3
	25 and above	44	29.3
Gender	Male	55	36.7
	Female	95	63.3
Education	Certificate	25	16.7
	Diploma	25	23.3
	Degree	79	52.7
	Master	3	2.0
	PhD	8	5.3
Frequency	1 hour below	8	5.3
	1 – 3 hours	14	9.3
	3 – 5 hours	30	10.0
	5 – 7 hours	38	25.3
	7 hours and above	60	40.0

Table 2 shows that all the items measuring the variables have Cronbach alpha values that are higher than the

minimum suggested value of .6. The highest Cronbach alpha is for service functionality which is .931 and the lowest Cronbach alpha value is .831 for service security. The first variable, which is service security, is significantly related to customer satisfaction with a value of 0.620. The second variable, service reliability, has the lowest correlation with customer satisfaction with a value of 0.599. The third variable is service functionality,

which has a significant correlation with customer satisfaction with a value of 0.727. The highest correlation value is between service functionality and customer satisfaction.

Table 2: Results of Reliability and Correlation Analysis

No.		Mean	Std. Deviation	1	2	3	4
1	Service Security	3.23	.52	(.831)			
2	Service Reliability	3.22	.55	.566**	(.841)		
3	Service Functionality	3.29	.51	.811**	.676**	(.931)	
4	Customer Satisfaction	3.12	.56	.620**	.599**	.727**	(.870)

Notes: N=150; ** sig. at the .01 level; Cronbach's alphas are in the parentheses along the diagonal.

From Table 3, the service functionality factor is the most significant predictor of customer satisfaction with the beta coefficient value of .531. The other variable, that is service reliability, is also significant in influencing customer satisfaction but with a lower coefficient value. Service reliability recorded a beta value of .196. Service security is not significant in affecting customer satisfaction and it recorded the value of .078. From the table, it shows that service functionality is the strongest predictor of customer satisfaction. The model is significant with an F value of 60.004. The R² value of .552 indicates that 55.2% of the variance in the regression model was explained by the independent variables. The Durbin-Watson value of 1.90 indicates that the model is free from the issue of autocorrelation.

Table 3: Results of a Multiple regression Analysis

Variables	Std Beta Coefficients
Service Security	.078
Service Reliability	.196**
Service Functionality	.531**
R	.743
R ²	.552
Adjusted R ²	.543
F value	60.004
Sig. F value	.000
Durbin Watson	1.90

V. Discussion

This study found that customer satisfaction with online banking is influenced by three variables which are service security, service functionality, and service reliability. The findings of the present study are consistent with those of the previous studies conducted by Abualsauod, and Othman (2020), Khatoun et al. (2021), and Li et al. (2021) who discovered that service functionality and service reliability are the most pertinent factors that influence customer satisfaction in using Internet banking. This study involves all people who use online banking platforms to meet their online banking needs. Therefore, this could be the new trend in banking which involves technology to facilitate online transactions. Based on the findings of the study, the most significant factor that influences customer satisfaction is service functionality which reflects three dimensions which are ease of use, performance, and service content.

Based on the findings, service security is not a significant predictor of customer satisfaction. The most plausible reason for the finding is that, for the younger generation which represents most of the respondents in this study, security is not their main concern if online banking can meet their needs conveniently and speedily (Shams, Rehman, Samad, & Oikarinen, 2020; Szymkowiak et al., 2021). That is why service security is not significant in affecting customer satisfaction.

The next finding is regarding service reliability. It has a significant role in affecting customer satisfaction. This service feature is important because to meet the needs of younger consumers, online banking must be

reliable. The service can be used anytime and anywhere without much difficulty (Sasono, Jubaedi, Novitasari, Wiyono, Riyanto, Oktabrianto, ... & Waruwu, 2021). Lastly, the most positive significant relationship was found between service functionality and customer satisfaction. This shows that service functionality is the most important factor that can ensure satisfaction among the customers of Internet banking (Li et al., 2021; Raza et al., 2020; Othman, Hamzah, & Abu Hassan, 2020).

VI. Implications

Based on the findings of the study, this paper provides important recommendations for increasing the level of customer satisfaction in the banking industry, including all the variables that have a strong impact on customer satisfaction. For this study, the effects of service security, service reliability, and service functionality on customer satisfaction among online banking users were tested. Therefore, it is advisable to apply them critically and amend them if necessary. Pertaining to the research instrument, different variables and items should be identified and tested so that the findings of the present study can be further verified.

At present, online banking is very much used by society and is on par with the ever-evolving technology. Therefore, in future research, it would be useful to use different populations and different sampling techniques to identify the extent of customer satisfaction with services offered through Internet banking. As a result, researchers can identify factors that can influence customer satisfaction from a bigger perspective. The banking industry can also spot the dimensions they lack and find the best solutions to retain their customers, which can cause a bank to stay longer in the market. It is believed that there are many ways organizations can use to attract new customers and retain their existing ones. Therefore, it is recommended that future researchers use different variables to identify other factors that can impact customer satisfaction with the services of Internet banking.

Future researchers can use the SERVQUAL model or e-SERVQUAL model to study its impact on customer satisfaction. SERVQUAL consists of five dimensions assurance, responsiveness, tangibility, empathy, and reliability (Parasuraman, Berry, & Zeithaml, 2002). Whereas, e-SERVQUAL consists of user-friendliness, efficiency of websites, personal needs, and site organization (Raza et al., 2020). Therefore, using the SERVQUAL model or e-SERVQUAL model will help them identify the dimensions of service quality that have a high impact on customer satisfaction in the banking sector.

VII. Conclusion

Internet banking has become a common phenomenon among the public. Studies on this topic are abundant in numbers but the findings are inconsistent in determining the factors that contribute to customer satisfaction in using Internet banking services. This study was undertaken to determine the factors that lead to customer satisfaction and the findings indicate that service reliability and service functionality are the two factors that lead to customer satisfaction in using Internet banking services. Bank management should pay attention to these factors if they want their customers to be happy and continue using their services. At the same time, they should not forget the importance of service security in their service offerings.

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Conflict of Interest Statement

The authors agree that this research was conducted in the absence of any self-benefits, commercial or financial conflicts and declare the absence of conflicting interests with the funding organisation

Authors' Contributions

Abdul Kadir Othman, Mohd Khalid Mohd Abas, Azmi Mat, Mohd Redhuan Dzulklipli, Ismael Abujarad carried out the research, wrote and revised the article.

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