MAPPING THE PROFILE OF ONLINE BANKING CUSTOMERS' SATISFACTION IN MALAYSIA

Nordin Noormajidah^{1*}, Selvan Perumal¹, Maria Abdul Rahman¹

¹School of Business Management (SBM), Universiti Utara Malaysia, Kedah, Malaysia

*Corresponding Author

ABSTRACT

In the modern era, there has been an ongoing rise in the demand for online banking, increasing customers' adoption of online banking services. This enables banking customers to carry out their financial operations without physically visiting a bank branch. Moreover, it is essential to prioritize analysing customer satisfaction with the usage of services offered by commercial banks, with a particular emphasis on online banking. This is because online banking represents the prevailing method of delivering banking services. The main goal of this study was to analyse the characteristics of online banking customers and how they influence customer satisfaction offered by commercial banks in Malaysia. The survey was conducted to gather information on the degree of interest and satisfaction regarding the quality of online banking services among 175 customers living in the northern region of Malaysia, comprising North Perak, Pulau Pinang, Kedah, and Perlis.

KEYWORDS: Online Banking Industry in Malaysia, customer satisfaction

1. INTRODUCTION

The increased use of the internet over the last two decades has given rise to new trading methods and transactions such as e-commerce (Khan et al., 2023). The advancement of technology within the financial services sector has experienced an important rise in recent years, rapidly transitioning from an exceptional occurrence to a customary practice (Khera et al., 2022). One of the most significant transformations is online banking, more generally referred to as electronic banking or e-banking (Almansour & Elkrghli, 2023). Attracting and satisfying customers is essential in any business, including the banking industry (Phi & Huong, 2023). Technological advancements, as demonstrated by online banking, have proven advantageous for both customers and businesses (Khan et al., 2023).

The concept of online banking refers to the provision of financial services over electronic platforms, such as the Internet, mobile devices, and Automated Teller Machines (ATMs). The emergence of online banking has resulted in a notable paradigm shift within the banking industry, providing customers with enhanced flexibility and convenience to engage in a wide range of financial transactions at their preferred time and place (Almansour & Elkrghli, 2023). Moreover, the utilization of online banking has led to improved operational effectiveness and reduced costs associated with service provision (Almansour & Elkrghli, 2023; Indrasari et al., 2022; Lapina et al., 2021). According to (Hammoud et al., 2018), the incorporation of online banking has become imperative within the financial sector as banks strive to meet the growing demands of their customers and remain current with advancements in technology.

Online banking is important in reducing operating and fixed costs for financial institutions (staff resources, physical facilities, handling fees, transaction costs, labor, and overhead expenses) (Adapa & Roy, 2017; Amin, 2016; Sanuja Shree & Gurusamy, 2020). Whereas, from customers' point of view, online banking enables them to enjoy a variety of personalized banking services conveniently and assists banks in providing services that are cost-effective to a massive number of customers (Amin, 2016, Narayanasamy et al., 2011; Yoon and Steege, 2013). Aside from that, online banking benefits both banks and their customers since it allows banks to market and provide products and services online in a more timely and efficient manner, and it allows users to execute financial transactions online from anywhere in the world (Mahajan et al., 2022).

Furthermore, it has been shown that this phenomenon also produces a favourable impact on the perceived quality of products or services, as well as fostering a stronger relationship between customers and organizations. According to (Azzam et al., 2021), the attraction and retention of customers are influenced by both the quality of the product and the quality of the service provided. The positive impact of satisfaction on company profitability is well-established, as it serves as a fundamental driver of customer loyalty, purchase intention, and

word-of-mouth communication. Several initial investigations exploring the impact of quality on satisfaction revealed that customers who are dissatisfied not only cease buying a certain brand or utilizing a specific service but also generate adverse publicity. In contrast, contented customers would probably transform into influential proponents of items and contribute to the cultivation of a favourable perception surrounding the product (Angelova & Zakiri, 2011).

Conversely, an unsatisfied customer not only terminates their association with the bank but also discourages potential customers by sharing negative accounts of their banking experience (Kachalla, 2023). Hence, the banking industry must understand the factors that influence customer satisfaction. By acquiring this understanding and expertise, banks would be better prepared to address their weaknesses and enhance their ability to provide superior customer service (Kachalla, 2023). Hereafter, this paper is going to assess the online banking customer profile and customer satisfaction patterns provided by commercial banks in Northern Malaysia, encompassing North Perak, Pulau Pinang, Kedah, and Perlis.

2. THE ONLINE BANKING INDUSTRY IN MALAYSIA

Online banking was introduced to Malaysia's banking sector in June 2000, with Maybank, the country's largest domestic commercial bank, leading the way. The sector consists of 26 commercial banks, with 8 being domestically owned and 18 foreign-owned, collectively serving around 30 million customers (Bank Negara Malaysia, 2014). These banks, both local and foreign, offer mostly standardized products and services, contributing to the development of modern infrastructure that generates income. Maybank, the largest domestic bank in terms of assets and distribution, was the first to offer online banking services through their portal at www,maybank2u.com (Bank Negara Malaysia, 2014). Their services included banking queries, account overviews, transaction histories, bill payments, credit card payments, and fund transfers.

Since June 2000, following approval by the Malaysian Central Bank, other banks like Hong Leong Bank, CIMB Bank, Alliance Bank, and Public Bank introduced online banking services (Raviadaran et al., 2019). Today, virtually all local domestic banks offer online banking services. This transition is expected to yield cost savings and business expansion opportunities for banks while providing customers with user-friendly transactions, improved accessibility, and reduced travel and parking expenses (Raviadaran et al., 2019). Table 1.1 presents a comprehensive compilation of the local commercial banks operating within the jurisdiction of Malaysia.

> Table 1.1 List of Local Commercial Banks in Malaysia

Name	Ownership	Website
Malayan Banking Berhad	Local	www.maybank2u.com
2. CIMB Bank Berhad	Local	www.cimbclicks.com.my
3. Public Bank Berhad	Local	www2.pbebank.com
4. RHB Bank Berhad	Local	https://logon.rhb.com.my
5. AmBank(M) Berhad	Local	www.ambank.com.my
6. Hong Leong Bank Berhad	Local	www.hongleongconnect.my
7. Alliance Bank Malaysia Berhad	Local	www.allianceonline.com.my
8. Affin Bank Berhad	Local	www.affinbank.com.my

In recent years, Malaysia has demonstrated significant potential in the growth and development of its internet user population. According to data presented by the Asian Institute of Finance (AIF), Malaysia achieved the highest degree of internet penetration among Southeast Asian countries in the year 2016. The presence of 14.6 million individuals subscribed to online banking services, representing approximately 49 percent of the nation's population, demonstrated this achievement. The adoption of online banking services experienced a notable increase within the Malaysian population, as evidenced by the fact that a mere 9.8 percent of individuals utilized these services in 2005. According to a report by the Bank Negara of Malaysia (2017), the aforementioned proportion experienced a notable rise, reaching 73.1 percent in early 2017. Furthermore, a survey conducted by the Malaysian Communications and Multimedia Commission (MCMC) in 2020 revealed a notable increase in the percentage of banking-related transactions, reaching 63.8 percent, in comparison to 54.2 percent in 2018 (MCMC, 2020).

Francis (2020) argues that the COVID-19 outbreak has acted as a catalyst for the increased adoption of internet usage in Malaysia. The adoption of the Movement Control Order (MCO) resulted in a noticeable shift towards the utilization of digital or online banking, as observed by many banking institutions (Baldwin & Mouro, 2020; Wojeik & Ioannou, 2020). In addition, Bank Negara Malaysia (BNM) actively advocated for the adoption of online banking and electronic channels as a strategy to minimize the necessity of visiting physical bank branches without valid reasons. The quality of services provided by online banking is subject to differing opinions among customers (Raza et al., 2020). Nevertheless, there have been notable concerns over the privacy and security aspects of these services (Shankar & Jebarajakirthy, 2019). Although strong encryption software is implemented to protect customer account information, it is important to acknowledge that no system can be considered completely perfect. The banking industries of developing countries are particularly exposed to major security risks posed by cybersecurity breaches (Mao et al., 2020).

To successfully deal with these issues, the Malaysian banking industry must comprehend the influence of online banking service quality on consumer satisfaction and loyalty. Improving privacy and security protocols has the potential to encourage a higher level of customer loyalty. Consequently, it is recommended that Malaysian banks expand their investments in online banking systems and operations, as suggested by (Hadid et al., 2020). Bankers must give priority not only to the enhancement of banking services' quality but also to the development of effective techniques aimed at maintaining customer satisfaction (Hadid et al., 2020; Yilmaz, 2018).

3. CUSTOMER SATISFACTION

According to Oliver (1980), customer satisfaction is the emotional status representing the difference between the feeling before and after using a product or service. Mofokeng (2021), defines online satisfaction as the emotional reaction of a consumer towards the overall transactional experience. Customer satisfaction may be alternatively characterised as the perspective of a firm towards the services or products it offers, after their acquisition and utilisation by customers (Setyadi et al., 2023). Customer satisfaction results from the marketing efforts of a business. It assesses customer attitudes from the purchase of a product or service that relates to aftersales services(Phi & Huong, 2023). Customer satisfaction can be at different levels including either a satisfying feeling or an unpleasant feeling that is created by the gap between what the customers expected and what they experienced.

In a nutshell, the success of service organisations, particularly banks, relies heavily on customer satisfaction (Kachalla, 2023). The component of customer satisfaction has increasingly grown to depend on the quality of online banking service, ultimately leading to enhanced performance. Banks are recognized on an international level for providing high-quality services that have an advantageous effect on the growth of both established and developing economies, while also contributing to the expansion of banks' market share. Hence, it was determined that the observed service quality has an important influence on customer satisfaction. A contented customer tends to maintain their relationship with the bank and may even refer new customers.

The construction of satisfaction can yield various advantages, including fostering positive relationships among a company's customers, establishing a strong foundation for recurrent purchases, encouraging customer loyalty, and generating word-of-mouth referrals (Al Kurdi et al., 2020). It is extremely crucial to have a high level of customer satisfaction for any kind of business the same as in the banking sector. Furthermore, it is essential to study the satisfaction among online banking customers because online banking was implemented as a novel strategy to address the issue of long lines and reduce the number of times customers visited the banking hall (Owusu Kwateng et al., 2019). The use of the Internet in online banking is considered to be a financial innovation that mainly aims to improve service quality and benefit customers (Namahoot & Laohavichien, 2018). Moreover, online banking provides an advantage to both parties; banks and customers (Adapa & Roy, 2017; Amin, 2016; Sanuja Shree & Gurusamy, 2020).

Therefore, making customers more satisfied is beneficial for the banks. Otherwise, if a bank fails to satisfy its customers, it can harm its profitability (Hennayake, 2017; Phi & Huong, 2023). The objective of this survey is to gain the satisfaction of online banking customers toward online banking services quality offered by local commercial banks in Northern Region of Malaysia (North Perak, P. Pinang, Kedah, and Perlis).

4. METHODOLOGY

This study is based on a quantitative method. The respondents in this study include online banking customers from a range of North Malaysian commercial banks, including those in North Perak, P. Pinang, Kedah, and Perlis. A sample of 175 online banking customers represents a significant representation of the overall population of online banking customers in North Malaysia. The survey was conducted using a Google form,

which was shared with those who responded by WhatsApp and email. The current research created a series of measuring items to design the survey instrument. The participants answered a set of questions by using a Likert scale with seven points, ranging from 1 (indicating strong disagreement) to 7 (indicating strong agreement) for each variable. The study's items were modified from earlier research. Customer satisfaction was determined using five items adapted from Setiady et al., (2018).

5. RESULTS

5.1. Customer Profile

A total of thirteen questions were administered to gather demographic information, while an additional five questions were utilized to determine the level of satisfaction with the experiences of online banking customers. The findings for demographic items are presented in Table 1.

Table 1: Data analysis for Demographic purpose

Sample Attributes		(%)
Sample Size		175
Gender	Male	36.6 (64)
	Female	63.4 (111)
Age	Less than 20	1.6 (3)
	20-29	42.9 (75)
	30-39	14.9 (26)
	40-49	22.3 (39)
	50 years & above	18.3 (32)
Maritial Status	Single	44 (77)
	Married	52.6 (92)
	Divorced	3.4 (6)
Academic Qualification	MCE/SPM	9.7 (17)
	Certificate/Diploma	31.4 (55)
	Degree	45.7 (80)
	Post Graduate	13.1 (23)
Employment Status	Students	35.4 (62)
	Self-Employment	13.1 (23)
	Professional	16.6 (29)
	Academician	10.9 (19)
	Others	23.8 (42)
Monthly Income	RM 3000 and below	47.3 (83)
	RM 3001 – RM 6000	24.9 (44)
	RM 6001 – RM 9000	17.2 (30)
	RM 9001 and above	10.51 (18)
Are you online banking user?	Yes	95.4 (167)
	No	4.6 (8)
Online banking usage frequency	1-3 times per month	23.1 (40)
	4-6 times per month	25.4 (45)
	7-9 times per month	22.5 (39)
	More than 9 times per month	28.9 (51)

Less than 1 year	5.7 (9)
1 – 3 years	30.1 (53)
More than $3 - 6$ years	34.7 (61)
More than 6 years	29.5 (52)
Less than 1 week ago	78 (137)
1-2 weeks ago	10.4 (18)
2 weeks and more	11.6 (20)
Maybank Berhad	45.2 (79)
CIMB Berhad	15.5 (27)
Public Bank Berhad	7.5 (13)
	1 – 3 years More than 3 – 6 years More than 6 years Less than 1 week ago 1 – 2 weeks ago 2 weeks and more Maybank Berhad CIMB Berhad

	RHB Bank Berhad Bank Islam Malaysia Berhad Others	10.4 (18) 12.7 (22) 8.7 (15)
Decision to use online banking services is influenced by	Own-self Friends Co-workers	25.7 (45) 28.3 (49) 17.3 (30)
	Family	28.9 (51)

Your intention to use online		
banking services in the future	Yes	95.4 (167)
	Not sure	2.6 (5)
	No	2 (3)

According to the data presented in Table 1, a total of 175 participants from Malaysia were invited to participate in the survey. In terms of the gender distribution within the sample, it was observed that 36.6% of the respondents identified as male, whilst 63.4% identified as female. The survey results indicate that a significant proportion of participants, specifically 42.9%, fall within the age range of 20 to 29. Additionally, 22.3% of respondents belong to the age group of 40 to 49. In terms of marital status, the survey results indicate that 52.6% of the participants are married, while 44% are not married. In terms of academic qualifications, the majority of respondents possess a degree education level, accounting for 45.7% of the sample.

Approximately 31.4% of respondents hold certificates or diplomas, while 13.1% have attained a postgraduate level of education. A smaller proportion, 4.3%, reported having completed their education at the school level, either the Malaysian Certificate of Education (MCE) or the Sijil Pelajaran Malaysia (SPM). In terms of job status, the majority of participants primarily identified as students (25.4%), followed by individuals engaged in other sorts of occupations (23.8%), professionals in various sectors (16.6%), and self-employed individuals (13.1%). The findings indicate that a significant majority of the respondents, accounting for 47.3%, reported an income range below RM3000. Additionally, 24.9% of the respondents fell into the income range of RM3001 to RM6000, while 17.2% reported an income range of RM6001 to RM9000. Only a minority, specifically 10.51% of the respondents, reported an income greater than RM9001. To exclude respondents who do not use online banking services, the survey reveals that 95.4% of the participants are users of online banking, whereas 4.6% of the respondents do not engage in online banking.

Regarding the result from online banking usage frequency, most respondents use online banking more than 9 times per month 28.9%, usage 4-6 times per month 25.4%, usage 1-3 times per month 23.1% and usage 7-9 times per month 22.5%. For the number of years using online banking, most respondents used online banking for more than 3-6 years, 34.7%, 30.1% respondents used online banking for 1-3 years, 29.5% respondents used online banking for more than 6 years, and 5.7% less than 1 year. The survey result showed that 78% of respondents actively used online banking while doing their daily banking transactions.

Maybank Berhad became the most favourite bank chosen by respondents with 45.2%, followed by CIMB Berhad;15.5%, Bank Islam Malaysia Berhad;12.7%, RHB Bank Berhad; 10.4%, Public Bank Berhad;7.5% and other banks;8.7%. For the decision to use online banking services, the majority of respondents have been influenced by their family; 28.9%, friends;28.3%, own-self;25.7% and co-workers;17.3%. Finally, the result for intention to use online banking services in the future, 95.4% of respondents agreed to keep on using online banking, 2.6% were not sure whether to keep on using online banking services or not and 2% did not want to continue using online banking services. Furthermore, to conduct a comprehensive review of the influence of online banking services on customers' satisfaction with the utilization of such services, a set of five questionnaires was administered to gather information on respondents' experiences and interests. The aforementioned exhibition is depicted in figures 1 through 5, as presented in section 3.1.

5.2. Customer Satisfaction Analysis on Online Banking

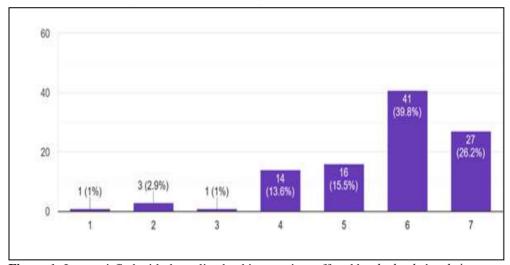


Figure 1: I am satisfied with the online banking services offered by the banks' websites.

The first question in Figure 1 refers to the level of customer satisfaction when accessing online banking services provided by local commercial banks. Specifically, it addresses the statement, "I am satisfied with the online banking services offered by the banks' websites." According to the survey results, 39.8% of respondents indicated agree, 26.2% expressed strongly agree, and 15.5% expressed slightly agree.

Based on the data presented in Figure 2, the topic of interest concerns to the level of satisfaction among customers of local commercial banks with regards to the online banking services provided: "I feel that online banking services offered is beyond my expectation". Specifically, the question aims to gauge the extent to which customers feel that the online banking services delivered exceed their expectations. The findings indicate that a majority of the customers, namely 35%, expressed agree, while a smaller proportion, approximately 22.3%, indicated a slightly agree. Moreover, the percentage distribution of responses to the statement is as follows: 16.5% strongly agree, 17.5% neutral, 4.9% slightly disagree, and 1.9% each for both disagree and strongly disagree.

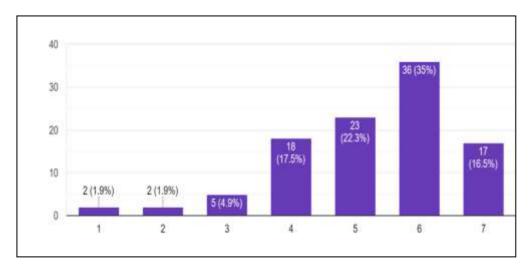


Figure 2: I feel that online banking services offered is beyond my expectation.

In order to determine the level of satisfaction among respondents on their experience with doing online banking transactions through their respective banks' websites (Figure 3), the following question is posed: "I am satisfied with doing my online banking work through the bank website." The findings indicate a favourable level of reaction, with 32% of participants selecting "agree," 29.1% opting for "strongly agree," 21.4% indicating "slightly agree," 12.6% choosing "neutral," 1.9% expressing "slightly disagree," 2.9% stating "disagree," and 0% selecting "strongly disagree."

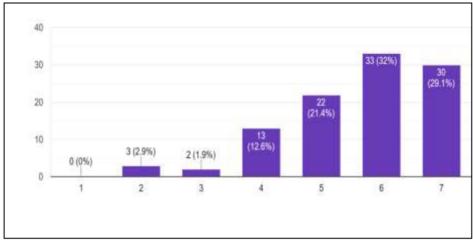


Figure 3: I am satisfied with doing my online banking work through the bank website.

About the customers who decide to use the online banking services provided by particular local commercial banks (Figure 4), the following question persists: "I am satisfied with my decision to use the online banking services of this bank." The obtained data indicates that 31.1% of respondents strongly agree, 31.1% agree, 21.4% slightly agree, 11.7% remain neutral, 1.9% slightly disagree, and just 2.9% disagree with the statements presented.

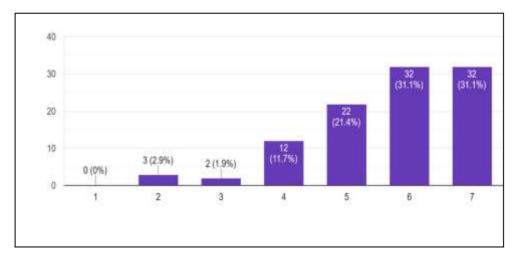


Figure 4: I am satisfied with my decision to use the online banking services of this bank.

Lastly, is the questioning to know whether customers are satisfied or not with all online banking services that they obtained from selected commercial banks. The question is "Overall, I am satisfied with all the banks services that I receive". The largest proportion of respondents, 35.9%, express a strongly agree, followed by 27.2% who agree, 22.3% who slightly agree, 10.7% who are indifferent, 2.9% who slightly disagree, and 1% who strongly disagree. The results suggest that most participants highly agree and are satisfied with the overall quality of online banking services offered by commercial banks.

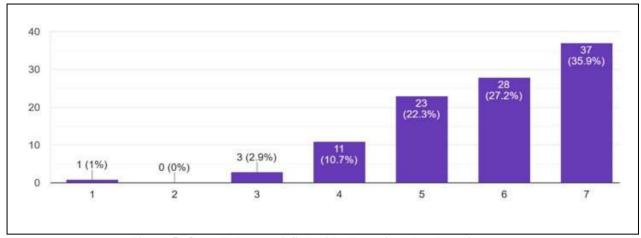


Figure 5: Overall, I am satisfied with all services that I receive.

6. DISCUSSION

In the present study, the result from Figure 1, shows that a majority of customers indicate satisfaction with the online banking services offered by the chosen local commercial banks. This positive response from participants is encouraging for the continuation of this study. Furthermore, the findings from Figure 2 indicate that the online banking services provided have exceeded customers' expectations and have garnered a positive response from them. Based on the observed result in Figure 3, it may be inferred that customers express satisfaction with conducting online banking transactions via the websites of their banks. This analysis will provide a favourable evaluation of the prospects of the online banking sector and the potential challenges posed by customer resistance.

Meanwhile, concerning the customers who decide to use the online banking services provided by particular local commercial banks (Figure 4). The respondents demonstrate a high level of confidence and satisfaction in their decision to utilise the online banking services provided by their respective commercial banks. Lastly, the results in Figure 5 suggested that most participants highly agree and are satisfied with the overall quality of online banking services offered by commercial banks. These findings align with the studies conducted by Al-Dmour & Al-Alwan (2019), Amin (2016), Raza et al. (2019), and Shankar & Jebarajakirthy (2019).

7. CONCLUSION

Despite the current era of technological advancement and the exponential rise of the Internet, online banking services have become essential for conducting daily banking activities. This paper seeks to study the effect of online banking services on customer satisfaction in the local commercial banking industry, particularly due to the significant growth of online banking in Malaysia. It also aims to devise effective strategies for improving customer satisfaction and attracting a wide range of online banking customers, with a specific focus on measures that go beyond the system's user-friendliness. Moreover, the study's findings highlight the importance of the progress of online banking. Significantly, financial institutions such as Maybank, CIMB, Hong Leong Bank, RHB Bank, Bank Islam Malaysia Berhad, and other banks can utilize the study as a standard for evaluating their online banking services.

Therefore, a future study must increase their sample size to accurately depict the Malaysian environment, especially when analysing the government's involvement in promoting online banking. Marketing Managers are advised to balance profitability and requirements for customers by promoting thorough customer-relations training. The focus is on the rigorous implementation of service quality programs to improve customer satisfaction. The banking sector is advised to take action against online fraud, diversify its customer base, organize security education programs, and consistently improve technology to enhance customer relations.

REFERENCES

- 1. Adapa, S., & Roy, S. K. (2017). Consumers' post-adoption behaviour towards Internet banking: empirical evidence from Australia. Behaviour and Information Technology, 36(9), 970–983. https://doi.org/10.1080/0144929X.2017.1319498
- 2. Almansour, B., & Elkrghli, S. (2023). Factors Influencing Customer Satisfaction on E-Banking Services: A Study of Libyan Banks. International Journal of Technology, Innovation and Management (IJTIM), 3(1), 34–42. https://journals.gaftim.com/index.php/ijtim/article/view/211

- - Azzam, Z., Ali, M. W., LShaikh, M., Khanfar, I., & Ismai, A. R. (2021). Factors affecting the use of electronic banking services provided by Jordanian commercial banks from customers' point of view. A case study: Jordan Ahli Bank in Northern Region/Jordan. 2021 22nd International Arab Conference on Information Technology, ACIT 2021, 1-12. https://doi.org/10.1109/ACIT53391.2021.9677295
 - Hadid, K. I., Soon, N. K., Abusalah, A., & Amreeghah, E. (2020). The Effect of Digital Banking Service Quality on Customer Satisfaction: A Case Study on the Malaysian Banks. 4(1), 6-29.
 - Hammoud, J., Bizri, R. M., & El Baba, I. (2018). The Impact of E-Banking Service Quality on Customer Satisfaction: Evidence From the Lebanese Banking Sector. SAGE Open, 8(3). https://doi.org/10.1177/2158244018790633
 - Indrasari, A., Nadjmie, N., & Endri, E. (2022). Determinants of satisfaction and loyalty of e-banking users during the COVID-19 pandemic. International Journal of Data and Network Science, 6(2), 497–508. https://doi.org/10.5267/j.ijdns.2021.12.004
 - Kachalla, B. (2023). EFFECT OF SERVICE QUALITY ON CUSTOMER School of Business Studies Federal Polytechnic Damaturu, Yobe State Tertiary Education Trust Fund (TET Fund) Sponsored Study. 3(4), 68-87.
 - Khan, F. N., Arshad, M. U., & Munir, M. (2023). Impact of e-service quality on e-loyalty of online banking customers in Pakistan during the Covid-19 pandemic: mediating role of e-satisfaction. Future Business Journal, 9(1). https://doi.org/10.1186/s43093-023-00201-8
 - Mao, S., Zhu, M., Wang, X., & Xiao, X. (2020). Grey-Lotka-Volterra model for the competition and cooperation between third-party online payment systems and online banking in China. Applied Soft Computing Journal, 95, 106501. https://doi.org/10.1016/j.asoc.2020.106501
 - 10. Namahoot, K. S., & Laohavichien, T. (2018). Assessing the intentions to use internet banking: The role of perceived risk and trust as mediating factors. International Journal of Bank Marketing, 36(2), 256-276. https://doi.org/10.1108/IJBM-11-2016-0159
 - 11. Narayanasamy, K., Rasiah, D., & Tan, T. M. (2011). The adoption and concerns of e-finance in Malaysia. Electronic Commerce Research, 11(4), 383-400. https://doi.org/10.1007/s10660-011-9081-5
 - 12. Owusu Kwateng, K., Osei-Wusu, E. E., & Amanor, K. (2019). Exploring the effect of online banking on bank performance using data envelopment analysis. Benchmarking, 27(1), 137-165. https://doi.org/10.1108/BIJ-06-
 - 13. Phi, H. D., & Huong, D. P. (2023). Effect of Service Quality on Customer Loyalty: the Mediation of Customer Satisfaction, and Corporate Reputation in Banking Industry. Eurasian Journal of Business and Management, 11(1), 1-16. https://doi.org/10.15604/ejbm.2023.11.01.001
 - 14. Raviadaran, H., Dastane, O., Ma'arif, M. Y., & Mohd Satar, N. (2019). Impact of service quality dimensions on internet banking adoption, satisfaction and patronage. Journal of Advanced Research in Dynamical and Control Systems, 11(4 Special Issue), 1002-1008.
 - 15. Raza, S. A., Umer, A., Qureshi, M. A., & Dahri, A. S. (2020). Internet banking service quality, e-customer satisfaction and loyalty: the modified e-SERVQUAL model. TQM Journal. https://doi.org/10.1108/TQM-02-2020-0019
 - 16. Sanuja Shree, & Gurusamy, S. (2020). Customer Perception towards Online Banking Service Quality With Reference to Public Sector Banks. International Journal of Recent Technology and Engineering, 8(4S4), 269–272. https://doi.org/10.35940/ijrte.d1071.1284s419
 - 17. Setiady et al. (2018). Impact of Servqual Development on Corporate Image and Impact of Servqual Development on Corporate Image and Customer Satisfaction To Build Customer. International Journal of Novel Research in Marketing Management and Economics, 5(July), 65-80.
 - 18. Setyadi, B., Fitriasuri, F., Helmi, S., Elpanso, E., & Paningrum, D. (2023). The Influence of Service Quality on Customer Loyalty Is Mediated by Customer Satisfaction in Islamic Bank. Financial Engineering, 1, 68-79. https://doi.org/10.37394/232032.2023.1.6