

## **Regression Analysis on Customer Satisfaction towards Online Banking Service During Pandemic Covid-19**

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### **Abstract**

With the rapid growth of computer technology, the banking industry has quickly evolved the use of online banking as a cost-effective and efficient technique of increasing customer value. It is one of the most popular services supplied by traditional banks in order to deliver faster and more dependable services to online users. Online banking can be used to attract more clients to conduct banking activities at associated banks. Customer satisfaction is an important factor in a bank's ability to maintain a competitive advantage. The goal of this paper is to assess customer satisfaction with online banking services during a pandemic Covid-19. There are 322 sets of survey questionnaires with 38 questions that are constructed, distributed, and collected from respondents who are online banking users among youths. The regression analysis results show the quality, security & privacy of services and convenience and customer's satisfaction towards online banking.

**Keyword:** Online Banking, Covid-19, Customer Satisfaction, Service Quality, Security and Privacy

### **Introduction**

There has been a growth in e-commerce technologies in the industry and has been discussed over the long time (Kelecic, 2020). Online banking is a development in banking that incorporates e-commerce offerings that support customers in the field of banking and financial services such as internet banking, e-banking and virtual banking (Neduraman & Baladevi, 2018) The transition to a digital banking model benefits the bank institutions and it has now become a requirement to gain a competitive advantage in line with customer needs and desires.

The Covid-19 pandemic has made it more important than ever and not just to cut operational costs and improve digital experiences but also to make sure it can meet the needs of customers who prioritize safety (Kelecic, 2020). Companies can provide better services than before the Covid19 pandemic, and continue to work remotely to fully transform into it, with an electronic financial system and online banking services that keep up with the needs of individuals and institutions. From customer perception to technical online banking, it offers a simple and reliable way to handle financing that is conveniently available 24 hours a day. Online banking is a safe and accurate option in managing financial affairs. The outbreak of Covid-19 pandemic has turned the situation into a necessity rather than a way of life.

In this studies, we proposed customers satisfaction towards online banking services are influenced by quality provided by banks, security and privacy and the conveniences given by the institutions during the outbreak of Covid-19.

### **Problem Statement**

In everyday life, online banking services are needed to provide these administrations in order to conduct business under socially distant rules, notably after the Covid-19 spread. As a result of technical advancements, online banking has become a new way of life. Throughout Covid-19, the Covid-19 pandemic has shifted the landscape of bank-customer relationships from face-to-face interactions to SOP-compliant internet banking. In financial services, customer pleasure has become a priority. The more delighted customers are with the service offered, the more they wish to use it. Customer satisfaction, on the other hand, is a nebulous concept. Poor service quality, such as a less customer-friendly website, will make banking tasks more complex. Particularly with a shoddy security system. It will disrupt the existing level of customer satisfaction.

### **Literature Review**

Internet banking is used to be exchanged for electronic banking (e-banking) or online banking. During the pandemic Covid-19, banks focused more on servicing online consumers than customers who used the most expensive offline banking platform, according to the report, as more educated users switched to online banking services (Zatari & Abu Reehan,2021) . The customers who supported the new technology during the pandemic Covid-19 got greater assistance from the internet banking system (Li et al., 2021). Internet banking uses a combination of financial intermediation that makes internet transactions. Online banking is a banking industry that uses computer technologies to offer better services to customers and improve banking activities.

The change of banks service structure should align with standard operation procedures during Covid-19. In the banking industry, online banking provides improved options for customers and allows them to develop banking activities along with the Covid-19 procedure. One of the most effective methods for increasing the service quality to fulfil customers' expectations is technical development. Customers can view their banks' balance sheets, loans, checking accounts, text messages, payment exchanges, and various organizations based on the varied activity of mobile user banks anywhere and everywhere without fear (Saleem & Rashid, 2011). Customers can also manage their accounts more efficiently with the use of online banking at home while all the outside activities seem restricted.

Customer satisfaction is an abstract and imprecise concept, according to Kumbhar (2011). Customer satisfaction may be defined as the amount of responsiveness and attitudes about a range of usage aspects that a customer demonstrates. If the customer expectation of products and services fulfils or exceeds expectations, customers will satisfy themselves. Gronroos (2007) argues that the satisfaction of customers is fulfilled for enjoyable services connected to the overall customer experience. Customer satisfaction is a vital aspect in determining whether the bank is not successful or whether it is surviving (Green & Thompson, 2000).

It was determined whether customers were satisfied by the number of people who paid for a product or service and then used the product or service. According to Isac and Rusu (2014), these experiences not only contribute to the evaluation of customer satisfaction, but they may also have an impact on the views and attitudes of customers about a specific product or service. Banks received more benefits and profits from existing customers compared to new customers (Naik et al., 2010).

In dealing with customer, service quality can be very important. Service quality can be defined as the difference between customer's expectation for service performance prior to the service encounter and their perception of the service received (Daniel & Berinyuy, 2010). Service quality is an important factor for a bank to remain relevant in the market. It is important for companies to know how to measure these structures with consumer's perspective to better understand their needs and thus satisfy them. Service quality is considered very important as it leads to customer satisfaction, profitability, cost reduction, customer loyalty and retention (Daniel & Berinyuy, 2020).

Another factor influencing customer satisfaction is the security of personal data. Banking system security is defined as a method of safeguarding customer data and privacy from hackers. The prevention of information being revealed to unauthorised people is referred to as privacy. Integrity and digital signatures ensure the information's integrity. Banks with secure electronic systems can protect their customers' financial and personal information, particularly when conducting online banking (Li et al., 2021). According to Aboobucker and Bao (2018), online banking activities are more at risk of facing threats from financial criminals than conducting physical transactions at bank branches. Although online banking provides a more competitive service than conventional banking, concerns over the security of personal data have contributed to the interest of some customers in using the service (Aboobucker & Bao, 2018).

For many customers, convenience is a major concern; they thus choose a service provider that can deliver the most efficiency in time and effort (Ismail & Alawamleh, 2017). Convenience is the major attraction and emphasis of internet banking consumers (Shariq, 2006). Online banking customers focused more on making banking transactions easy (Ainin et al., 2005, Lallmahamood, 2007). Therefore, internet banking benefits customers by reducing costs, space and time, responding immediately to problems, and delivering services that allow for the convenience of services (Munusamy et al., 2012). A web browser is mostly used and any standard internet connection is appropriate, meaning no additional software or hardware is normally necessary. People will choose the lower way to deal with technological or conventional services. Internet connection is expected to be more convenient for many

services and other requirements through its utilisation. Plus, now a days, customers are less interested on physically visiting the bank and tend to choose using online services at their house or workplace (Abualsauod & Othman, 2020)

### **Research Objectives**

The objective of this study is to identify the customer's satisfaction towards online banking service during pandemic Covid-19. The research objectives for these studies are:

1. To examine the impact of service quality on customer satisfaction towards online banking among youth.
2. To examine the impact of security and privacy on customer satisfaction towards online banking service among youths.
3. To examine the impact of convenience on customer satisfaction towards online banking among youths.

### **Research Hypotheses**

This research included three hypotheses in the report. This study uses quantitative data to explain research question. The following hypothesis that will be tested in this research:

H<sub>1</sub>: There is a significant relationship between service quality and customer satisfaction toward online banking.

H<sub>2</sub>: There is a significant relationship between security privacy and customer satisfaction toward online banking.

H<sub>3</sub>: There is a significant relationship between convenience and customer satisfaction toward online banking.

### **Research Method**

For this study, simple random sampling under probability sampling has been used. To be precise, simple random sampling is the most suitable technique to be utilized if the exact population is known. Simple random sampling is the sampling technique, where all universe elements are treated equally. When the samples are random, respondents are drawn from the population by random means. Each element of the population has an equal probability of getting chosen in this kind of sample. A certain number of items must be included in the population that may be displayed or mapped. This technique was used to pick 322 respondents from 2071 youths in Kangar Perlis. The collected data were analysed using regression to see the relationship of each variable.

### **Finding & Discussion**

There are a few questions on the respondents in demographic profile. Gender, age, ethnicity, frequency of usage of online banking services.

Table 1  
Demographic Data of Respondents

Variables	Categories	Frequencies	Percentage (%)
Gender	Male	106	32.9
	Female	216	67.9
Ethnic	Malay	114	35.4
	Chinese	93	28.9
	Indian	108	33.5
	Others	7	2.2
Age	18-23years old	278	78.3
	24-26 years old	42	13
	27- 30 years old	2	6
Frequency Usage Online Banking Service per Month	1- 5 times	120	37.3
	6-10 times	132	41
	More than 10 times	70	21.7

According to descriptive data, the number of females is greater than the number of males, with a total of 216 (67.9%) and 106 (32.9%). Meanwhile, ethnicity show there are 114 (35.4%) Malays, 93 (28.9%) Chinese, 108 (33.5%) are Indians and 7 (2.2%) from other race which are Bumiputera Sabah and Bumiputera Sarawak. The age group with the highest frequency and proportion of respondents in this study is between the ages of 18- 23, with 278 respondents (78.3%). The second greatest age group is between the ages of 24 – 26, which has a total of 42 responses (13 %). Next comes the 18-20 year age group (26 replies, 8.1%) and the 27-30 year age group (2 respondents, 6 %). Based on the frequency of the use of online banking services, the study indicated clearly that a majority of respondents 6-10 times a month utilized online banking, representing 132 respondents (41%). However, 120 respondents (37.3%) and 70 respondents (21.7%) are respondents who used online banking 1-5 times and more than 10 times a month.

Regression analysis shows that all independent variables have a significant link to the dependent variable with a p-value of under 0.05 for all variables. This regression study shows the quality, security & privacy of services and convenience and customer's satisfaction towards online banking. The following table demonstrates that service quality has a significant 0% level (p-value = 0.000) and a beta value of 0.376 reveals an important relation to customer satisfaction towards online banking. The result also shows that the outcomes of the chosen variables were adequately created and effectively represented. The table showed R – square value of 55.50 % in the regression analysis (R – square = 0.555). It shows that service quality, security & privacy and convenience may show 55.5% of customer satisfaction changes in the range of youths.

Table 2

*Regression results on the quality, security & privacy of services and convenience and customer's satisfaction towards online banking.*

<b>Variables</b>	<b>Beta values</b>	<b>t-Ratio values</b>	<b>p-value</b>
Service Quality	0.376	7.976	.000
Security and Privacy	0.157	2.696	.003
Convenience	0.339	6.617	.000
Value of R square	0.555		
F value	132.075		
Sig. F value	0.243		

*H<sub>1</sub>: There is a significant relationship between service quality and customer satisfaction toward online banking.*

This demonstrates that there is a positive relationship between service quality and customer satisfaction when it comes to online banking. Most respondents believed that the effectiveness of online banking in transactions and other needs was satisfactory. Higher service quality may thus lead to greater customer satisfaction if the services are able to satisfy customers. Kant & Jaiswal (2016) found that service quality is the main criteria for a bank to assess if customers are pleased to keep and maintain the average customer retention rate. Customer service that surpasses customer expectations is most helpful for a bank, which can fulfil customers' expectations (Kant & Jaiswal, 2016).

*H<sub>2</sub>: There is a significant relationship between security privacy and customer satisfaction toward online banking.*

With a p-value of 0.003 and a positive beta value (0.157), security and privacy have a significant 3% level, which reveals a strong relationship between security and customer satisfaction in regard to online banking. This validates the hypothesis in the previous chapter that security and privacy have a positive impact on customer satisfaction with online banking. This is because most respondents have firmly agreed that they would choose a more secure online banking transaction. This is mainly because customers are concerned about the risk of personal information being lost. Security and privacy are thus important to the pleasure of customers in terms of online banking. In addition, the results are consistent with previous studies. According to Jalil et al (2014), customers are constantly concerned about the security of their online banking systems. In conclusion, security and privacy impact consumer satisfaction for online banking significantly positively. The H<sub>2</sub> hypothesis has thus been validated that there is a strong connection between security and customer satisfaction towards online banking.

*H<sub>3</sub>: There is a significant relationship between convenience and customer satisfaction toward online banking.*

Furthermore, the last independent, convenience, has a p-value of 0.000 and a positive beta value of 0.339, indicating a significant relationship between convenience and consumer satisfaction towards online banking. This proves the indicating that customer satisfaction towards online banking is being positively affected. Convenience impacted the customer

preference to choose online banking. If the greater convenience given by online banking service may minimize time, energy and effort, customers are more satisfied with the services given since financial transactions are always conducted in a smooth and efficient way. Lapierre (2000) submitted that customers appreciate convenience not just while purchasing, but also while obtaining, accepting, and finishing a service, namely reducing time and effort expenses. Customers are constantly looking for convenience when making decisions, so convenience is an important factor in increasing customer satisfaction (Ong et al., 2014). Consequently, it was justified in the H3 hypothesis that the convenience strong relationship towards customer satisfaction towards online banking.

### **Conclusion**

This research examines the relationship between customer satisfaction with online banking and variables such as security and privacy, service quality, and convenience during the pandemic, Covid-19. The growth in the use of online banking during the pandemic of Covid-19 is also shown by the increase in the use of online banking. This research looked at a number of problems, including security and privacy, poor service quality, convenience, and the difficulties of adopting online banking services, all of which have been examined. A critical component of this research is the examination of the relationship between security & privacy, service quality, and convenience of customer satisfaction towards online banking during pandemic Covid-19. Several recommendations for further research have been made, all of which are aimed to overcome the shortcomings of the current research. As a reference point, the targeted respondents should not only be young people; the thoughts and opinions of the elderly are also important in order to produce a more comprehensive and accurate conclusion. Therefore, future research should recruit participants from a wide variety of generations in order to produce a representative sample. By using this technique, it is possible to conduct a comparison between two generations based on their respective ages. This could aid in the creation of a more in-depth understanding of customer satisfaction with online banking services in general. Furthermore, the study should not be restricted to a specific issue because different respondents from different areas may have different personalities, which could have an impact on the veracity of the findings. Additional significant independent variables should be included in order to address the issue of factor restrictions. To have a better understanding of consumer satisfaction with online banking, it is necessary to consider independent elements such as webpage speed and design. Future studies should incorporate a greater number of reliable independent variables in order to get a more complete outcome.

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