A Study the Relationship between E-Service Quality,

E-Replies, Satisfaction, and Repurchasing Intention

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Abstract

In recent years, the financial industry has undergone a rapid transformation with the emergence of financial technology and online banking. Online banking has several advantages over traditional banking, including convenience, a user-friendly interface, and the ability to conduct transactions at any time. This research aims to analyze the quality dimensions of online banking e-services, including e-response, e-satisfaction, and repurchase intention. The study collected data from 200 online banking service consumers, and statistical analyses were conducted using SPSS and Smart-PLS software. The study explores the relationships between different dimensions of online banking, e-service quality, e-response, e-satisfaction, and repurchase intention. The results of the study indicate that all dimensions have a positive and significant impact on repurchase intention. Furthermore, the study highlights the importance of e-service quality, which is the foundation for customers' understanding and use of online banking services. The research also found that customer service quality and e-response in online banking can significantly enhance customer satisfaction and repurchase intention.

Keywords: Electronic Service Quality, E-Response, Satisfaction, Repurchase Intention

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1. Introduction

With the rapid technological advancements in recent years, companies across various industries have adopted innovative means to engage and communicate with customers. The banking industry, in particular, has been significantly impacted by these transformations. As the industry expands, it seeks to attract customers through diverse channels to bolster company revenue, enhance customer loyalty, and foster purchase intentions (Singh & Srivastava, 2020). This paradigm shift in business models is rooted mainly in the proliferation of Internet banking services.

This study not only contributes to the existing literature on banking marketing but also endeavors to substantiate the beliefs held by numerous researchers regarding the crucial role played by a bank's e-service quality in accurately predicting customer satisfaction. Furthermore, this research aims to demonstrate that improving e-service quality can cultivate customer loyalty and indirectly influence customers' intentions to repurchase services. In this study, electronic service quality, e-SERVQUAL, is conceptualized as comprising efficiency, responsiveness, and reliability. Incorporating e-recovery factors is expected to exert direct or indirect effects on the determinants of customer satisfaction and repurchase intention. Building on the assertions made by Omar Ali et al. (2020), it is posited that services are indivisible and closely intertwined with customers and quality, strengthening the relationship between service quality and customers. In light of this understanding, many banks engage in high-level marketing activities and proactively develop new customer relationships to foster customer connections.

Consequently, this study employs the lens of Internet banking to gain insights into customer habits, serving as a foundation for the banking industry to adapt and enhance Internet banking-related business practices to better cater to customer needs and preferences. This study finds that the repurchase intention of Internet banking customers is influenced by E-SERVQUAL and e-recovery, with the dimensions of efficiency, responsiveness, and reliability having significant effects on customer satisfaction and repurchase behavior. This study finds that the repurchase intention of Internet banking customers is influenced by E-SERVQUAL and e-recovery, especially the three dimensions of efficiency, responsiveness, and reliability, which significantly affect customer satisfaction and repurchase behavior. Contributions: This study extends the application of the E-SERVQUAL model by highlighting that efficiency, responsiveness, and reliability are key factors in customer repurchase intention in internet banking, thereby deepening the academic understanding of e-service quality. This study offers practical recommendations for banks to improve website efficiency and transaction responsiveness to enhance customer satisfaction and repurchase intention, ultimately boosting their competitiveness in the marketplace. This study provides insights into improving online banking service quality in diverse markets through the general applicability of E-SERVQUAL across different cultural contexts. The findings suggest that by improving service quality, banks can enhance customer trust and satisfaction and encourage referral behaviors, thereby promoting brand loyalty and fostering long-term customer relationships.

2. Literature Review and Hypothesis Development

2.1. E-Service Quality (e-SERVQUAL)

It has been nearly 30 years since Parasuraman et al. (1985) began to study service quality, and relevant research has explained it clearly. In recent years, due to the development of information technology, many studies have redirected to the study of electronic service quality (e-SERVQUAL). Mentzer (2001) proposed that electronic service quality (e-SERVQUAL) evaluation opens a new page of service quality. Mentzer (2001) believed that physical and virtual electronic retail customers also have identical product demand. Therefore, by modifying SERVQUAL to complete the e-SERVQUAL dimension, this method can accurately discuss quality information and online transactions. In reality, various ways of service quality will be created after consumers and suppliers purchase products (Suhartanto et al., 2019). Kaya et al. (2019) believe that e-SERVQUAL is used in physical entities and virtual goods and can correctly predict customer behavior. E-SERVQUAL is regarded as an interactive information device (Rowley, 2016) that allows organizations to differentiate services and create competitive advantages through some mechanism.

Rahi et al., (2017) believed that banks must consider their customer's repurchase intentions. Having sufficient data on customers' repurchase intentions can drive new online banking features to improve customer satisfaction. Hassan et al. (2018) further believed that through banks, the age, gender, lifestyle, and preferences of online customers can be understood and segmented, and repurchase intentions can be analyzed through statistical methods. Therefore, being able to analyze customers' repurchase intentions is an urgent matter for many banks. Many studies have found that electronic service products are related to repurchase intentions (Adapa & Roy, 2017). E-SERVQUAL improves customers' impression of banks and indirectly changes customers' perceptions of banks in their minds. Therefore, this study proposes the following hypotheses:

H1: E-SERVQUAL has a significant positive impact on customer satisfaction.

H2: E-SERVQUAL has a significant positive impact on repurchase intention.

2.2. E-Recovery

E-recovery refers to the company's response to service (Shafiee & Bazargan, 2018) to reduce customer dissatisfaction with service failures and to retain customers (Qin et al., 2017). Businesses need to find out what makes customers dissatisfied and find ways to retain these customers. Many studies measure e-recovery by response, compensation, and connection. Zehir and Narcıkara (2016) immediately restored customer trust through higher service quality when problems occur. Shafiee and Bazargan (2018) believe that e-recovery is related to customer satisfaction. Many studies have found that e-recovery would immediately give customers rewards when a company makes a mistake, or the psychological satisfaction of customers will increase the number of future visits and have a firm repurchase intention. Zehir and Narcıkara (2016) showed that if a dispute occurs between the company and a customer, the customer will cause the company to have significant losses through the online word-of-mouth effect if he/she is dissatisfied with how the company handles the situation and

he/she will reduce the quantity and frequency of the following potential purchase. Therefore, e-recovery is extremely important for customer satisfaction. This study proposes the following hypotheses:

H3: E-recovery has a significant positive impact on satisfaction.

H4: E-recovery has a significant positive impact on repurchase intention.

2.3. Customer Satisfaction

Customer satisfaction is widely recognized as an emotional assessment that develops over time. Anderson and Srinivasan (2003) define customer satisfaction as the degree of optimism in customers concerning the care or utilization of a product or service. Nisar and Prabhakar (2017) divide e-services into two categories: transaction-specific satisfaction, which pertains to customers' emotional responses to the performance of a particular service feature, and overall satisfaction, which represents the cumulative outcome of repeated transactions. The latter is considered an essential component of perceived service quality, reflecting customers' impressions of an organization's facilities and acting as an accelerator (Kaya et al., 2019; Alalwan, 2020). Customer satisfaction is a composite of customers' psychological states, representing the discrepancy between their expectations and the service received (Al-were et al., 2017). In essence, satisfaction is the emotional response individuals experience when comparing the actual performance of a product or service to their expectations.

In online banking service quality, e-satisfaction refers to customers' satisfaction with their past transaction experiences with a specific bank (Alalwan, 2020). Furthermore, a strong association exists between service quality and customer satisfaction, as Parasuraman et al. (1985) highlighted. Alalwan (2020) posits that customer satisfaction, or achievement in the online realm, stems from customers' evaluations of online banking services and their expectations. Vijay et al. (2019) argue that the ability of banks to provide high-quality services enhances their reputation, expands their customer base, and attracts new potential users to engage with online banking. Thus, high-quality service delivery improves customer satisfaction. Quan (2020) emphasizes that customers who consistently utilize online banking services tend to have repurchase intentions. This study also supports the notion that higher levels of online banking service quality lead to increased satisfaction, greater willingness to reuse the service, and more potent and secure relationships between customers and banks (Wilis & Nurwulandari, 2020).

H5: E-recovery has a significant positive impact on repurchase intention.

3. Research Design

This section establishes the research framework, variables, and operational definitions based on the research motivation and literature review. Then, this study designs the questionnaire according to the research structure, collects empirical data with a paper questionnaire, and conducts quantitative statistical data analysis to verify whether the research hypotheses are supported.

3.1. Research Framework

The structure of this study is shown in Figure 1. The first part is the dimensions, which include social idea service quality, e-recovery, customer satisfaction, and repurchase intention. This study explores the factors that influence customers' repurchase intention in online banking through E-SERVQUAL, e-recovery, and customer satisfaction. The research framework of this study is shown in Figure 1:

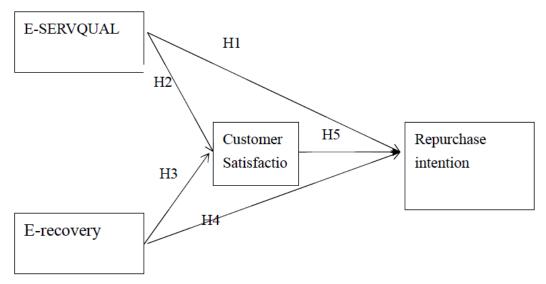


Figure 1. Research Framework

4. Data Analysis

This section uses valid questionnaire sample data to verify the aforementioned research hypotheses. It is divided into four sections to explain the details. The first section is a descriptive statistical analysis explaining the sample distribution structure and item conditions. The second section is standard method variation detection. The third section is the validity and reliability analysis of the questionnaire items, and the fourth section is the overall structural equation model measurement analysis.

4.1. Formal questionnaire distribution

This study conducts a descriptive analysis on the scores and distribution of the dimensions and items of the formal questionnaire distribution and recovery structure, in order to understand the sample characteristics of this study.

4.2. Descriptive statistical analysis of sample structure

This part explains the descriptive statistics of the samples in this study. The proportion of males and females tested is 281 and 120, respectively, and males accounted for 70.1%, while females accounted for 29.9%. For the age group, 31-40 years old accounted for the highest proportion with a percentage of 52.1%, followed by 21-30 years old accounted for 28.9%. The highest level of educational attainment is a bachelor's degree, with a percentage of 63.8%.

Table 1. Sample distribution

	Respondents	Percentage (%)
Gender		
Male	281	70.1%
Female	120	29.9%
Age		
20 years old and below	6	1.5%
21~30 years old	116	28.9%
31~40 years old	209	52.1%
41~50 years old	59	14.7%
51 years old or older	11	2.7%
Educational attainment		
Senior High School	35	8.7%
Bachelor Degree	256	63.8%
Master's Degree and above	110	27.4%

4.3. Common Method Variation Validation

This section discusses the testing of the research sample data. It uses Harman's factor test method to conduct exploratory factor analysis (EFA) on all items. The test results show that eight factors can be extracted, and the explanatory power of the first factor is 27.613%, not reaching 50%. It has been proven that there is no severe variation in the standard method in this study's sample data.

4.4. Validity and discriminant validity analysis

4.4.1. Construct validity

This study analyzes the reliability and validity through the measurement model. The measurement model is divided into two categories: convergent validity and discriminant validity. Convergent validity is generally at the level of operation. When two different measurement methods are used to measure the content of the same construct, the degree of correlation is very high. Discriminant validity is the measurement of two different constructs. A measurement that has correlated analysis with two different methods.

Many scholars believe that the factor loading must be greater than 0.4 to have construct validity (Pett et al., 2003). Fornell and Larcker (1981) believed that the combined reliability must be greater than 0.7, and the average variance extraction is recommended to be greater than 0.5 (Bagozzi & Yi, 1988). The analysis results in Table 3 show that the factor loadings of each item in this study are more significant than 0.4, which has an essential degree of fitness. Therefore, the overall model of this study has sufficient convergent validity.

initial eigenvalue sum of squares loading extraction % of Cumulative % of Cumulative percent of variance percent of variance variance explained factor eigenvalue eigenvalue explained variance explained explained 27.613 1 10.493 27.613 27.613 27.613 10.493 2 4.19 11.025 38.638 4.19 11.025 38.638 3 1.886 4.964 43.602 1.886 4.964 43.602 4 1.627 4.281 47.883 1.627 4.281 47.883 5 1.414 51.605 3.722 51.605 3.722 1.414

Table 2. Explanatory Factor Analysis (EFA)

4.4.2. Discriminant validity

Discriminant validity is to verify the degree of correlation between dimensions, and the correlation between different dimensions should be low. Through correlation analysis, this study found that the degree of correlation is relatively low, therefore, it has discriminant validity (Gefen, Karahanna and Straub, 2003).

	Cronbach's Alpha	rho_A	Composite Reliability	Average Variance Extracted (AVE)
Repurchase intention	0.794	0.832	0.868	0.625
E-SERVQUAL	0.859	0.862	0.895	0.587
E-recovery	0.752	0.758	0.858	0.668
E-satisfaction	0.815	0.821	0.890	0.730

Table 3. Construct Validity Analysis

According to the results of this study, the results of path analysis and research hypothesis verification were compiled. It found that the E-SERVQUAL has a significant positive impact on the repurchase intention with a coefficient of 0.39. E-SERVQUAL has a significant positive impact on e-satisfaction with a coefficient of 0.546. E-recovery has a significant positive impact on repurchase intention with a coefficient of 0.27. E-recovery has a significant positive impact on e-satisfaction with a coefficient of 0.234. E-satisfaction has a significant positive impact on repurchase intention with a coefficient of 0.236.

Table 4. Path Effect Analysis

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values
E-SERVQUAL- >Repurchase intention	0.390	0.392	0.064	6.122	0.000
E-SERVQUAL->E- satisfaction	0.546	0.544	0.078	6.989	0.000
E-recovery-> Repurchase intention	0.270	0.268	0.065	4.187	0.000
E-recovery->E- satisfaction	0.234	0.237	0.075	3.132	0.002
E-satisfaction->Repurchase intention	0.236	0.236	0.053	4.450	0.000

5. Conclusion and Discussion

5.1. Conclusion

The primary objective of this study is to investigate the relationship between services and customers by examining the influence of E-SERVQUAL and e-recovery in the context of online banking on customers' repurchase intentions. The survey findings indicate that in online banking, customers develop perceptions based on the interactivity of web pages. E-SERVQUAL assumes a crucial role across various cultures, forming the foundation of customers' perceptions of online banking following their interactions with the digital interface. This study provides valuable insights for internet bankers, emphasizing the importance of focusing on three key dimensions to uphold high service quality.

Based on the study results, the three significant dimensions identified are efficiency, responsiveness, and reliability. It suggests that customers are particularly drawn to banks facilitating swift transactions to meet their needs. Conversely, customers emphasize the website's efficiency when establishing connections with financial institutions, as banks should strategically prioritize enhancing customer acceptance of new technologies, such as online banking systems. Banks can attain a competitive advantage in the market by employing this approach. Furthermore, customers anticipate accurate, prompt, and expedient transactions in the online banking environment. Banks that deliver high-quality services can drive customer satisfaction, instill a sense of value, and foster belief and obligation, and should, therefore, take proactive measures to meet these customer needs and expectations.

5.2. Discussion

This study focuses on enhancing customer satisfaction and loyalty toward internet banking services. To improve efficiency, the platform accelerates transaction processing by streamlining

procedures, increasing system speed, reducing customer waiting times, and addressing the demand for immediacy. To ensure responsiveness, banks establish quick-response mechanisms, offer real-time customer support, and employ multi-channel communication methods, such as chatbots and 24/7 customer service, fostering trust. Reliability is enhanced through efforts to stabilize the system, prevent transaction errors, and maintain accuracy with transparent processing. Additionally, banks actively encourage customers to adopt new technologies by providing instructional resources or personalized guidance, reducing barriers, and promoting acceptance of new features. By systematically addressing efficiency, responsiveness, and reliability while facilitating technological adaptation, banks meet customer expectations, strengthen brand competitiveness, and foster long-term growth in customer relationships.

5.3. Practical implications

This study reimagines the internet banking service model by emphasizing efficiency, responsiveness, and reliability, offering innovative strategies to address customer needs and foster loyalty. Banks harness AI and big data technologies to enhance operational efficiency by developing intelligent transaction assistants that optimize processes based on customer transaction behaviors. These assistants guide users through frequently utilized functions and introduce features such as "one-click quick transactions," enabling effortless fund transfers or payments. Banks enhance the customer service experience with real-time interactive technologies to improve responsiveness. Implementing a "dedicated customer service channel" ensures that customers can directly communicate with human representatives or AI assistants at any time. Emotional AI further refines this experience by analyzing customer voice or text inputs, detecting emotions, and initiating timely interventions to resolve issues and increase satisfaction.

Regarding reliability, introducing a service trust dashboard provides real-time updates on transaction progress and security. By integrating biometric technologies like fingerprint and facial recognition, banks strengthen transactional security while ensuring service stability. These strategies meet customer expectations, build trust, and cultivate long-term loyalty.

5.4. Theoretical implications

The study extends the understanding of service quality in digital environments, particularly in online banking. By integrating the E-SERVQUAL and e-recovery frameworks, this research emphasizes the critical role of digital service quality in shaping customer perceptions and behaviors. E-SERVQUAL, as a model for evaluating online service quality, is essential in assessing how factors like efficiency, responsiveness, and reliability influence customer trust and repurchase intentions. This study supports the idea that customers form perceptions of online banking services based on their interactions with the web interface, underscoring the importance of a user-friendly and responsive design. Additionally, the role of e-recovery in online banking is highlighted, suggesting that proactive, swift, and accurate issue resolution enhances customer loyalty. This research advances theoretical understanding by illustrating how online banking can align its technological capabilities

with customer expectations, offering a comprehensive framework for improving service quality in the digital banking context. Banks can strategically enhance customer satisfaction and retention by focusing on efficiency, responsiveness, and reliability, thereby contributing to a stronger theoretical foundation for service quality in the digital era.

5.5. Limitations

This study examines the three core dimensions of E-SERVQUAL—Efficiency, Responsiveness, and Reliability—and investigates their impact on customers' repurchase intentions, bridging the research gap between service quality and customer behavior in internet banking. Despite its contributions, the study has several limitations, outlined as follows:

First, the analysis is limited to Internet banking users from specific regions, which may restrict the generalizability of the findings to other geographic areas or cultural contexts. Second, the research methodology primarily relies on questionnaire surveys and does not incorporate qualitative interviews or experimental methods, which could offer deeper insights into consumer behavior. Third, the study does not adequately account for the influence of competing banks' service strategies on customer choices and behavioral intentions. Future research could address these limitations by broadening the scope to include diverse regional and cultural contexts, employing mixed methods to enhance data collection and analysis, and examining the competitive dynamics of service strategies in shaping customer behavior.

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Appendix A

Table A. Questionnaire questions

	ruote 11. Questionnum questions
E-Service Quality	You consider that the interface of the online banking service allows you to quickly complete the required transactions
	You feel that you often encountered errors in the online banking system or were unable to complete a transaction
	When using online banking services, you think you can get quick and timely response or assistance.
	You consider the transaction process provided by the online banking to be safe and secure
E-Replies	Using online banking, you feel that questions and problems receive prompt responses.
	The clarity and specificity of responses to your inquiries or questions while using online banking significantly impact your experience.
	Satisfaction with the speed of responses, especially during issues with transactions or accounts, shapes your perception of the service.
	When submitting a question or request, the effectiveness of the response in resolving your issue influences your overall trust in online banking.
Satisfaction	You feel satisfied with the overall quality of service delivered by online banking.
	The transaction process aligns with your expectations, enhancing your confidence in the service.
	Satisfaction after using online banking encourages you to continue using the service in the future.
Repurchasing	You plan to continue using the online banking service in the future.
Intention	You feel comfortable recommending the online banking service to others.
	You would choose online banking again for your financial needs, if necessary.
	You foresee continuing with online banking in the future.
	You find the online banking service more attractive than alternatives offered by other banks.