The Effect of Compensation on Repurchase Intentions in Service Recovery[☆]

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Abstract

To explore when the presence of compensation enhances repurchase intentions after a service failure, the authors use an experimental procedure and evaluate the impact of compensation in different stability and locus of responsibility conditions. Findings from three studies using scenarios from different service industries indicate that compensation is necessary only when the company is responsible for the failure and the failure occurs frequently. If the failure occurs infrequently or the company is not responsible, compensation does not affect repurchase intentions. The results further demonstrate that stability and locus of responsibility attributions influence the perceived equity of the exchange, which mediates the effectiveness of compensation as a recovery effort. The authors discuss the theoretical and managerial implications.
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A recent review by Grewal and Levy (2007) calls for further research to investigate the components of service recovery and their interactive effects on repurchase intentions. In this research, we respond to their call by investigating how the content of an explanation for a failure may influence the effectiveness of compensation as a recovery strategy. Compensating customers, a common service recovery strategy, can help dissipate consumer anger and dissatisfaction after a service failure (Bitner, Booms, and Tetreault 1990). However, offering compensation without an explanation often indicates an admission of guilt and results in more negative evaluations (Bitner 1990). Thus, a firm's explanation appears to represent a necessary part of a compensation recovery strategy; we argue that understanding how the content of the explanation influences the effectiveness of compensation as a recovery strategy can be a key consideration.

An explanation for a failure affects attributions (Bitner 1990), which in turn influence overall customer evaluations (Folkes 1984; Folkes, Koletsky, and Graham 1987; Tsiros, Mittal, and Ross 2004) and may result in compensation enhancing evaluations in some conditions but not in others. As such, retailers and service providers must understand the joint effects of a provided explanation and offered compensation on consumer evaluations (Bolton, Grewal, and Levy 2007). In this research, we focus on company-provided explanations pertaining to stability (is the cause likely to reoccur?) and locus of responsibility (who is responsible?) (Tsiros et al. 2004; Weiner 1985). Explanations regarding stability and locus of responsibility should help determine whether compensation provides an effective recovery strategy, because these conditions create differing levels of equity. And equity is expected to mediate the effectiveness of compensation.

Understanding the effectiveness of compensation represents an important issue because despite prior research showing effectiveness can vary in different conditions (e.g., Bitner 1990; Smith, Bolton, and Wagner 1999), we lack a clear understanding of exactly when compensation works, and more importantly when it does not work. In addition, managers need to know if there are conditions in which compensation enhances repurchase intentions, as well as conditions in which it has no impact. With such an understanding, a company can make strategic decisions about when to compensate customers.

Theoretical background

Critical incident studies of service failures and recovery encounters identify compensation as an effective recovery strategy (Bitner et al. 1990; Hoffman, Kelley, and Chung 2003; Kelley, Hoffman, and Davis 1993). In general, these studies suggest that compensating customers after a service failure leads to more favorable consumer responses, either by dissipating their anger and dissatisfaction or by enhancing their overall experience (Bitner et al. 1990). However, in some conditions, compensation has no impact on evaluations. Without knowledge of when compensation relative to no compensation has an impact, the company cannot make effective strategic decisions about when to compensate customers.

As we summarize in Table 1,[1] various articles explore the impact of compensation, though only two (Bitner 1990; Smith and Bolton 1998) focus on attributions. Bitner (1990) experimentally investigates how employee-provided explanations and compensation affect control and stability attributions by presenting travelers at an airport with scenarios related to a travel. Although she focuses on the main effects of explanation and compensation, she finds an unexpected interaction effect on attributions of control. That is, when compensation is offered, any explanation (indicating internal or external blame for the failure) reduces attributions of control. But without an explanation, attributions of control increase. Bitner suggests this result may occur because when compensation is offered with no explanation, it appears as an admission of guilt. No interactive effects between the explanation provided and compensation emerge for stability attributions, but the results indicate that stability attributions decrease when compensation is offered, regardless of the explanation (internal, external, none).

In addition, Bitner (1990) examines the impact of control and stability attributions on satisfaction and finds that when customers perceive that the firm has control over the cause, they are more dissatisfied than when they believe the firm has no control; when customers perceive the cause of the failure is stable, they also are more dissatisfied than when they believe the failure is rare. However, Bitner does not investigate how the presence of compensation may influence these findings. Nor does Bitner's study specifically consider the joint effects of compensation and explanation on satisfaction or behavioral intentions. Bitner (1990, p. 80) therefore concludes her article with a call for further research to "determine the robustness and boundaries of the model and the results." We address this call by manipulating the locus of responsibility and stability attributions directly in the provided explanation and then measuring the interactive effects of these factors, with compensation, on repurchase intentions.

The other article that considers both attributions and compensation in terms of service recoveries investigates how failure, recovery, and attributions about failure stability influence cumulative satisfaction with the service provider and repatronage intentions. Smith and Bolton (1998) had customers who had used a particular type of service provider (restaurant or hotel) evaluate a scenario related to that type of service provider. They find that a single recovery (a proxy for compensation) can have a substantial impact on customers' overall level of satisfaction with the firm and ultimately their intentions to repatronize. In terms of stability, they find mixed results. In a restaurant setting, evaluations are lower when consumers believe the service failure is likely to occur again, but in a hotel setting, stability attributions do not affect evaluations. However, similar to Bitner (1990) and Smith and Bolton (1998) fail to investigate the interactive effect of compensation and stability.

As evidenced by such previous research, responsibility (Bitner 1990) and stability (Bitner 1990; Smith and Bolton 1998) of failures represent important factors that explicate how compensation may influence repurchase intentions. We therefore test these two factors in a series of three experiments. We first develop and test our key prediction regarding the interactive effect of stability, compensation, and locus of responsibility in Study 1. Next, we replicate findings regarding the effect of the critical compensation by stability interaction (company-responsible condition) using a different compensation condition (Study 2) and a different context (Study 3).

Equity and the stability by compensation interaction

Equity may explain how consumers respond to service recoveries (e.g., Alexander 2002; DeRuyter and Wetzels 2000; Goodwin and Ross 1992; Smith et al. 1999; Susskind 2002), such that the effectiveness of recovery efforts may be a function of equity in the exchange (Oliver and Swan 1989). Service failure and recovery create an exchange in which the consumer experiences a loss due to the service failure and the firm attempts to make up for it in the form of a recovery (Smith et al. 1999). In general, to retain customers, companies must ensure that the recovery effort provides a benefit that the consumer believes equitably makes up for his or her loss (Adams 1965; Deutsch 1985). In the case of core service failures (e.g., cancellation of a flight), the firm must fix the problem quickly (Parasuraman, Berry, and Zeithaml 1991), but simply fixing the problem (e.g., booking the customer on the next flight) may not be enough. Consumers also may expect to be compensated for the harm done (e.g., 3 hr spent waiting) to preserve the equity of their relationship with the company. Compensation is the most common method used to restore equity (Walster, Berscheid, and Walster 1973).

Whether compensation is necessary to restore equity to the relationship is expected to vary as a function of the stability of the failure. If the failure is perceived to occur frequently (stable), consumers anticipate the same outcome in the future (Weiner 1985, 1986). In general, consumers believe that stable problems should be corrected by the company, and if the company has not been able to correct these stable problems the company should try and make up for the customers' loss in some way. Thus, if the failure repeatedly occurs, but customers are compensated they are likely to view the company as somewhat responsive

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[1] To provide a fuller context of studies of compensation in service recovery literature, we highlight the methodology, independent and dependent variables, and key findings as they pertain to the main (Conlon and Murray 1996; Mattila 2001) and interactive (Harris et al. 2006; McColl-Kennedy, Daus, and Sparks 2003; Wirtz and Mattila 2004) effects of compensation.

Table 1
Summary of compensation in service recovery studies

Study	Methodology	IV	DV	Finding[*]
Bitner (1990)	Experiment	Explanation Compensation Environment	Control attribution Stability attribution Satisfaction Quality Behavioral intention	Interactive effect of compensation and explanation is significant on control attributions but insignificant for stability attributions. The interactive effects are not reported for satisfaction, quality, or behavioral intentions
Bitner, Booms, and Tetreault (1990)	CIT			Incidents in which customers are compensated result in more memorable and satisfactory encounters
Kelley, Hoffman, and Davis (1993)	CIT			Three of twelve recovery strategies involve some form of compensation
Conlon and Murray (1996)	Survey	Compensation (present/absent)	Satisfaction with product, information, speed, explanation, number of days Likely to do future business	Compensation enhances satisfaction with explanation and likelihood of doing future business
Smith and Bolton (1998)	Experiment (however, results are for regression analysis of measured variables)	Prior cumulative satisfaction, recovery (proxy for compensation) Stability	Cumulative satisfaction Repurchase intention	Recovery and stability are significant predictors of satisfaction and repurchase intentions in restaurants; recovery is significant in hotel context, but stability is not
Smith, Bolton, and Wagner (1999)	Experiment	Failure (type and magnitude) Recovery strategy including compensation	Distributive justice Procedural justice Interactional justice Satisfaction	The interaction of compensation and severity is only predicted and modeled for distributive justice. The results of this interaction are mixed. In a restaurant setting, compensation enhances justice when the failure is severe, but the interaction for moderate compensation is not significant. In the hotel context, the effect of moderate compensation is more effective when the failure is less severe, but the interactive effect of high compensation and severity is not significant
Mattila (2001)	Experiment	Service type Compensation Magnitude of failure	Distributive justice Procedural justice Interactional justice Satisfaction with recovery Loyalty	Main effect of compensation. Interaction of compensation with service type (satisfaction, loyalty, procedural justice, and interactional justice)
Smith and Bolton (2002)	Experiment	Service failure (type and magnitude) Service recovery strategies (including compensation) Emotion (measured, not manipulated)	Satisfaction	Medium compensation is more beneficial in a no-emotion group in a restaurant setting. High compensation is equally effective in both emotion groups in the restaurant setting. In the hotel setting, compensation is not a significant influence on satisfaction

Table 1 (*Continued*)

Study	Methodology	IV	DV	Finding[*]
Hoffman, Kelley, and Chung (2003)	CIT			55 percent of recovery response strategies involve some form of compensation
McColl-Kennedy, Daus, and Sparks (2003)	Experiment	Concern, voice, and compensation amount (high vs. low); Gender of service provider; Gender of customer	Satisfaction, future intentions; Effort perceptions	Compensation effects are moderated by gender of provider and gender of customer
Wirtz and Mattila (2004)	Experiment	Compensation (20 percent, no comp); Response speed; Apology (provided, not provided)	Satisfaction; Post-purchase response	Satisfaction: Three-way interaction. When compensation is provided, the two main effects are significant. For the post-purchase measures, no compensation effects occur
Harris, Grewal, Mohr, and Bernhardt (2006)	Experiment	Environment (online vs. offline); Recovery (fee vs. comp); Setting (airline, bank)	Satisfaction with remedy; Post-purchase intentions	The effect of recovery remedy is greater in the offline setting (compared to online setting)

[*] The results of these studies are restricted to the effects of compensation.

in trying to restore equity to the relationship. Additionally, due to post-failure compensation consumers may view repurchase as less risky, since they expect the company will compensate them in an attempt to restore equity to the relationship if a failure were to occur again. In contrast, if a stable failure occurs, and the company does not try to make up for the customers loss, customers are likely to view the company has as unresponsiveness. They likely view this condition as inequitable (Seiders and Berry 1998) and, as a result, have lower repurchase intentions (Folkes et al. 1987). Thus, when a stable failure occurs, we expect that equity will be damaged and anticipate that compensation should help restore equity to the relationship, which enhances repurchase intentions.

If the company explanation indicates that the failure is unstable, consumers are likely to recognize that it is an infrequent occurrence and that the company probably could not have anticipated it. The very nature of an unstable failure dictates that the future may not be the same as the immediate past (Weiner 1985, 1986). Thus, when a failure is ascribed to an unstable cause, consumers factor the infrequency of the occurrence into their evaluation of the situation and are less likely to question the equity of the transaction (Seiders and Berry 1998). As a result they are more likely to give the service provider the benefit of the doubt and not expect to be compensated. Consequently, simply fixing the core service failure provides an equitable solution to customers and may be sufficient to maintain their repurchase intentions. In other words, compensation is unlikely to have an effect on repurchase intentions. Thus, we propose a moderating impact of stability on compensation.

H₁. A stability by compensation interaction exists, such that compensation results in higher repurchase intentions when the failure is ascribed to a stable cause but has no effect when the failure is ascribed to an unstable cause.

Locus of responsibility by stability by compensation interaction

The interaction between stability and compensation certainly should exist when the firm is responsible for the service failure. However, we consider it equally important to understand the effects when the firm is perceived as not responsible for the failure (e.g., the cause of the failure is external to the company, "The flight has been delayed because of a snowstorm") to determine whether the perceived stability of the failure still alters the effectiveness of compensation as a recovery effort.

Regardless of whether the company is responsible for the failure, when the failure is unstable, consumers should be less likely to question the equity of the transaction (Seiders and Berry 1998), and compensation is not required to enhance equity and repurchase intentions. Furthermore, when the company is not responsible for the failure, consumers should be less likely to question the failure, which reduces the need to restore equity to the customer–company relationship through compensation (Bitner 1990; Widmier and Jackson 2002). Specifically, we

expect that when a firm is not responsible for a failure, compensation is not required to restore equity, regardless of the failure stability (e.g., even if snowstorms are a frequent occurrence, the company could not have prevented the storm). Formally, we hypothesize:

H₂. A three-way interaction among stability, locus of responsibility, and compensation exists, such that:

H₂ₐ. When the company is responsible for the failure, compensation results in higher repurchase intentions when the failure is ascribed to a stable cause but has no effect when the failure is ascribed to an unstable cause.

H₂ᵦ. When the company is not responsible for the failure, regardless of the stability of the occurrence, compensation has no effect on repurchase intentions.

Note that H_{2a} reflects the basic interaction between stability and compensation predicted in H_1.

Study 1

Method

Design

Participants were 251 students who received class credit for their participation in this $2 \times 2 \times 2$ between-subjects design. The locus of responsibility (company is responsible [shortage of flight crew] versus company is not responsible [weather]), the stability of the cause of the problem (stable versus unstable), and compensation (compensation versus no compensation) provide the between-subjects factors.

Procedure

We use a scenario-based experimental approach, which alleviates difficulties associated with the observation or enactment of service failure and recovery incidents in the field, such as ethical considerations, as well as the managerial undesirability of intentionally imposing service failures on consumers. Furthermore, scenarios (versus retrospective self-reports) reduce biases from memory lapses, rationalization tendencies, and consistency factors.

Participants read a scenario that described them arriving at the airport to leave for vacation, only to find that their flight had been cancelled. It also explained the cause of the cancellation (weather versus shortage of flight crew) and the stability of the problem (stable: common occurrence versus unstable: uncommon occurrence). An airline agent acknowledged the inconvenience but assured participants that they would be able to take the next flight, which would depart in 3 hr. In one compensation condition, participants were offered a $10 voucher to be spent at any of the restaurants in the airport; in the other, they received no compensation.

The scenario context was picked to be a flight delay since all participants had traveled on airlines (average number of trips taken on an airline per year was 6.36). Further, since flight delays are a common occurrence with airlines and our participants frequently travel, it is realistic to envision that they have experienced flight delays and can relate to the scenario.

A pretest had confirmed that the two causes of the cancellation appropriately manipulated locus of responsibility. In the between-subjects design with high stability, participants read one of the two scenarios for the cause of the cancellation, then rated their level of agreement with the statement "the airline is responsible for the inconvenience" on a five-point scale (1 = strongly disagree, 5 = strongly agree). As the results show, participants view the airline as more responsible for the flight-crew shortage (3.85) than for the weather (2.19; $F(1,32) = 13.31$, $p < .01$).

Measures

Participants also rate their level of agreement (1 = strongly disagree, 5 = strongly agree) with two statements adapted from Zeithaml, Berry, and Parasuraman (1996), designed to measure repurchase intentions ("I will recommend this airline to a friend" and "I will fly this airline again in the future"). Finally, the manipulation checks are aided recall measures the participants use to indicate whether the airline caused the inconvenience, whether it was a common problem for the airline, and whether a voucher was offered. The subjects responded to each measure on a yes/no scale.

Results

Manipulation checks

The manipulations work as intended. Significantly more people indicate that the problem is common in the stable condition ($\chi^2 = 20.73$, $p < .001$), that the airline caused the problem in the company-responsible locus condition ($\chi^2 = 33.78$, $p < .001$), and that a meal voucher was offered in the compensation condition ($\chi^2 = 122.82$, $p < .001$).

Repurchase intentions

The correlations between the two items measuring repurchase intention was $r = .73$. We ran an ANOVA with repurchase intentions as the dependent variable and provide the overall ANOVA results in Table 2 and means in Table 3. As we predicted in H_1, there is a significant three-way interaction among stability, responsibility, and compensation ($F(1,243) = 5.69$, $p < .05$), as plotted in Fig. 1a. Follow-up contrasts reveal that when the company is responsible for the failure and the failure is stable, offering compensation (versus offering none) enhances participants' repurchase intentions ($M_{compensation} = 2.42$, $M_{no\ compensation} = 1.85$; $F(1,243) = 7.8$, $p < .01$). When the company is responsible for the failure and failure is unstable, participants have similar evaluations, regardless of whether they are compensated ($M_{compensation} = 2.44$, $M_{no\ compensation} = 2.79$; $F(1,243) = 3.09$, *ns*), in support of H_{2a}. As we predicted, and in support of H_{2b}, when the company is not responsible, there are no differences among compensation conditions, regardless of the stability of the failure (stable: $M_{compensation} = 3.12$, $M_{no\ compensation} = 3.05$; $F < 1$; unstable: $M_{compensation} = 2.83$, $M_{no\ compensation} = 2.73$; $F < 1$).

Table 2
Analysis of variance results (Studies 1–3)

Effect	$F(1,243)$	p	η
Study 1			
Locus of responsibility (L)	30.64	.00	.33
Stability (S)	.77	.38	.06
Compensation (C)	.94	.33	.06
$L \times S$	15.07	.00	.24
$L \times C$	.01	.92	.01
$S \times C$	4.83	.03	.14
$L \times S \times C$	5.69	.02	.15
$S \times C$ (company resp.)	10.38	.00	.20
$S \times C$ (company not resp.)	.02	.89	.009

Effect	$F(1,107)$	p	η
Study 2: company responsible (airline context)			
Stability (S)	22.14	.00	.41
Compensation (C)	6.35	.01	.24
$S \times C$	4.36	.04	.20

Effect	$F(1,214)$	p	η
Study 3: company responsible (restaurant context)			
Stability (S)	4.03	.01	.13
Compensation (C)	12.20	.01	.23
$S \times C$	4.38	.04	.20

Discussion

Consistent with our hypotheses, we find a significant three-way interaction, such that when the company is responsible

Table 3
Means (Studies 1–3)

	Company responsible		Company not responsible	
	Stable	Unstable	Stable	Unstable
Study 1				
Compensation				
Repurchase Intentions	2.42	2.44	3.12	2.83
No compensation				
Repurchase Intentions	1.85	2.79	3.05	2.73

	Company responsible	
	Stable	Unstable
Study 2		
Compensation		
Repurchase intentions	2.87	3.30
Equity	3.67	3.93
No compensation		
Repurchase intentions	2.11	3.23
Equity	2.80	3.77
Study 3		
Compensation		
Repurchase intentions	2.75	2.74
Equity	3.78	4.07
No compensation		
Repurchase intentions	2.14	2.58
Equity	1.87	3.03

for the failure, stability attributions moderate the effectiveness of compensation. A stable failure requires compensation to enhance repurchase intentions, but compensation does not affect repurchase intentions for an unstable failure. When a company is not responsible, compensation does not affect repurchase intentions, regardless of the stability of the failure. To generalize our stability by compensation results (within the company-responsible condition), we next replicate our results using a different compensation condition (Study 2), as well as a different service failure context (Study 3). We felt that the airline scenario could be too specific, and in order to enhance the robustness of the findings we replicate the interaction in a restaurant service recovery scenario.

Study 2

Method

Design

Participants in this 2×2 between-subjects design were 116 undergraduate and graduate students who received class credit for their participation. The stability of the problem (stable versus unstable) and compensation (none versus 50 percent off coupon) provide the between-subjects factors.

Procedure

In a procedure similar to that of Study 1, participants read a short scenario and answered the dependent measures. However, for this study, the cause of the cancellation remains constant (shortage of flight crew). In one compensation condition, no compensation is offered, whereas in the other, participants are offered a $175 discount off their next flight. Because an average ticket price was $350, according to the scenario, the coupon would result in savings of approximately 50 percent off their next ticket purchase. The manipulation checks include "The shortage of flight-crew members is a common problem for this specific airline" and "The value of the coupon is very high" (1 = strongly disagree, 5 = strongly agree). We do not use a compensation manipulation check question in the "none" (no voucher) condition.

Results

Manipulation checks

The manipulations work as intended. Subjects view the problem as more common in the stable than in the unstable condition ($M_{stable} = 3.51$, $M_{unstable} = 2.33$, $F(1,106) = 42.93$, $p < .001$), and in the compensation condition, participants view the coupon as valuable (3.33, significantly higher than the neutral point of 3, $t(54) = 2.26$, $p < .05$).

Repurchase intentions

The correlations between the two items measuring repurchase intention ($r = .81$) and the two items measuring equity ($r = .45$) are both significant. We used two statements adapted from Tax (1993), designed to measure their perceptions of the equity ("The airline was concerned about my inconvenience"
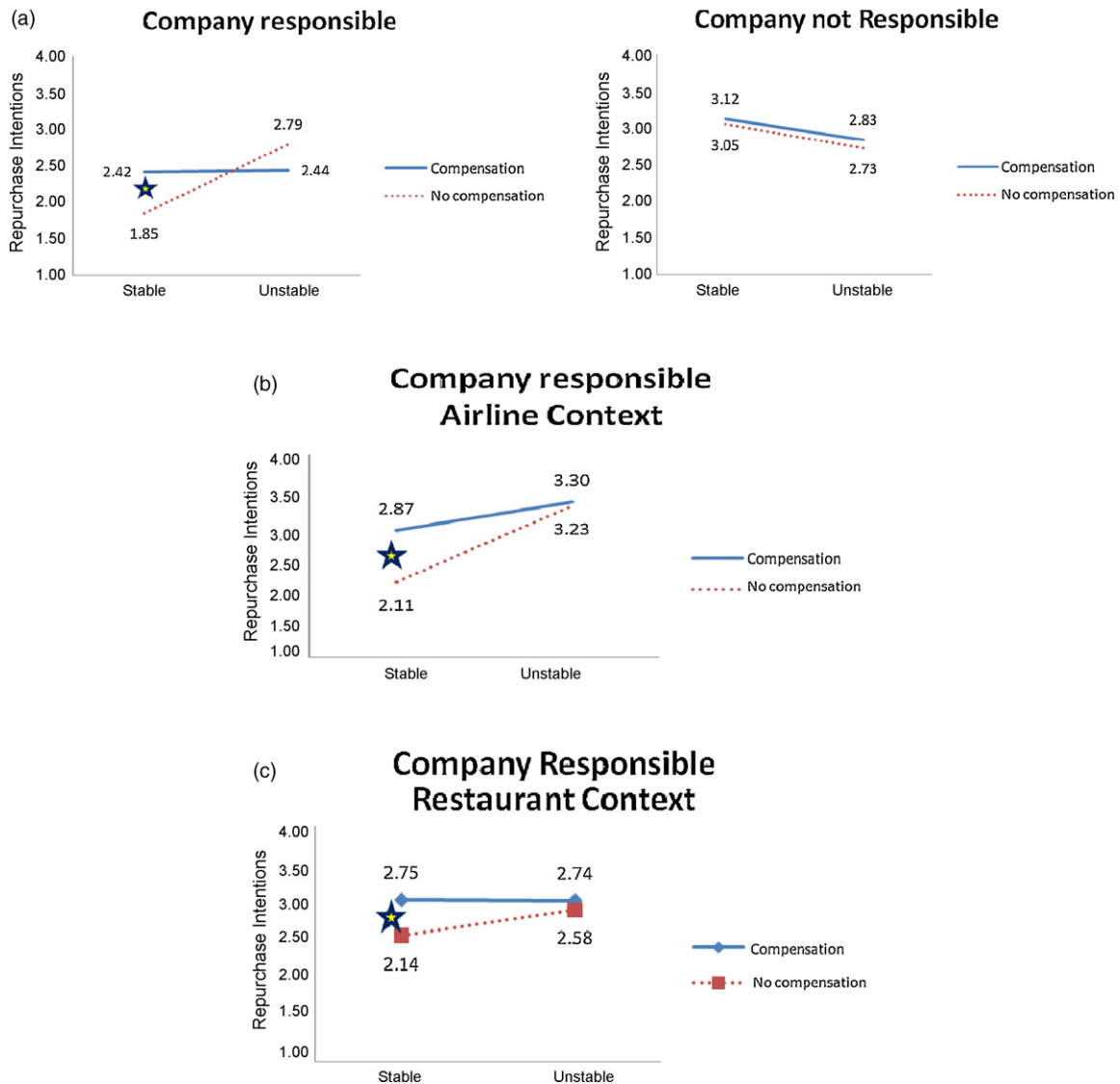
Fig. 1. (a) Study 1 results (airline context). (b) Study 2 results. (c) Study 3 results. ☆ Contrast is statistically significant.

and "The airline handled the problem appropriately". The correlation between the factors was also significant ($r = .56$). A confirmatory factor analysis shows that a two-factor solution, in which the two repurchase intentions measures load on one factor and the two equity items load on a separate factor, is more appropriate ($\chi^2_{(1)} = 13.79$, $p < .01$) and provides a significantly better fit than the one-factor solution (see Table 4). We run an ANOVA with repurchase intentions as the dependent variable, composed of the two previously described items. The overall ANOVA results appear in Table 3. We find a significant interaction between stability and compensation ($F(1,107) = 4.36$, $p < .05$), as plotted in Fig. 1b. Follow-up contrasts reveal that when the problem is stable, offering compensation (versus no compensation) enhances repurchase intentions ($M_{compensation} = 2.87$ versus $M_{none} = 2.11$; $F(1,107) = 10.53$, $p < .01$). When the problem is unstable, there is no difference in repurchase intentions between those who receive compensation and those who do not ($M_{compensation} = 3.30$ versus $M_{none} = 3.23$; $F < 1$). Thus,

in support of H_1, compensation enhances repurchase intentions, but only when the failure is ascribed to a stable cause.

As suggested previously, the process that generates different repurchase intentions appears to entail the perceived equity associated with the recovery attempt. To test this relationship, we ran an ANOVA with equity as the dependent variable. Similar to the repurchase intentions results, we find a significant two-way interaction ($F(1,107) = 5.44$, $p < .05$). Follow-up contrasts reveal that when the problem is stable, offering compensation (versus no compensation) causes participants to express higher equity perceptions ($M_{compensation} = 3.67$ versus $M_{none} = 2.80$; $F(1,107) = 16.29$, $p < .001$), but when the problem is unstable, no difference appears in the equity perceptions between those who are compensated and those who are not ($M_{compensation} = 3.93$ versus $M_{none} = 3.77$; $F < 1$). Therefore, equity may be a mediator of the effects of both explanations and compensation on repurchase intentions (Baron and Kenny, 1986).

Table 4
Confirmatory factor analysis results (Study 2)

Item	One-factor Std. loadings	Two-factor Std. loadings
I will fly this airline again in the future	.88	.98
I will recommend this airline to a friend	.92	.81
The airline handled the problem appropriately	.53	.67
The airline was concerned about my inconvenience	.55	.74
Goodness of fit		
χ^2	14.75	.96
Degrees of freedom	2	1
Normed fit index	.93	.99
Root mean squared error of approximation	.24	.01
Akaike information criterion	38.75	18.37
Bayesian information criterion	39.84	19.45

To test this mediation relationship further, we ran a path model, which shows a mediation effect of stability, compensation, and the interaction between stability and compensation. In the full model (with mediator), the direct effects of stability, compensation, and their interaction on repurchase intentions are not statistically significant (.15, .06, and −.10, respectively; all p's > .10). When the direct paths from stability, compensation, and the interaction to the mediator (equity) are set to 0, their direct effects to the dependent variable (repurchase intentions) are significant (.57, .45, and −.48, respectively; all p's < .01). This relationship indicates that equity acts as a full mediator of stability, compensation, and their interaction on repurchase intentions. The Sobel test and its Aroinan version confirm these relationships (all zs > 4.0, p < .01). Consistent with our path model analysis, these results provide evidence of the full mediation of the effect of stability, compensation, and their interaction on repurchase intentions by equity.

Discussion

In the Study 2 scenarios, the provided explanation indicates that the company is responsible for the failure, and the results replicate our prediction that stability moderates the effect of compensation on repurchase intentions, such that when the failure is ascribed to a stable cause, compensation enhances repurchase intentions. When the failure is ascribed to an unstable cause, compensation has no effect, so compensating consumers in such situations is an ineffective use of company resources. Furthermore, equity represents the process through which both explanations and compensation influence repurchase intentions. In the next study, we again replicate our findings using a different service setting.

Study 3

Method

Design

Participants, 218 undergraduate students, received class credit for their participation in this 2 × 2 between-subjects experiment. Stability of the cause of the problem and whether compensation is offered represent the between-subjects factors. We hold the locus of responsibility constant, such that the company is always responsible for the failure.

Procedure

Participants read a scenario that described them arriving at a restaurant with a friend to celebrate a special occasion. Even though they had a reservation, their table was not ready. The scenarios vary the stability of the problem; in the stable (unstable) condition, the hostess informed the participant that this happens frequently (rarely). The hostess acknowledged the inconvenience and informed them that the table will be ready in approximately 35 min. Finally, half the participants received a 20 percent off their bill, whereas the other half were not offered any compensation.

The scenario context was picked to be in a restaurant setting since participants dine out for dinner regularly (one average eight times per month). Additionally, we found that 9.7 min was the average for how long respondents considered a reasonable wait time when they have a reservation. Thus, the scenario with a waiting time of 35 min represented something unreasonable to them. Finally, we found that participants viewed the scenario as something which was realistic (3.70, 1 = very unrealistic, 5 = very realistic), possible to happen (4.07, 1 = impossible to happen, 5 = possible to happen), and which they could envision happening to them (3.70, 1 = not easily, 5 = very easily).

Participants rate their agreement with a four-item scale of repurchase intentions adapted from Zeithaml et al. (1996): (1) "I will consider this restaurant as my first choice when going out to celebrate a special occasion in the future," (2) "I will recommend this restaurant to someone who seeks my advice," (3) "I will recommend this restaurant to a friend," and (4) "I will eat at this restaurant again in the future" (1 = strongly disagree, 5 = strongly agree). Finally, participants complete manipulation checks, namely, aided recall measures (yes/no option) regarding how frequently it happens that a table has not to been ready at the time of the reservation for this restaurant and whether they were offered anything for the inconvenience of not having the table ready at the time of the reservation. In addition, participants also completed manipulation checks questions indicating the degree to which the stability of the cause and compensation were present (1 = strongly disagree, 5 = strongly agree).

Results

Manipulation checks

The manipulations work as intended. More participants indicate that the problem is common in the stable condition ($\chi^2_{(1)} = 115.54$, $p < .001$) and that it occurs more frequently in the stable than in the unstable condition (4.00 vs. 2.20, $t(214) = 11.19$, $p < .001$). Also, more participants indicate that they were offered compensation in the compensation condition ($\chi^2_{(1)} = 115.49$, $p < .001$) and that they agreed that compensation was offered in the compensation versus in the no compensation condition (3.95 vs. 1.65, $t(216) = 16.47$, $p < .001$).

Repurchase intentions

The four-repurchase intention items indicate high reliability ($\alpha = .89$). As we predict in H_1, a significant two-way interaction marks stability and compensation for repurchase intentions ($F(1,214) = 4.38$, $p < .05$), as plotted in Fig. 1c. In line with H_1 and Studies 1 and 2, offering compensation enhances repurchase intentions when the failure is ascribed to a stable cause ($M_{compensation} = 2.75$, $M_{no\ compensation} = 2.14$; $F(1,214) = 15.74$, $p < .001$) but not when it stems from an unstable cause ($M_{compensation} = 2.74$, $M_{no\ compensation} = 2.58$; $F(1,214) = .94$, $p > .30$).

Similar to Study 2, we perform a mediation test via a path model. In the full model (with mediator), the direct effects of stability, compensation, and their interaction on repurchase intentions are not statistically significant (.05, .07, and $-.12$, respectively; all p's $> .10$). When the direct paths from stability, compensation, and the interaction to the mediator (equity) are set to 0, their direct effects to the dependent variable (repurchase intentions) are significant (.17, .19, and $-.30$, respectively; all p's $< .01$). This relationship indicates that equity acts as a full mediator of stability, compensation, and their interaction on repurchase intentions. The Sobel test (Sobel, 1982) and its Aroinan version confirm these relationships (all zs > 3.0, $p < .01$). Consistent with our path model analysis, these results provide evidence of the full mediation of the effect of stability, compensation, and their interaction on repurchase intentions by equity.

Discussion

We again find a significant two-way interaction and replicate the findings of Studies 1 and 2, such that when the failure is ascribed to a stable cause, compensation enhances repurchase intentions, whereas when the failure is ascribed to an unstable cause, compensation does not affect repurchase intentions. To further generalize the results we ran another study in a hotel context and the results support this interaction.[2]

We calculate the effect sizes associated with the four contrasts pertaining to the enhancing effect of compensation in the high-stability condition in Studies 1–3 and footnoted Study (Study 1 $\eta = .30$, Study 2 $\eta = .41$, Study 3 $\eta = .34$, footnoted Study $\eta = .42$). Following procedures by Rosenthal and Rosnow (1984), we first establish that the four effect sizes are homogeneous ($\chi^2_{(3)} = .72$, *ns*); the average weighted η is .36. Next, we test the significance of the overall relationship using Rosenthal and Rosnow's (1984) combining p-value technique. The results indicate that the overall relationship is significant at .0001. Finally, we calculated the file drawer n and find that it would take more than 45 null studies to reduce the significance level to .05. These results provide considerable confidence that the overall enhancing effect of compensation when stability is high and the company is respon-

sible for both large and significant, as well as unlikely to be an anomaly.

General discussion

During the past couple of decades, the role of services has gained prominence, and recent articles suggest marketing has moved from a product-dominant to a service-dominant logic (Lusch, Vargo, and O'Brien 2007). In the domain of product problems, standardized procedures tend to dictate how firms handle defects (e.g., warranty policies), and the area of product recovery appears fairly well developed. However, service recovery has not been defined as well and may be handled differently by service providers in the same field (e.g., two hotel chains with different recovery policies) or even in the same firm (e.g., different managers of a fast-food restaurant).

Compensating customers is a common service recovery strategy that can help dissipate anger and dissatisfaction after a service failure (Bitner et al. 1990). However, we present a complex three-way interaction that indicates when compensation enhances repurchase intentions, as well as when it has no impact. We develop these predictions on the basis of the locus of responsibility and the stability ascribed to the failure; in addition, with Studies 1 and 2, we demonstrate that equity serves as an underlying process.

Despite the prevalence of compensation as a recovery strategy (Bitner et al. 1990; Hoffman et al. 2003), relatively few experimental investigations consider the moderating factors that may influence its effectiveness. Researchers who undertake such investigations tend to consider a mix of dependent variables and arrive at conflicting results (e.g., Bitner 1990; Smith and Bolton 1998; Smith et al. 1999). The key insight derived from existing literature is that the effect of compensation may be moderated by certain variables. With our series of studies, we predict and demonstrate that when a company is responsible for the failure, the effectiveness of compensation as a recovery strategy varies depending on the stability of the failure. That is, we demonstrate that compensation enhances repurchase intentions when the company is responsible for the failure and the failure is stable. But when the failure is an infrequent occurrence or the company is not responsible for it, customers are satisfied just with an explanation. In these cases, compensation is not necessary, and because it has no impact, it becomes a wasted resource.

The influence of compensation on repurchase intentions thus varies as a function of the locus of responsibility and the stability of the failure. Companies must maintain well-developed recovery strategies to manage consumers' post-failure evaluations, but they also need to know exactly when to use them. Managers must learn the conditions in which compensation is (or is not) an effective recovery tool, especially as firms continue to evaluate the effectiveness of their market activities on the basis of their bottom lines or returns on investment (Ambler et al. 2001). Furthermore, managers must weigh the costs of service recovery strategies relative to their benefits; the costs of such plans easily can increase to astronomical levels. Helping consumers understand the cause of the service failure by providing expla-

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[2] We find the same stability and compensation interaction for repurchase intentions ($F(1, 83) = 3.87$, $p = .05$). Offering compensation enhances repurchase intentions when the failure is ascribed to a stable cause ($M_{compensation} = 2.34$, $M_{no\ compensation} = 1.28$; $F_{(1,83)} = 9.55$, $p < .01$) but not when it stems from an unstable cause ($M_{compensation} = 2.03$, $M_{no\ compensation} = 1.99$; $F < 1$).

nations thus offers a powerful and inexpensive tool with which to manage the effectiveness and efficiency of service recovery efforts.

Although our research provides some interesting insights into the role of explanation and compensation, additional research might explore the ability of the firm to influence these attributions (e.g., convert them from stable to unstable). We provide the failure attributions to our respondents, but when customers face actual failures, they may generate their own causal attributions. The effectiveness of the company explanation may be a function of how well it can influence such attributions.

In addition, the effectiveness of compensation as a recovery strategy may depend on other factors, such as globality attributions (Hess, Ganesan, and Klein 2007), whether code-switching occurs (i.e., going off script) when the compensation offer is made (Schau, Dellande, and Gilly 2007), or the type of consumer. For example, frequent users of a service may react very differently than infrequent users after a failure. The type and amount of compensation offered to, say, business travelers to increase their repurchase intentions may differ from that which must be offered to pleasure travelers. It is therefore important to segment consumers into different types; however, our scenarios only include one segment. Further research should investigate how different segments (e.g., frequent flyers, business travelers, occasional pleasure travelers) react to different service recovery efforts.

It also would be useful to examine the impact of the emotions people experience as a result of a failure (e.g., Menon and Dube 2004; Smith and Bolton 2002). Our research is limited to scenario-based studies which may evoke more cognitively based responses than the emotional reactions a person experiences when in an actual service experience. Thus, future research should examine how the type of emotions, negative versus neutral versus positive affect, could be influential. The effect of compensation and explanation in our studies may decline if consumers experience very strong negative emotions. As Smith and Bolton (2002) indicate, the effect also may vary as a function of the industry, importance of the situation, or length of the experience.

Furthermore, we rely only on experimental scenarios that complement field study results provided by previous critical incident studies (Bitner et al. 1990; Kelley et al. 1993). Although experimental scenarios have several advantages over field surveys, their external validity may be limited. For example, we manipulate attributions as stable or internal and have evidence that the manipulations work, but it is hard to know whether they would have worked in a similar fashion in a real setting or if consumers would have been more skeptical of the explanations. Additional research therefore might conduct field experimental work in which actual service providers manipulate the alternative explanations in person or through call centers; such research could monitor the effects of future behaviors, such as the length and profitability of the relationship, as well as the share of wallet and word-of-mouth behaviors.

We also focus on the presence or absence of compensation and operationalize its presence differently in each study. Further research should explicitly examine the role of levels of compensation (e.g., 5, 20, 50, 100 percent) and types of compensation (e.g., monetary, non-monetary).

Finally, we examine only the effects of equity, or expectations pertaining to fairness. Our measure was a two-item scale which tapped into empathy and distributive justice. Future research may need to use broader, multi-item measures of the various components of justice. Additional research might also examine the role of other types of expectations, such as the expectation that the company will compensate customers after a service failure. The mediating effect of an expectation of receiving compensation might be quite pronounced for stable failures—perhaps even regardless of the locus of responsibility.

Thus, we have only just begun to explore the very important question of how to address service failures in a cost-effective manner, clearly a crucial issue for managers. As suggested by the preceding discussion, much more work remains; we therefore hope this article serves as a springboard for further research in this area.

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