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Banking service recovery and consumer loyalty: The mediating role of satisfaction

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Abstract

This study aims to prove the effect of justice-based service recovery on satisfaction and its impact on loyalty. The related justices intended are distributive, procedural, and interactive. Also, proving satisfaction as mediated by the Sobel test becomes another purpose. Then, to achieve these purposes, this study employs banking customers in a few areas in West Java (Bandung and Cirebon Cities, as well as the Purwakarta Regency) as the population and samples them by snowball sampling. Fortunately, 230 collected responses exist; hence, the structural equation based on covariance is applicable to examine hypotheses. As a result, this study finds a positive tendency of distributive, procedural, and interactive justice on satisfaction, and distributive justice has a leading influence. A similar sign occurs in the association between satisfaction and loyalty. According to the mediating test, customer satisfaction can mediate the relationship between the three justices and loyalty. Based on these facts, this study recommends that banks compensate the users for the disappointing situation and handle their complaints by providing procedures and responsive and skilled staff to help. Importantly, banks should give the gift as a sign of appreciation for complaints. These actions can encourage banking users to share positive information with their friends, family, and workmates based on their experience.

1. Introduction

A bank is a financial institution that turns profits by collecting funds in deposit accounts, such as savings, time, and checkable, and distributing them in loans as its primary business (Mishkin & Eakins, 2018). Users must enter bank branches and utilize automatic teller machines and Internet banking to settle economic transactions (Abualsauod & Othman, 2020). Technological advancements have made it unnecessary for users to visit bank branches due to online banking services (Mathew, Jose, & Chacko, 2020). They can use these services to identify their account balance, transfer money from their account to others, purchase goods, pay for services, and send a check (Gautam & Sah, 2023). Banks sometimes experience technical disturbances; therefore, their online systems cannot optimally serve their consumers (Vernanda, Murtini, & Susantiningrum, 2023). The failure of this system reduces the self-assurance and positive word of mouth of their consumers (Nadiri, 2016). Furthermore, banks must ask their customer service staff members to follow up on these disturbances by (1) apologizing, (2) explaining the reason, and (3) quickly handling the complaints (Alhawbani, Ali, & Hammouda, 2021; Quy & Lan, 2015) (4) paying attention, (5) facilitating related policies, procedures,

processes, and structures, and (6) resolving their problem (Quy & Lan, 2015) as well as (7) compensating them (Alhawbani et al., 2021). These efforts will prevent the banking users from moving to its competitors (Mathew et al., 2020). Despite implementing these measures, customers' expectations of the banking service's ability to meet their needs have changed since the failure. In other words, customers will be less satisfied and loyal than they should be (Nadiri, 2016). Specifically, the research on the relationship between banking service recovery and customer satisfaction attracts attention from scholars employing respondents from different countries, e.g., Kenya (Joel & Charles, 2015), South Africa (Smith & Mpinganjira, 2015), China (Li-Hua, 2012), Malaysia (Khan, Yen, & Chen, 2016; Mansori, Tyng, & Ismail, 2014), Vietnam (Binh & Vi, 2013), Pakistan (Muhammad, 2020), Zimbabwe (Nyagadza et al., 2022), and Indonesia (Sarahditya & Wijaya, 2018; Saraswita & Yasa, 2017) by utilizing its multiple aspects such as distributive, procedural, and interactive justice (Binh & Vi, 2013; Muhammad, 2020; Nyagadza et al., 2022; Sarahditya & Wijaya, 2018; Smith & Mpinganjira, 2015):

- Related to the distributive justice and customer satisfaction association, Li-Hua (2012), Mansori et al. (2014), Binh and Vi (2013), Smith and Mpinganjira (2015), Khan et al. (2016), Saraswita and Yasa (2017), Sarahditya and Wijaya (2018), Muhammad (2020) and Nyagadza et al. (2022) report a positive sign in the banking context.

- Related to the relationship between procedural justice and customer satisfaction, Li-Hua (2012), Mansori et al. (2014), Smith and Mpinganjira (2015), Khan et al. (2016), Saraswita and Yasa (2017), Sarahditya and Wijaya (2018) and Nyagadza et al. (2022) display a positive mark. However, Muhammad (2020) and Binh and Vi (2013) show insignificant correlations. Using the four aspects of procedural justice, Joel and Charles (2015) document that speed, communication, and effort positively influence satisfaction, but decision control does not.

- Related to interactive justice and customer satisfaction connection, Mansori et al. (2014), Smith and Mpinganjira (2015), Khan et al. (2016), Saraswita and Yasa (2017), Sarahditya and Wijaya (2018), Nyagadza et al. (2022) and Muhammad (2020) exhibit a positive mark. On the other hand, Li-Hua (2012) and Binh and Vi (2013) demonstrate a lackluster connection.

In their study using hotel visitors, Ampong et al. (2021) demonstrate the meaningless effect of distributive justice on satisfaction. Procedural and interactive justice, on the other hand, have a positive influence on their satisfaction. Of the three types of justice, they exhibit that interactional justice has the most significant impact.

In contrast, Tontini, Silveira, and Pozza (2021) from Brazil treat three multiple aspects as dimensions of banking service recovery (BSR); therefore, they use a second-order construct. Meanwhile, Maamari and Wasfi (2020) define the BSR as the banking effort to handle consumer complaints, using Lebanese and Swedish millennials in their research. Both confirm a positive relationship between BSR and satisfaction. From Malaysia, Yazid, Ishak, Che Mat, Ali, and Saidun (2021) report that functional and technical service recovery positively influences banking consumer satisfaction.

Finally, every business, for example, e-commerce (Al-Adwan & Al-Horani, 2019; Guo, Zhang, & Xia, 2023; Hsu & Lin, 2023) expedition service (Yudi & Ruswanti, 2021) hotel (Ampong et al., 2021), including banks attempts to satisfy their customers, leading to their loyalty (Albarq, 2023; Gautam & Sah, 2023; Jahan & Shahria, 2022; Khan et al., 2016; Lelasari & Bernarto, 2023; Maamari & Wasfi, 2020; Manyanga, Makanyeza, & Muranda, 2022; Moosa & Kashiramka, 2022; Redda, 2023; Syarif, Parno, Komariah, & Yuliani, 2023; Tontini et al., 2021). In the banking context, the associated researchers utilize the perspectives of consumers from Malaysia (Khan et al., 2016), Lebanon and Sweden (Maamari & Wasfi, 2020), Bangladesh (Jahan & Shahria, 2022), Saudi Arabia (Albarq, 2023), Nepal (Gautam & Sah, 2023), Indonesia (Lelasari & Bernarto, 2023; Saraswita & Yasa, 2017; Syarif et al., 2023), Zimbabwe (Manyanga et al., 2022), South Africa (Moosa & Kashiramka, 2022; Redda, 2023), Serbia (Šević et al., 2022) and Brazil (Tontini et al., 2021). When researching banking customers in Vietnam, Nguyen and Hoang (2024) cannot statistically prove the relationship between satisfaction and loyalty for corporate clients. However, a positive association exists for individual clients. In their study, Pritjahjono, Jahroh, and Saptono (2023) declare no association between satisfaction and loyalty among the Indonesian users of Bank Central Asia. Based on these debatable results, this study investigates the effect of service recovery on satisfaction and its influence on the loyalty of banking users in a single model. Besides, proving the mediating impact of satisfaction on the relationship between banking service recovery and consumer loyalty by utilizing Sobel testing becomes another objective. It differs from Khan et al. (2016), Saraswita and Yasa (2017), Maamari and Wasfi (2020), Tontini et al. (2021) and Syarif et al. (2023) without Sobel testing. Following the first segment, the second one delves into the literature review to develop hypotheses. The third presents the research methods covering variable measurement, the sample and data, and the data analysis technique. The fourth shows the results and provides a detailed discussion. The fifth demonstrates the conclusion. Finally, the sixth section outlines the implications, limitations, and future suggestions based on the results of this study.

2. Literature Review and Hypothesis Development
2.1. Relationship Between Service Recovery and Satisfaction

Service recovery aims to decrease dissatisfaction. It intends to keep customers from moving from the managed firm to its competitors (Miller, Craighead, & Karwan, 2000). As a result, customers do not share

their negative experiences with others and disclose their weaknesses to rivals (Lewis & McCann, 2004). In their investigation of 266 Lebanese and 132 Swedish banking consumers, Maamari and Wasfi (2020) utilized customer complaint handling (CCH) as the service recovery form and concluded that CCH positively influences their satisfaction. Using 212 Malaysians in Kuala Lumpur as their sample, Yazid et al. (2021) applied functional and technical service recovery to be associated with the satisfaction of banking customers, and their study shows a positive connection. Several studies in the banking industry quantify service recovery based on three aspects, i.e., distributive, procedural, and interactive justice (Binh & Vi, 2013; Khan et al., 2016; Li-Hua, 2012; Muhammad, 2020; Nyagadza et al., 2022; Sarahditya & Wijaya, 2018; Smith & Mpinganjira, 2015; Tontini et al., 2021). Tontini et al. (2021) confirm that the second-order construct of service recovery (SR) containing these aspects positively influences the satisfaction of 113 Brazilian banking customers as the samples. Distributive justice occurs when the bank solves an e-banking service failure belonging to the customers and resolves the complaint (Nyagadza et al., 2022) by providing compensation (Mansori et al., 2014). If this justice occurs, the consumers will be satisfied (Nyagadza et al., 2022). Furthermore, Li-Hua (2012) and Mansori et al. (2014) affirm this positive tendency through the perceptions of 156 Chinese banking users and 322 Malaysian banking customers, respectively. In their study employing 215 consumers of Vietnamese Local Bank in Ho Chi Minh City, Binh and Vi (2013) verified this enlightenment by showing the positive influence of this justice on overall satisfaction. Furthermore, Smith and Mpinganjira (2015) corroborate this evidence by examining the perspectives of 281 retail banking users in South Africa. Likewise, Khan et al. (2016) confirmed this fact when studying 304 customers with banking accounts in Malaysia.

Furthermore, Saraswita and Yasa (2017) affirm the positive association between distributive justice and satisfaction when researching 100 consumers of a regional development bank in Denpasar, Bali. Similarly, Sarahditya and Wijaya (2018) confirm this tendency based on the perspective of 60 customers of Bank Tabungan Negara in the Depok office branch in Indonesia. Muhammad (2020) reports that DJ positively affects customer satisfaction after service recovery based on an investigation of 453 domestic bank customers in Pakistan. Additionally, in their study employing 433 e-banking users in Zimbabwe, Nyagadza et al. (2022) demonstrate a positive relationship between distributive justice and satisfaction. Based on these indications, part A of the first hypothesis is as follows:

H₁ₐ: Distributive justice positively affects consumer satisfaction.

For consumers, procedural justice (PJ) exists when the bank consistently follows the rules and guidance to handle the complaints of its customers. Customers are satisfied if bank staff members successfully perform it (Nyagadza et al., 2022). In their study, Li-Hua (2012), Mansori et al. (2014), Smith and Mpinganjira (2015), and Khan et al. (2016) infer a positive relationship between PJ and customer satisfaction (CS). Additionally, Saraswita and Yasa (2017), Sarahditya and Wijaya (2018) and Nyagadza et al. (2022) confirm this propensity. After employing 372 banking customers in Kenya, Joel and Charles (2015) conclude that speed, communication, and effort, as the procedural justice aspects, positively influence their satisfaction. Based on these proofs, part B of the first hypothesis is as follows:

H₁ᵦ: Procedural justice positively affects consumer satisfaction

For consumers, interactive justice exists when the bank, through its employees, contacts them as a responsible form for handling their complaints (Nyagadza et al., 2022). In their investigation, Mansori et al. (2014), Smith and Mpinganjira (2015), Khan et al. (2016), Saraswita and Yasa (2017), Sarahditya and Wijaya (2018), Nyagadza et al. (2022) and Muhammad (2020) affirm this explanation by demonstrating a positive relationship between interactive justice and customer satisfaction. Based on this evidence, part C of the first hypothesis is as follows:

H₁ᶜ: Interactive justice has a positive impact on consumer satisfaction

2.2. Relationship Between Satisfaction and Loyalty

Satisfaction or dissatisfaction happens after consumers utilize the goods or services offered by the company. If the performance of products meets their expectation, the consumers will be satisfied, and vice versa. Moreover, they will be delighted if the performance exceeds their expectations (Kotler, Amstrong, & Opresnik, 2018). Using 304 Malaysians with banking accounts as their sample, Khan et al. (2016) exhibit a positive association between satisfaction and loyalty. Furthermore, Saraswita and Yasa (2017) confirm this tendency based on the perceptions of 100 consumers of the regional development bank in Denpasar. In their research, Maamari and Wasfi (2020) effectively prove the positive impact of customer satisfaction on loyalty in the banking industry in Lebanon and Sweden. Equally, after investigating Brazilian banking users, Tontini et al. (2021) conclude that there is a positive association. Manyanga et al. (2022) from Zimbabwe reveal the same evidence based on the viewpoint of 650 banking customers.

Jahan and Shahria (2022) investigate the perspectives of 279 mobile banking users in Bangladesh, and they find a positive propensity for satisfaction towards loyalty. By mentioning the viewpoint of 281 Serbian businesspeople becoming banking users, Šević et al. (2022) confirm this proof. Furthermore, Albarq (2023) reported this trend when studying 488 commercial banking consumers in Saudi Arabia. Moreover, Gautam and Sah (2023) demonstrate this evidence based on the perspective of 384 banking customers in Nepal. From Indonesia, Lelasari and Bernarto (2023) and Syarif et al. (2023) confirm the positive effect of satisfaction on

loyalty based on the perspectives of 605 mobile banking users of Bank Central Asia and 105 Islamic banking users, respectively. Through their research utilizing 163 Islamic banking customers in South Africa, Moosa and Kashiramka (2022) declare this positive relationship. Similarly, Redda (2023) confirms this propensity after studying 310 online banking users in South Africa. Based on these facts, this study develops the third hypothesis.

H_2: *Consumer satisfaction positively affects loyalty.*

2.3. Research Model

By mentioning the formulated hypotheses in the preceding section, Figure 1 displays the research model.
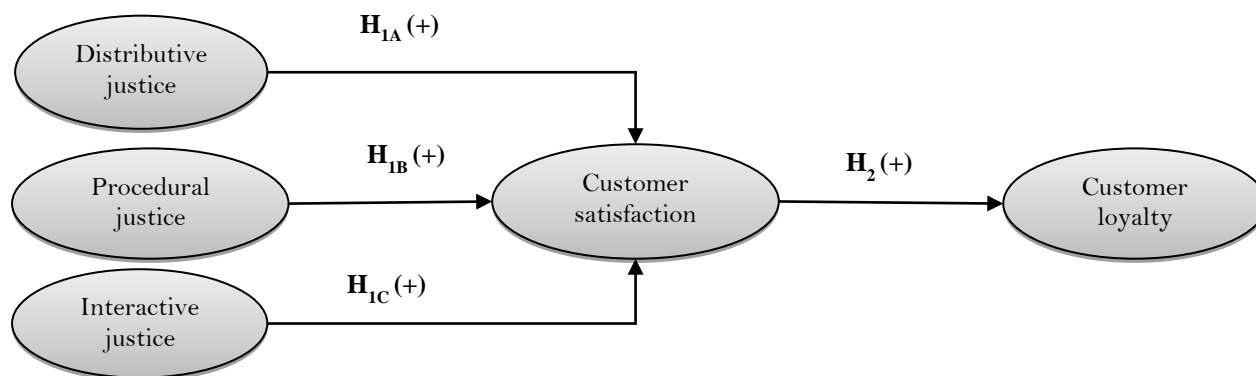

Figure 1. Research model.

3. Research Methods

3.1. Variable Measurement

This research sets customer satisfaction (SAT) and loyalty (LOY) as endogenous variables and service recovery as an exogenous variable. Furthermore, the indicators to quantify satisfaction and loyalty refer to Moosa and Kashiramka (2022) with a few modifications. As a result, the indicators are available in Table 1.

Table 1. Customer satisfaction and loyalty measurement.

Variable	Items	Source
Satisfaction (SAT)	The bank provides first-rate e-banking service to me (SAT1)	Modified from Moosa and Kashiramka (2022)
	The bank satisfies me with its e-banking platform (SAT2).	
	The bank satisfies me with the financial advice of an e-banking platform (SAT3).	
Loyalty (LOY)	I say positive things about the e-banking platform to others (LOY1)	
	I recommend that my co-workers, friends, and family transact online with this bank platform (LOY2).	
	I decide to keep using this online banking platform (LOY3)	

Furthermore, this study refers to Nyagadza et al. (2022) for determining service recovery dimensions consisting of distributive, procedural, and interactive justice, and their indicators exist in Table 2.

Table 2. The dimensions of service recovery and their indicators.

Dimension	Indicators	Source
Distributive justice	When an inconvenience happens, I obtain a truthful response from the bank (DJ1).	Adopted from Nyagadza et al. (2022)
	The bank provides a fair solution to my problem (DJ2).	
	I get adequate services when the bank reacts to my e-banking performance issues (DJ3).	
Procedural justice	The bank allows me to explain the problems based on my viewpoint (PJ1).	
	The bank has a fair policy for handling my complaints (PJ2).	
	The bank flexibly deals with my problems (PJ3).	
Interactive justice	The employees serve me politely when problems with the e-banking service platform happen (IJ1).	
	The employees communicate with me and express their care well when overcoming my problem through the e-banking service platform (IJ2)	
	The employees act honestly and ethically when solving my problem through the e-banking service platform (IJ3).	

3.2. Sample and Data

The population of this study consists of bank consumers in a few locations in West Java, namely Cirebon (city), Bandung (city), and Purwakarta (regency). Due to the unidentified population size, this study relies on theory testing to determine the total sample size, which should be at least 200, as required by Ghozali (2021b) followed by Mariana, Hadianto, and Karen (2024). Furthermore, this study employs snowball sampling, as demonstrated by Pandjaitan, MS, and Hadianto (2021) and Hadianto, Herlina, Mariana, Tjahyadi, and Tjun (2023). This sampling technique collects the respondents based on the database reference (Hartono, 2014) and virtuous relationships (Pandjaitan et al., 2021). After contacting several people in the database, the researchers demanded that people distribute the questionnaire to their colleagues, families, and so on (Pandjaitan et al., 2021). Fortunately, 230 banking customers were obtained.

3.3. Method to Analyze the Data

The total samples obtained are 230 banking customers; therefore, this study uses the structural equation model (SEM) based on covariance to analyze the data, as highlighted by Ghozali (2021b). Using the maximum likelihood method, covariance-based SEM connects two unobserved variables with factor analysis and simultaneous equation estimating parameters (Ghozali, 2017). It differs from Joel and Charles (2015), Maamari and Wasfi (2020) and Sarahditya and Wijaya (2018) who employ the regression model based on the ordinary least squares method in their statistical analysis.

In this study context, the latent variables intended are loyalty (LOY), satisfaction (SAT), distributive justice (DJ), procedural justice (PJ), and interactive justice (IJ), and the related sub-structural models are in Equations 1 and 2:

$$SAT = \gamma_1 DJ + \gamma_2 PJ + \gamma_2 IJ + \zeta_1 \qquad (1)$$
$$LOY = \beta_1 SAT + \zeta_2 \qquad (2)$$

Moreover, to ensure the answers are correct, this study uses confirmatory factor analysis to consider if the loading factor is more significant than 0.7 and the average variance extracted (AVE) is above 0.5. The indicators with a loading factor and AVE greater than the cut-off point demonstrate the accurate answer and vice versa (Hair Jr., Black, Babin, & Anderson, 2019). Additionally, this study uses composite reliability and Cronbach Alpha and composite reliability coefficients to examine reliability by comparing them with 0.7, as Hair Jr. et al. (2019) explain. The answer is reliable if the group of valid indicators has a more significant coefficient than 0.7.

After achieving validity and reliability testing, the succeeding phase is the goodness of fit model detection based on several statistical measurements, such as CMIN/DF, TLI, CFI, PGFI, PNFI, and PCFI, by following the rules in Hair Jr. et al. (2019), Baharum et al. (2023) and Dash and Paul (2021) as displayed in Table 3.

Table 3. The goodness of fit measurement.

Measurement	Demanded value	Sources
Chi-square divided by degree of freedom (CMIN/DF)	Between 2 and 5	Hair Jr. et al. (2019)
Tucker-Lewis index (TLI)	More than 0.90	Dash and Paul (2021)
Comparative fit index (CFI)	More than 0.90	Baharum et al. (2023)
Parsimonious goodness of fit index (PGFI)	More than 0.5	Dash and Paul (2021)
Parsimonious normed fit index (PNFI)	More than 0.5	Dash and Paul (2021)
Parsimonious comparative fit index (PCFI)	More than 0.5	Dash and Paul (2021)

By mentioning Ghozali (2021a) this study utilizes the Sobel technique to prove customer satisfaction as a mediation of the relationship between three justice-based service recovery and loyalty by comparing the Z-statistical probability (2-tailed) of the mediating effect of DJ → SAT → LOY, PJ → SAT → LOY, and IJ → SAT → LOY with the 5% significance level. If the probability is below this level, satisfaction has a mediating effect.

4. Results and Discussion

4.1. Descriptive Statistics

This research surveyed 230 banking consumers as a sample between February and August 2023 from three locations in West Java: Purwakarta, Bandung, and Cirebon. Furthermore, Table 4 provides information on their characteristics. In this table, 120 females become the majority of respondents (52.17%). Based on age and occupation, most people are between 41 and 45 years old (38.26%) and entrepreneurs (45.65%). The foremost people have undergraduate degrees (42.61%) and come from Bandung City (54.35%) based on their last formal education and origin. The tiniest size of respondents based on gender, age, and occupation belongs to males (47.83%), between 46 and 50 (15.22%), and farmers (6.52%), one-to-one. The smallest number of people based on the last formal education and origin of areas is from graduate school (17.39%) and Purwakarta Regency (19.57%), partially.

Table 4. The demographic features.

Feature	Description	Total	Percentage
Gender	Male	110	47.83%
	Female	120	52.17%
Age	From 31 to 35	39	16.96%
	From 36 to 40	68	29.57%
	From 41 to 45	88	38.26%
	From 46 to 50	35	15.22%
Occupation	Entrepreneur	105	45.65%
	Employee	42	18.26%
	Farmer	15	6.52%
	Lecturer	48	20.87%
	Teacher	20	8.70%
Last formal education	Junior high school	44	19.13%
	Senior high school	48	20.87%
	Undergraduate school	98	42.61%
	Graduate school	40	17.39%
Origin of area	Cirebon city	60	26.09%
	Bandung city	125	54.35%
	Purwakarta regency	45	19.57%

4.2. The Result of Validity and Reliability Testing

Table 5 presents confirmatory factor analysis results: loading factor and AVE to verify the validity of customer satisfaction (SAT) and loyalty (LOY). In this table, the loading factor of satisfaction is 0.872, 0.858, and 0.780 (see SAT1, SAT2, SAT3), and loyalty is 0.721, 0.725, and 0.766 (see LOY1, LOY2, and LOY3). Their response to these items is accurate because these values are higher than 0.7, as affirmed by the AVE above 0.5: 0.702 for SAT and 0.782 for LOY. Besides, the reliability detection shows the Cronbach Alpha beyond 0.7: 0.871 for SAT and 0.781 for LOY, supported by composite reliability exceeding 0.7: 0.876 for SAT and 0.782 for LOY. Because these values are higher than 0.7, the valid response is reliable.

Table 5. Loading factor, AVE, Cronbach alpha, and composite reliability for satisfaction and loyalty.

Variable	Item	Loading factor	AVE	Cronbach alpha	Composite reliability
Satisfaction	SAT1	0.872	0.702	0.871	0.876
	SAT2	0.858			
	SAT3	0.780			
Loyalty	LOY1	0.721	0.782	0.781	0.782
	LOY2	0.725			
	LOY3	0.766			

Table 6 displays the confirmatory factor analysis results: loading factor and AVE to verify the validity of distributive, procedural, and interactive justice (DJ, PJ, and IJ). In this table, the loading factor of DJ is 0.751, 0.736, and 0.704 (see DJ1, DJ2, and DJ3), PJ is 0.729, 0.824, and 0.858 (see PJ1, PJ2, and PJ3), and IJ is 0.844, 0.841, and 0.889 (see IJ1, IJ2, and IJ3). Their response to these items is accurate because these values are higher than 0.7, affirmed by the AVE above 0.5: 0.534 for DJ, 0.649 for PJ, and 0.737 for IJ. Moreover, the reliability detection reveals the Cronbach Alpha values surpassing 0.7: 0.762 for DJ, 0.842 for PJ, and 0.894 for IJ, supported by composite reliability exceeding 0.7: 0.774 for DJ, 0.847 for PJ, and 0.893 for IJ. Because these values are higher than 0.7, the valid response is reliable.

Table 6. The loading factors, AVE. Cronbach alpha, composite reliability related to service recovery aspects: distributive, procedural, and interactive justice.

Variable	Indicator	Loading factor	AVE	Cronbach alpha	Composite reliability
Distributive justice	DJ1	0.751	0.534	0.762	0.774
	DJ2	0.736			
	DJ3	0.704			
Procedural justice	PJ1	0.729	0.649	0.842	0.847
	PJ2	0.824			
	PJ3	0.858			
Interactive justice	IJ1	0.844	0.737	0.894	0.893
	IJ2	0.841			
	IJ3	0.889			

4.3. The Model Fit Detection Result

Table 7 shows the model fit detection, demonstrating the virtuous result of CMIN/DF because this value is below five: 2.584, between 2 and 5. Meanwhile, TLI and CFI are above 0.9: 0.903 and 0.923, showing a good result, supported by PGFI, PNFI, and PCFI exceeding 0.5: 0.790, 0.696, and 0.730. Because of these circumstances, the model is compatible with the responses used.

Table 7. The model fit examination result.

Measurement	Value	The necessary situation	Meaning
CMIN/DF	2.548	Between 2 and 5	Good
TLI	0.903	More than 0.90	Good
CFI	0.923		Good
PGFI	0.790	More than 0.5	Good
PNFI	0.696		Good
PCFI	0.730		Good

4.4. The Path Coefficient Estimation Result

Table 8 is the estimated result of the covariance-based structural equation model with its statistical features, such as path coefficient, critical ratio, and probability. In this table, the likelihood (1-tailed) of this ratio of path coefficient for the influence of DJ, PJ, and IJ on SAT is 0.000, 0.000, and 0.012. Because these values are lower than the 5% significance level, H1a, H1b, and H1c are acceptable. Similarly, the coefficient for the impact of SAT on LOY displays a probability of 0.000. Hence, hypothesis two is permissible.

Table 8. Path coefficient estimation result for the effect of each service recovery on satisfaction and the impact of satisfaction on loyalty.

Hypothesis	Causal association	Path coefficient	Standard error	Critical ratio	Probability	
					(2-tailed)	(1-tailed)
1a	DJ → SAT	0.337	0.093	3.636	0.000	0.000
1b	PJ → SAT	0.264	0.068	3.902	0.000	0.000
1c	IJ → SAT	0.139	0.054	2.569	0.024	0.012
2	SAT → LOY	0.310	0.085	3.667	0.000	0.000

According to the Sobel test, Table 9 displays the mediating effect of satisfaction on the association between each service recovery aspect and loyalty. In this table, the probability (2-tailed) for all mediating effects of satisfaction is significant at 5%: 0.017, 0.013, and 0.040. Therefore, satisfaction mediates the influence of distributive, procedural, and interactive justice on loyalty.

Table 9. Mediating impact examination result of satisfaction on the relationship of each justice-based service recovery on loyalty based on the Sobel testing

Mediating relationship	Indirect effect	Standard error of Sobel	Z-statistic	Probability (2-tailed)
DJ → SAT → LOY	0.104	0.041	2.523	0.017
PJ → SAT → LOY	0.082	0.031	2.613	0.013
IJ → SAT → LOY	0.043	0.021	2.049	0.049

4.5. Discussion

After examining parts A, B, and C of the first hypothesis, this study demonstrates that service recovery effectively contributes to customer satisfaction through distributive, procedural, and interactive justice. Through its staff members, the bank makes its complaining customers tranquil; therefore, they are satisfied by

distributive justice. This evidence aligns with Li-Hua (2012) and Mansori et al. (2014) who analyzed the banking customers in China and Malaysia, respectively; Binh and Vi (2013) who studied banking customers in Vietnam; and Khan et al. (2016), who researched Malaysians having banking accounts. Also, this fact confirms Smith and Mpinganjira (2015), Sarahditya and Wijaya (2018), Muhammad (2020) and Nyagadza et al. (2022) reporting the positive effect of distributive justice on the satisfaction of banking customers in South Africa, Indonesia, Pakistan, and Zimbabwe, respectively.

By applying procedural justice, banks satisfy customers by providing several steps their staff must follow to handle complaints. To do so, the bank should arrange a target time for its employees to solve the customer problem. Consequently, a positive tendency for this justice toward satisfaction exists, as Li-Hua (2012), Joel and Charles (2015), Smith and Mpinganjira (2015) and Khan et al. (2016) declare after investigating the perspectives of banking customers in China, Kenya, South Africa, and Malaysia, respectively. Also, this positive evidence stands for Sarahditya and Wijaya (2018) and Nyagadza et al. (2022) based on the viewpoint of banking customers in Indonesia and Zimbabwe one-to-one.

Banks can effectively satisfy their customers by applying interactive justice. Customers believe that the banking staff members can best serve them politely and with care; hence, they are happy. As a result, this proof aligns with Mansori et al. (2014) and Khan et al. (2016) after investigating Malaysian banking users. Also, this indication is similar to Smith and Mpinganjira (2015), Sarahditya and Wijaya (2018), Nyagadza et al. (2022), and Muhammad (2020) declaring a positive influence of interactive justice on banking customers in South Africa, Indonesia, Zimbabwe, and Pakistan, respectively.

By comparing the standardized path coefficients among justice and satisfaction, as Smith and Mpinganjira (2015) execute, this study finds that the most significant effect belongs to distributive justice: 0.322, exceeding 0.310 and 0.128 for procedural and interactive justice (see Table 10). Thus, this circumstance supports Smith and Mpinganjira (2015) who declare that distributive justice has the most substantial effect on the satisfaction of banking users in South Africa. Although Spain employs different objects, visitors to hotels and restaurants, Martínez-Tur, Peiró, Ramos, and Moliner (2006) confirm the largest association is between distributive justice and satisfaction. According to Martínez-Tur et al. (2006) this justice is based on the equity theory, which focuses on the outcome. According to this perspective, the bank must provide tangible forms, such as gifts, as compensation. Unfortunately, this situation does not align with Khan et al. (2016) and Saraswita and Yasa (2017) who declare that interactive justice has the highest effect on satisfaction compared with the two other types of justice.

Table 10. The result of the standardized path coefficient.

Hypothesis	Causal association	Standardized path coefficient
1a	DJ → SAT	0.322
1b	PJ → SAT	0.310
1c	IJ → SAT	0.128

After examining the second hypothesis, this study proves that satisfaction creates loyalty. In this context, the banking customers are satisfied because they get their expectations from the bank, i.e., the first-rate e-banking service, platform, and financial advice. After using the e-banking services, the customers share positive feedback about them in their social circles and encourage others to select and use the e-banking platform. With this positive evidence, this study aligns with the preceding scholars declaring a positive effect of satisfaction on loyalty using the banking consumers from Malaysia (Khan et al., 2016), Lebanon and Sweden (Maamari & Wasfi, 2020), Brazil (Tontini et al., 2021), Bangladesh (Jahan & Shahria, 2022), Serbia (Šević et al., 2022), Zimbabwe (Manyanga et al., 2022), Saudi Arabia (Albarq, 2023), Nepal (Gautam & Sah, 2023), Indonesia (Lelasari & Bernarto, 2023; Saraswita & Yasa, 2017; Syarif et al., 2023), and South Africa (Mousa, Nosratabadi, Sagi, & Mosavi, 2021). According to Nguyen and Hoang (2024) this tendency only occurs based on the perspective of individual clients in Vietnam.

Finally, this study reveals that satisfaction can mediate the effect of a recovery service on loyalty. It implies that a bank must prioritize three justices to foster consumer satisfaction, which encourages loyalty. Satisfied and loyal consumers will save money, especially in the time deposit account. Therefore, the bank can distribute the loan to society, resulting in profits. Indeed, this situation strengthens its financial ability to compete and survive in the marketplace.

5. Conclusion

A bank must survive as a profit-driven institution competing in the banking industry. One of its ways of making customers satisfied and loyal is by providing an online banking platform. Failure caused by disturbances to meet this service requires the bank to recover by applying three justice principles, i.e., distributive, procedural, and interactive, to keep its customers satisfied and loyal. Hence, this study intends to prove the effectiveness of service recovery in influencing satisfaction and the impact of satisfaction on loyalty. After mentioning the discussion section, this study concludes that service recovery positively contributes to customer satisfaction. In other words, the higher the distributive, procedural, and interactive justice levels to

handle customer complaints, the greater their satisfaction. Based on the perspective of 230 Indonesian banking customers, this effect continues with higher loyalty.

6. Implications, Limitations, and Future Research Suggestions

6.1. Practical and Theoretical Implications

As an applied implication, by mentioning a positive association between three service recovery aspects and satisfaction, this study recommends that banks compensate the users for the disappointing situation and handle their complaints by providing procedures and responsive and skilled staff to help. These things are needed to prevent customers from spreading negative information to their friends, family, and co-workers.

Academically, this study can overcome the inconsistent results of earlier related research by declaring a positive tendency of three service recovery aspects toward satisfaction and the positive inclination of satisfaction toward loyalty. Besides, this study proves that satisfaction mediates the impact of each service recovery aspect on loyalty. In other words, both parallel and sequential mediations of satisfaction exist concurrently.

6.2. Limitations and Future Research Suggestions

This study has some boundaries. Firstly, two exogenous variables exist. Therefore, the following scholars can incorporate service quality and perceived value as the primary variables and demographic features as the control variables to develop their research model further. Secondly, this study only focuses on banking users in three locations. Thus, the subsequent researchers should add the provincial capitals in Java, such as Jakarta, Bandung, Semarang, Yogyakarta, and Surabaya, and combine them with the provincial capitals in Indonesia. Finally, this study only surveyed the banking users from a single country, i.e., Indonesia. Therefore, they should combine banking users from multiple countries, such as Indonesia, Singapore, and Malaysia, to prove the countries as the moderating variables.

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