



The Role of E-Customer Satisfaction as Intervening Variable in Relationship Between E-Service Quality, E-Recovery and E-Customer Loyalty of Indonesian Railroad Access Customers

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Abstract

In this study, the impact of eService and eRecovery Service Quality on Online Customer Satisfaction and its Implications for Online Customer Loyalty are measured. Partial Least Square (PLS) was used to evaluate information from 100 respondents who had purchased tickets using the Indonesian railway application. According to the study's findings, e-service quality, e-recovery service quality, e-service quality, e-customer satisfaction, and e-customer satisfaction all have an impact on e-customer satisfaction. These relationships also hold true for e-customer loyalty. According to the research, the developer must maintain the services offered to users through its application and switch out all slow trains with quick ones. Additionally, they should create intriguing inventions, send clients thank-you letters, ask for user reviews, and enhance their online customer service.

Keywords: E-Service Quality, E-Recovery Service Quality, E-Customer Satisfaction, Railway Application, Online Customer.

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1. Introduction

Technology's integration into everyday life has advanced pretty quickly in recent years. Due to the ongoing advancement of science, it is impossible to avoid this technological growth. The internet, a communication network that connects electronic media with one another, was also created by technology as it developed into an increasingly sophisticated field. Naturally, the presence of internet technology in this society can make it simpler for everyone who wants to communicate. According to the statistics above, which was provided by katadata.com, Indonesia is among the nations with the most internet users worldwide. Indonesia has 143.26 million internet users as of March 2019, placing it sixth overall. With this number of internet users, it is estimated that 53% of Indonesia's total population uses the internet, overtaking India, which has the second-lowest internet use rate in the world with just 40% of its people online [1].

By using the internet as a medium and method of conducting transactions, business models have changed as a result of the increasing development of the internet in many countries. This presents a great opportunity to create connectivity and a broad reach as well as the ability to operate businesses effectively and efficiently. The growth of companies that rely on conducting business through online electronic media is one of the changes in the business model that have taken place. The use of online-based electronic media has replaced business operations that previously solely used offline storefronts [2].

Data from "We Are Social" reveals that 80% of all e-commerce users in Indonesia utilize mobile devices, making Indonesia the nation with the highest percentage of m-commerce users worldwide. This demonstrates how widely mobile is used in Indonesia as an electronic medium for conducting online transactions, providing a chance for firms operating online to attract sizable clientele [3].

The expansion of mobile technology use in Indonesia stimulates businesses, both private and State-Owned Enterprises (BUMN), to use new marketing techniques, particularly through digital [4]. PT Kereta Api Indonesia (PT KAI), one of the SOEs that took part in the business reforms, is one of these SOEs. Train transportation services are organized by PT KAI, a State-Owned Enterprise. The community in Indonesia is happy that there is rail service serving a number of routes to various destinations. This is demonstrated by the significant number of railway passengers in 2019, one of whom was traveling to the Java area [5]. According to research by the Central

Statistics Agency (BPS), there were 336,799 Indonesian railway passengers in Jabodetabek in 2018, 336,045 in 2019, and just 154,591 did so in 2020.

According to information acquired from the Google Play Store, 135,946 user accounts have reviewed the KAI Access app, giving it a total rating of 4.1 out of 5. As a result, users of the KAI Access application responded well to it. Users of KAI Access continue to complain a lot about apps that frequently encounter disruptions, such as unexpected application problems and challenges logging in [6]. This undoubtedly demonstrates that the quality of the offered e-services is subpar, leaving users unsatisfied and affecting consumer loyalty. Business rivalry is becoming more intense due to the rise in the number of businesses employing mobile applications for internet marketing. In contrast to other applications like Traveloka, which is the most popular application for purchasing tickets online with an 82% usage rate, data from the Alvara Research Center reveals that just 3% of users actually order tickets online. The fact that more customers are interested in purchasing train tickets through third-party applications than through the official website demonstrates that the application has not been able to foster e-customer loyalty in its users [7] [12].

The data made public by Shopback likewise demonstrates the same thing [8]. According to the research, just 12.5% of Indonesians prefer to book tickets through a service provider's official website; instead, 55.40% prefer to utilize e-commerce sites that are not the service providers' official websites [9] [11]. This demonstrates that customers are still not very loyal to using the app to book tickets and make subsequent transactions [10]. This study aims to determine the effect of e-service quality and e-recovery service quality on e-customer satisfaction and its implications on e-customer loyalty.

2. Research Methods

Quantitative data are the main form of data used in this study. Secondary and primary sources were used to get the information. Primary data is gathered from surveys that have been sent out and have already passed validity and reliability tests with an alpha value of more than 0.7. The study's secondary data came from a survey of the literature. The path test or route analysis is the data processing technique employed in this study. To choose the best provider in this study, the exponential comparison approach will be applied. The SmartPLS tool will aid in the analysis.

3. Results and Discussion

3.1. Inner Model Evaluation

Based on the coefficient of determination test, the R^2 value for e-customer satisfaction is 0.805, which indicates that the model is good. E-service quality and e-recovery service quality are able to explain the variability of e-customer satisfaction constructs by 80.5% and the remaining 19.5% is explained by other constructs that are not hypothesized in the model. And the R^2 value for e-customer loyalty is 0.710 which indicates that the model. E-service quality, e-recovery service quality and e-customer satisfaction are able to explain 71% of the variability of the e-customer loyalty construct and the remaining 29% is explained by other constructs not hypothesized in the model. Based on the calculations obtained in the Q test, the Q^2 obtained for e-customer satisfaction is 0.805 and for e-customer loyalty is 0.710, it can be said that Q^2 predictive relevance is considered good because it has a value above 0. Based on the calculation of the Gof value above, the value reaches 0.873769 and is included in the large Gof category. Thus it can be concluded that this research model is valid and has good performance.

3.2. Hypothesis Analysis

The result of the t-statistic value of e-service quality (X1) on e-customer satisfaction (Y1) is 6.404 and the p-value is 0.000. The t-statistic value is greater than 1.96 (two tailed). So it can be concluded that e-service quality has a significant effect on e-customer satisfaction. The result of the t-statistic value of e-recovery service quality (X2) on e-customer satisfaction (Y1) is 6.629 and p-value 0.000. The t-statistic value is greater than 1.96 (two tailed). So it can be concluded that e-recovery service quality has a significant effect on e-customer satisfaction. The result of the t-statistic value of e-service quality (X1) on e-customer loyalty (Y2) is 2.246 and p-value 0.025. The t-statistic value is greater than 1.96 (two tailed). So it can be concluded that e-service quality has a significant effect on e-customer loyalty.

The impact of e-recovery service quality (X2) on e-customer loyalty (Y2) has a t-statistic value of 2.703 and a p-value of 0.007. The two-tailed t-statistic has a value larger than 1.96. Therefore, it can be said that e-customer loyalty is significantly influenced by the quality of e-recovery services. The impact of e-customer satisfaction (Y1) and e-customer loyalty (Y2) on the t-statistic value. The t-statistic's result is 3.016 and the p-value is 0.003. The two-tailed t-statistic has a value larger than 1.96. Therefore, it can be said that e-customer loyalty is significantly influenced by e-customer satisfaction.

3.3. The effect of e-service quality on e-customer satisfaction

E-service quality, in the context of electronic services, refers to the overall quality of a customer's experience when interacting with an online platform or service. Factors such as affordability, speed, reliability, responsiveness, and attractive appearance are key determinants of e-service quality. In this increasingly advanced digital age, e-service quality has become crucial in shaping customer perceptions of a company or brand. E-service quality has a significant effect on e-customer satisfaction. When a platform or website provides an easy, smooth, and pleasant experience, customers tend to feel satisfied with the service. Smoothness of the transaction process, ease of navigation, and good accessibility are elements that can increase the level of customer satisfaction.

E-service quality also impacts customers' perception of professionalism and trust in the company or brand. When customers feel that they are treated well and get effective support while using the service, they tend to be more loyal and willing to make repeat transactions or recommend to others. Furthermore, e-service quality contributes to customer satisfaction through psychological effects. The positive experience provided by e-service enhances the positive image of the company in the minds of customers, creates a sense of satisfaction and pleasure, and reduces the likelihood of conflict or dissatisfaction.

3.4. The effect of e-recovery service quality on electronic customer satisfaction

The results found that e-recovery service quality has a significant effect on e-customer satisfaction. E-recovery service quality has a significant impact on e-customer satisfaction. When customers experience problems while using the service and can easily get proper and efficient help, they will feel valued and supported by the company. Quick responses and comprehensive solutions will help reduce customer frustration and increase their satisfaction levels. In addition, good quality recovery services also reflect the company's commitment to overall customer satisfaction. In difficult situations, customers will judge the extent to which the company truly values their presence and endeavors to fix the problems that arise. Responsive and effective support reflects a company's commitment to customer satisfaction, which in turn increases loyalty and trust.

E-recovery service quality also impacts the customer's perception of the overall quality of the service or product offered by the company. When a company is able to provide adequate support in difficult situations, this can give a positive impression of the overall quality of the service or product. Conversely, if recovery support is neglected or poor, this can damage the company's image and reduce customer trust. In addition, good recovery service quality can also create a positive effect on word-of-mouth marketing. Customers who are satisfied with a positive recovery experience are likely to share their experience with others, whether through social media, online reviews, or face-to-face conversations. This can help companies gain more potential customers and strengthen their brand reputation.

3.5. The effect of e-service quality on e-customer loyalty

The influence of e-service quality on e-customer loyalty is closely related to customer satisfaction. When e-services present a satisfying experience and match customer expectations, this tends to create an emotional bond between the customer and the company. The satisfaction gained from good service will encourage customers to remain loyal and avoid looking for alternatives. Important aspects of e-service quality that influence loyalty are affordability and ease of use. Customers want to feel that the e-services they use are easily accessible and intuitive. If the process is complicated, slow, or confusing, customers may look for other options that are easier to use.

In addition, reliability and speed also play an important role in shaping loyalty. Customers want to feel that the services they use are reliable and functioning properly at all times. Frequent downtime or slow response from e-services can cause dissatisfaction and reduce customer loyalty. Good customer service quality is also an important element of e-service quality that affects loyalty. When customers face problems or questions, responsive, friendly and competent support can help create a positive experience. Good handling of complaints or issues that arise can increase the level of customer trust and strengthen the bond between the customer and the company. In addition, e-service quality also has an impact on customer perceptions of reputation and trust in the company. High-quality e-service reflects a company's commitment to customer satisfaction, as well as reflecting the overall quality of the product or service offered. This can strengthen brand image and influence customers' decision to remain loyal in the long run.

3.6. The effect of e-recovery service quality on electronic customer loyalty

The results found that e-recovery service quality has a significant effect on e-customer loyalty. Ethical customers face problems or difficulties when using electronic services, effective and responsive support is key in improving customer satisfaction and building long-term relationships. First of all, e-recovery service quality has a significant effect on e-customer loyalty through customer satisfaction. When customers experience problems or difficult situations, good and fast support in restoring their service can create a positive experience. When customers feel supported and cared for, they tend to be more satisfied with the services provided by the company and are more likely to remain loyal.

E-recovery service quality also impacts the level of customer trust in the company or brand. When recovery services are presented with professionalism and reliability, customers tend to have a more positive view of the company. This built-up trust is an important foundation for creating long-term customer loyalty. Good recovery service quality also plays a role in reducing churn rates. When problems or difficulties can be resolved properly, customers are less likely to turn to competitors and stick with the same service. This helps the company to maintain market share and reduce new customer acquisition costs.

E-recovery service quality also contributes to word-of-mouth marketing. When customers get effective and satisfactory assistance during the recovery period, they are likely to share their positive experience with others. Positive recommendations from satisfied customers can attract new potential customers and strengthen the loyalty of existing customers.

3.7. The effect of electronic customer satisfaction on electronic customer loyalty

The results of the research conducted found that e-customer satisfaction has a significant effect on e-customer loyalty. When customers are satisfied with their experience in using electronic services, they are more likely to remain loyal and continue to interact with the company or brand. E-customer satisfaction plays an important role in shaping customer perceptions of the quality of services or products offered by the company. When customers are satisfied with the service or product they receive, they tend to have a positive view of the company. This creates a positive impression of the brand and increases customer trust in the company, which in turn forms the basis for creating long-term customer loyalty.

E-customer satisfaction also has an impact on churn rates. When customers are satisfied with the service provided, they are less likely to turn to competitors and more inclined to stick with the same service. Low churn rates help companies to maintain market share and reduce the cost of acquiring new customers. Online customer satisfaction also plays an important role in word-of-mouth marketing. Satisfied customers tend to share their positive experiences with others, whether through online reviews, social media, or in face-to-face conversations. Positive recommendations from satisfied customers can attract new potential customers and strengthen the loyalty of existing customers.

E-customer satisfaction contributes to increased customer retention. Satisfied customers tend to be more loyal and willing to make repeat transactions with the company. This creates a closer relationship between the customer and the company, and reduces the likelihood of the customer looking for alternatives. To achieve high levels of e-customer loyalty, companies must understand the importance of e-customer satisfaction and work to improve it consistently. This involves a deep understanding of customer needs and preferences, providing responsive, high-quality service, and ensuring that customer issues are properly addressed.

4. Conclusion

In this study, we will examine how well e-service and e-recovery services affect customer satisfaction and how that affects customer loyalty. It is concluded from the research utilizing the Partial Least Square (PLS) analytical approach that: a) E-service quality has a substantial impact on e-customer satisfaction; and b) E-recovery service quality also has a significant impact. b) The level of e-service quality significantly affects e-customer loyalty. d) The level of e-customer loyalty is significantly impacted by the quality of e-recovery services. e) E-customer loyalty is strongly influenced by e-customer satisfaction.

References

- [1] Amin, M. (2016). Internet Banking Service Quality and its Implication on ECustomer Satisfaction and E-Customer Loyalty. *International Journal of Bank Marketing*, 34(3), 280-306. DOI: 10.1108/IJBM-10-2014-0139.
- [2] Firdaus, D. R., Harto, B., & Ferdiansyah, H. (2023). The Effectiveness Analysis of Distance Learning by Optimizing the Use of Information Technology. *JISTE (Journal of Information System, Technology and Engineering)*, 1(1), 1–5.
- [3] Anderson, R. E., & Srinivasan, S. S. (2003). E-Satisfaction and E-Loyalty: A Contingency Framework. *Wiley InterScience*, 20(2), 123–138. DOI: 10.1002/mar.10063.
- [4] Hendra., Endang, S. R., & Beby, K S. (2018). The Effect of E-Service Quality and E-Recovery Service Quality on E-Loyalty through E-Satisfaction, on ECommerce in Indonesia. *The International Journal Of Business & Management*, 6(4), 178-195.
- [5] Ferdiansyah, H., Komaria, N., & Arief, I. (2023). The Application of Support Vector Machine Method to Analyze the Sentiments of Netizens on Social Media Regarding the Accessibility of Disabilities in Public Spaces. *JISTE (Journal of Information System, Technology and Engineering)*, 1(1), 6–10.
- [6] Komara (2013). The Effect of E-Service Quality and E-Recovery Service Quality on E-Satisfaction and its Impact on E-Loyalty of Air Asia Airline Customers. *Journal of Economics, Business & Entrepreneurship*, 7(2), 105-115.
- [7] Sarumaha, Y. A., Firdaus, D. R., & Moridu, I. (2023). The Application of Artificial Bee Colony Algorithm to Optimizing Vehicle Routes Problem. *JISTE (Journal of Information System, Technology and Engineering)*, 1(1), 11–15.
- [8] Kotler, P., & Keller, K. L. (2016). *Marketing Management*. 15th Edition, Global Edition. England: Pearson Education Limited.
- [9] Saufi, M., Rofi'i, A., & Firdaus, D. R. (2023). The Analysis of User Intention to Subscribe Netflix Using UTAUT Framework. *JISTE (Journal of Information System, Technology and Engineering)*, 1(1), 16–20.
- [10] Prisanti, M. D., Suyadi, I., & Arifin, Z. (2016). The Effect of E-Service Quality and E-Trust on E-Satisfaction and its Impact on E-Customer Loyalty (Study on Customers of PT. Bank Rakyat Indonesia (Persero) Tbk Lawang Sub-Branch Office). *Journal of Business Studies*, 2(1), 19-38.

- [11] Agus Rofi'i, Firdaus, D. R., & Moridu, I. (2023). The Analysis of User Acceptance Using UTAUT and Delone & McLean Model: Study Case of Banking Mobile Application. *JISTE (Journal of Information System, Technology and Engineering)*, 1(1), 21–25.
- [12] Widiatmika, I. G. N. A., & Subawa, N. S. (2017). E-Service Quality and Recovery Service Quality of Mobile Banking Services to E-Trust, ESatisfaction and E-Loyalty of Mobile Banking Users of Local Bank Customers in Bali, Indonesia. *Imperial Journal of Interdisciplinary Research (IJIR)*, 3(3), 1252-1260.