E-SERVICE QUALITY AND E-RECOVERY SERVICE: EFFECTS ON PERCEIVED VALUE AND LOYALITY INTENTION OF DANA APPLICATION USERS

KUALITAS LAYANAN ELEKTRONIK DAN LAYANAN E-RECOVERY: EFEK PADA PERCEIVED VALUE DAN LOYALITY INTENTION PENGGUNA APLIKASI DANA

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ABSTRACT

DANA is one of the electronic-based financial applications that supports non-cash transactions. It has the second-largest total users in Indonesia. However, users have complained about this application's quality of service and recovery. This research aims to determine the mediating effect of perceived value on e-service quality and e-recovery service towards loyalty intention. This research uses a quantitative method with a purposive sampling technique. The sample in this research is 164 respondents. PLS-SEM is used to analyze the model. The results of this research indicate that e-service quality has a direct and significant effect on perceived value. E-recovery service does not have a direct positive and significant effect on perceived value. Furthermore, there is no mediating effect of perceived value on e-service quality and e-recovery service towards loyalty intention.

Keywords: e-service quality; e-recovery service; loyalty intention; perceived value

ABSTRAK

bahwa e-service quality mempunyai pengaruh langsung dan signifikan terhadap perceived value. E-recovery service tidak mempunyai pengaruh langsung positif dan signifikan terhadap perceived value. Selanjutnya, tidak terdapat pengaruh mediasi perceived value pada e-service quality dan e-recovery service terhadap loyalty intention.

Kata kunci: e-service quality; e-recovery service; loyalty intention; perceived value

INTRODUCTION

The growth of smartphone users worldwide, as reported by the International Telecommunication Union (ITU), is 5.3 billion in 2022. According to Indonesian data, as many as 192.15 million Indonesians use smartphones daily (Sadya, 2023). West Java is in third position with an internet penetration rate of 82.4% but has the highest internet penetration contribution of 14.74%.

This shows that the penetration of internet use in West Java province is relatively high. The increasing number of smartphone users shows the rapid growth of the digital economy in Indonesia. The impact of the digital economy that is maximally applied is that all forms of economic activity are successfully carried out in a mobile, connected, or connected way and visualized so that it can be seen and enjoyed by anyone who needs it (Mardia et al., 2021)

The value of Indonesia's digital economy in a report entitled "Economy Sea 2022 Through the Waves, Toward a Sea of Opportunity," as measured in total gross merchandise volume (GMV), is estimated to have grown by US$77 billion or the equivalent of more than IDR 1,196 trillion. This number makes Indonesia the country with the most prominent economic value in Southeast Asia, beating Thailand and Vietnam. The presence of fintech makes it easy for people to use digital money in transactions they make, so they do not always have to have physical money to make transactions (Sanjaya, 2023)

DANA application users are increasing every year, according to research from dailysocial.id, which states that in 2021, the DANA application will be in fifth position with a percentage gain of 12.2%. In the following year, according to a survey conducted by Populix, as shown in Figure 1.1, e-wallets with all their conveniences are the second top choice after mobile banking, which is used by the community to support their financial activities (Populix, 2022). The e-wallets that people use the most are OVO, then Gopay, and DANA in third place. The popularity of the DANA e-wallet is increasing, as evidenced by a survey conducted by Populix. The Populix Survey in 2022 shows that DANA is in second place as the e-wallet that is often used by the public, with an 83% percentage gain. The first rank is occupied by Gopay, who obtains a percentage value of 88%.

The increase in DANA application users in 2022 does not align with their consumer loyalty level. Based on survey results from InsightAsia with research entitled "Consistency that Leads: 2023 E-Wallet Industry Outlook," shows 71% of respondents have used and are still using GoPay, and 58% are still using gopay to date, which makes GoPay the most used platform since 2017 Then 70% of respondents had used
OVO with 53% being OVO users in the last three months. DANA occupies the third position with the most usage, 61%, but is not included in the top 3 e-wallets with the most users in the last three months (Gupta, 2022) and (Ambarita & Yuniati, 2021). This value indicates that there are DANA users who ultimately decide not to use the DANA application any more and choose to use other e-wallets to make digital wallet transactions.

The increase in users should be directly proportional to loyalty. DANA has users who continue to grow but not with user satisfaction. This is proven by the ratings and reviews by DANA digital wallet users on several platforms who think that DANA does not provide maximum service and has a poor system. Complaints from DANA application users were submitted on platforms such as Google Play, Twitter, Instagram, and TikTok. Several things highlight the problems users feel, namely frequent errors, problems when filling out or sending balances, unresponsive customer service, and user privacy that are not maintained.

The complaint shows that the quality of electronic services and recovery owned by the DANA application is of little concern. In fact, for each online platform, the quality of electronic services is the main thing that becomes the consumer's assessment of whether to continue using the platform. The same is true with electronic recovery; if the platform can fulfil the wishes of its users, then consumer loyalty will be easy to earn.

E-service quality that is not optimal will affect users' perceived value towards related platforms. Users will easily choose another platform that is judged to be able to fulfil their wishes better. The increasing value of the e-service quality DANA application will increase the perceived value (Kurniawan & Widodo, 2020; Zehir & Narcikara, 2016). Besides that, the quality of the e-recovery service provided by the DANA application still needs to be improved. This is evidenced by several complaints about how the customer received the response. The e-service quality is important in determining a platform's failure or success (Kurniawan & Widodo, 2020; Zehir & Narcikara, 2016).

E-service quality or eServqual was conceptualized by Zeithaml, Parasuraman, and Malhotra, with the definition of e-service quality as the extent to which a platform can facilitate sales, purchase transactions, and provide product or service information effectively and efficiently to service users (Prisanti et al., 2017). E-Service quality refers to providing services through the internet, which assesses a website's capability to facilitate seamless and efficient online shopping, purchasing, and product distribution (Wu, 2014). E-service quality can also be interpreted as an electronic-based service that aims to streamline and streamline an activity that includes purchasing, using, or delivering products/services in a business (Perwira et al., 2016). The process of measuring e-service quality, according to Parasuraman, Zeithaml, and Malhotra, was developed in 4 dimensions, namely 1) Efficiency, referring to the ability of users and potential service users to obtain information related to the product or service offered and the ease in the process of accessing and leaving
platform or application. 2) Fulfillment is a site function that works to the extent that it can handle problems that arise and overcome complaints from users so that they can produce satisfactory decisions. 3) System availability relates to the technical and function of the site, mainly how the platform can work and be operated as it should. 4) Privacy means that a platform can guarantee the security of data and personal information of its users (Mashaqi et al., 2020).

E-recovery service refers to a company's challenge against service failure, which further aims to reduce dissatisfaction or is an effort to retain customers (Mashaqi et al., 2020). E-recovery services are a significant factor in customer satisfaction, loyalty, and retention (Hidayah et al., 2020). This is because when consumers receive fast responses, they will be more satisfied and willing to return to using related services (Fan et al., 2010). The evaluation of e-recovery services is measured in 3 dimensions, which can assess the quality of recovery in a digital business product. Parasuraman, Zeithaml, and Malhotra, in the research, stated that three dimensions could form an e-recovery service (Alyusfin, 2021), namely: 1) Responsiveness, namely how the site or service provider responds to its users. 2) Compensation relates to how the company will compensate customers when a problem occurs regarding the services provided. 3) Contact, namely when the service provider provides a contact that can be contacted as an online representative to assist with complaints and answer questions from a platform.

In this study, Perceived value (PV) or perceived value from users becomes a mediating or intervening variable. The dependent variable is considered to be influenced by other variables (Hardani et al., 2020). Perceived value is a condition where customers can explain that there are perceived benefits, and the higher the profit, the more loyal the customer will be to the related product (Zhou et al., 2021). Sweeney conceptualizes Perceived value as including four central values (Naseem et al., 2015): Emotional Value, Social Value, Performance Value, and Price for money value.

Loyalty Intention or intention of trust (loyalty) is used as an indicator of customers using, visiting, and buying a product at the same company in the future. The intention that is raised is in the form of a response, the result, or a consumer reaction, both attitudinal, psychological, and positive behaviour towards related products. (Loureiro & Roschk, 2014). Loyalty intention directly influences consumer behaviour (Vogel et al., 2008). Loyalty intention will result in readiness to re-use the product in the future.

Considering the background above, this study examines perceived value's mediating influence between e-service quality and e-recovery services. The findings are expected to be useful theoretically in marketing studies and practically in implementing financial technology for society.

METHOD

The method used in this research is a descriptive research method with a quantitative approach. In this study, the population used was DANA digital wallet application users in the Bandung area. At the same time, the sample
collection technique used in this study is non-probability sampling utilizing a purposive sampling technique. The main characteristic of this sampling technique is to select respondents specifically with consideration from the objectives of the research. The consideration in question is DANA e-wallet users who have at least used application services in the last six months and live in Bandung.

Each respondent certainly has unique characteristics that differ from one another. Therefore, there is a need for grouping to get respondents according to research needs. The sample criteria used include male or female sex, then in terms of age range 17-40 years by giving the choice of age 17-24 years, 25-32 years, and 33-40 years. Other characteristics are active DANA application users or those who have at least used application services in the last six months.

Considering that the population in this study is uncertain, the sample used for multivariate analysis should be ten times the total number of indicators studied (Hair Jr. et al., 2019). In this study, there are 15 dimensions used to calculate all variables. Then, the required sample size is 150.

Based on these values, it can be interpreted that the minimum sample size in this study is 150 respondents. To avoid errors in the research data, whether caused by respondents’ answers or lack of data, the number of samples was increased to 164 respondents.

The method for collecting data used in this research is a questionnaire instrument. The questionnaire is used as a disagree to agree on choices for rating the quality of electronic services (e-service quality), recovery services (e-recovery service), perceived value, and loyalty intention.

In distributing the questionnaires, an assessment with a Likert scale was used. A questionnaire with a Likert scale is a set of questions or statements prepared using five alternative nested answers from disagree to agree, which will be quickly answered by respondents.

RESULTS AND DISCUSSION

Direct data analysis based on the proposed hypothesis includes measuring outer, structural, or inner models and hypothesis testing. Furthermore, the indirect analysis utilized the bootstrapping method. The validity test was assessed using the HTMT (Heterotrait-Monotrait Ratio) and Fornell Lacker values (Lu et al., 2022).

<table>
<thead>
<tr>
<th>Table 1. Fornell-Lacker Criterion</th>
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<tr>
<td>E-Recovery Service</td>
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<tr>
<td>E-Recovery Service</td>
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<tr>
<td>E-Service Quality</td>
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<tr>
<td>Loyalty Intention</td>
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<td>Perceived Value</td>
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Table 1 shows the value of the Fornell-Lacker Criterion as one of the discriminant validities analyses. In Fornell – Lacker, it can be seen that the AVE square root value in each dimension is greater than the AVE value of that dimension with other dimensions. Therefore, it can be interpreted that the designed questionnaire has good discriminant validity based on the Fornell-Larcker Criterion.

<table>
<thead>
<tr>
<th>Table 2. HTMT</th>
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<tr>
<td></td>
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<tr>
<td>E-Recovery Service</td>
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<tr>
<td>E-Recovery Service</td>
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<tr>
<td>E-Service Quality</td>
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<td>Loyalty Intention</td>
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<td>Perceived Value</td>
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</table>
For the HTMT value (table 2), there is a rule of thumb that the HTMT value must be less than 0.9. In this study, all the variables have a value below 0.9, so it can be said that each construct has good discriminant validity based on the Heterotrait monotrait ratio method.

**Table 3. Reliability Test**

<table>
<thead>
<tr>
<th></th>
<th>Cronbach’s Alpha</th>
<th>Composite Reliability</th>
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<tbody>
<tr>
<td>E-Service Quality</td>
<td>0.918</td>
<td>0.928</td>
</tr>
<tr>
<td>E-Recovery Service</td>
<td>0.899</td>
<td>0.918</td>
</tr>
<tr>
<td>Loyalty Intention</td>
<td>0.823</td>
<td>0.924</td>
</tr>
<tr>
<td>Perceived Value</td>
<td>0.773</td>
<td>0.852</td>
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</tbody>
</table>

Reliability in the SEM-PLS test (table 3) uses the value of composite reliability (CR). Composite reliability is used to measure the internal consistency of existing constructs. In SmartPLS, a high CR value or above 0.7 indicates adequate reliability. (Hair et al., 2023).

**Table 4. R Square**

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<tr>
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<th>R Square</th>
<th>R Square Adjusted</th>
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</thead>
<tbody>
<tr>
<td>Loyalty Intention</td>
<td>0.345</td>
<td>0.345</td>
</tr>
<tr>
<td>Perceived Value</td>
<td>0.529</td>
<td>0.523</td>
</tr>
</tbody>
</table>

Structural model tests or inner models are used to predict causal relationships between variables indirectly (Irwan & Adam, 2015). The analysis used in this test includes r-square and f-square (table 4). The r-square value for academic research that analyzes marketing issues is divided into three criteria: 0.75 for a substantial or strong category, 0.50 for a moderate or medium category, and 0.25 for a weak r-square category (Hair et al., 2023). In this study, the R-Square value of the loyalty intention variable can be explained by the variable perceived value of 36.9%, and other factors explain the remaining 63.1%. Perceived value has 52.9% value that can be explained by the e-service quality and e-recovery service variables, while other external factors explain the remaining 47.1%.

**Table 5. F Square**

<table>
<thead>
<tr>
<th></th>
<th>F Square</th>
</tr>
</thead>
<tbody>
<tr>
<td>E-Recovery Service → Perceived Value</td>
<td>6.030</td>
</tr>
<tr>
<td>F. Service Quality → Perceived Value</td>
<td>6.534</td>
</tr>
<tr>
<td>Perceived Value → Loyalty Intention</td>
<td>0.586</td>
</tr>
</tbody>
</table>

The f-square value measures the strength of the dependent variable on the independent variable (Table 5). The f-square value category is divided into three levels, namely 0.15, with a strong value category. The following is an explanation of the f-square values obtained in this study:

1. The e-recovery service variable weakly influences Perceived Value, evidenced by the f-square value 0.000.
2. The f-square value indicating the impact of the e-service quality variable on perceived value is 0.534, indicating a substantial and strong influence of e-service quality on perceived value.
3. The perceived value is 0.586 in influencing loyalty intention or categorizing the relationship between the two variables as strong.
4. The next stage of analysis is the hypothesis test. This hypothesis test is also used to determine whether a significant relationship or difference exists between certain groups of variables. In this study, hypothesis testing uses a bootstrapping algorithm and consists of direct and indirect hypothesis testing. The hypothesis test looks at the T-Statistics value compared to the t-value (1.68) with a significance level of 5% so that a variable can be significant (Hair et al., 2023). Assessment of hypothesis testing
analysis can be seen using the path coefficient and knowing each variable's direct and indirect effects.

Based on the hypothesis test table with the path coefficient above, it is known that:

1. The statistically significant positive influence of e-service quality on perceived value. This is supported by a positive path coefficient value of 0.732, indicating a direct relationship between e-service quality and perceived value. From that, an increase in e-service quality also increases perceived value. The significance of this relationship is evident in the p-value of 0.000, which is smaller than the significance level of 0.05, confirming the statistical significance of both variables.

2. There is no positive and significant effect of E-recovery service on perceived value. A negative path coefficient indicates a value of -0.006, which means there is no relationship caused by e-recovery service to perceived value, or increasing the value of e-recovery service will not increase perceived value. The independent variable, in this case, is the e-recovery service, which does not have a significant and strong impact on the dependent variable, namely the perceived value as evidenced by a p-value of 0.468 or greater than the significance level of 0.05, which indicates that there is no significance in the two variables statistically.

3. The relationship between e-service quality and loyalty intention through perceived value shows a positive path coefficient of 0.445, indicating a positive influence. The p-value of 0.000 indicates the significance of the mediating effect of perceived value. However, in the case of e-recovery service, perceived value does not act as a mediating variable for loyalty intention. This is supported by a negative path coefficient of -0.004 and a p-value of 0.468, indicating that the effect of perceived value as a mediator between e-service quality and loyalty intention is not positive or significant (Table 6).

Based on research findings, e-service quality was an important factor in building customer value perceptions of fintech services. This is in line with the SERVQUAL theory (Parasuraman, Zeithaml, & Berry, 1988), where the implementation of quality services not only has implications for user satisfaction but can more broadly have a linear impact on creating a perception of value in the minds of customers. This finding is also in line with research (Prawira, Susanto, Goeltom, & Furqon, 2022; Susanto, Hendrayati, Rahtomo, & Prawira, 2022; Susanto, Solikin, & Purnomo, 2022) where service quality has a relationship in the process of adopting cashless payments. This condition allows customers to make transactions more easily and comfortably so that there will be continuity of use in the future. The study findings on the relationship between e-recovery and loyalty intentions found to be not mediated by

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**Table 6. Patch Coefficient**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Original Sample Mean (M)</th>
<th>Standard Deviation (SDTE)</th>
<th>T-Statistic</th>
<th>P-Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>E-Service Quality &gt; Perceived Value</td>
<td>0.752</td>
<td>0.310</td>
<td>3.876</td>
<td>0.000</td>
</tr>
<tr>
<td>E-Recovery Service &gt; Perceived Value &gt; Loyalty Intention</td>
<td>-0.095</td>
<td>0.080</td>
<td>1.120</td>
<td>0.268</td>
</tr>
<tr>
<td>E-Recovery Service &gt; Perceived Value &gt; Loyalty Intention</td>
<td>-0.004</td>
<td>0.002</td>
<td>0.470</td>
<td>0.637</td>
</tr>
<tr>
<td>E-Service Quality &gt; Perceived Value &gt; Loyalty Intention</td>
<td>0.446</td>
<td>0.075</td>
<td>5.920</td>
<td>0.000</td>
</tr>
</tbody>
</table>

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perceived value provide a different perspective regarding the existence of service recovery in users' minds. Logically, it can be assumed that e-service recovery is a standard for providers to provide and is not considered additional value for users.

CONCLUSIONS
The quantitative study examines the perceived value's role in mediating the effect of e-service quality and e-recovery service on the loyalty intention of DANA applications in Bandung. After processing the data through statistical methods with appropriate analysis, a sample of 164 was obtained with the criteria of respondents using the DANA application in the city of Bandung, which then resulted in the following conclusions:
1. E-service quality has a direct positive and significant direct effect on perceived value. There are four dimensions of e-service quality: efficiency, system availability, fulfilment, and privacy. Each of these dimensions contributes to the perceived value experienced by users of the DANA application, influencing its increase or decrease.
2. E-recovery service does not have a positive and significant direct effect on perceived value. This indicates that service providers' recovery or problem-solving actions do not directly affect the perception of value felt by application users.
3. Perceived value mediates e-service quality and loyalty intention but does not mediate the relationship between e-recovery service and loyalty intention. However, it is important to note that the absence of a mediating effect does not diminish the significance of e-service quality and e-recovery service in increasing customer loyalty. Therefore, as a service provider, the DANA application must focus on enhancing the quality of electronic services and strengthening problem-recovery capabilities to enhance customer loyalty further.

REFERENCES


