THE EFFECTIVENESS OF COMPENSATION FOR SERVICE RECOVERY: 
ROLES OF PERCEIVED EQUITY AND RELATIONSHIP LEVEL

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ABSTRACT

This study investigated the effectiveness of compensation on behavioral intentions through perceived equity, which is moderated by consumer-service organization relationships. Online survey was conducted to collect data, using hypothetical scenarios manipulating recovery efforts and relationship level conditions. Mediation tests showed that perceived equity fully mediate the effect of compensation on consumer’s future behavioral intentions. The results of Analysis of Variance showed that consumer’s relationship level with the firm moderates the effect of compensation on consumer’s perceived equity and, consequently, their behavioral intentions. Furthermore, when consumers have high customer-organization relationship, there is no difference in the behavioral intentions between those who are compensated and those who are not. Managerial implications for restaurant operations are also discussed.

Keywords: Service failure; recovery efforts; perceived equity; relationship level

INTRODUCTION

With the widespread use of service recovery as a retention strategy (Halstead Edward, 1996; Ok et al., 2005), how to effectively turn complaining customers into satisfied and loyal customers has received increased attention from marketing researchers. Justice theory is the main framework that has been used to more specifically predict the effects of recovery efforts (i.e., compensation) on consumers’ behavioral intentions (McColl-Kennedy & Sparks, 2003). Yet there is growing evidence that consumers’ behavioral intentions after service failure and recovery efforts are determined not only by their satisfaction with recovery efforts but also by pre-failure satisfaction, which cannot be evaluated using justice theory (McCollough et al., 2000; Maxham, 2002). Although the concept of justice captures the core element of equity theory, perceived fairness of the recovery attempt, it does not reflect another pillar of equity theory, the concept of reciprocity in market exchange relationships.

Despite the importance of examining the relative impact of service recovery efforts on improving future behavioral intentions, which depends on consumer-service organization relationships. Little effort has been made to capture fairness perceptions based on differing consumer-service organization relationship levels. Thus, the primary goal of this study was to
fill in this research niche by examining equity perceptions based on varied consumer-organization relationships. More specifically, the objectives of this study were: (1) to verify the mediating role of equity perceptions in the relationships between recovery efforts (compensation vs. no compensation) and future behavioral intentions; and (2) to verify the moderating role of consumer-organization relationship levels between recovery efforts and perceived equity and, consequently, behavioral intentions, in recovery contexts.

The value of this study is that it investigated the effectiveness of compensation on future behavioral intentions utilizing equity, which is perceived differently depending on the consumer-service organization relationship. This study contributes to the understanding of when compensation works, and more importantly when it does not work, by showing that effectiveness varies under different conditions (i.e., the level of consumer-service organization relationships). The outcomes of this study can help both scholars and practitioners understand more about consumers’ future behavioral intentions in service recovery contexts. With this understanding managers in service settings will be able to develop more effective service recovery strategies, especially for groups that have weak relationships with a firm.

RELATED LITERATURE AND HYPOTHESES

Two views of fairness

Justice theory

To understand both the consequences of failure and how to provide an effective recovery, researchers have utilized justice theory as a theoretical background for service recovery (Sparks & McColl-Kennedy, 1998; Tax et al., 1998). According to justice theory, customers evaluate the fairness of a service recovery, which is provided in particular encounter, from three different perspectives: distributive justice, procedural justice, and interactional justice (Blodgett Donna & Jeffrey, 1997; McColl-Kennedy & Sparks, 2003). The notion of evaluating the fairness of a service recovery, using justice theory, mostly has been measured in a relatively transaction-specific manner (Olsen & Johnson, 2003).

Equity theory

When applied to a service encounter, equity specifies that individuals evaluate the fairness of an exchange by comparing the inputs invested with the gains received (Bolton & Lemon, 1999; Olsen & Johnson, 2003). Stemming from social exchange theory, the underlying assumption of equity is that interpersonal interactions are continual and evolve over time. Equity is closely related to the concept of reciprocity in market exchange relationships (Bagozzi, 1975), indicating that it can be conceptualized as a relatively cumulative perception. This cumulative perception is what distinguishes equity from perceived justice.

There is considerable evidence demonstrating that the entire history of a relationship, or shared interactions, is critical to understanding intentions and future behavior (Andreassen & Lervik, 1999; Gregoire & Fisher, 2006; Brunner et al., 2008). For example, Hess et al (2003) suggested that a consumer’s relationship level with a service organization creates different future behavioral intentions. The rationale of justice theory is consistent with equity theory in that customers’ perceptions regarding the fairness of service recovery efforts determine their future behavioral intentions. However, using equity perceptions as a mediator
on the relationships between recovery efforts and behavioral intentions are more appropriate, because equity tends to capture the entire history of shared interactions.

**Mediating role of equity between recovery efforts and behavioral intentions**

**Recovery efforts and equity perception**

Previous studies (De Ruyter & Wetzels, 2000; Grewal et al., 2008) have examined the effect of recovery strategies using varying levels of equity perceptions. By manipulating the distributional fairness at two levels, offering a favorable outcome or offering an unfavorable outcome, De Ruyter and Wetzels (2000) examined the role of equity considerations. That is, if the service organization acknowledges the negative inequity that results from a service failure and tries to reinstall it by providing a favorable outcome, customers perceive higher equity and more likely to remain. To investigate the effects of recovery efforts on equity perceptions, Grewal et al (2008) manipulated compensation conditions at two levels. In the airline context, no compensation is offered in one compensation condition, whereas participants are offered a $175 discount off their next flight in the other.

**Equity perception and behavioral intentions**

In a study of restaurant customers, Palmer et al (2000) developed a framework based on equity to study its effects on service failure and recovery. Empirical results of this study indicated that equity was significantly correlated with respondents’ intention to revisit. To develop the positive correlation between equity and intention to repurchase, it was demonstrated that over-compensation may lead to a customer taking positive measures to redress the inequity by giving more business to a supplier, whereas under-compensation may lead to measures to reduce it. In other words, considering the relationship between customer and organization, whether there is a need to balance equity to the customer-company relationship determines future behavioral intentions. In terms of word-of-mouth, Susskind (2002) suggests that negative inequity during the service exchange predict consumers’ negative word-of-mouth communication. Therefore, we propose hypotheses 1 and 2 as below.

**H1:** Recovery efforts positively influence perceived equity.

**H2:** Perceived equity positively influences behavioral intentions.

**The role of customer-organization relationships**

**Customer-organization relationships**

Some past studies have explored the impact of compensation (e.g., Mattila, 2004; Ha & Jang, 2009). In recent research attempting to identify the conditions where compensation has an impact, relative to no compensation, customer-service organization relationships have emerged as an important issue.

Prior research has made efforts to understand many types and dimensions of customer-organization relationships. Similar to the way that define loyalty in two main approaches, which are behavioral and attitudinal approaches (Dick & Basu, 1994; Dekimpe et al., 1997), there have been efforts to characterize relationships in terms of cognitive loyalty.
(Bendapudi Leonard, 1997; Oliver, 1999; Hess et al., 2003) and affective commitment (Crosby et al., 1990; Gruen et al., 2000; De Wulf et al., 2001; Mattila, 2004).

Customer attitude toward service failure depending on relationship level

Why consumers react differently to disconfirmation such as service failures and follow different processes in evaluating a service encounter depends on the level of customer-organization relationship, which can be explained using cognitive dissonance theory. Cognitive dissonance theory explains that consumers tend to justify their post-purchase evaluations (Kopalle & Lehmann, 2001). For example, when loyal consumers face new information that is inconsistent with their existing beliefs (i.e., service failure) they suffer from cognitive dissonance. In this situation, the trust obtained through accumulated consumption experiences will act as an information source. Loyal consumers are likely to resolve their mental conflict by attributing a cognitively inconsistent experience to external sources and thinking of disconfirmation as a temporary or uncontrollable episode (Fournier, 1998; Yi & La, 2004). Even when the same amount of service failures occur, non-loyal consumers may consider a single experience a more important indicator in determining whether to repurchase the same brand or not.

The moderating role of relationship level
- The effectiveness of compensation on behavioral intentions through equity perceptions

Equity may explain how consumers react to service recoveries such that the effectiveness of recovery attempts may be a function of equity in the exchange (De Ruyter & Wetzels, 2000; Susskind, 2002; Grewal et al., 2008). Specifically, recovery efforts such as compensation are needed only when there is a need to restore equity of consumer’s relationship with the company.

Whether compensation is necessary to restore equity to the relationship is expected to vary as a function of consumer’s relationship level with the company. How strong the relationship with the firm indicates consumer’s tendency to attribute the causes of service failures. That is, as a consumer become loyal, they are more likely to attribute cognitively inconsistent experience to external sources and to think of disconfirmation as a temporary or uncontrollable episode. Different tendency of attributing the cause of cognitively inconsistent experiences results in different need of restoring equity and, consequently, future behavioral intentions. For example, if a failure is ascribed to an unstable cause, consumers are less likely to question the equity of the transaction (Seiders & Berry, 1998; Grewal et al., 2008), which reduces the need to restore equity to the customer-company relationship through compensation. Consequently, simply redressing the core service failure provides an equitable solution to customers and may be sufficient to retain their repurchase intentions. In other words, compensation is unlikely to have an effect on repurchase intentions. Along the similar line, locus of responsibility conditions also moderates the effectiveness of compensation. When the company is not responsibility for the failure, consumers factor the infrequency of the occurrence into their evaluation of the situation and are less likely to question the equity of the transaction (Widmier & Jackson, 2002; Grewal et al., 2008). As a result, compensation is not required to enhance equity and repurchase intentions.

H3-1: When consumers are compensated, the degree of increase in perceived equity is higher for consumers who have weak customer-organization relationships than for consumers who have strong customer-organization relationship.
H3-2: When consumers have a strong customer-organization relationship, it is more likely that there is no difference between those who are compensated and those who are not in terms of equity perceptions.

H4-1: When consumers are compensated, the degree of increase in behavioral intentions is higher for consumers who have weak customer-organization relationships than for consumers who have strong customer-organization relationship.

H4-2: When consumers have a strong customer-organization relationship, it is less likely that compensation will enhance behavioral intentions. That is, when consumers have a strong customer-organization relationship, the difference between the behavioral intentions of consumers who are compensated and consumers who are not compensated is not significant.

**METHODOLOGY**

*Research design and data collection*

Previous studies on service recovery in general have used hypothetical scenarios manipulating recovery efforts conditions (Goodwin & Ross, 1992; Blodgett et al., 1997; Mattila, 1999; Ok et al., 2005; Ha & Jang, 2009). This study also used a scenario-based survey where respondents were asked to rate their perceived equity and future behavioral intentions given hypothetical scenarios for service failure and recovery situations. Based on previous studies (Bitner et al., 1990; Blodgett et al., 1997; Ok et al., 2005; Ha & Jang, 2009), this study developed the hypothetical service failure scenario.

This study employed a 2x2 between subjects design in which subjects were presented with one of four different conditions regarding relationship level and recovery efforts. The first factor, relationship level, was manipulated by presenting the hypothetical situation with either having high relationship level or low relationship level. The second factor, recovery efforts condition, was manipulated at two levels: compensation vs. no compensation. For example, compensation condition was presented as, “Right meal was served again. 30% discount on the item was offered.” The no-compensation condition was presented as, “Right meal was served again. No additional compensation was offered.”

Four different versions of web surveys were created in total. Survey links were randomly distributed to 1000 panels via email and 229 useable responses were collected, producing a 22.9% response rate. Panels were provided by professional research company in the United States. The purpose of the study was explained to each of the respondents. To be qualified, subjects first took the screening tests regarding the experience of visiting casual dining restaurant (average check $10~$20 per person) within recent one month and the experience of service failure. Then, qualified respondents were randomly assigned to one of four scenarios and completed the online survey. The surveys were administrated in May 2010.

*Questionnaire and measurements*

The survey questionnaire consisted of four sections: (1) restaurant experience (2) relationship level with the restaurant, (3) perceived equity and future behavioral intentions, and (4) demographic information.
The first section was designed to screen respondents who are applicable to complete this survey. The second section was designed to measure respondents’ relationship level with the restaurant. The third section was designed to measure respondents’ perceived equity and future behavioral intentions given four different hypothetical scenarios regarding relationship level and recovery efforts conditions. For measurement of perceived equity, different scale of perceived equity was used according to consumer’s relationship level. Specifically, for high relationship level group, cumulative measures were used to capture their cumulative perception of equity in comparison to transaction-specific perspective of equity. For low relationship level group, transaction-specific measures were used.

**Relationship level**: the question items used to measure relationship level were slightly modified from prior studies (Zeithaml, 1996). Four items were measured on a 7-point Likert-scale ranging from 1 (very low degree/ strongly disagree) to 7 (very high degree/ strongly agree). For example, “Say positive things about this restaurant to other people.”

**Perceived equity**: 

**Cumulative measures**: the question items used to measure cumulative equity perception were slightly modified from prior studies (Olsen & Johnson, 2003). Three items were measured on a 7-point Likert-scale ranging from 1 (very low degree/ strongly disagree) to 7 (very high degree/ strongly agree). For example, “When I make use of the restaurant’s service so far, the outcome I received from the restaurant was fair relative to my input.”

**Transaction-specific measures**: the question items used to measure transaction-specific equity perception were slightly modified from prior studies (Olsen & Johnson, 2003). Three items were measured on a 7-point Likert-scale ranging from 1 (very low degree/ strongly disagree) to 7 (very high degree/ strongly agree). For example, “Given the inconvenience caused by the problem this time, the outcome I received from the restaurant was fair relative to my input.”

**Future behavioral intentions**: the question items used to measure consumer’s behavioral intentions were slightly modified from prior studies (Blodgett et al., 1997; Maxham & Netemeyer, 2002; Ok et al., 2005). Four items were measured on a 7-point Likert-scale ranging from 1 (very low degree/ strongly disagree) to 7 (very high degree/ strongly agree). For example, “I would like to visit this restaurant again in the future.”

**Data analysis**

In order to examine the effect of compensation on equity perception (Hypothesis 1) and the effect of equity perception on behavioral intentions (Hypothesis 2), linear regression analyses were conducted. Additionally, mediation test was conducted to examine whether equity acts as a full or partial mediator in the relationship between compensation and behavioral intentions.

In order to investigate whether consumer’s relationship level moderates the effect of compensation on equity perceptions (Hypothesis 3-1), hierarchical regression analysis was conducted, through which Hypothesis 1 can also be examined. In the hierarchical regression analysis, compensation (Hypothesis 1) and relationship level were entered in the first and second steps respectively. The interaction term (i.e., relationship level * compensation) was added to the model in the third step. Moreover, to further examine if the degree of increase in the perceived equity is non-significant for high relationship level group, while the degree of
increase in the perceived equity is significant for low relationship level group (Hypothesis 3-2), we ran an Analysis of Variance (ANOVA) with perceived equity as the dependent variable. Along the similar line, in order to examine whether consumer’s relationship level moderates the effect of compensation on behavioral intentions (Hypothesis 4-1), hierarchical regression analysis was conducted. In the hierarchical regression analysis, compensation (Hypothesis 1) and relationship level were entered in the first and second steps respectively. The interaction term (i.e., relationship level * compensation) was added to the model in the third step. Moreover, to further examine if the degree of increase in the behavioral intention is non-significant for high relationship level group, while the degree of increase in the behavioral intention is significant for low relationship level group (Hypothesis 4-2), we ran an ANOVA with behavioral intention as the dependent variable.

FINDINGS AND DISCUSSION

Mediating effects of perceived equity

The regression analysis reveals that compensation condition significantly influences perceived equity at 0.01 level. Specifically, when consumers are compensated for service failure, they perceive higher equity perception ($\beta = 0.883$, $t = 5.294$, $p < .001$), supporting H1. The regression analysis reveals that equity perception significantly influences behavioral intentions at 0.01 level. Specifically, if compensation is perceived to be enough to restore the equity of the relationship, consumers tend to spread positive word of mouth and revisit the restaurant in the future ($\beta = 0.878$, $t = 20.874$, $p < .001$), supporting H2.

These findings indicated that, regardless of consumer’s relationship level with the company, offering compensation is significantly effective in preserving the equity of their relationship with the firm, which, in turn, positively influence on future behavioral intentions.

Mediation test

Additionally, mediation test was conducted to check if equity perception fully or partially mediates the relationship between compensation and future behavioral intentions. The first regression analysis revealed a significant effect of compensation on consumer’s future behavioral intentions ($\beta = 0.629$, $t = 3.363$, $p < .01$, $R^2 = 0.047$). The results of the second regression analysis showed that compensation had a significant effect on the proposed mediator, perceived equity ($\beta = 0.883$, $t = 5.294$, $p < .001$, $R^2 = 0.110$). The third regression analysis indicated that perceived equity accounts for significant variance in explaining behavioral intentions ($\beta = 0.878$, $t = 20.874$, $p < .001$, $R^2 = 0.657$). The results of the fourth regression analysis showed that when perceived equity was entered as the mediating variable, the earlier significant effects of compensation on future behavioral intentions became non-significant ($\beta = -0.165$, $t = -1.393$, $p > .1$), whereas perceived equity had a significant effect on consumer’s behavioral intentions ($\beta = 0.899$, $t = 20.196$, $p < .001$). These results confirm that perceived equity fully mediated the effect of compensation on consumer’s future behavioral intentions, in supporting both H1 and H2.

Moderating effects of relationship level

An analysis of variance (ANOVA) was conducted to test H3 and H4, which posited that Relationship Level (RL) moderates the effect of compensation on consumer’s perceived
equity and, consequently, their future behavioral intentions. We provide the ANOVA results in Table 3 and overall means in Table 4.

Perceived equity

As predicted in H3-1, there is a significant interaction between compensation and RL \((F= 3.076, p < 0.001, \eta^2 =0.102)\). Specifically, when a consumer is compensated for the harm done, his or her perceived equity increase more sharply for those who have low relationship level with the service provider than those who have high RL. This indicates that perceived equity increased more rapidly in the group with low RL as compensation is offered.

Follow-up contrasts reveal that when a consumer has low relationship level with the service provider, offering compensation (versus offering none) significantly enhances participants’ perceived equity \((M\text{ compensation} = 4.253, \ M\text{ no compensation} = 2.854; \ F(1, 111) = 34.262, p< 0.001)\). When a participant has high relationship level with the company, he or she perceives similar level of equity compared to when has low level of relationship. However, offering compensation still significantly enhances consumer’s perceived equity \((M\text{ compensation} = 4.715, \ M\text{ no compensation} = 4.311; \ F(1, 108) = 4.434, p< 0.05)\). H3-2 is not supported.

Behavioral intentions

To examine the interaction between compensation and RL, we ran an ANOVA with behavioral intentions as dependent variable. A significant interaction between compensation and RL was found \((F= 2.699, p < 0.01, \eta^2 =0.085)\), supporting H4-1. Improving effects of compensation on behavioral intentions through perceived equity were stronger for low RL group rather than high RL group. When there is no additional compensation for the harm done, the difference in behavioral intentions between the high RL group and low RL group was prominent. However, the gap between the two groups diminished remarkably when additional compensation is offered. These results suggest the possibility that compensation could more effectively improve low RL customer’s behavioral intentions.

Follow-up contrasts reveal that when a consumer has low relationship level with the company, offering compensation (versus offering none) significantly enhances participants’ behavioral intention \((M\text{ compensation} = 3.931, \ M\text{ no compensation} = 2.883; \ F(1, 111) = 17.207, p< 0.001)\). When a participant has high relationship level with the company, no difference appears in the behavioral intentions between those who are compensated and those who are not \((M\text{ compensation} = 4.827, \ M\text{ no compensation} = 4.565; \ F(1, 108) = 1.904, p> 0.1)\). H4-2 is supported. These findings provide important evidence that offering compensation is effective in improving behavioral intentions only when a consumer has a low relationship level with the firm.

Table 3
Analysis of variance results
SUMMARY AND CONCLUSIONS

The findings of the present research indicated that perceived equity plays a mediating role on the relationship between compensation and consumers’ behavioral intentions. These results provide a theoretical justification for using equity theory rather than justice theory in service recovery contexts. That is, equity theory not only considers the fairness of the recovery effort provided in a particular service encounter, but it also considers the entire history of shared interactions. This suggests that the effectiveness of compensation depends on the consumer’s relationship level with the firm.

Besides the theoretical implications, the findings suggest that monetary rewards such as discounts on menu items could be a good strategy when a consumer has a low relationship level with the firm. For a consumer group with high relationship level, simply fixing the service failure with no additional compensation might be equitable solution to preserve their relationship. This finding implies that service failures can be opportunities to turn low relationship level consumers into high relationship level consumers. Therefore, restaurant managers should educate employees to ask customers if they are a first visiting customer or a re-visiting customer, so that they can effectively recover customers by utilizing this information in case of service failures. The fact that behavioral intentions of high relationship level group are not improved by compensation does not necessarily mean they do not need any recovery efforts for service failure. Service quality literature also predicts that poor
complaint handling will damage the relationship most especially when prior experience is positive, which is also known as a ‘double deviation’ (Bitner et al., 1990). Therefore, managers should not misunderstand the findings of this study that high relationship level customers do not need any recovery efforts for service failure.

Second, this study found that high relationship level group consistently rate future behavioral intentions highly when compared to low relationship level group, regardless of the compensation condition. Furthermore, even in the condition of no additional compensation, high relationship level group tend to rate future behavioral intentions higher than low relationship level group in the condition of compensation for the service failure. Therefore, to fundamentally improve consumer’s behavioral intentions, reliability or “doing things right the first time” should be regarded as the core of services marketing excellence. Then, managers also need to make continuous efforts to maintain relationships with their customers through good service recovery in case of service failure.

Our study has some limitations that point towards directions for future research. First, the laboratory setting of this research is open to criticism. This scenario-based study may evoke more cognitively based responses than the emotional reactions consumers experience in an actual service experience. Therefore, to examine the validity of the findings future research should examine consumers’ actual behavior given identical relationship level and compensation manipulation.

Second, only the distributive dimension of equity was examined in this study due to a lack of both transaction-specific and cumulative measures of equity perception regarding the procedural and interactional dimensions. Therefore, to fully understand the effectiveness of recovery efforts on consumers’ behavioral intentions depending on relationship level, constructs of both transaction-specific and cumulative perceived equity regarding procedural and interactional dimensions need to be developed in future research.

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