The role of communication channel in delivering service recovery in online shopping environment

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Abstract: This study aims to investigate the effects the communication channels, which deliver service recovery on consumer satisfaction, word-of-mouth and loyalty intention, mediated through perceived quality of service recovery. In addition, this study examines the effect of service failure severity on perceived quality of service recovery. The results reveal that the type of communication channel has no significant effect on perceived quality of service recovery, whereas service recovery quality significantly affects consumer satisfaction and behavioural intentions. In addition, customers’ perceived severity of service failure significantly influences the quality of service recovery. The findings provide a considerable clue for managers to reduce expenditure and improve the effectiveness of service recovery activities, enabling companies to focus on the apology message rather than the communication channels. Furthermore, service providers should find a way to assess the degree of customers’ perception of service failure severity to enhance the quality of service recovery activities.

Keywords: communication channel; service recovery; service failure severity; online shopping mall.

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1 Introduction

In today’s demanding market environment, service failure is inevitable during service delivery. Service failure is caused by various mistakes, such as unavailability of service, slow service, and product defects (Forbes et al., 2005). Consumers often encounter service failure, which consequently leads to consumer dissatisfaction, negative word-of-mouth (WOM), and the collapse of customer loyalty (Kuo and Wu, 2012). However, this does not imply that service failure immediately ruins the relationship with the customer, because the service provider has another chance to retain customers through service recovery. Service recovery not only addresses customer dissatisfaction, it also enhances consumer satisfaction and loyalty more than initial service (Kau and Loh, 2006; Kuo and Wu, 2012). Thus, service recovery has recently become a crucial issue for researchers and service providers.

Previous literature has recognised that service recovery is as significant a determinant of overall customer satisfaction as the initial service (Parasuraman et al., 1991). More specifically, although service recovery helps foster higher satisfaction than the initial service, poor quality of service recovery aggravates customer dissatisfaction and worsens the relationship with customers (Kau and Loh, 2006). Despite the importance of service recovery, previous studies have seldom attempted to understand effective service recovery, and few researchers have conducted studies to explore the antecedents and conditions for effective service recovery. Thus, the current study intends to enhance the understanding of the various conditions that deliver service recovery by examining the effect of different types of delivery processes of service recovery on customers’ satisfaction and behavioural intentions.

As a major condition for delivering service recovery more effectively, the attribute of the service recovery process plays a significant role. Bitner et al. (1990) indicated that the process of service recovery is important for overall customer satisfaction. Parasuraman et al. (1988) also demonstrated that the process of service recovery is a primary determinant for customer evaluation. In particular, communication with customer-contact personnel in the service recovery process has been suggested as a primary driver of consumer satisfaction (Martin, 1993). Nevertheless, very little research has been conducted about the communication process of delivering service recovery for dissatisfied consumers (Mattila and Wirtz, 2004). Complainants who are satisfied with service recovery show higher repurchase intentions than even customers satisfied during the initial service provision (Gilly, 1987) because the recovery response, as the latest and
most recent experience during business with the service provider, has a strong effect on
customers’ perception (Spreng et al., 1995). In light of this understanding, we attempted
to study the effect of different types of communication channels by which service
recovery is delivered on consumers’ evaluation process of service recovery.

Consumer satisfaction with services depends on how they meet customer expectations
(Harris et al., 2006; Miller et al., 2000). Likewise, consumer expectations are an
important antecedent of effective service recovery. Consumers experiencing service
failure have specific expectations about service recovery that differ from those about the
initial service (Blodgett et al., 1997; Goodwin and Ross, 1992; Holloway and Beatty,
2003). Thus, in this study, as determinants of consumers’ expectations for service
recovery, customer perception of service failure severity was examined; service failure
severity has been studied as one of the factors related to the effects of service recovery
(Magnini et al., 2007). As the concept of the service recovery paradox demonstrates,
service failure aggravates customer dissatisfaction, but properly performed service
recovery leads to higher satisfaction and loyalty than customers’ existing satisfaction
with initial service delivery (Maxham, 2001; McCollough, 1995). Thus, service providers
should emphasise customers’ perceived severity of service failure. We therefore
examined service failure severity as a determinant of customer evaluation of service
recovery.

Despite the importance of effective service recovery, very little research has been
conducted to understand the antecedents and process types that determine the
effectiveness of service recovery. Although several researchers have attempted to
understand the antecedents of effective service recovery, they tended to focus on offline
service providers and typology of service failure and recovery, not on the relationships
among service recovery, consumer satisfaction, and other behavioural intentions (Kuo
and Wu, 2012). In previous research, a number of factors have been discussed as
antecedents of service recovery effects, such as customer commitment, service quality,
failure severity, and service guarantee (Miller et al., 2000). The current study examined
customers’ perceived severity of service failure as an important antecedent that affects
the consumer evaluation process of service recovery. Even though service failure severity
is an indicator of consumers’ expectations of service recovery, it has not been studied
enough compared to other factors. As the main context of this study as well as an
antecedent, we focused on the communication channels that deliver service recovery to
measure the effect of the service recovery. The impact of communication channels has
not been studied in the context of service recovery, even though the customer-contact
point of the service process has been regarded as an important factor in consumer
behaviour (Martin, 1993).

The purpose of this study is to explore the antecedents of effective service recovery,
in particular the level of consumer perception of failure severity and the communication
channels of the service recovery process in the online apparel industry. As types of
communication channels, we used social networking services (SNSs), phone, and letter or
e-mail, and we examined the effects of those communication channels and consumer
perception of service failure severity on customers’ perceived quality of service recovery.
In addition, we examined the effect of the perceived quality of service recovery on
consumer behaviour, such as post-recovery satisfaction, WOM intentions, and loyalty
intentions, which have been considered significant outcome variables to represent
post-recovery consumer behavioural intentions. Through this study, we may facilitate
developing a more effective strategy framework to deliver service recovery, which will help service providers strengthen long-term relationships with their customers.

2 Theoretical framework

2.1 Disconfirmation paradigm

Service recovery has been studied under various theoretical frameworks, such as the disconfirmation paradigm, justice, equity, and fairness theory, which focus on the aspects of service recovery procedures and consumer evaluation related to service recovery (Andreassen, 2000; Kuo and Wu, 2012; Maxham, 2001). We particularly applied the disconfirmation paradigm theory, which was developed by Howard and Sheth (1969), to justify the overall research model of this study. The disconfirmation paradigm theory focuses on the discrepancy between individual expectations and outcomes, which this study intends to examine, whereas other theories focus on comparison of outcomes with their own input or that of other consumers (Andreassen, 2000; Yüksel and Yüksel, 2001). When a consumer encounters a service outcome equal to or better than his or her expectations, confirmation arises, which consequently results in satisfaction, whereas if consumers encounter a service outcome lower than their expectations, it causes disconfirmation, which leads to consumer dissatisfaction (Yüksel and Yüksel, 2001). In the frame of the disconfirmation paradigm, this study examines the effect of customer expectation as represented by the consumer perception of service failure severity on customer evaluation of service recovery provided through the communication process.

Although this paradigm has been widely applied in studies of service quality and consumer complaint behaviour (Boshoff, 1997), researchers have discussed several limitations in the practical usage of this paradigm. Above all, researchers raised the issue of imprecision in measuring pre-consumption expectations. In the frame of the disconfirmation paradigm, researchers measure consumers’ pre-consumption expectations and post-consumption performance separately (Niedrich et al., 2005; Yüksel and Yüksel, 2001). However, researchers have pointed out that consumers’ standards may change during the ongoing consumption process such that any differences between pre- and post-consumption responses can be unreliable (Teas, 1993; Yüksel and Yüksel, 2001). In addition, researchers have questioned whether fulfilling consumers’ initial expectations necessarily leads to consumer satisfaction. The consumer satisfaction process and evaluation standards would be diverse depending on the consumption situation, such as the types of products and services as well as consumer involvement (Churchill and Surprenant, 1982). Thus, the current study employed the specific situation of service failure to clarify the context of consumers’ pre-consumption expectations in considering the limitations of using this theory. Therefore, this theory helps us identify significant implications in terms of how consumers respond to specific service recovery processes attempting to meet individuals’ expectations.
3 Literature review

3.1 Types and delivery of service recovery

Faultless service does not exist in the current service market dominated by high-demand consumers and complex retailing systems. Service failure is caused by slow or rude employee behaviour, inaccurate service delivery, or service unavailability (Bitner et al., 1990). More seriously, service failures lead to consumer dissatisfaction and consequently undermine the relationship with consumers. Service recovery refers to the process through which service providers respond to consumers’ service failure experiences and their anticipation of recovery to solve consumers’ problems and retain customers (Hart et al., 1990; Miller et al., 2000). Miller et al. (2000) identified three phases of the service recovery process based on Schweikhart et al.’s (1993) study: pre-recovery, immediate recovery, and the follow-up recovery phase. The pre-recovery phase is the initial phase when consumers first encounter service failure; dissatisfied consumers have expectations for service recovery in this phase. The antecedents that determine the effectiveness of service recovery are associated with this phase. The immediate recovery phase begins when service providers realise the service failure has occurred and initiate a recovery plan; thus, types and delivery of service recovery pertain to this phase. The necessity of a follow-up recovery phase depends on consumer satisfaction after service recovery, and the service recovery outcome is incorporated into this final phase (Miller et al., 2000).

In the immediate recovery phase, service providers should establish the frame of service recovery activities to determine when they provide recovery services, which type of recovery they employ, to whom they provide it, and how they deliver the service. In particular, service providers must engage in a complicated decision making process to determine type and delivery channel of service recovery in this phase. The types of service recovery are generally classified into psychological and tangible recovery (Miller et al., 2000; Schweikhart et al., 1993). Psychological recovery refers to direct consolation to relieve consumer frustration caused by service failure using apology, empathy, and explanation (Kuo and Wu, 2012; Miller et al., 2000). To succeed with psychological recovery, service providers should put more weight on consumer expectations for service recovery. Tangible recovery means providing physical compensation to pay for real damages, such as a refund, gift, discount, or coupon (Kuo and Wu, 2012; Zemke, 1994). Psychological and tangible recoveries have different purposes and uses depending on the situation, and this study focuses only on psychological recovery, particularly the apology. Through an apology as a type of psychological recovery, service providers recognise the consumers’ inconvenience and mollify the consumers’ anxiety and frustration due to the service failure experience, thereby recovering from dissatisfaction and retaining customers (Zemke and Bell, 1992). Several prior studies confirmed that apology is an effective method of service recovery to restore customers’ satisfaction and maintain the relationship with them (Boshoff and Leong, 1998; Smith et al., 1999).
After deciding the type of service recovery, service providers should determine the delivery method of service recovery. An apology comes in various forms, such as a telephone apology or a letter of apology. A telephone or letter apology is cost-effective, but it does not necessarily demonstrate sincerity and authenticity (Bell and Ridge, 1992). In addition to those communication methods, Boshoff and Leong (1998) asserted that personal contact to deliver an apology to customers would be the most influential to demonstrate the company’s understanding to the frustrated consumers and acknowledge the consumers’ value to the service company. However, this method requires more time and money than a telephone or letter apology. Thus, we employed the telephone and letter as channels to deliver service recovery in this study, considering cost-effectiveness and a researchable setting. As information technology has recently radically developed, the types of corporate communication channel have also been changed. Dad (2012) suggested that the types of modern communication method are SNS, e-mail, and blogs. Thus, to consider current communication trends, we employed SNS and e-mail in this study. In particular, SNSs have been known as the best personal communication channel for consumer-to-consumer interaction (Chaffey et al., 2009), and they are becoming a popular corporate communication channel as well (Dyer, 2011). Facebook, Beebo, LinkedIn, and MySpace are popular SNSs, and most big companies use SNSs to maintain and enhance their customer relationships (Dad, 2012). Thus, we particularly used Facebook messages of apology as the stimulus in this study. E-mail is also an important communication channel to retain customers and improve customer loyalty in a cost-effective way (Merisavo and Raulas, 2004; Reichheld and Scheffer, 2000). As Danaher and Rossiter (2011) asserted, e-mail is important in current consumers’ daily lives. However, Trehan and Trehan (2007) pointed out that e-mail has a limitation in that consumers may perceive corporate e-mail as e-mail spam or junk e-mail and would not welcome it. Thus, to make a more customised corporate apology message in e-mail that would not be thrown away; we made a stimulus of e-mail incorporating a formal apology letter in this study. Regarding the effectiveness of the communication channels of service recovery, the following hypotheses are thus proposed:

H1 Customers’ perceived quality of service recovery will significantly differ across the types of communication channels (SNS, phone, and letter or e-mail).

3.2 Perceived service failure severity

In this study, service failure severity was examined as an antecedent of the customers’ evaluation of service recovery. Service failure severity refers to consumers’ perception of seriousness of the service failure (Weun et al., 2004). If consumers perceive a high degree of severity in service failure, they may perceive their loss as worse, and this sense of loss might be stronger than the compensation of service recovery (Smith et al., 1999). That is to say, higher service failure severity increases consumer expectations about service recovery and consequently influences consumer satisfaction toward service recovery, trust, commitment, and WOM intentions (Weun et al., 2004). Thus, service recovery is never sufficient unless it meets the consumers’ expectations of service recovery triggered by service failure severity.
Accordingly, service failure severity has a significant role in service recovery evaluation (McCollough et al., 2000; Smith et al., 1999), but research has rarely been conducted focusing on service failure severity. Previous researchers have not emphasised the diverse levels and statuses of failure severity, but have rather treated failure severity as a constant (Goodwin and Ross, 1992). Thus, a strategic framework for effective service recovery activities under various service failure situations has not been suggested. It is important to understand service failure severity clearly to prevent inaccurate and inappropriate service recovery activities that differ from customer expectations because those activities may aggravate consumer dissatisfaction more than the initial service failure (Spreng et al., 1995). Thus, investigation of the effect of service failure severity on consumer evaluation of service recovery will help researchers and service providers develop a strategic framework for effective service recovery that meets various consumer expectations. Thus, this study proposes the following:

H2 The level of perceived severity of service failure negatively influences consumers’ perceived quality of service recovery.

3.3 Service recovery outcomes

3.3.1 Post-recovery satisfaction

The success or effectiveness of service recovery is generally determined by service outcome, which is measured by consumer satisfaction, WOM intentions, and consumer loyalty. In most previous literature, among these factors, consumer satisfaction has commonly been measured as an outcome of service recovery (Goodwin and Ross, 1992; Kelley and Davis, 1994; Miller et al., 2000). Consumer satisfaction refers to individual favourable evaluation of the products and services that a consumer purchases (Westbrook, 1980). In particular, post-recovery satisfaction refers to consumer favourability toward service recovery; it is different from satisfaction with initial service (Kuo and Wu, 2012). Researchers have found that providing a higher level of service recovery improves consumer satisfaction; poor quality of service recovery can even aggravate the effect of the initial service quality on customer satisfaction (Schoefer, 2008; Smith and Bolton, 2002). Given this background, this study includes consumer satisfaction as a significant service outcome for service recovery.

H3a A higher perceived quality of service recovery positively influences consumers’ satisfaction.

3.3.2 WOM intentions

WOM is defined as an interpersonal, informal, and non-commercial communication used to share consumer experiences and opinions about products and services. According to previous literature, WOM has a significant impact on consumer attitudes, risk perception, and purchase intentions (Lau and Na, 2001). In particular, WOM is regarded as an influential and highly credible information source for a consumer’s point-of-purchase decision because of its non-commercial attributes (Arndt, 1967; Hawkins et al., 2004;
Singh, 1990). Consumers’ purchasing service items tend to strongly rely on WOM because of the higher risk perception compared to buying general consumer products (Haywood, 1989). Goodwin and Ross (1992) found that consumers generate positive WOM when they receive prompt and proper service recovery from the company after service failure, whereas service recovery failure leads to negative WOM (Seiders and Berry, 1998). In light of this discussion, we investigated WOM intentions as a factor that represents service outcome.

H3b A higher perceived quality of service recovery positively influences consumers’ WOM intentions.

3.3.3 Loyalty intentions

Loyalty refers to consumer behavioural intentions to maintain the business relationship with a company (de Ruyter and Wetzels, 2000). Previous researchers defined consumer loyalty using multiple concepts, such as repurchasing or repatronising behaviour and the inclination to purchase from one brand over several others (Oliver, 1997; Uncles et al., 2003). In particular, consumer loyalty is strongly considered a long-term attitude accumulated over time by repeat purchases and experiences compared to satisfaction and WOM (Miller et al., 2000). Long-term loyalty plays a significant role in enhancing repeat purchases, revenue, and market share through reducing marketing costs (Reichheld, 1993). Thus, researchers have attempted to examine the relationships between service quality perception, satisfaction, and loyalty (Boshoff, 1997). Service providers can establish long-term customer loyalty by delivering superior service; thus, we propose the following hypothesis:

H3c A higher perceived quality of service recovery positively influences consumers’ loyalty intentions.

4 Methodology

4.1 Research design

This study aims to examine the effect of communication channels of service recovery on customers’ perceived quality of service recovery, which in turn affects satisfaction, WOM intentions, and loyalty intentions. Furthermore, we investigated the effect of customers’ perceived service failure severity on perceived quality of service recovery. To investigate the relationships among these variables, multiple and bivariate regression analyses were conducted. In addition, to compare the effect of each communication channel on customers’ perceived quality of service recovery, one-way analysis of variance (ANOVA) was used. The constructed research model is presented in Figure 1.
This study employed a scenario-based experiment, which mitigates the difficulties in measuring consumers’ perception of service failure in a real-life setting. Considering the attribute of the service failure, imposition of negative situations upon the participants may cause ethical problems or undesirability (Grewal et al., 2008). Furthermore, research using such scenarios enables us to avoid the problems caused by participants’ memory bias, individual differences, and personal circumstances in relation to the research context (Smith et al., 1999; Wirtz and Bateson, 1999). In this study, thus, participants were asked to read a written scenario describing a service failure in an online apparel company and the service provider’s apology through three different communication channels (SNS, phone, and letter or e-mail). An online apparel company is chosen as the research context, since consumers may commonly encounter service failure in online apparel shopping, and apparel products are widely consumed across the variety of age groups, income levels, and so on. In order to avoid the effect of potential bias toward a specific apparel brand, a fictitious apparel service provider, named ‘XXX.com,’ was used in the scenarios.

4.2 Sample selection and data collection

Prior to the application of the main survey, a pre-test was conducted providing the scenarios about service failure in a fictitious online apparel company, accompanied by questions regarding their failure severity. For the pre-test, 30 undergraduate students were recruited from a south-eastern university in the USA. Participants of the pre-test selected two of the scenarios for the main survey. The selected scenarios encompass both the respondent groups of high level of failure severity and low level of failure severity to measure the effect of consumers’ perceived service failure severity on consumers’ perceived quality of service recovery. For the next step, to avoid systematic variation across the communication channels and measurements of each variable, a second pre-test was performed to check the reliability of the questionnaire, scenarios we employed, and general direction of the survey. As a result of the pre-test, several minor changes were implemented to enhance the reliability and validity of the scenario and survey questionnaire.
For the main survey, a total of 365 participants were recruited using Qualtrics.com, and they were randomly assigned to one of three groups: SNS, phone, and letter or e-mail. Considering possible systematic variations, we carefully recruited and assigned the survey participants across the groups of service recovery types. Each group has approximately 120 participants, and none of the participants overlapped in those three groups: 120 participants for SNS recovery group, 121 for phone recovery group, and 124 for letter or e-mail recovery group. The participants consisted of 55.1% females and 44.9% males, with ages ranging from 18 to 50 years old (mean age = 43). More than half (54.5%) of the respondents hold associate degree and college degree. In total, 67.9% of the respondents were Caucasian American, while 32.1% represented other ethnic groups (e.g., African American or Hispanic). 45.8% of the participants were single and 46.0% of the respondents were married. More than half (55.1%) of the respondents had full-time or part-time jobs, whereas 38.6% of the respondents were not employed at all. 44.9% of the respondents stated that their income level was between $25,000 and $75,000.

4.3 Scenarios and measures

In the main survey, respondents were provided a service failure scenario, which was selected in the pre-test to represent both the high level and low level of failure severity. To enhance the reliability of participants’ responses, this study used a real customer review about service failure experience with fictitious company name. The instruction was provided to help the participants imagine themselves as customers in the scenario. After reading the service failure scenario, respondents were asked about their level of failure severity. Consumers’ service failure severity was measured according to the following three items on a seven-point (1 to 7) Likert-type scale adapted from service recovery-related literature:

1. if this problem were really happening to me, I would consider the problem to be…
   (1 = not very severe; 7 = very severe)
2. if this problem were really happening to me, it would make me feel… (1 = not very angry; 7 = very angry)
3. if this problem were really happening, it would be unpleasant for me (1 = not at all; 7 = very unpleasant) (Weun et al., 2004).

The reliability of the scales was determined by the calculation of coefficient alpha. The reliability of the scales measuring perceived severity of service failure with coefficient alpha of 0.87. Item-to-total correlations range from 0.69 to 0.80, and Cronbach’s alphas if the item is deleted are 0.76, 0.81, and 0.86.

Respondents were subsequently provided with the scenarios of apology under each different type of communication channel (SNS, phone, letter or e-mail) as well as questions related to the four dependent variables. The instructions were provided to participants to imagine themselves as experiencing situations described in the scenarios. After being presented each type of service recovery communication (i.e., apology using SNS, phone, and letter or e-mail), participants were asked to respond to the questions that measure perceived quality of service recovery on a seven-point Likert-type scale anchored by ‘strongly agree/strongly disagree’, as developed by del Río-Lanza et al. (2009). These items were as follows:
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1. this company showed interest in my problem
2. this company dealt with me courteously when solving the problem
3. the treatment and communication with this company to solve the problem were acceptable.

These items to measure the consumer’s perceived quality of service recovery were modified from original questions. The reliability for these scales was 0.90. Item-to-total correlations range from 0.78 to 0.82, and Cronbach’s alphas if the item is deleted are 0.83, 0.86, and 0.86.

The scale items of satisfaction were measured on a seven-point scale anchored by ‘extremely satisfied/extremely dissatisfied’ and ‘strongly agree/strongly disagree’, as developed by Kuo and Wu (2012) and Mattila (2001):

1. How satisfied would you be with the company’s handling of the problem?
2. Overall, I felt that this service recovery encounters would have been good
3. Overall, I was satisfied with the way this complaint was handled.

The reliability of the scales measuring satisfaction was satisfactory with coefficient alpha of 0.94. Item-to-total correlations range from 0.86 to 0.90, and Cronbach’s alphas if the item is deleted are 0.90, 0.91, and 0.94. The WOM intentions-related questions were adapted from Maxham (2001):

1. How likely are you to spread positive WOM about XXX.com?
2. I would recommend XXX.com to my friends
3. If my friends were looking for apparel products, I would tell them to try XXX.com.

These items were also rated on a seven-point (1 to 7) scale, anchored by ‘very unlikely/very likely’. The reliability for these scales was satisfactory with coefficient alpha of 0.94. Item-to-total correlations range from 0.86 to 0.91, and Cronbach’s alphas if the item is deleted are 0.90, 0.92, and 0.94. Measures for loyalty intentions were adopted from Dick and Basu (1994), Ganesh et al. (2000), and \ and Johnson (1999):

1. I would continue shopping for apparel products from this company
2. I would not switch to another company rather than XXX.com
3. I will continue to stay with this company
4. I would repurchase apparel products from this company.

These items were also rated on a seven-point (1 to 7) scale, anchored by ‘strongly agree/strongly disagree’. The scale reliability was acceptable with 0.94. Item-to-total correlations range from 0.74 to 0.93, and Cronbach’s alphas if the item is deleted are 0.91, 0.92, 0.92, and 0.96. The reliability of all the measurements of this study has been satisfactory with 0.87–0.94; thus, we prevented potential systematic variation due to measurement error (Niemi, 1993). Moreover, most items of each variable show a strong correlation of higher than 0.70 (Tabachnick and Fidell, 1996), as we intended. At the end of this questionnaire, participants were asked to answer the demographic questionnaire.
5 Results

5.1 Hypothesis 1: communication channel effect

One-way ANOVA was conducted to investigate the differences of customers’ perceived quality of service recovery across the types of communication channel, such as SNS, phone, and letter or e-mail (H1). As Table 1 shows, the results of the ANOVA analysis indicate that the participants from each group of three communication channels for delivering apology message were not varied in their perception of service recovery quality ($F_{2, 362} = 1.73, p = 0.179$). This result rejected H1; customers’ perceived quality of service recovery is not significantly different across the types of communication channels.

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>SS</th>
<th>MS</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between groups</td>
<td>2</td>
<td>8.492</td>
<td>4.246</td>
<td>1.727</td>
<td>.179</td>
</tr>
<tr>
<td>Within groups</td>
<td>362</td>
<td>889.878</td>
<td>2.458</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>364</td>
<td>898.370</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Notes: ***$p < 0.001$; **$p < 0.01$; *$p < 0.05$ level.

5.2 Hypotheses 2: the effect of service failure severity

A bivariate regression analysis was implemented to examine the relationship between customers’ perceived severity of service failure and perceived quality of service recovery. The regression model for the relationship between those two variables (H2) was significant ($\beta = –0.23, p < .001$) with $F(1, 363) = 19.29, p < 0.001$. This model was explained with 4.8% of the variance in perceived quality of service recovery by perceived service failure severity. Thus, Hypothesis 2 was supported. Please refer to Table 2.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Perceived quality of service recovery</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$B$</td>
</tr>
<tr>
<td>Perceived service failure severity</td>
<td>–.289</td>
</tr>
<tr>
<td>$R^2$</td>
<td>.048</td>
</tr>
<tr>
<td>$F$</td>
<td>19.291***</td>
</tr>
</tbody>
</table>

Notes: ***$p < 0.001$; **$p < 0.01$; *$p < 0.05$ level.

5.3 Hypotheses 3: the effect of perceived quality of service recovery

Multiple regression analysis was used to examine H3, which is proposed to examine the relationship between perceived quality of service recovery and customers’ post-recovery satisfaction (H3a), WOM intentions (H3b), and loyalty intentions (H3c). The results of the regression analysis testing Hypothesis 3 supported the significant relationship between perceived quality of service recovery and post-recovery satisfaction with $F(1, 363) = 1,087.64, p < 0.001$, indicating that 74.9% of the variance, WOM intentions
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with $F (1, 363) = 337.95, p < 0.001$, indicating that 48.1% of the variance, and loyalty intentions with $F (1, 363) = 292.02, p < 0.001$, indicating that 44.4% of the variance. Thus, Hypothesis 3 was supported. As represented above, the $R^2$ of the first regression model to propose the relationship between perceived quality of service recovery and satisfaction show better fit of the model (0.749) than the other relationships. This confirms that perceived quality of service recovery affects customers’ post-recovery satisfaction the most rather than another outcome variable of this study. The relative contributions of independent variable to explain customers’ post-recovery satisfaction ($\beta = 0.87, p < .001$), WOM intentions ($\beta = 0.70, p < .001$), and loyalty intentions ($\beta = 0.67, p < .001$) were significant. This result implies that customers’ post-recovery satisfaction, WOM intentions, and loyalty intentions are significantly affected by perceived quality of service recovery. The results of multiple regression analysis for H3 are reported in Table 3.

Table 3  Regression analysis for variables predicting perceived quality of service recovery

<table>
<thead>
<tr>
<th>Variable</th>
<th>Satisfaction</th>
<th>WOM intentions</th>
<th>Loyalty intentions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>$\beta$</td>
<td>B</td>
</tr>
<tr>
<td>Perceived quality of service recovery</td>
<td>.949</td>
<td>.866***</td>
<td>.812</td>
</tr>
<tr>
<td>$R^2$</td>
<td>.749</td>
<td>.481</td>
<td>.444</td>
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<tr>
<td>$F$</td>
<td>1,087.640***</td>
<td>337.946***</td>
<td>292.016***</td>
</tr>
</tbody>
</table>

Notes: **$p < 0.001$; **$p < 0.01$; *$p < 0.05$ level.

6 Conclusions

We fundamentally assumed that apologies a company provides to compensate the customers’ service failure experience have a significant effect on customers’ evaluation of service recovery, based on several prior studies that ascertained its importance (Boshoff and Leong, 1998; Smith et al., 1999). Based on this assumption, we intended to identify an appropriate communication channel that could effectively deliver apology messages to customers who experienced service failure. We further expected that service recovery delivered through the communication channels would enhance customer satisfaction and behavioural intentions. According to the results, the type of communication channel used to deliver service recovery has no statistically significant effect on customers’ perceived quality of service recovery. Regardless of the role of communication channels, customers’ perceived quality of service recovery significantly affects customer satisfaction and behavioural intentions and this finding is congruent with prior studies (Boshoff, 1997; Goodwin and Ross, 1992; Schoefer, 2008; Smith and Bolton, 2002). Moreover, customers’ perceived severity of service failure significantly affects their perception of service recovery quality.

A significant effect of the communication channel used to deliver the company’s apology message on the perception of service recovery quality was not supported in this study. Even though service recovery quality positively affects customers’ behavioural intentions, communication methods to deliver the service recovery have no effect on customers. This result means that consumers consider a company’s apology message a
significant effort regardless of the delivery method of the message. If a company shows a sincere and acceptable apology to its customer, the customer will perceive it positively and react to the company. This result implies that a company should first and more strongly devote its resources to providing better apology messages, and this effort can save company resources that would be put into enhancing the quality of service and service recovery. It is costly to develop a new and better communication channel because companies need to develop the structure and hire professionals for it. Accordingly, companies need to emphasise making more sincere and customised apology messages that suit customer needs and improving the effectiveness of service recovery activity by reducing expenditure to develop a communication channel.

We examined service failure severity as a factor that represents customer expectation or needs after experiencing service failure. Once companies assess customer needs, they can tailor their apology message to a more customised format for their customers. Not surprisingly, customers’ perception of service failure severity significantly affects the perception of service recovery quality. This result implies that customers who perceived service failure more seriously would perceive the quality of apology more negatively. Therefore, service providers need to manage their apology message based on the level of customers’ perceived severity of service failure. If customers strongly feel the severity of service failure, service providers should try to lessen the perceived severity and make customers positively perceive service recovery quality through diverse methods, such as providing more personalised or customised apology messages or apologising several times, to demonstrate their sincerity to customers.

Prior to developing a customised and sincere apology message, service providers should find a way to assess the degree of customers’ perception of service failure severity and systemise the process of developing an apology message to reflect their assessment of the severity. For instance, service providers can assess customers’ perception of severity by evaluating the overall attitude of customers’ complaints, their number of attempts to contact the company, the type and number of requests seeking compensation for their problems, or the level of the staff with whom they request to speak. Theoretically speaking, this study illuminated a lack of academic understanding of customers’ perceptions of service failure severity. Researchers need to give attention to finding a way to analyse customers’ perceived severity of service failure by developing proper measurement items and examining the process of how customers perceive and react to diverse levels of service failure seriousness.

Once consumers receive an appropriate apology message, their perception of service recovery quality significantly affects their behavioural intentions, including their post-recovery satisfaction, WOM, and loyalty intentions. That is, a high-quality apology message significantly influences customer behaviour, regardless of how it is delivered or the type of method employed. As several prior researchers concluded (Boshoff and Leong, 1998; Smith et al., 1999), an apology is more effective than tangible compensation to ameliorate customer dissatisfaction due to service failure. Companies therefore need to seek a way to improve customers’ perception of the quality of the apology message. Furthermore, the results of this study explained the relationship between perceived quality of service recovery and post-recovery satisfaction more strongly than they did the relationship with other behavioural intentions. That is, there would be more diverse determinants to improve customers’ behavioural intentions and the factors that mediate the effects of customers’ perception of service recovery quality on behavioural intentions.
The role of communication channel in delivering service recovery

This study is a new attempt to understand the role of communication channels in the context of service failure and recovery. As communication media have become more varied, marketers attempt to use and integrate diverse communication channels (Bernoff and Li, 2011). Despite increasing attention on communication methods, no studies have been conducted to demonstrate the effectiveness of communication methods to deliver a company’s message in the context of service failure and recovery. Thus, this study is a first attempt to add significant implications to the existing literature by investigating this underexplored subject. We found that customers are less concerned with how companies deliver their apologies and more with the content of the apologies.

This is important information to help managers diminish customer dissatisfaction in more cost-effective ways, enabling companies to focus on the apology message. We would suggest marketing professionals can provide better apologies that meet the customers’ expectations and needs of service recovery by evaluating customer perception of service failure severity. In light of this aspect, academic researchers should develop measurement items or research structures to assess and analyse customers’ perceived service failure severity. Marketing professionals should also be enlightened to develop systematic infrastructures to evaluate and apply customers’ perception of failure severity to their business, as we suggested above. This structured way to meet customer expectations will enable companies to provide better apologies; then customers may perceive the company’s apology message as a qualified recovery effort. Customers’ positive perception of service recovery quality then leads to customer satisfaction and behavioural intentions.

6.1 Limitation

Despite its contributions, this research had certain limitations that offer promising avenues for future research on service recovery. First, this study categorised the communication channels that deliver apology messages as SNS, phone, and letter or e-mail communications, and customers’ perceived quality of service recovery was not found to be influenced by those three channels. The comparison of a wider range of channels might lead to different results. Thus, future research on other communication channels would further enrich its implication and expand the understanding of communication channels with regard to service recovery. Second, we developed one scenario to represent each communication channel and service failure situation. The variety of scenario of communication channel and service failure could lead different results; in particular, diversifying service failure situation could result in expanding the range of severity perception and stronger direct or moderating effect on the relationship with the other variables. Then, we could prevent possible generalisability problem through finding customers’ various responses to different situations. Thus, future researchers could employ various other situations of delivering apology messages through each communication channel to expand understanding customers’ responses to service recovery. Third, the apology messages we developed were a little bit different across the types of communication channels to match the general characteristics of each channel. Apology messages in the various channels were different in the length of the message and tone and the manner of the message, even though all the messages contained similar content, including expressions of regret, explanations of the possible reasons for service failure, and promises not to duplicate the problem. Because of the specific and general format of each channel, we were required to develop specifically differentiated
messages of each channel to enhance the realism of the scenario. It may also be argued, however, that the results may be biased due to the differences in each message.

References


The role of communication channel in delivering service recovery


