



Managing social media recovery: The important role of service recovery transparency in retaining customers

Andreawan Honora^a, Wen-Hai Chih^{a,*}, Kai-Yu Wang^b

^a Department of Business Administration, National Dong Hwa University, No. 1, Sec. 2, Da Hsueh Rd., Shoufeng, Hualien, 97401, Taiwan, ROC

^b Department of Marketing, International Business and Strategy, Goodman School of Business, Brock University, 1812 Sir Isaac Brock Way, St. Catharines, ON, L2S3A1, Canada

ARTICLE INFO

Keywords:

Service recovery transparency
Customer forgiveness
Apology
Explanation
Social media

ABSTRACT

This research examines the influence of service recovery transparency on customer forgiveness to retain customers in the context of service recovery via social media. We propose that customer forgiveness mediates the effect of service recovery transparency on switchover intentions. We further posit that the effect of service recovery transparency on customer forgiveness is moderated by two additional recovery strategies, i.e., apology and explanation. The results of two studies, i.e., a survey and a scenario-based experiment, show that service recovery transparency acts to elicit customer forgiveness, which subsequently negatively affects switchover intentions. Furthermore, both apology and explanation moderate the effect of service recovery transparency on customer forgiveness. The positive effect of service recovery transparency on customer forgiveness is attenuated when an apology/explanation is absent.

1. Introduction

Service recovery is the effort that is made by service providers to manage or resolve service failures (Tax et al., 1998; Van Vaerenbergh et al., 2019). With the rapid development of technology and the emergence of social media, substantial customer complaint behaviors have shifted from offline to online contexts, particularly via social media. Accordingly, there is a demand for firms to be transparent and accountable when handling their customers' complaints.

A recent study surveying over 1000 social media users in the United States showed that 51% of consumers have complained via social media. Among these complainants, 52% of them intended to create awareness for other consumers (Moraes, 2019). The results of another study surveying 1000 U.S. consumers indicated the importance of handling customers' complaints with transparency. Eighty-six percent of the consumers were likely to switch to a competitor because of a lack of brand transparency on social media, while 85% of consumers were more likely to give brands a second chance if the firm handled complaints transparently (Sprout Social, 2019). These industry reports indicate that a lack of transparency in social media recovery which causes challenges to customer retention.

At the same time, academic research on social media recovery has

received increasing attention from marketing scholars in the past few years (e.g., Hogueve et al., 2019; Ku et al., 2021; Schaefers and Schamari, 2016; Wang et al., 2020). Service recovery transparency was shown to have a positive effect on customers who perceived firm remorse as a signal of the sincerity of the service provider (Wang et al., 2020). Customers are more willing to forgive service providers when they are able to release their negative internal reactions (Tripp et al., 2007; Xie and Peng, 2009; Zourrig et al., 2009) ultimately leading to customer retention (Chebat and Slusarczyk, 2005; DeWitt et al., 2008; Urueña and Hidalgo, 2016). However, despite the positive effect of service recovery transparency on social media recovery effectiveness, many firms still seem to ignore the importance of transparency in social media recovery (Customer Care Measurement and Consulting, 2020; Sprout Social, 2019). Providing a public response as a form of service recovery transparency is an online complaint handling strategy (Hogueve et al., 2019; Schaefers and Schamari, 2016), which enables other consumers access to complaints and allows them to view on social media any recovery processes that were offered by service providers. Thus, the first objective of this research aims to investigate the mechanism underlying the effect of service recovery transparency (i.e., providing a public response) on switchover intention. Based on the social influence theory (Latane, 1981), this research proposes that customer forgiveness

* Corresponding author.

E-mail addresses: 810732010@gms.ndhu.edu.tw (A. Honora), whchih@gms.ndhu.edu.tw (W.-H. Chih), kwang@brocku.ca (K.-Y. Wang).

mediates the effect of service recovery transparency on switchover intentions.

Moreover, with the goal of creating a more impactful service recovery research program, researchers have investigated the interaction effects among organizational responses in handling complaint (Van Vaerenbergh et al., 2019). To this end, researchers have shown that emotional recovery is more effective in producing a higher level of customer forgiveness compared to economic recovery (Wei et al., 2020). Little is known about how emotional recovery strategies interact with transparency in social media recovery effectiveness. However, such service recovery strategies are not commonly seen in practice (Customer Care Measurement and Consulting, 2020). For example, 27% of customers who participated in the survey expected an apology after a service failure, yet only 11% of customers received it. Furthermore, 31% of customers expected an explanation related to a service failure, and yet only 7% of customers received it. These results indicated that service providers do not handle complaints properly. It is not clear whether and how an apology and explanation influences service recovery effectiveness on social media. Hence, the second objective of this research is to investigate how these complaint handling strategies interact with service recovery transparency on customer forgiveness. Specifically, this research examines the moderating roles of two emotional recovery strategies (i.e., apology, explanation) in the relationship between service recovery transparency and customer forgiveness. The findings of this research will advance our understanding of how an apology and explanation influence the effect of service recovery transparency on customer forgiveness on social media.

In summary, this research intends to answer the following two research questions: 1. Does customer forgiveness play a mediating role in the relationship between service recovery transparency and switchover intention? 2. Do apology and explanation play moderating roles in the relationship between service recovery transparency and customer forgiveness?

A survey study and an experimental study were conducted to address the research questions. Study 1 recruited respondents who had experience making complaints to service providers on social media, whereas Study 2 was carried out with different samples by presenting a service failure and recovery scenario to the participants. The results of Study 1 and Study 2 remained consistent and showed that customer forgiveness plays a mediating role in the relationship between service recovery transparency and switchover intention. In addition, the moderating roles of apology and explanation on the relationship between service recovery transparency and customer forgiveness were confirmed.

This research makes contributions to the service recovery literature in several ways. First, it demonstrated the importance of social media recovery transparency. The results provided additional evidence for the suitability of applying the social influence theory (Latane, 1981) to social media recovery. Second, this research responded to the call for an investigation into the role of customer psychological constructs, such as forgiveness, in service recovery contexts (Harrison-Walker, 2019; Ma et al., 2020; Muhammad and Gul-E-Rana, 2019, 2020). Unlike previous research that focused on the understanding of cognitive constructs (e.g., satisfaction, perceived service quality) (Hogreve et al., 2019; Schaefer and Schamari, 2016), this research extends the existing social media recovery literature with a focus on the impact of transparency on recovery effectiveness and empirically investigates whether and how service recovery transparency leads to customer forgiveness. The results demonstrate that customer forgiveness mediates the effect of service recovery transparency on switchover intentions.

Third, this research identified the moderating effects of apology and explanation on the relationship between service recovery transparency and customer forgiveness. Studies investigating the interaction effects among organizational responses in handling complaints are still quite limited (Van Vaerenbergh et al., 2019). As such, this research examined how two emotional recovery strategies (i.e., apology, explanation) interact with transparency to influence customer forgiveness in social

media recovery. The findings of this research enrich our understanding of the interactive effects of transparency and emotional recovery strategies and provide service providers much-needed guidance on developing effective social media recovery strategies.

2. Literature review and hypothesis development

2.1. Transparency in social media recovery

In today's society, customers who are dissatisfied due to service failures tend to make their complaints via social media (Moraes, 2019). As such, other customers on social media can observe the interactions between the complainants and service providers in the recovery process (Schaefer and Schamari, 2016). The visibility of the recovery process is an important factor influencing customers' experiences and evaluation of service recovery process (Colm et al., 2017). Due to the visibility of the complaints to the public and potential impact on the evaluation and sales of the service providers, service providers actively seek to reduce the negative impact of complaints on social media (Rosario et al., 2016).

With the development of the internet and social media, the flow of information in cyberspace has also developed into the concept of transparency, which refers to the openness of information flows (Holzner and Holzner, 2006; Piotrowski, 2007). Transparency is generally defined as the extent to which an organization discloses information related to decisions, procedures, and performance to its stakeholders (Grimmelikhuijsen and Meijer, 2012). It involves factors, such as honesty, clarity, accuracy, and openness, that minimize the view that stakeholders are withholding of information (Yang, 2018). Transparency also refers to the ability of stakeholders to obtain information related to them (Tapscott and Ticoll, 2003).

In the social media recovery context, service recovery transparency refers to the extent to which a service recovery process can be seen by other consumers (Hogreve et al., 2019; Zhou et al., 2013). It emphasizes the accessibility of other consumers to all complaints and service recovery responses on social media. Service providers maintain public records and provide space for other customers to observe and engage in online service recovery (Stevens et al., 2018).

There are two main aspects of the service recovery transparency process on social media. The first aspect is the interaction between the service provider and complainant in public. The second aspect is the presence of other customers who can observe the interaction between the service provider and complainant. Therefore, this study defines service recovery transparency as the extent to which the responses of a service provider to its customers regarding their complaints can be seen by all viewers on the digital platform. As such, the correspondence is not only visible to the initial complainant, but also to others (Stevens et al., 2018). This definition is in line with the social influence theory, where social presence influences affective reactions and individual behaviors in a situation (Latane, 1981). That is, the presence of others can drive an individual's affective and/or behavioral responses.

2.2. Customer forgiveness

In the service recovery literature, most of prior research focused on customer satisfaction, trust, word of mouth, and behavioral intentions (e.g., Homburg et al., 2007; Van Vaerenbergh et al., 2018). Limited attention is still being paid to the concept of customer forgiveness as a positive response to service providers' recovery efforts (Suri et al., 2019). However, this concept has recently been widely discussed in the marketing literature (e.g., Babin et al., 2021; Balaji et al., 2020; Casidy and Shin, 2015; Chen et al., 2021; Harrison-Walker, 2019; Muhammad and Gul-E-Rana, 2019, 2020; Septianto et al., 2020; Tripathi, 2017; Wei et al., 2020; Wolter et al., 2019).

Forgiveness refers to the process of changing an individual's internal reaction to a more positive direction despite the fact that the individual has been harmed by others (McCullough et al., 2007). This internal

process begins when the individual starts to understand the incident, relieve negative emotions, and reduce her/his negative motivation to harm the perpetrator (Zourrig et al., 2009). Customer forgiveness is a constructive response to service failure that involves releasing anger, hatred, and destructive behavior toward service providers (Tripp et al., 2007; Xie and Peng, 2009). The concept of customer forgiveness has two main criteria: (1) releasing negative thoughts and emotions and (2) forming constructive reactions. For the service providers, obtaining customer forgiveness is the first step in restoring their relationships with customers (Tsarenko and Tojib, 2011), even though forgiving the service providers is the customers' choices (Enright, 2001; Luskin, 2003; Worthington Jr., 2001). Thus, in service failure incidents, service providers attempt to gain customer forgiveness by responding to the complaints and taking service recovery initiatives to recover their relationships with the customers (Harrison-Walker, 2019).

2.3. Service recovery transparency, customer forgiveness, and switchover intention

Faced with service failures, customers are more likely to generate negative emotions. According to the social influence theory (Latane, 1981), social presence influences an individual's emotional reactions and behaviors. Researchers have shown that social presence during the complaint handling process can help reduce customers' negative emotions and negative cognitions (Chen et al., 2014) and enhance the effects of service recovery success (Schaefers and Schamari, 2016). Reduced customers' negative internal reactions lead to the development of positive internal reactions, such as customer forgiveness, because customers tend to maintain positive impression in front of others to avoid negative social consequences (Newton et al., 1996). In addition, recent research has shown that perceived firm remorse is higher if the service provider handles complaints in public than in private and it generates emotional empathy toward the service provider (Wang et al., 2020). Customers can suppress and change their negative internal reactions to be more positive by forgiving the service providers. That is, service recovery transparency is likely to positively influence customer forgiveness.

However, previous research has perceived customer avoidance as a negative result in responding to service failures (e.g., Fetscherin and Sampedro, 2019; Hsu et al., 2019). It harms the service providers, as customers move away from them (Harmeling et al., 2015), which is an emotional outburst on the part of the customers (Ortiz et al., 2017) with feelings of being betrayed by the service providers (Gregoire et al., 2009). Avoidance is tantamount to customers' switchover intentions in which customers stop consuming services from the service providers due to service failures (Fetscherin and Sampedro, 2019).

The presence of customer forgiveness indicates that the customers has decided to let go of her/his negative behavior toward the service providers (Muhammad and Gul-E-Rana, 2020). Although forgiveness does not always mean reconciliation with the service providers (Tsarenko et al., 2019; Tsarenko and Tojib, 2012), the presence of forgiveness implies a reduction in negative customer emotions (Tripp et al., 2007; Xie and Peng, 2009; Zourrig et al., 2009). Specifically, forgiveness negatively affects switching behaviors (Fetscherin and Sampedro, 2019; Tsarenko and Tojib, 2012). That is, the presence of customer forgiveness is likely to lessen customers' motivations to switch to other service providers. Therefore, it is expected that service recovery transparency leads to customer forgiveness and, subsequently, negatively affects switchover intention. In other words, forgiveness mediates the relationship between service recovery transparency and switchover intention. This research proposes the following hypothesis:

H1. Customer forgiveness will mediate the effect of service recovery transparency on switchover intention.

2.4. The moderating effects of apology and explanation

Service recovery can be categorized into two types: economic recovery and emotional recovery. Economic recovery, also called tangible recovery, refers to solving problems in the form of giving redresses, such as discounts, refunds, or replacements (Zhou et al., 2013). Emotional recovery, also called psychological recovery, refers to intangible compensation, such as apologies and explanations (Wei et al., 2020).

Researchers have shown that emotional recovery is more effective in producing a higher level of customer forgiveness compared to economic recovery (Wei et al., 2020). When customers post their complaints via social media, service providers need to promptly respond in order to yield customer satisfaction (Istanbulluoglu, 2017). Responding to customers' complaints by offering apologies or explanations is effective for emotional recovery after the occurrence of a service failure (Tang et al., 2018) and increases the propensity of customers to forgive service providers (Yagil and Luria, 2016). Therefore, this study focuses on the moderating effect of emotional recovery, such as apologies and explanations, on the relationship between service recovery transparency and customer forgiveness.

2.4.1. Apology

Apology is considered a recovery strategy used to restore a relationship that has been damaged due to an occurrence of bad incident (Leary, 2010). Service providers may respond to customers by apologizing as a form of symbolic recovery when a service failure occurs (You et al., 2020). Apology is an emotional recovery strategy because it serves as psychological compensation (Davidow, 2000; Gelbrich and Roschk, 2011). In addition, apology refers to an acknowledgment of responsibility and expression of remorse on the part of the service provider for an incident that harmed the customer (Davidow, 2003; DiFonzo et al., 2020; Fehr and Gelfand, 2010; Lewis et al., 2015; Roschk and Kaiser, 2013). It is a form of politeness, attention, and effort on the part of the service provider that indicates that they take the customer's problems seriously (Goodman et al., 1987). In addition, offering an apology is seen as an impression management tactic that allows the service provider to avoid retaliation from the customer by seeking forgiveness and promising future good deeds (Radu et al., 2019).

Prior research has revealed that apology is effective in regard to triggering positive customer responses, such as customer forgiveness. For example, customers reduce their anger and reproach if the service provider apologized (Fehr and Gelfand, 2010; Hodgins and Liebeskind, 2003; Ohbuchi et al., 1989). That is, apology is a more effective strategy than money compensation to gain customer empathy and customer forgiveness (Wei et al., 2020). Previous research has also examined the effect of apology at different levels of service recovery transparency on customer response in regard to handling social media complaints. A public apology (high transparency) offered by a service provider resulted in a similar level of perceived firm remorse to that of a private apology (low transparency) when it is issued in immediate and long response time (Wang et al., 2020). It seems that when customers receive an apology from service providers in a timely manner, the effect of service recovery transparency on perceived firm remorse is limited. In a similar vein, it is expected that the effect of service recovery transparency on customer forgiveness will not increase when an apology is present. However, when an apology is absent, the effect of service recovery transparency should be observed. Without the presence of an apology, customers cannot perceive the goodwill and sincerity of the service provider and, therefore, it is less likely that the customers would forgive the service provider. Thus, this study proposes the following hypothesis.

H2. Apology will moderate the effect of service recovery transparency on customer forgiveness. The positive effect of service recovery transparency on customer forgiveness is attenuated when apology is present (vs. absent).

2.4.2. Explanation

Explanation is a management strategy used to avoid outrage from various stakeholders in the context of organizational management (Bettman and Weitz, 1983; Bies, 1987). In the context of complaint handling, explanation is a form of emotional recovery. It refers to the service provider’s action to provide a reason or cause for an incident that is not immediately clear or fully known (Shaw et al., 2003). Customers who experience service failures are curious about the source of the problem(s). They expect some clarity about what happened. The service provider’s response with open communication related to the service failure can neutralize the negative feelings of the customers toward the service provider because customers may think that an explanation is an important form of information and a means by which to understand the service failure incident in depth, so that they can control themselves in an ambiguous and detrimental situation (Liao, 2007). The information offered from the service provider helps customers evaluate their perceptions of fairness (Bies, 1987; Bies and Shapiro, 1987; Liao, 2007).

Prior research has suggested that explaining the reasons for a service failure has a positive impact on customers’ perceptions of service recovery (Mattila, 2006). Offering explanations generates informative justice (Liao, 2007), which makes customers feel satisfied and consider the service provider credible (Tarofder et al., 2016). This information can generate positive reactions to the service provider and cause customers to re-evaluate service failures (Tax et al., 1998). Good explanations are expected to reduce customer dissatisfaction and anger (Casado et al., 2011). That is, receiving an explanation either in public or private allows customers to perceive that service providers are carrying out their responsibilities to provide clarification of the occurred incidents so that the customers can understand the situations, thus increasing their sense of fairness (Liao, 2007; Mattila, 2006). Customers will perceive explanations as the service providers’ good intentions to solve the problems and, thus, provide sufficient reasons for the customers to reduce their anger and forgive the service providers. Therefore, similar to what we theorize in H2, we expect that the presence of an explanation might not have an additive effect to the effect of service recovery transparency on customer forgiveness. However, the effect would be weakened if an explanation is absent. Thus, this study proposes the following hypothesis.

H3. Explanation will moderate the effect of service recovery transparency on customer forgiveness. The positive effect of service recovery transparency on customer forgiveness is attenuated when explanation is present (vs. absent).

This research for this paper was carried out via two studies used to test the proposed hypotheses. Study 1 was conducted using a survey based on past service failures experienced by the respondents. Study 2 conducted an experiment replicating Study 1 to verify the moderating roles of apology and explanation in the relationship between service

recovery transparency and customer forgiveness. Fig. 1 below shows the conceptual model.

3. Study 1

3.1. Method

3.1.1. Data collection and sample

This study recruited respondents who had filed a complaint to a service provider via social media in Indonesia in the last two months. We identified and created a list of 1500 potential respondents based on their complaint histories to service providers via social media (e.g., Facebook, Instagram, Twitter). Then, we sent an invitation with a link to an online survey to these potential respondents through a direct message on social media. In the survey, a screening question inquired as to whether the respondent had filed a complaint to a service provider in the past two months. If a respondent qualified for the screening question, s/he was asked to enter the name of the service provider and proceed to answer all of the items in the survey according to her/his complaint experience. Four hundred and eight surveys were returned (27.2% response rate). Of the 408 returned surveys, 339 were valid, while 69 were incomplete. As shown in Table 1, the majority of the respondents were women (64.0%) and 60.8% of the respondents were between the ages of 18 and 25, while 34.2% were between 26 and 35. The age group of the sample represent the Indonesian social media users which are dominated by the age group

Table 1
Respondents’ demographic profiles.

Variables	Study 1 (Survey)		Study 2 (Experiment)	
	Frequencies	Percentage	Frequencies	Percentage
<i>Gender</i>				
Female	217	64.0%	73	49.0%
Male	122	36.0%	76	51.0%
<i>Age</i>				
<18 years old	8	2.3%	2	1.3%
18–25 years old	206	60.8%	101	67.8%
26–35 years old	116	34.2%	41	27.5%
36–45 years old	7	2.1%	4	2.7%
>45 years old	2	0.6%	1	0.7%
<i>Education Background</i>				
High school and below	112	33.0%	66	44.3%
Undergraduate degree	211	62.2%	80	53.7%
Graduate degree	16	4.8%	3	2.0%
<i>Relationship with Firm</i>				
3 months–6 months	55	16.2%	-	-
>6 months - 1 year	64	18.9%	-	-
>1 year - 2 years	74	21.8%	-	-
>2 years	146	43.1%	-	-

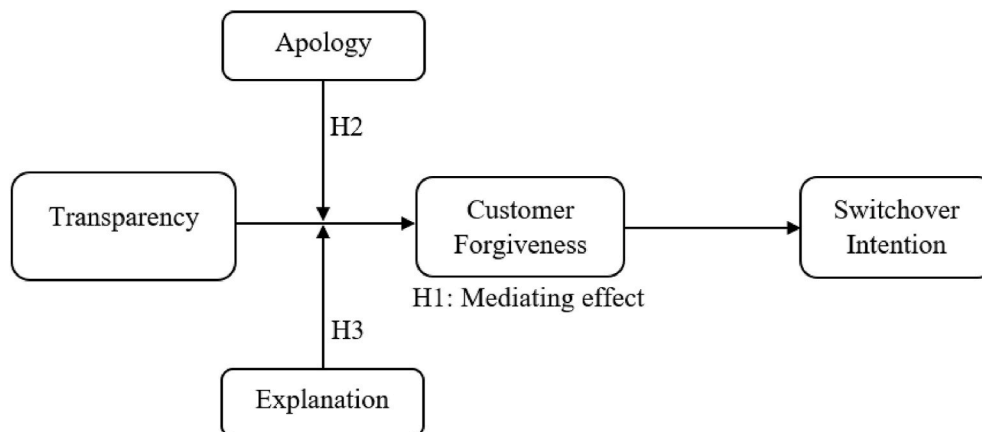


Fig. 1. Conceptual model.

between ages 18 and 35 (Kemp, 2021) and social media is a popular channel for complaints among individuals between the ages of 18 and 35 (Doyle, 2019). In addition, of the respondents, 62.2% had bachelor's degrees and 43.1% had a relationship of more than two years with the service provider to whom s/he complained.

3.1.2. Measurement

This study adapted previously validated measurement items for all of the constructs and used a 7-point Likert scale (1 for "strongly disagree" and 7 for "strongly agree") (see Appendix A). The measurement items were modified to fit the research context. This study adapted four items from Venkatesh et al. (2016) and three items from Schnebelen and Bruhn (2018) to measure service recovery transparency and customer forgiveness, respectively. Three measurement items related to switchover intention were adapted from Kim et al. (2019), while three items from Davidow (2000) and Liao (2007) were used to measure apology and explanation, respectively.

3.1.3. Common method bias (CMB)

This study adapted both prevention and post-detection procedures to avoid CMB. For the prevention procedure, this study asked the respondents to complete the survey anonymously, randomized the sequences of the measurement items, and concealed the construct name to reduce the respondents' concerns (Podsakoff et al., 2003). For the post-detection procedure, this study adapted the Harman single factor test with an exploratory factor analysis (EFA) to check the CMB (Podsakoff et al., 2003). The results showed that the first factor explained 45.85% of the variance. In addition, the common latent factor (CLF) method was also performed (Eichhorn, 2014). The results showed that the factor loading for CLF was 0.555 and the square of the factor loading was 0.308 with 30.80% of the variance. Both results indicated that CMB was not a concern in this study.

3.2. Results

3.2.1. Measurement model

This study used the version 25.0 of AMOS software with the maximum likelihood method to conduct the confirmatory factor analysis (CFA) to assess the reflective measurement model. The CFA model fit was adequate (Hair Jr. et al., 2014) ($\chi^2 = 157.385$, $DF = 89$, $\chi^2/DF = 1.768$, Good Fit Index (GFI) = 0.945, Comparative Fit Index (CFI) = 0.984, Tucker-Lewis Index (TLI) = 0.979, Incremental Fit Index (IFI) = 0.984, Root Mean Square Error of Approximation (RMSEA) = 0.048). In addition, this study checked the factor loadings of each measurement item and the composite reliability (CR) and average variance extracted (AVE) of each construct to confirm the convergent validity and reliability of all of the measurement items and constructs. The results showed that all of the factor loadings were at the recommended level (>0.5) and the CR and AVE of each construct exceeded 0.7 and 0.5, the confirming internal consistency between the measurement items (Table 2). Moreover, the square root of the AVE for each construct was greater than the inter-correlations between this construct and other constructs. Thus, discriminant validity was also confirmed (Table 3).

3.2.2. Hypothesis testing

PROCESS Model 4 was used to test the mediating role of customer forgiveness in the relationship between service recovery transparency and switchover intention (H1). Demographics (e.g., age, education, gender) and length of relationship with the service provider were included in the model as the control variables. Table 4 showed that service recovery transparency positively affected customer forgiveness ($\beta = 0.353$, $p < 0.001$; $CI = (0.261, 0.444)$), which subsequently had a significant and positive effect on switchover intention ($\beta = -0.382$, $p < 0.001$; $CI = (-0.500, -0.263)$).

The indirect effect of service recovery transparency on switchover intention through customer forgiveness was significant ($\beta = 0.353 \times$

$(-0.382) = -0.135$; $CI = (-0.196, -0.079)$), which confirmed that customer forgiveness had a mediating effect on the relationship between service recovery transparency and switchover intention, supporting H1. The direct effect of service recovery transparency on switchover intention was not significant ($\beta = -0.058$, $p > 0.05$; $CI = (-0.167, 0.051)$). The results showed that customer forgiveness fully mediated the effect of service recovery transparency on switchover intention.

Among the control variables, only the length of relationship with the service provider had a significant and negative effect on switchover intention ($p < 0.001$) and none of the control variables had a significant effect on customer forgiveness.

The moderating effects of apology and explanation on the relationship between service recovery transparency and customer forgiveness were tested by using PROCESS model 1.¹ The results showed that service recovery transparency and apology had a significant and negative interaction effect ($\beta = -0.047$, $p < 0.05$). The Johnson-Neyman technique probed the interaction between service recovery transparency and apology, examining the conditional effects of the moderator at different levels (Bauer and Curran, 2005). The cut-off value was 0.80 ($\beta = 0.089$, $p = 0.05$, 63.13% of the sample). The results indicated that all values of apology below 0.80 had a significant and positive effect of service recovery transparency on customer forgiveness, but not for value above 0.80. Thus, H2 was supported. Apology negatively moderated the positive effect of service recovery transparency on customer forgiveness. That is, the positive effect of service recovery transparency on customer forgiveness was significant at a lower level of apology and this effect became insignificant at a higher level of apology.

Moreover, the results indicated that service recovery transparency and explanation had a significant and negative interaction effect ($\beta = -0.044$, $p < 0.05$). Using the Johnson-Neyman technique, the cut-off value was 1.33 ($\beta = 0.113$, $p = 0.05$, 69.03% of the sample). The results indicated that all values of explanation below 1.33 had a significant and positive effect of service recovery transparency on customer forgiveness, but not for value above 1.33. Thus, H3 was supported. Explanation negatively moderated the positive effect of service recovery transparency on customer forgiveness. That is, the positive effect of service recovery transparency was significant at a lower level of explanation. This effect became insignificant at a higher level of explanation.

3.3. Discussion

The findings revealed that service recovery transparency positively influenced customer forgiveness, which subsequently led to customer retention. The higher the level of service recovery transparency is, the higher the level of customer forgiveness a service provider will obtain. Additionally, when customers forgive service providers, they are not likely to engage in destructive behavior, such as switching to other service providers.

Moreover, the findings revealed the moderating role of the emotional recovery strategy (i.e., apology, explanation) on the relationship between service recovery transparency and customer forgiveness. Specifically, if customers receive apologies/explanations, then they are likely to forgive the service providers after the occurrence of service failures regardless of the levels of the service recovery transparency. On the contrary, if the service providers do not offer apologies/explanations, then higher levels of service recovery transparency will be important in regard to generating customer forgiveness.

These findings present initial evidence for the moderating roles of apology and explanation on customers' responses to service recovery transparency. However, measuring apology and explanation would be weak to establish the causal relationship. Therefore, Study 2 was carried out to show the robustness of the findings on a different sample using an

¹ To minimize the potential multicollinearity problems, the mean-centering procedure was performed (Shieh, 2011).

Table 2
Measurement items, loading score, reliability and validity constructs.

Construct	Item	Factor Loading	Measurement Error	SMC	CR	AVE
Service recovery transparency	SRT1	0.825	0.319	0.681	0.840	0.570
	SRT2	0.811	0.342	0.658		
	SRT3	0.703	0.506	0.494		
	SRT4	0.668	0.554	0.446		
Customer forgiveness	FGV1	0.857	0.266	0.734	0.842	0.641
	FGV2	0.807	0.349	0.651		
	FGV3	0.733	0.463	0.537		
Switchover intention	SI1	0.726	0.473	0.527	0.913	0.780
	SI2	0.989	0.022	0.978		
	SI3	0.913	0.166	0.834		
Apology	APO1	0.890	0.208	0.792	0.924	0.803
	APO2	0.895	0.199	0.801		
	APO3	0.903	0.185	0.815		
Explanation	EXPL1	0.970	0.059	0.941	0.966	0.905
	EXPL2	0.942	0.113	0.887		
	EXPL3	0.941	0.115	0.885		

Table 3
Means, standard deviation, and correlation among each construct.

Construct	Mean	Std. Deviation	SRT	FGV	SI	APO	EXPL
SRT	4.67	1.37	0.755				
FGV	4.97	1.26	0.383**	0.801			
SI	4.45	1.41	-0.187**	-0.369**	0.883		
APO	5.10	1.38	0.387**	0.672**	-0.363**	0.896	
EXPL	4.58	1.71	0.395**	0.541**	-0.412**	0.664**	0.951

Notes: 1. SRT = Service recovery transparency, FGV = Customer forgiveness, SI = Switchover intention, APO = Apology, EXPL = Explanation.
 2. Bold numbers indicate square root of AVEs.
 3. Pearson correlation are shown below the bold numbers.
 **p < 0.01.

Table 4
PROCESS Model 4 results.

Direct Effects	β	t	95% CI
Service Recovery Transparency → Customer Forgiveness	0.353	7.594***	(0.261, 0.444)
Service Recovery Transparency → Switchover Intention	-0.058	-1.052 ^{ns}	(-0.167, 0.051)
Customer Forgiveness → Switchover Intention	-0.382	-6.330***	(-0.500, -0.263)
Gender → Customer Forgiveness	-0.053	0.392 ^{ns}	(-0.213, 0.319)
Gender → Switchover Intention	0.040	0.268 ^{ns}	(-0.333, 0.253)
Age → Customer Forgiveness	-0.109	-0.936 ^{ns}	(-0.338, 0.120)
Age → Switchover Intention	0.093	0.727 ^{ns}	(-0.159, 0.346)
Education → Customer Forgiveness	-0.119	-0.958 ^{ns}	(-0.363, 0.125)
Education → Switchover Intention	0.086	0.625 ^{ns}	(-0.184, 0.355)
Relation → Customer Forgiveness	0.029	0.499 ^{ns}	(-0.086, 0.145)
Relation → Switchover Intention	-0.279	-4.324***	(-0.406, -0.152)
Indirect Effect	β	SE	95% CI
Service Recovery Transparency → Customer Forgiveness → Switchover Intention	-0.135	0.030	(-0.196, -0.079)

Note: ns = not significant, ***p < 0.001.

experimental study.

4. Study 2

4.1. Method

As a follow-up to Study 1, an experimental study was conducted in which service recovery transparency, apology, and explanation were manipulated. The participants were recruited on social media by randomly targeting the followers of the official accounts of the top four Indonesian mobile payment service providers (i.e., Dana, Gopay, Link-Aja, OVO). A total of 149 individuals participated in this study (51.0% were male, 67.8% were between 18- and 25-years-old, 53.7% had bachelor's degrees). They were randomly assigned to one of the conditions and were asked to read an e-wallet app service failure scenario and imagine that they wanted to arrange bill payments by using an e-wallet app provided by an XYZ firm. After opening the app, they noticed that the current balance in the app was less than the previous balance, even though they had not used it. With great disappointment, they tweeted a complaint to the firm's official Twitter account.

Then the participants were told that the firm responded publicly by replying to their complaints (directly reply to their tweets) or privately (respond to their complaints via direct message), with an apology (vs. absence) and an explanation (vs. absence). Detailed scenarios are shown in Appendix B. Then, they responded to measures assessing customer forgiveness and switchover intention. The measurement items in Study 1 were used to assess customer forgiveness ($\alpha = 0.78$) and switchover intention ($\alpha = 0.80$). Manipulation check measures were asked using a four-item transparency scale ($\alpha = 0.94$), three-item apology scale ($\alpha = 0.84$), and three-item explanation scale ($\alpha = 0.96$), which were all adapted from Study 1. The demographic information was collected at the end of the survey.

4.2. Results

The results of the manipulation checks were as expected with the participants in the high level of service recovery transparency condition (receiving a direct reply to the tweet) rated service recovery transparency higher than the participants in the low level of service recovery transparency (receiving a direct message) ($M_{\text{high}} = 5.70$ vs. $M_{\text{low}} = 3.89$; $F_{1, 148} = 47.70$, $p < 0.001$). The participants who received an apology perceived that the service provider's apology was higher than the participants who did not receive an apology ($M_{\text{presence}} = 5.65$ vs. $M_{\text{absence}} = 4.52$; $F_{1, 148} = 24.45$, $p < 0.001$). In addition, the participants who received an explanation perceived that the service provider offered more information about the problems they faced than the participants who did not receive an explanation ($M_{\text{presence}} = 5.26$ vs. $M_{\text{absence}} = 2.89$; $F_{1, 148} = 81.39$, $p < 0.001$).

The results of the one-way ANOVA showed that the high level of service recovery transparency generated higher customer forgiveness than the low level of service recovery transparency ($M_{\text{high}} = 5.34$ vs. $M_{\text{low}} = 4.86$; $F_{1, 148} = 6.53$, $p < 0.05$). A mediation analysis using PROCESS Model 4 was performed. H1 was supported as forgiveness mediated the effect of service recovery transparency on switchover intention (indirect = -0.100 , SE = 0.057 , CI = $(-0.218, -0.003)$).

ANOVA test were conducted to analyze the interaction effects between service recovery transparency, apology, and explanation on customer forgiveness.² The results of a two-way ANOVA revealed a significant interaction between service recovery transparency and apology on customer forgiveness ($F_{1,145} = 5.81$, $p < 0.05$) as well as significant main effects of service recovery transparency ($F_{1, 145} = 9.02$, $p < 0.01$) and apology ($F_{1,145} = 8.63$, $p < 0.01$) on forgiveness. This study further examined the contrast effects under each service recovery transparency condition. As shown in Fig. 2, when an apology was not offered, the participants who perceived a high level of service recovery transparency were more willing to forgive the service provider than those participants who received a low level of service recovery transparency ($M_{\text{high}} = 5.29$ vs. $M_{\text{low}} = 4.31$; $F_{1,66} = 10.76$, $p < 0.01$). When an apology was offered, no significant difference existed in the level of customer forgiveness between the participants who perceived high and low levels of service recovery transparency ($M_{\text{high}} = 5.38$ vs. $M_{\text{low}} = 5.28$; $F_{1,79} < 1.00$). As such, the results supported H2.

Then, the results of another two-way ANOVA revealed a significant interaction between service recovery transparency and explanation on customer forgiveness ($F_{1,145} = 5.34$, $p < 0.05$) as well as significant main effects of service recovery transparency ($F_{1,145} = 7.70$, $p < 0.05$) and explanation ($F_{1,145} = 8.62$, $p < 0.01$) on forgiveness. This study further examined the contrast effects under each service recovery transparency condition. As shown in Fig. 3, when an explanation was not provided, the participants who perceived a high level of service recovery transparency were more willing to forgive the service provider than those participants who perceived a low level of service recovery transparency ($M_{\text{high}} = 5.28$ vs. $M_{\text{low}} = 4.36$; $F_{1,68} = 9.04$, $p < 0.01$). When an explanation was provided, no significant difference existed in the level of customer forgiveness between the participants who perceived high and low levels of service recovery transparency ($M_{\text{high}} = 5.39$ vs. $M_{\text{low}} = 5.31$; $F_{1,77} < 1.00$). As such, the results supported H3.

4.3. Discussion

The findings of Study 2 replicated the findings of Study 1 by examining the proposed relationships using a scenario-based experiment. A higher level of service recovery transparency generated a higher level of customer forgiveness, which subsequently decreased the participants'

² We also examined the three-way interaction of service recovery transparency, apology, and explanation on customer forgiveness by using three-way ANOVA. The result was not significant ($F_{1,141} < 1.00$).

switchover intentions. The findings of the moderating effect of apology showed that, in the absence of an apology, the participants in the high service recovery transparency condition, compared to those in the low service recovery transparency condition, were more likely to forgive the service providers after the occurrence of service failures. However, in the presence of an apology no significant differences existed between the high and low levels of service recovery transparency in regard to generating customer forgiveness. The findings of the moderating effect of explanation showed that, in the absence of an explanation, the participants who perceived high service recovery transparency were more likely to forgive the service providers than those who perceived low service recovery transparency. However, in the presence of an explanation, the level of customer forgiveness did not vary at different levels of service recovery transparency. Thus, all of the proposed hypotheses were supported.

5. General discussion and implication

This research investigated the influence of service recovery transparency on customer forgiveness and behavioral outcomes in social media recovery. Drawing on the social influence theory, the results indicated that service recovery transparency had a significant and positive effect on customer forgiveness. The findings are consistent with prior research findings (Chen et al., 2014; Hogueve et al., 2019; Newton et al., 1996). Providing transparent service recovery by handling complaints in the presence of others helps generate customer forgiveness, which, subsequently, reduces switchover intentions. The results indicated that customer forgiveness mediated the effects of service recovery transparency on switchover intention. The results are in line with prior studies' views that forgiveness tends to depress customers' destructive behavior and generate constructive behavior (e.g., Fetscherin and Sampedro, 2019; Harrison-Walker, 2019; Muhammad and Gul-E-Rana, 2019; Tsarenko and Tojib, 2012).

Further, the findings showed that apology moderated the effect of service recovery transparency on customer forgiveness. The positive effect of service recovery transparency on customer forgiveness diminished when the service provider provides an apology. That is, when an apology was present, customer forgiveness was not different regardless of the channels that the service providers used to respond to their complaints. However, the positive effect of service recovery transparency on customer forgiveness increased when an apology was absent. Similar effects were observed when explanations were used for social media recovery. These results support the view that emotional recovery strategies are a strong determinant for obtaining customer forgiveness after a service failure (Wei et al., 2020). However, it was noted that these strategies did not boost the positive effect of transparency on customer forgiveness. It is likely that a ceiling effect occurred when service recovery transparency is used with emotional recovery strategies on customer forgiveness.

Researchers have shown that, when a response to a complaint is issued in public, customers perceive the service provider's remorse, resulting in emotional empathy. When these customers have positive emotions-emotional empathy for the service provider, then they are less likely to take revenge on the service provider (Wang et al., 2020). As such, it is likely that customers become less sensitive to service recovery transparency when service providers provide emotional recovery initiatives (e.g., apology, explanation). Future research may want to investigate whether other emotional recovery initiatives have similar effects. In addition, future research is encouraged to examine whether economic recovery initiatives have additive effects on the positive effect of service recovery transparency.

5.1. Theoretical implications

This research contributed to the service recovery literature in several ways. First, this research provided additional support for applying the

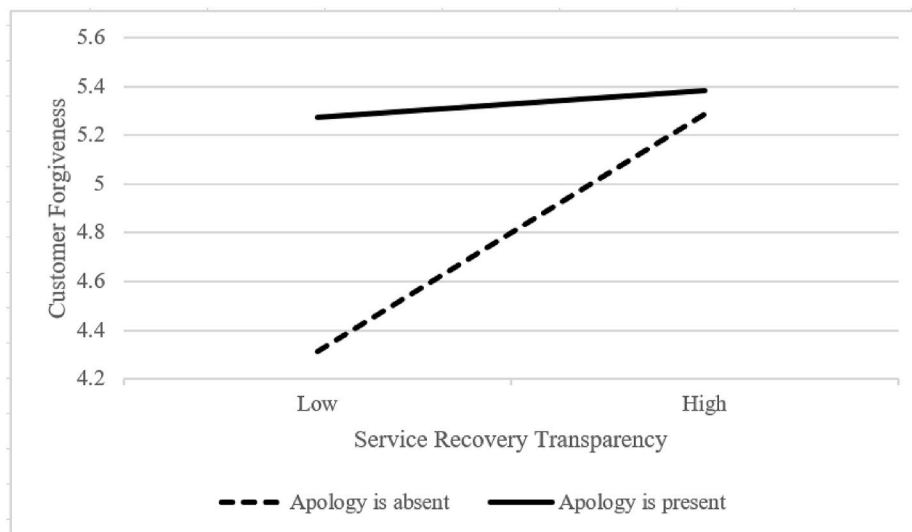


Fig. 2. Interaction effect of service recovery transparency and apology on customer forgiveness (Study 2).

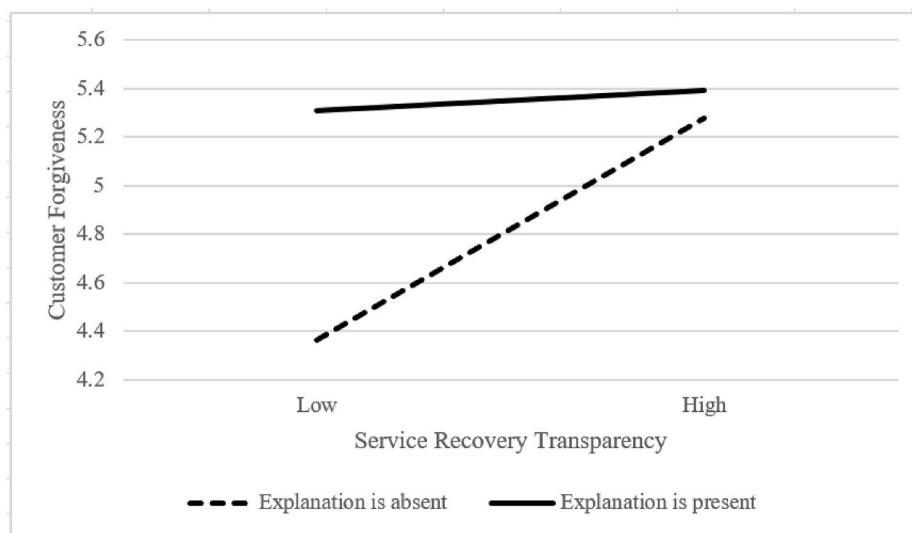


Fig. 3. Interaction effect of service recovery transparency and explanation on customer forgiveness (Study 2).

social influence theory (Latane, 1981) to social media recovery (Qiu et al., 2018; Schaefer and Schamari, 2016). Based on this theory, this research showed that making the service recovery process transparent (i.e., visible to the complainant and other viewers on social media) effectively reduced customers' switchover intentions, which was consistent with prior research findings (Schaefer and Schamari, 2016).

Second, the findings of this research demonstrated the role of customer forgiveness in online service recovery. Due to a lack of knowledge about customer forgiveness, recent studies have shown the need to explore the mediating role of customer forgiveness in the service recovery literature (Harrison-Walker, 2019; Ma et al., 2020; Muhammad and Gul-E-Rana, 2019, 2020). Most of previous research focused more on how traditional complaint handling strategies can lead to customer forgiveness, especially in the offline context (Babin et al., 2021; Casidy and Shin, 2015; Harrison-Walker, 2019; Ma et al., 2020; Muhammad and Gul-E-Rana, 2019, 2020). Recent research that has examined the role of service recovery transparency has not explored its effect on customers' psychological constructs, such as forgiveness (e.g., Schaefer and Schamari, 2016; Sengupta et al., 2018; Wang et al., 2020). As such, this research fills these gaps by revealing the importance of service

recovery transparency in regard to handling complaints on social media and extends recent studies in offline service recovery to social media recovery by showing the mediating role of customer forgiveness in reducing switchover intentions. The findings advance our knowledge related to the consequences of customer forgiveness.

Third, few studies have investigated interaction effects among service providers' responses in service recovery (Van Vaerenbergh et al., 2019). This research contributed to the literature relating to the interaction effect of service recovery transparency and traditional recovery strategies, particular emotional recovery (i.e., apology, explanation) on obtaining customer forgiveness. Recent research has considered the effect of recovery strategies (apology) and perceptions of justice from corporate recovery efforts (interactional justice) on customer forgiveness (Harrison-Walker, 2019; Muhammad and Gul-E-Rana, 2020), but not the effect of social influence (Zhou et al., 2013). Given the prevalent virtual presence of others on social media, this research filled this research gap by examining online and traditional recovery strategies and showed that service recovery transparency and emotional recovery strategies (i.e., apology, explanation) jointly affected customer forgiveness in the social media recovery context. When service recovery

transparency is high, apology/explanation does not enhance customer forgiveness. However, when service recovery transparency is low, apology/explanation attenuates the positive effect of service recovery transparency on customer forgiveness. Thus, the findings of this study provided additional support for the perspective that recovery strategies are contingent on the context (e.g., [Sengupta et al., 2018](#); [Wang et al., 2020](#)).

5.2. Managerial implications

In terms of managerial implications, this study provided practical insights for service providers in regard to managing customer complaints on social media. First, the findings suggested the importance of transparency in social media recovery. Using public messages to handle online complaints gives service providers an advantage toward obtaining customer forgiveness. Service providers should avoid shifting channels (from public message to direct message) in the social media recovery process. Responding to complaints transparently sends a signal to customers that service providers are trustworthy and remorseful of the service failure incidence ([Hogreve et al., 2019](#); [Wang et al., 2020](#)). The more transparent the handling of the complaints, the more likely customers are to forgive the service providers. Moreover, customer forgiveness is very important to obtain because it can effectively decrease switchover intentions after the occurrence of a service failure.

Second, when developing social media strategies, service providers should be aware of the interaction effects between apology/explanation and service recovery transparency. Our findings are consistent with previous research that has suggested that apology and explanation are effective in recovering service failures. Customers are more likely to forgive the service providers who offer apologies or explanations. Although high service recovery transparency does not boost the level of customer forgiveness when the service provider provides an apology or explanation, when an apology or explanation is absent, customer forgiveness improves only if the service provider offers high service recovery transparency. Various conditions might exist in which service providers do not respond to complaints with apologies/explanations,

such as when the problems are not caused by the service providers themselves, but by external factors, such as third party delivery services. Sometimes, service providers also use chatbots to generate generic responses (e.g., automated reply messages, template messages) to customers' messages, which may not contain apologies. Additionally, sometimes, service providers may need to collect details about the problems from which the complaints stem before they can provide explanations and find appropriate solutions. On such occasions, it is suggested that service providers provide their responses in public settings. Failing to provide high service recovery transparency will negatively affect customer forgiveness, resulting in high switchover intentions.

6. Limitations and future research

Although this research provides insights to social media recovery, it still has some limitations that may be resolved by future research. First, regarding the generalizability of the findings, this research only investigated consumers in Indonesia without specifying the category of service providers. Future research should test the proposed model in other countries and across various service categories (e.g., banking, communications, healthcare, logistics) and see if the results can be replicated. Second, this research did not measure the degree of service failure severity. Previous research has shown that service failure severity impacts the level of customer forgiveness ([Tsarenko and Tojib, 2012, 2015](#)). The more severe the failure, the more difficult it is for the customer to forgive the service provider. Future research should consider service failure severity in the research context. Third, this research investigated the moderating effect of apology on the relationship between service recovery transparency and customer forgiveness. An apology is an accommodative response. However, service providers can also respond to complaints transparently in front of other observing customers with a defensive response (e.g., denying the issue, providing an excuse) ([Tsarenko and Tojib, 2015](#)). One interesting question arises: If the service provider engages in a defensive response, will service recovery transparency still generate forgiveness? Future research should take the response content (e.g., defensive response) into consideration.

Appendix A

Measurement items.

Construct/item
Service Recovery Transparency (adapted from Venkatesh et al., 2016).
1. The service recovery process of this service provider was transparent.
2. This service provider provided feedback on public messages.
3. Other customers can access this service provider's response to why my problem occurred.
4. Other customers can access this service provider's recovery to my problem.
Customer Forgiveness (adapted from Schnebelen and Bruhn, 2018)
1. I am willing to forgive this service provider for failures.
2. I am willing to be forbearing towards the failure of this service provider.
3. Even though this service provider made a mistake, I am willing to give it an opportunity to make it up to me.
Switchover Intention (adapted from Kim et al., 2019)
1. I am considering switching from this service provider.
2. The likelihood of me switching to another service provider is high.
3. I am determined to switch to another service.
Apology (adapted from Davidow, 2000)
1. I received a sincere "I'm/We're sorry" from this service provider.
2. This service provider gave me a genuine apology.
3. I received an apology from this service provider.
Explanation (adapted from Liao, 2007)
1. This service provider's staff explained why the service problem might have happened.
2. This service provider's staff explained what might have gone wrong.
3. This service provider's staff explained what factors might have caused the problem.

Appendix B

Study 2 Scenario.

Introduction	Imagine that you want to arrange bill payments using the mobile app provided by a company (let's call the company "XYZ"). When you open the app, you notice that the credit balance in your app is less than the previous balance, even though you have not used it. With great disappointment, you tweet your complaint to the service provider's official Twitter customer service via public message.	
Transparency	Low	High
	Service providers try to divert the conversation by not responding to your complaint via public messages, but respond through private messages, so that other users cannot see the conversations between you and the service provider.	The service provider openly responds to your complaint directly via online public messages, so that other users can see the conversations between you and the service provider.
Service provider's reply	Explanation Yes	No
Apology	Yes	Hi there, we extremely sorry for the inconvenience caused. We are aware of this issue. It occurred due to the routine maintenance of our system. Our engineers are working hard to fix this issue now. You may resume normal use of our service soon. Thank you.
	No	Hi there, we are aware of this issue. It occurred due to routine maintenance of our system. Our engineers are working hard to fix this issue now. You may resume normal use of our service soon. Thank you.

References

- Babin, B.J., Zhuang, W., Borges, A., 2021. Managing service recovery experience: effects of the forgiveness for older consumers. *J. Retailing Consum. Serv.* 58, 102222.
- Balaji, M.S., Jiang, Y., Singh, G., Jha, S., 2020. Letting go or getting back: how organization culture shapes frontline employee response to customer incivility. *J. Bus. Res.* 111, 1–11.
- Bauer, D.J., Curran, P.J., 2005. Probing interaction in fixed and multilevel regression: inferential and graphical techniques. *Multivariate Behav. Res.* 40 (3), 373–400.
- Bettman, J.R., Weitz, B.A., 1983. Attributions in the board room: causal reasoning in corporate annual reports. *Adm. Sci. Q.* 28 (2), 165–183.
- Bies, R.J., 1987. The predicament of injustice: the management of moral outrage. In: Staw, B.M., Cummings, L.L. (Eds.), *Research in Organizational Behavior*. JAI Press, New York, NY, pp. 289–319.
- Bies, R.J., Shapiro, D.L., 1987. Interactional fairness judgments: the influence of causal accounts. *Soc. Justice Res.* 1 (2), 199–218.
- Casado, A.B., Nicolau, J.L., Mas, F.J., 2011. The harmful consequences of failed recoveries in the banking industry. *Int. J. Bank Market.* 29 (1), 32–49.
- Casidy, R., Shin, H., 2015. The effects of harm directions and service recovery strategies on customer forgiveness and negative word-of-mouth intentions. *J. Retailing Consum. Serv.* 27, 103–112.
- Chebat, J.C., Slusarczyk, W., 2005. How emotions mediate the effects of perceived justice on loyalty in service recovery situations: an empirical study. *J. Bus. Res.* 58 (5), 664–673.
- Chen, N., Mohanty, S., Jiao, J., Fan, X., 2021. To err is human: tolerate humans instead of machines in service failure. *J. Retailing Consum. Serv.* 59, 102363.
- Chen, Q., He, Y., Alden, D.L., 2014. Social presence in service failure: why it might not be a bad thing. *Cust. Needs Solut.* 1 (4), 288–297.
- Colm, L., Ordanini, A., Parasuraman, A., 2017. When service customers do not consume in isolation: a typology of customer co-presence influence modes (CCIMs). *J. Serv. Res.* 20 (3), 1–17.
- Customer Care Measurement and Consulting, 2020. Key Findings & Implications from the 2020 National Customer Rage Study. Retrieved from: <https://research.wpcarey.asu.edu/services-leadership/wp-content/uploads/2020/06/2020RegeStudyUPDATEDFINAL FORRELEASE.pdf/>. (Accessed 12 March 2021). accessed.
- Davidow, M., 2000. The bottom line impact of organizational responses to customer complaints. *J. Hospit. Tourism Res.* 24 (4), 473–490.
- Davidow, M., 2003. Organizational responses to customer complaints: what works and what doesn't. *J. Serv. Res.* 5 (3), 225–250.
- DeWitt, T., Nguyen, D.T., Marshall, R., 2008. Exploring customer loyalty following service recovery. *J. Serv. Res.* 10 (3), 269–281.
- DiFonzo, N., Alongi, A., Wiele, P., 2020. Apology, restitution, and forgiveness after psychological contract breach. *J. Bus. Ethics* 161 (1), 53–69.
- Doyle, K., 2019. Got Bad Customer Service? How to Complain Well and Get Results. Retrieved from: <https://www.consumerreports.org/customer-service/got-bad-customer-service-how-to-complain-well-and-get-results/>. (Accessed 12 March 2021). accessed.
- Eichhorn, B.R., 2014. Common Method Variance Techniques. Retrieved from: <https://www.lexjansen.com/mwsug/2014/AA/MWSUG-2014-AA11.pdf/>. (Accessed 22 January 2020). accessed.
- Enright, R.D., 2001. *Forgiveness Is a Choice: A Step-by-step Process for Resolving Anger and Restoring Hope*. American Psychological Association, Washington, DC.
- Fehr, R., Gelfand, M.J., 2010. When apologies work: how matching apology components to victims' self-construals facilitates forgiveness. *Organ. Behav. Hum. Decis. Process.* 113 (1), 37–50.
- Fetscherin, M., Sampedro, A., 2019. Brand forgiveness. *J. Prod. Brand Manag.* 28 (5), 633–652.
- Gelbrich, K., Roschk, H., 2011. A meta-analysis of organizational complaint handling and customer responses. *J. Serv. Res.* 14 (1), 24–43.
- Goodman, J.A., Malech, A., Boyd, S., 1987. Danger, angry customer. *ABA Bank. J.* 79 (1), 63–66.
- Gregoire, Y., Tripp, T.M., Legoux, R., 2009. When customer love turns into lasting hate: the effects of relationship strength and time on customer revenge and avoidance. *J. Market.* 73 (6), 18–32.
- Grimmelikhuijsen, S.G., Meijer, A.J., 2012. Effects of transparency on the perceived trustworthiness of a government organization: evidence from an online experiment. *J. Publ. Adm. Res. Theor.* 24 (1), 137–157.
- Hair Jr., J.F., Black, W.C., Babin, B.J., Anderson, R.E., 2014. *Multivariate Data Analysis*, seventh ed. Pearson Education Ltd., Harlow, UK.
- Harmeling, C.M., Magnusson, P., Singh, N., 2015. Beyond anger: a deeper look at consumer animosity. *J. Int. Bus. Stud.* 46 (6), 676–693.
- Harrison-Walker, L.J., 2019. The critical role of customer forgiveness in successful service recovery. *J. Bus. Res.* 95, 376–391.
- Hodgins, H.S., Liebeskind, E., 2003. Apology versus defense: antecedents and consequences. *J. Exp. Soc. Psychol.* 39 (4), 297–316.
- Hogreve, J., Bilstein, N., Hoerner, K., 2019. Service recovery on stage: effects of social media recovery on virtually present others. *J. Serv. Res.* 22 (4), 421–439.
- Holzner, B., Holzner, L., 2006. *Transparency in Global Change: the Vanguard of the Open Society*. University of Pittsburgh Press, Pittsburgh, PA.
- Homburg, C., Hoyer, W.D., Stock, R.M., 2007. How to get lost customers back? A study of antecedents of relationship revival. *J. Acad. Market. Sci.* 35 (4), 461–474.
- Hsu, L.C., Wang, K.Y., Chih, W.H., Lin, W.C., 2019. Modeling revenge and avoidance in the mobile service industry: moderation role of technology anxiety. *Serv. Ind. J. (in press)*. <https://doi.org/10.1080/02642069.2019.1585428>.
- Istanbuluoglu, D., 2017. Complaint handling on social media: the impact of multiple response times on consumer satisfaction. *Comput. Hum. Behav.* 74, 72–82.
- Kemp, S., 2021. Digital 2021: Indonesia. Retrieved from: <https://datareportal.com/reports/digital-2021-indonesia/>. (Accessed 12 March 2021). accessed.
- Kim, T.T., Karatepe, O.M., Lee, G., 2019. Test of an integrative model of travel-related social media users' switching intentions. *Serv. Bus.* 13 (2), 339–361.
- Ku, H.H., Shang, R.A., Fu, Y.F., 2021. Social learning effects of complaint handling on social media: self-construal as a moderator. *J. Retailing Consum. Serv.* 59, 102343.
- Latane, B., 1981. The psychology of social impact. *Am. Psychol.* 36 (4), 343–356.
- Leary, M.R., 2010. Affiliation, acceptance, and belonging. In: Fiske, S.T., Gilbert, D.T., Lindzey, G. (Eds.), *Handbook of Social Psychology*. John Wiley and Sons, Inc., Hoboken, NJ, pp. 864–897.
- Lewis, J.T., Parra, G.R., Cohen, R., 2015. Apologies in close relationships: a review of theory and research. *J. Fam. Theory Rev.* 7 (1), 47–61.
- Liao, H., 2007. Do it right this time: the role of employee service recovery performance in customer-perceived justice and customer loyalty after service failures. *J. Appl. Psychol.* 92 (2), 475–489.
- Luskin, F., 2003. *Forgive for Good*. HarperOne, San Francisco, CA.
- Ma, K., Zhong, X., Hou, G., 2020. Gaining satisfaction: the role of brand equity orientation and failure type in service recovery. *Eur. J. Market.* 54 (10), 2317–2342.
- Mattila, A.S., 2006. The power of explanations in mitigating the ill-effects of service failures. *J. Serv. Market.* 20 (7), 422–428.

- McCullough, M.E., Bono, G., Root, L.M., 2007. Rumination, emotion, and forgiveness: three longitudinal studies. *J. Pers. Soc. Psychol.* 92 (3), 490–505.
- Moraes, F., 2019. **Complaining Customers & Calling Out Businesses Online (Survey Results)**. Retrieved from. <https://www.whoishostingthis.com/blog/2019/12/19/business-callout/>. (Accessed 12 March 2021). accessed.
- Muhammad, L., Gul-E-Rana, 2019. Do service firm employee and customer relations matter for customer forgiveness in service recovery. *Asia Pac. J. Market. Logist.* 31 (4), 1216–1232.
- Muhammad, L., Gul-E-Rana, 2020. Mediating role of customer forgiveness between perceived justice and satisfaction. *J. Retailing Consum. Serv.* 52, 101886.
- Newton, T.L., Haviland, J.M., Contrada, R.J., 1996. The face of repressive coping: social context and the display of hostile expressions and social smiles. *J. Nonverbal Behav.* 20 (1), 3–22.
- Ohbuchi, K., Kameda, M., Agarie, N., 1989. Apology as aggression control: its role in mediating appraisal of and response to harm. *J. Pers. Soc. Psychol.* 56 (2), 219–227.
- Ortiz, J., Chiu, T.S., Chih, W.H., Hsu, C.W., 2017. Perceived justice, emotions, and behavioral intentions in the Taiwanese food and beverage industry. *Int. J. Conflict Manag.* 28 (4), 437–463.
- Piotrowski, S.J., 2007. *Governmental Transparency in the Path of Administrative Reform*. State University of New York Press, Albany, NY.
- Podsakoff, P.M., MacKenzie, S.B., Lee, J.Y., Podsakoff, N.P., 2003. Common method biases in behavioral research: a critical review of the literature and recommended remedies. *J. Appl. Psychol.* 88 (5), 879–903.
- Qiu, S.C., Li, M., Mattila, A.S., Yang, W., 2018. Managing the face in service failure: the moderation effect of social presence. *Int. J. Contemp. Hospit. Manag.* 30 (3), 1314–1331.
- Radu, A.G., Arli, D., Suratchartkumtong, J., Weaven, S., Wright, O., 2019. Empathy and apology: the effectiveness of recovery strategies. *Market. Intell. Plann.* 37 (4), 358–371.
- Rosario, A.B., Sotgiu, F., de Valck, K., Bijmolt, T.H.A., 2016. The effect of electronic word of mouth on sales: a meta-analytic review of platform, product, and metric factors. *J. Market. Res.* 53 (3), 297–318.
- Roschk, H., Kaiser, S., 2013. The nature of an apology: an experimental study on how to apologize after a service failure. *Market. Lett.* 24 (3), 293–309.
- Schaefer, T., Schamari, J., 2016. Service recovery via social media: the social influence effects of virtual presence. *J. Serv. Res.* 19 (2), 192–208.
- Schnebelen, S., Bruhn, M., 2018. An appraisal framework of the determinants and consequences of brand happiness. *Psychol. Market.* 35 (2), 101–119.
- Sengupta, S., Ray, D., Trendel, O., Van Vaerenbergh, Y., 2018. The effects of apologies for service failures in the global online retail. *Int. J. Electron. Commer.* 22 (3), 419–445.
- Septianto, F., Tjiptono, F., Kusumasondaja, S., 2020. Anger punishes, compassion forgives: how discrete emotions mitigate double standards in consumer ethical judgment. *J. Retailing Consum. Serv.* 53, 101979.
- Shaw, J.C., Wild, E., Colquitt, J.A., 2003. To justify or excuse? A meta-analytic review of the effects of explanations. *J. Appl. Psychol.* 88 (3), 444–458.
- Shieh, G., 2011. Clarifying the role of mean centering in multicollinearity of interaction effects. *Br. J. Math. Stat. Psychol.* 64 (3), 462–477.
- Sprout Social, 2019. **#BrandsGetReal: Social Media & the Evolution of Transparency**. Retrieved from. <https://sproutsocial.com/insights/data/social-media-transparency/#key-findings/>. (Accessed 12 February 2020). accessed.
- Stevens, J.L., Spaid, B.I., Breazeale, M., Esmark-Jones, C.L., 2018. Timeliness, transparency, and trust: a framework for managing online customer complaints. *Bus. Horiz.* 61 (3), 375–384.
- Suri, A., Huang, B., Senecal, S., 2019. I can forgive you, but I can't forgive the firm: an examination of service failures in the sharing economy. *J. Market. Theor. Pract.* 27 (4), 355–370.
- Tang, X., Chang, E.C., Huang, X., Zhang, M., 2018. Timing and compensation strategies in service recovery. *J. Serv. Market.* 32 (6), 755–766.
- Tapscott, D., Ticoll, D., 2003. *The Naked Corporation: How the Age of Transparency Will Revolutionize Business*. Free Press, New York, NY.
- Tarofder, A.K., Nikhashemi, S.R., Azam, S.M.F., Selvantharan, P., Haque, A., 2016. The mediating influence of service failure explanation on customer repurchase intention through customer satisfaction. *Int. J. Qual. Serv. Sci.* 8 (4), 516–535.
- Tax, S.S., Brown, S.W., Chandrashekar, M., 1998. Customer evaluations of service complaint experiences: implications for relationship marketing. *J. Market.* 62 (2), 60–76.
- Tripathi, S., 2017. Et tu, brute? How unfair. *J. Retailing Consum. Serv.* 39, 79–92.
- Tripp, T.M., Bies, R.J., Aquino, K., 2007. A vigilante model of justice: revenge, reconciliation, forgiveness, and avoidance. *Soc. Justice Res.* 20 (1), 10–34.
- Tsarenko, Y., Strizhakova, Y., Otnes, C.C., 2019. Reclaiming the future: understanding customer forgiveness of service transgressions. *J. Serv. Res.* 22 (2), 139–155.
- Tsarenko, Y., Tojib, D., 2011. A transactional model of forgiveness in the service failure context: a customer-driven approach. *J. Serv. Market.* 25 (5), 381–392.
- Tsarenko, Y., Tojib, D., 2012. The role of personality characteristics and service failure severity in consumer forgiveness and service outcomes. *J. Market. Manag.* 28 (9–10), 1217–1239.
- Tsarenko, Y., Tojib, D., 2015. Consumers' forgiveness after brand transgression: the effect of the firm's corporate social responsibility and response. *J. Market. Manag.* 31 (17/18), 1851–1877.
- Uruña, A., Hidalgo, A., 2016. Successful loyalty in e-complaints: FsQCA and structural equation modeling analyses. *J. Bus. Res.* 69 (4), 1384–1389.
- Van Vaerenbergh, Y., Hazeel, S., Costers, A., 2018. Customer participation in service recovery: a meta-analysis. *Market. Lett.* 29 (4), 465–483.
- Van Vaerenbergh, Y., Varga, D., De Keyser, A., Orsingher, C., 2019. The service recovery journey: conceptualization, integration, and directions for future research. *J. Serv. Res.* 22 (2), 103–119.
- Venkatesh, V., Thong, J.Y.L., Chan, F.K.Y., Hu, P.J.H., 2016. Managing citizens' uncertainty in e-government services: the mediating and moderating roles of transparency and trust. *Inf. Syst. Res.* 27 (1), 87–111.
- Wang, K.Y., Chih, W.H., Hsu, L.C., Lin, W.C., 2020. Investigating apology, perceived firm remorse and consumers' coping behaviors in the digital media service recovery context. *J. Serv. Manag.* 31 (3), 421–439.
- Wei, C., Liu, M.W., Keh, H.T., 2020. The road to consumer forgiveness is paved with money or apology? The roles of empathy and power in service recovery. *J. Bus. Res.* 118, 321–334.
- Wolter, J.S., Bacile, T.J., Smith, J.S., Giebelhausen, M., 2019. The entitlement/forgiveness conflict of self-relevant and self-neutral relationships during service failure and recovery. *J. Bus. Res.* 104, 233–246.
- Worthington Jr., E.L., 2001. *Five Steps to Forgiveness: the Art and Science of Forgiving*. Crown, New York, NY.
- Xie, Y., Peng, S., 2009. How to repair customer trust after negative publicity: the roles of competence, integrity, benevolence, and forgiveness. *Psychol. Market.* 26 (7), 572–589.
- Yagil, D., Luria, G., 2016. Customer forgiveness of unsatisfactory service: manifestations and antecedents. *Serv. Bus.* 10 (3), 557–579.
- Yang, Y., 2018. Is transparency a double-edged sword in citizen satisfaction with public service? Evidence from China's public healthcare. *J. Serv. Theory Pract.* 28 (4), 484–506.
- You, Y., Yang, X., Wang, L., Deng, X., 2020. When and why saying "thank you" is better than saying "sorry" in redressing service failures: the role of self-esteem. *J. Market.* 84 (2), 133–150.
- Zhou, Y., Huang, M., Tsang, A.S.L., Zhou, N., 2013. Recovery strategy for group service failures. *Eur. J. Market.* 47 (8), 1133–1156.
- Zourrig, H., Chebat, J.C., Toffoli, R., 2009. Exploring cultural differences in customer forgiveness behavior. *J. Serv. Manag.* 20 (4), 404–419.

Andreaan Honora is a Ph.D. student in the Department of Business Administration, National Dong Hwa University. His research interests include consumer behaviour, consumer psychology, service marketing, and social media.

Wen-Hai Chih is a Professor in the Department of Business Administration, National Dong Hwa University. His research interests include e-commerce, virtual community, social media, and social marketing. His work has appeared in *Industrial Marketing Management*, *Journal of Consumer Behaviour*, *Service Industries Journal*, *Cyberpsychology, Behavior and Social Networking*, *Internet Research*, *Computers in Human Behavior*, *Industrial Management and Data Systems*, *Journal of Service Management*, and *International Journal of Electronic Commerce*.

Kai-Yu Wang is a Professor of Marketing at the Goodman School of Business, Brock University, Ontario, Canada. His research interests include internet and social media marketing, consumer psychology, marketing communication, and services marketing. His work has appeared in *Journal of Business Research*, *Industrial Marketing Management*, *Journal of Service Theory and Practice*, *Service Industries Journal*, *Journal of Marketing Theory and Practice*, *International Journal of Advertising*, *Journal of Advertising*, *Cyberpsychology, Behavior and Social Networking*, *Computers in Human Behavior*, *Journal of Service Management*, and *International Journal of Electronic Commerce*.