



Apology Presence Over Type: WhatsApp Service Recovery Satisfaction Among Indonesian University Students

Aurelius Stevan Ruslie, Bobby Ardiansyahmiraja*, Juliani Dyah Trisnawati

Faculty of Business and Economics, Department of Management, University of Surabaya, Jawa Timur, 60293, Indonesia

*Corresponding e-mail: bobbymiraja@staff.ubaya.ac.id

DOI: [10.66314/famj.v4i3.1106](https://doi.org/10.66314/famj.v4i3.1106)

ARTICLE INFO

Keywords: Apology Type; Emoji; Higher Education; Perceived Overall Justice; Service Recovery

Received: 16 April 2026

Revise: 30 July 2026

Accepted: 10 August 2026

ABSTRACT

This study examines the effects of apology type (responsibility-oriented, sympathy-oriented, and no apology) and emoji presence on service recovery satisfaction (SRS), perceived overall justice (POJ), consumer empathy (CE), and customer forgiveness (CF) among Indonesian university students. A 3×2 between-subjects factorial experimental design was employed with 173 students from two private universities in Surabaya as participants, randomly assigned to one of six WhatsApp message scenarios depicting a sudden class cancellation. Data were analyzed using two-way ANOVA with Tukey HSD post-hoc tests and PROCESS Macro Model 4 (Hayes, 2022) with 5,000 bootstrap resamples. Receiving either apology message produced significantly higher SRS than receiving no apology; however, the non-significant difference between the two apology types should be interpreted cautiously because the manipulation check did not distinguish them. POJ was confirmed as a significant positive predictor of SRS ($b = 0.734$, $p < .001$), but did not mediate the apology type–SRS relationship. Apology type did not significantly affect CE or CF. Emoji presence and its interaction with apology type also yielded no significant effects. In this setting, offering an apology was associated with higher student service recovery satisfaction than offering none. Claims about the relative effectiveness of the two apology types require caution because the manipulation check did not distinguish them.

This is an open access article under the [CC BY-SA](#) license



1. INTRODUCTION

Service failures are common in service-oriented industries, and universities are no exception. When a service failure occurs, an appropriate institutional response can meaningfully mitigate negative outcomes such as dissatisfaction, negative word-of-mouth, and behavioral retaliation (Bitner, Booms, & Tetreault, 1990; Hoffman, Kelley, & Rotalsky, 1995; Mattila & Ro, 2009; Msosa & Govender, 2020; Tan et al., 2021). In the higher education context, where students occupy a dual role as both consumers and institutional members, service recovery carries significant academic, emotional, and relational weight beyond typical commercial transactions (Finney & Finney, 2010).

Apology is among the most fundamental and effective forms of service recovery, signaling institutional responsiveness and validating students' negative experiences (Wirtz & Mattila, 2004; Lazare, 2004). Prior research identifies two apology types: responsibility-oriented apologies that openly admit fault, and sympathy-oriented apologies that express regret without accepting blame (Chung & Lee, 2021; Piao et al., 2025; Scher & Darley, 1997). Apology also consistently outperforms comparable crisis-response strategies in restoring perceived organizational trust (Coombs & Holladay, 2008; Fuoli, van de Weijer, & Paradis, 2017). Their comparative effects in the Indonesian higher education context remain unexplored.



University communication increasingly occurs through WhatsApp, a platform widely adopted for teaching, learning, and administrative communication in Indonesian higher education (Rahmadi, 2020), where text-based messages lack the nonverbal cues of face-to-face interaction. Emoji have emerged as key nonverbal complements in CMC, conveying emotional tone and sincerity cues (Cai & Park, 2026). Research shows negative-valence emoji (e.g., 😡) can enhance perceived sincerity in digital service recovery (Cai & Park, 2026), yet their effectiveness in institutional higher education contexts has not been tested.

Consistent with foundational work linking perceived justice to complaint satisfaction (Tax et al., 1998; Smith, Bolton, & Wagner, 1999; Blodgett, Hill, & Tax, 1997; Goodwin & Ross, 1992), and with meta-analytic and review evidence that justice perceptions robustly predict satisfaction with complaint handling across service contexts (Orsingher, Valentini, & de Angelis, 2010; Van Vaerenbergh, Varga, De Keyser, & Orsingher, 2019), Ambrose and Schminke (2009) show that students' overall sense of how fairly an organization has acted predicts satisfaction with service recovery — a relationship also documented via distributive, procedural, and interactional justice dimensions (Martínez-Tur, Peiró, Ramos, & Moliner, 2006; del Río-Lanza, Vázquez-Casielles, & Díaz-Martín, 2009) — yet no study has tested whether this mechanism operates in a university setting, despite evidence that service recovery investments meaningfully improve Indonesian university students' satisfaction, trust, and word-of-mouth behavior more broadly (Harsono, 2018). To examine these questions, we conducted a 3×2 between-subjects factorial experiment (N = 173) among Indonesian university students, testing the effects of apology type and emoji presence on SRS, POJ, CE, and CF.

This context is theoretically important: Indonesia is characterized by a collectivistic culture with comparatively high institutional deference, which may shape how students interpret and respond to institutional apologies differently than the largely commercial, individualistic samples examined in prior service recovery research (Hofstede, 2001; Patterson, Cowley, & Prasongsukarn, 2006; Soares, Farhangmehr, & Shoham, 2007).

Two related but distinct tests of the POJ–SRS relationship are proposed: H2 examines the bivariate association between POJ and SRS, while H3a examines this same relationship while statistically controlling for apology type (the b path in the PROCESS mediation model). Because H3a represents the more stringent test, both are hypothesized to establish the association before and after accounting for apology type.

Based on the literature reviewed, the following hypotheses are proposed:

- H1a:** Receiving an apology (either type) leads to significantly higher service recovery satisfaction (SRS) than receiving no apology.
- H1b:** A responsibility-oriented apology leads to significantly higher SRS than no apology.
- H1c:** A sympathy-oriented apology leads to significantly higher SRS than no apology.
- H2:** Perceived Overall Justice (POJ) has a significant positive effect on SRS.
- H3a:** The direct effect of POJ on SRS, controlling for apology type, is significant.
- H3b:** POJ mediates the relationship between responsibility-oriented apology and SRS.
- H3c:** POJ mediates the relationship between sympathy-oriented apology and SRS.
- H4a:** Apology type significantly affects Consumer Empathy (CE).
- H4b:** Apology type significantly affects Customer Forgiveness (CF).



H4c: Emoji presence significantly affects SRS.

H4d: The interaction between apology type and emoji presence significantly affects SRS.

2. METHOD

2.1 Research Design

This study employed a 3×2 between-subjects factorial experimental design. The independent variables were apology type (responsibility-oriented, sympathy-oriented, no apology) and emoji presence (present vs. absent), yielding six experimental conditions. The dependent variables were SRS, POJ, CE, and CF, with POJ additionally functioning as a mediating variable between apology type and SRS.

2.2 Participants and Procedure

Participants were active Indonesian university students aged 18 and above in Surabaya who had prior experience communicating with their university via WhatsApp. A convenience sample of 209 respondents was initially recruited via WhatsApp. After applying exclusion criteria (no consent, underage, not enrolled, no prior university communication experience) and removing participants exhibiting straight-lining behavior (Intra-Individual Response Variability score = 0), a final sample of N = 173 remained, distributed across six conditions: Responsibility with emoji (n = 31), Responsibility without emoji (n = 30), Sympathy with emoji (n = 26), Sympathy without emoji (n = 26), No Apology with emoji (n = 30), and No Apology without emoji (n = 30).

Each participant was randomly assigned to one condition via a separate online survey link. The experimental scenario depicted a WhatsApp group message from a university administrative officer (Tata Usaha) announcing a sudden class cancellation, followed by a recovery message varying by condition. In emoji-present conditions, the folded hands (🙏) and loudly crying face (😭) emoji were embedded in the recovery message text. All items were rated on a 7-point Likert scale. All participants provided informed consent prior to participation, were informed of their right to withdraw at any time without penalty and were assured that their responses would remain anonymous and used solely for research purposes. Participants were fully debriefed about the experimental nature of the WhatsApp scenarios after completing the survey.



(a) Responsibility-oriented Apology + No Emoji



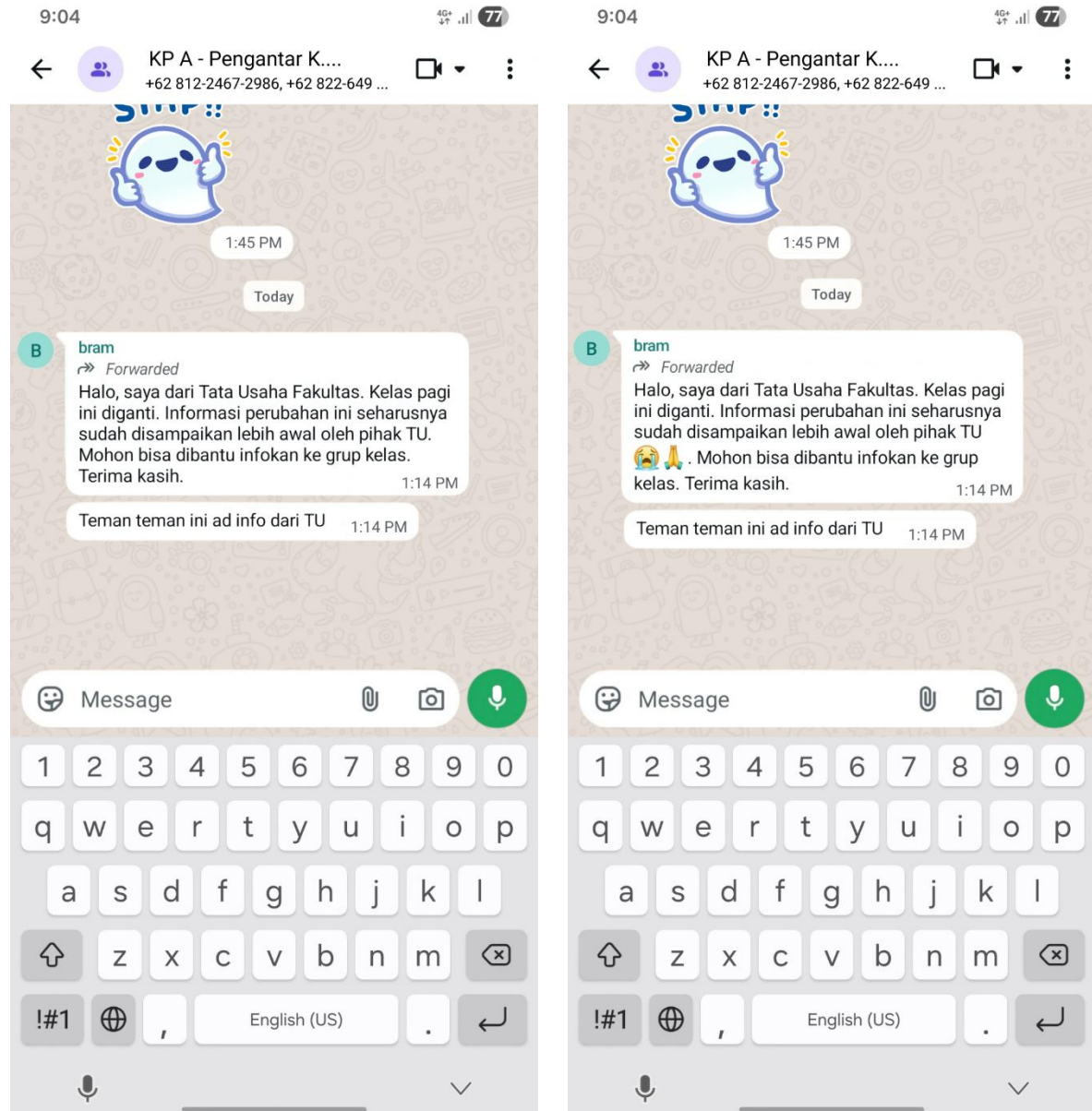
(b) Responsibility-oriented Apology + Emoji



(c) Sympathy-oriented Apology + No Emoji



(d) Sympathy-oriented Apology + Emoji



(e) No Apology + No Emoji

(f) No Apology + Emoji

Figure 1. WhatsApp Message Scenarios for the Six Experimental Conditions

Source: Primary Data (2026)

2.3 Measures

Service Recovery Satisfaction (SRS) was measured using four items adapted from Kim et al. (2012) ($\alpha = .894$). Perceived Overall Justice (POJ) was measured with six items from Ambrose and Schminke (2009) ($\alpha = .804$), with two items reverse-scored. Consumer Empathy (CE) was assessed using three items adapted from Wei et al. (2020) ($\alpha = .698$; Wieseke, Geigenmüller, &



Kraus, 2012). This is marginally below the conventional .70 threshold; however, alpha is sensitive to the number of items, and short 3-item scales are expected to yield comparatively lower alpha even when item intercorrelations are acceptable, supporting retention of the scale. Customer Forgiveness (CF) was measured using three items from Casidy and Shin (2015) ($\alpha = .795$; Fehr, Gelfand, & Nag, 2010).

2.4 Data Analysis

Data were analyzed using IBM SPSS Statistics Version 27. Four separate two-way between-subjects ANOVAs were conducted, one per dependent variable. Significant main effects of apology type were followed by Tukey HSD post hoc comparisons. Mediation of POJ between apology type and SRS was tested using PROCESS Macro Model 4 (Hayes, 2022) with 5,000 bootstrap resamples and 95% percentile bootstrap confidence intervals, using indicator coding with no apology as the reference group.

3. RESULTS AND DISCUSSION

3.1 Reliability and Descriptive Statistics

All measurement scales demonstrated acceptable to good internal consistency (Table 1). Mean SRS scores were notably higher in the apology conditions ($M = 4.86$ for both) compared to no apology ($M = 3.97$). CE and CF means were uniformly high across all conditions (Table 2), suggesting potential ceiling effects.

Table 1. Reliability Statistics for All Measurement Scales

Scale	Items	α	M	SD
Service Recovery Satisfaction (SRS)	4	.894	4.55	1.315
Perceived Overall Justice (POJ)	6	.804	4.79	1.006
Consumer Empathy (CE)	3	.698	5.21	1.003
Customer Forgiveness (CF)	3	.795	5.65	0.928

Source: Data processed, 2026

Table 2. Descriptive Statistics by Apology Type Condition

Condition	n	SRS M (SD)	POJ M (SD)	CE M (SD)	CF M (SD)
Responsibility-oriented	61	4.86 (1.27)	4.83 (0.90)	5.29 (1.06)	5.77 (0.85)
Sympathy-oriented	52	4.86 (1.16)	4.97 (0.94)	5.29 (0.97)	5.67 (0.99)
No Apology	60	3.97 (1.30)	4.61 (1.15)	5.07 (1.02)	5.53 (0.97)
Total	173	4.55 (1.32)	4.79 (1.01)	5.21 (1.00)	5.65 (0.93)

Source: Data processed, 2026

Table 2b. Descriptive Statistics by Apology Type $\times$ Emoji Condition

Apology Type	Emoji	n	SRS M (SD)	POJ M (SD)	CE M (SD)	CF M (SD)
--------------	-------	---	------------	------------	-----------	-----------



Responsibility-oriented	Emoji	31	4.77 (1.39)	4.95 (0.91)	5.33 (1.10)	6.01 (0.94)
Responsibility-oriented	No Emoji	30	4.96 (1.15)	4.70 (0.88)	5.24 (0.91)	5.51 (0.95)
Sympathy-oriented	Emoji	26	4.91 (1.23)	4.95 (1.00)	5.35 (1.08)	5.65 (0.95)
Sympathy-oriented	No Emoji	26	4.81 (1.12)	4.99 (0.89)	5.23 (0.92)	5.68 (0.87)
No Apology	Emoji	30	3.85 (1.43)	4.52 (1.36)	5.10 (1.08)	5.54 (1.13)
No Apology	No Emoji	30	4.09 (1.18)	4.70 (0.89)	5.03 (0.95)	5.51 (0.63)

Source: Data processed, 2026

3.2 Manipulation Check

An independent samples t-test revealed no significant difference between responsibility-oriented and sympathy-oriented conditions on the responsibility item, $t(111) = 0.096$, $p = .923$, or the sympathy item, $t(111) = -0.863$, $p = .390$. The manipulation did not successfully differentiate participants' perceptions of the two apology types, which is acknowledged as a key limitation. Experimental conditions were nonetheless retained, as the scenario messages did differ meaningfully in their actual apology content despite participants not perceiving them as distinct.

3.3 Two-Way ANOVA and Post-Hoc Results

Apology type produced a significant main effect on SRS, $F(2, 167) = 9.803$, $p < .001$, $\eta^2 p = .105$. No other main effects or interactions were significant across any DV. Tukey HSD comparisons showed both apology types produced significantly higher SRS than no apology (MD = 0.890; responsibility: $p < .001$, 95% CI [0.338, 1.445]; sympathy: $p = .001$, 95% CI [0.313, 1.467]). The two types did not differ from each other (MD = 0.000, $p = 1.000$), supporting H1a, H1b, and H1c.

The presence of an apology, regardless of type, restores student satisfaction, consistent with Wirtz and Mattila (2004). The absence of differential effects between apology types contrasts with Chung and Lee (2021), likely due to the failed manipulation check, the minor nature of the service failure, and students' dual institutional-consumer role reducing sensitivity to precise apology framing.

3.4 Mediation Analysis

Table 3 presents the mediation results. Path b, POJ on SRS controlling for apology type was significant ($b = 0.734$, $SE = 0.078$, $p < .001$), supporting H2 and H3a. Neither apology type significantly elevated POJ relative to no apology, though the sympathy-oriented path approached significance ($a1: b = 0.217$, $p = .235$; $a2: b = 0.360$, $p = .060$). Both indirect effects were non-significant (IE1: 95% CI [-.105, .434]; IE2: 95% CI [-.013, .556]), and H3b and H3c are not supported. Notably, both apology types retained a significant positive direct effect on SRS after controlling for POJ ($c'1 = 0.731$, $p < .001$; $c'2 = 0.626$, $p = .002$), indicating that apology's benefit to satisfaction operates substantially through channels other than perceived overall justice.



For transparency, an internal audit of the previous version identified an inconsistency in the reference category for the multicategorical predictor: the prior output used responsibility-oriented apology as the reference category, whereas the manuscript text and table labels described no apology as the reference. The dataset, sample, measures, and hypothesis decisions did not change. Table 3 now consistently reports no apology as the reference category, and the associated narrative has been revised accordingly.

Table 3. Mediation Analysis: POJ as Mediator of Apology Type on SRS (PROCESS Model 4)

Path	b	SE	p	95% CI	Sig.
a1: Responsibility → POJ	.217	.182	.235	–	No
a2: Sympathy → POJ	.360	.190	.060	–	No
b: POJ → SRS apology type	.734	.078	< .001	–	Yes
c'1: Responsibility → SRS POJ	.731	.186	< .001	[.364, 1.097]	Yes
c'2: Sympathy → SRS POJ	.626	.195	.002	[.242, 1.010]	Yes
IE1: Responsibility → POJ → SRS	.159	.138	–	[-.105, .434]	No
IE2: Sympathy → POJ → SRS	.264	.146	–	[-.013, .556]	No

Source: Data processed, 2026

The significant path b confirms global fairness perceptions independently predict satisfaction (Ambrose & Schminke, 2009), but apology type did not significantly elevate POJ in this context, although the sympathy-oriented apology showed a marginal positive trend ($p = .060$). Indonesian students may already hold relatively stable and favorable perceptions of institutional fairness, consistent with collectivistic loyalty norms (Hofstede, 2001), which may have left comparatively little room for apology type to shift those perceptions.

Beyond their indirect path through POJ, both apology types showed a significant positive direct effect on SRS after controlling for POJ ($c'1 = 0.731$, $p < .001$; $c'2 = 0.626$, $p = .002$). This indicates that apology's benefit to student satisfaction is not fully explained by shifts in perceived overall justice: receiving an apology, regardless of framing, appears to satisfy students through additional channels, such as the basic acknowledgment and validation of their negative experience (Wirtz & Mattila, 2004), independent of whether it moves their broader fairness judgment. This is consistent with the ANOVA findings above, where both apology types significantly outperformed no apology on SRS.

3.5 Consumer Empathy, Customer Forgiveness, and Emoji Effects

Apology type did not significantly affect CE ($F = 0.946$, $p = .391$) or CF ($F = 0.973$, $p = .380$); H4a and H4b are not supported. Ceiling effects were evident in both CE (M range 5.07–5.29) and CF (M range 5.53–5.77). One explanation is that Indonesian students' collectivistic orientation toward their institution may sustain generally high levels of empathy and willingness to forgive, regardless of how the recovery message was phrased (Hofstede, 2001; Wei et al., 2020).

Emoji presence did not significantly affect SRS ($F = 0.325$, $p = .570$), nor did the apology type × emoji interaction ($F = 0.304$, $p = .738$); H4c and H4d are not supported. The emojis used (🙏 and 🙌) may simply be too common in everyday Indonesian WhatsApp usage to function as meaningful sincerity cues in an institutional context, which would explain why results differed from Cai and Park (2026). The full apology type × emoji breakdown (Table 2b) shows directionally



small and inconsistent mean differences across cells, consistent with a genuine null effect rather than a power artifact masked by collapsing across conditions.

4. CONCLUSION

This study examined apology type and emoji presence effects on SRS, POJ, CE, and CF among Indonesian university students in a WhatsApp service-failure scenario. The central finding is that receiving an apology, regardless of its framing, significantly increased student service recovery satisfaction relative to no apology. However, because the manipulation check did not distinguish the responsibility-oriented and sympathy-oriented messages, the findings should not be interpreted as a definitive comparison of those two apology types. POJ independently predicted SRS but did not mediate the apology type–SRS relationship. Emoji presence and interactions produced no significant effects.

Practically, universities should prioritize timely acknowledgment of service failures via WhatsApp. The act of apologizing itself can support student satisfaction recovery; staff training should therefore emphasize prompt acknowledgment over stylistic variation or emoji use.

This study has limitations. The manipulation check did not differentiate the responsibility-oriented and sympathy-oriented conditions, limiting confidence in comparisons between those two apology types. Ceiling effects in CE and CF, a convenience sample from two private universities in Surabaya, and a relatively minor class-cancellation scenario also limit generalizability. Future research should pretest apology stimuli, recruit more diverse samples, and examine more severe service failures.

REFERENCES

- Ambrose, M. L., & Schminke, M. (2009). The role of overall justice judgments in organizational justice research: A test of mediation. *Journal of Applied Psychology*, 94(2), 491–500. <https://doi.org/10.1037/a0013203>
- Bitner, M. J., Booms, B. H., & Tetreault, M. S. (1990). The service encounter: Diagnosing favorable and unfavorable incidents. *Journal of Marketing*, 54, 71–84. <https://doi.org/10.1177/002224299005400105>
- Blodgett, J. G., Hill, D. J., & Tax, S. S. (1997). The effects of distributive, procedural, and interactional justice on postcomplaint behavior. *Journal of Retailing*, 73(2), 185–210. [https://doi.org/10.1016/S0022-4359\(97\)90003-8](https://doi.org/10.1016/S0022-4359(97)90003-8)
- Cai, J., & Park, Y. (2026). Apologizing for online service failures: How does the use of emojis have an impact on customer forgiveness? *Journal of Global Scholars of Marketing Science*, 36(1), 1–33. <https://doi.org/10.1080/21639159.2025.2571229>
- Casidy, R., & Shin, H. (2015). The effects of harm directions and service recovery strategies on customer forgiveness. *Journal of Retailing and Consumer Services*, 27, 103–112. <https://doi.org/10.1016/j.jretconser.2015.07.012>



- Chung, S., & Lee, S. (2021). Crisis management and corporate apology: The effects of causal attribution and apology type on publics' cognitive and affective responses. *International Journal of Business Communication*, 58(1), 125–144. <https://doi.org/10.1177/2329488417735646>
- Coombs, W. T., & Holladay, S. J. (2008). Comparing apology to equivalent crisis response strategies: Clarifying apology's role and value in crisis communication. *Public Relations Review*, 34(3), 252–257. <https://doi.org/10.1016/j.pubrev.2008.04.001>
- Del Río-Lanza, A. B., Vázquez-Casielles, R., & Díaz-Martín, A. M. (2009). Satisfaction with service recovery: Perceived justice and emotional responses. *Journal of Business Research*, 62(8), 775–781. <https://doi.org/10.1016/j.jbusres.2008.09.015>
- Fehr, R., Gelfand, M. J., & Nag, M. (2010). The road to forgiveness: A meta-analytic synthesis of its situational and dispositional correlates. *Psychological Bulletin*, 136(5), 894–914. <https://doi.org/10.1037/a0019993>
- Finney, T. G., & Finney, R. Z. (2010). Are students their universities' customers? An exploratory study. *Education + Training*, 52(4), 276–291. <https://doi.org/10.1108/00400911011050954>
- Fuoli, M., van de Weijer, J., & Paradis, C. (2017). Denial outperforms apology in repairing organizational trust despite strong evidence of guilt. *Public Relations Review*, 43(4), 645–660. <https://doi.org/10.1016/j.pubrev.2017.07.007>
- Goodwin, C., & Ross, I. (1992). Consumer responses to service failures: Influence of procedural and interactional fairness perceptions. *Journal of Business Research*, 25, 149–163. [https://doi.org/10.1016/0148-2963\(92\)90014-3](https://doi.org/10.1016/0148-2963(92)90014-3)
- Harsono, S. (2018). Service recovery and its effect on students' satisfaction, trust, and WOM communication. *International Research Journal of Business Studies*, 11(2), 93–112. <https://doi.org/10.21632/irjbs.11.2.93-112>
- Hayes, A. F. (2022). *Introduction to mediation, moderation, and conditional process analysis* (3rd ed.). The Guilford Press.
- Hoffman, K. D., Kelley, S. W., & Rotalsky, H. M. (1995). Tracking service failures and employee recovery efforts. *Journal of Services Marketing*, 9(2), 49–61. <https://doi.org/10.1108/08876049510086017>
- Hofstede, G. (2001). *Culture's consequences: Comparing values, behaviors, institutions, and organizations across nations* (2nd ed.). Sage Publications.
- Kim, T., Yoo, J. J. E., & Lee, G. (2012). Post-recovery customer relationships and customer partnerships in a restaurant setting. *International Journal of Contemporary Hospitality Management*, 24(3), 381–401. <https://doi.org/10.1108/09596111211217879>
- Lazare, A. (2004). *On apology*. Oxford University Press.
- Martínez-Tur, V., Peiró, J. M., Ramos, J., & Moliner, C. (2006). Justice perceptions as predictors of customer satisfaction: The impact of distributive, procedural, and interactional justice. *Journal of Applied Social Psychology*, 36(1), 100–119. <https://doi.org/10.1111/j.0021-9029.2006.00005.x>



- Mattila, A. S., & Ro, H. (2008). Customer satisfaction, service failure, and service recovery. In H. Oh & A. Pizam (Eds.), *Handbook of hospitality marketing management* (pp. 296–323). Butterworth-Heinemann. <https://doi.org/10.1016/B978-0-08-045080-3.50014-7>
- Msoa, S. K., & Govender, J. P. (2020). Service failure in higher education institutions. *International Journal of Educational Management*, 34(1), 45–55. <https://doi.org/10.1108/IJEM-03-2019-0097>
- Orsingher, C., Valentini, S., & de Angelis, M. (2010). A meta-analysis of satisfaction with complaint handling in services. *Journal of the Academy of Marketing Science*, 38(2), 169–186. <https://doi.org/10.1007/s11747-009-0155-z>
- Patterson, P. G., Cowley, E., & Prasongsukarn, K. (2006). Service failure recovery: The moderating impact of individual-level cultural value orientation on perceptions of justice. *International Journal of Research in Marketing*, 23(3), 263–277. <https://doi.org/10.1016/j.ijresmar.2006.02.004>
- Piao, Z., Nguyen, N. T., Song, H. J., & Park, J. Y. (2025). Beyond “I am sorry”: Investigating the impacts of apology type and language style on customer forgiveness. *Journal of Business Research*, 201. <https://doi.org/10.1016/j.jbusres.2025.115679>
- Rahmadi, I. F. (2020). WhatsApp group for teaching and learning in Indonesian higher education: What’s up? *International Journal of Interactive Mobile Technologies*, 14(13), 150–160. <https://doi.org/10.3991/ijim.v14i13.14121>
- Scher, S. J., & Darley, J. M. (1997). How effective are the things people say to apologize? Effects of the realization of the apology speech act. *Journal of Psycholinguistic Research*, 26(1), 127–140. <https://doi.org/10.1023/A:1025068306386>
- Smith, A. K., Bolton, R. N., & Wagner, J. (1999). A model of customer satisfaction with service encounters involving failure and recovery. *Journal of Marketing Research*, 36(3), 356–372. <https://doi.org/10.2307/3152082>
- Soares, A. M., Farhangmehr, M., & Shoham, A. (2007). Hofstede’s dimensions of culture in international marketing studies. *Journal of Business Research*, 60(3), 277–284. <https://doi.org/10.1016/j.jbusres.2006.10.018>
- Tan, T. M., Balaji, M. S., Oikarinen, E.-L., Alatalo, S., & Salo, J. (2021). Recover from a service failure: Differential effects of brand betrayal and disappointment. *Journal of Business Research*, 123, 126–139. <https://doi.org/10.1016/j.jbusres.2020.09.056>
- Tax, S. S., Brown, S. W., & Chandrashekar, M. (1998). Customer evaluations of service complaint experiences: Implications for relationship marketing. *Journal of Marketing*, 62(2), 60–76. <https://doi.org/10.1177/002224299806200205>
- Van Vaerenbergh, Y., Varga, D., De Keyser, A., & Orsingher, C. (2019). The service recovery journey: Conceptualization, integration, and directions for future research. *Journal of Service Research*, 22(2), 103–119. <https://doi.org/10.1177/1094670518819852>
- Wei, C., Liu, M. W., & Keh, H. T. (2020). The road to consumer forgiveness is paved with money or apology? *Journal of Business Research*, 118, 321–334. <https://doi.org/10.1016/j.jbusres.2020.06.061>



- Wieseke, J., Geigenmüller, A., & Kraus, F. (2012). On the role of empathy in customer-employee interactions. *Journal of Service Research*, 15(3), 316–331. <https://doi.org/10.1177/1094670512439743>
- Wirtz, J., & Mattila, A. S. (2004). Consumer responses to compensation, speed of recovery and apology after a service failure. *International Journal of Service Industry Management*, 15(2), 150–166. <https://doi.org/10.1108/09564230410532484>