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Customer equity considerations in service recovery: a cross-industry perspective

Customer equity considerations

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Abstract *Service recovery, or “doing things very right the second time” has been identified as a strategic issue in the services marketing and management literature. So far, much of the research on this phenomenon has departed from the disconfirmation paradigm. However, since perceptions of fairness play such an important role in service recovery situations, it seems desirable to supplement extant literature with the equity paradigm. Therefore, we designed an experimental study to assess the impact of customer equity considerations on perceived quality, satisfaction, loyalty and trust with respect to service recovery across different service industries. Our findings reveal that in general, distributional fairness and procedural fairness during the service recovery significantly improve scores for service quality, customer satisfaction, customer loyalty and trust, whereas interactional fairness only enhances customer trust perceptions. Furthermore, our results suggest that the effects of equity considerations in a service recovery situation are idiosyncratic to specific service industries.*

Introduction

An increasing body of the marketing literature has been dedicated to the area of services. The distinctive features of services marketing in comparison to goods marketing have been highlighted widely (e.g. Berry and Parasuraman, 1991; Heskett *et al.*, 1990; Zemke and Schaaf, 1990; Zeithaml and Bitner, 1996). Frequently, it has been argued that the core of services marketing excellence is founded on high quality services (Berry and Parasuraman, 1991). Reliability or, alternatively stated, “doing things right the first time” is often regarded as the most important dimension of service quality (Zeithaml *et al.*, 1990). Unfortunately, mistakes are inherent to the features of services (Hart *et al.*, 1990). However, the fact that errors are inevitable does not automatically imply that dissatisfied customers are inevitable. On the contrary, with a good service recovery or “doing things very right the second time” companies can turn complaining customers into very satisfied and loyal customers (Hart *et al.*, 1990).

Satisfaction with service recovery is achieved by meeting or exceeding customers' expectations (Oliver and DeSarbo, 1988; Oliver and Swan, 1989a).

We would like to thank Nico Kanen for his efforts during data collection for this study.

This premise is based on the disconfirmation paradigm. In addition, some attention has been given to equity theory as well (Oliver and Swan, 1989a; Oliver and Swan, 1989b). Oliver and Swan have shown that equity considerations are antecedent to customer satisfaction next to disconfirmation perceptions. A service failure leads automatically to disconfirmation, but could still be perceived as equitable because of recovery efforts. Alternatively, a service encounter that lives up to expectations could be perceived as inequitable, for example when the price of the delivered service is perceived as too high. Because of the intangibility of services, a service failure cannot be corrected as easily as a product failure, which can, for instance, be recovered simply by replacing the good. Therefore, in services it seems important to restore equity by compensating in some way (e.g. by offering an apology). As a result, equity considerations may play an important role in service recovery systems. However, the nature of that role may be dependent on the type of service. The purpose of this article is to examine the role of equity considerations in service recovery strategies across a range of different types of service types. It is structured as follows. First, we will focus on the service recovery and equity literatures. Second, we will report on the results of an experimental study that has empirically examined the role of equity across different types of services. In conclusion, we will address the theoretical as well as the managerial implications of our findings.

Service recovery findings

It has been argued that effective service recovery is very important in achieving customer satisfaction after a customer has been disappointed with a service failure (Boshoff, 1997). This has sparked a body of research aimed at achieving a more in-depth understanding of the service recovery phenomenon. In this section we will highlight a number of relevant recent findings. With regard to the basis of service recovery Johnston (1995) identified four types of service failure: the service system, the physical goods, a customer's body failure and customers making a mistake. Kelly *et al.* (1993) suggest that the appropriate recovery should be determined by the seriousness of the failure. Hoffman *et al.* (1995) extended this research with a comparable investigation in the restaurant industry by measuring the magnitude of a failure. In a similar way, Johnston (1995) suggests that recovery tactics should be varied depending on whether a customer feels "annoyed" or "victimised". An emerging theme, therefore, seems to be the optimisation of the service recovery strategy on the basis of the type of failure.

In addition, Kelly and Davis (1994) investigated the antecedents to customer expectations for service recovery. The results showed that customer organisational commitment (and perceived service quality) is positively related to service recovery expectations. In other words, established customers have higher expectations of the recovery effort than new customers. Spreng *et al.* (1995) have shown that within the household moving industry, satisfaction with the way claims are handled by claims personnel is the major determinant

of overall satisfaction after the occurrence of a service failure. Thus, a process dimension appeared more important for positive consumer evaluations than the outcome dimension of the recovery, which is in accordance with the research of Berry and Parasuraman (1991). Furthermore, Halstead *et al.* (1996) investigated domino and halo effects and found that customers are likely to complain about additional service attributes once they decide to complain about a certain attribute (halo effect). With regard to the domino effect, there was only a weak tendency for companies with objective service failures in one core area to have failures in other areas as well.

Finally, Brown *et al.* (1996) have shown that service recovery efforts are more of short-term importance, while service reliability is needed to build long-term relationships. In the same research they suggest that given the diminishing returns of service recovery efforts compared to the long-term effectiveness of reliable service delivery, more research should be addressed to the question of what situations do or do not need service recovery actions. However, an aspect that has remained “under-researched” is the role of equity considerations with respect to service recovery strategies. This aspect will be dealt with in the next section.

Equity considerations in service recovery

The importance of equity theory with respect to marketing phenomena has been emphasised and investigated by several authors (Huppertz *et al.* 1978; Huppertz, 1979; Swan *et al.*, 1985; Oliver and Swan, 1989a, 1989b; Oliver, 1997). Equity has been defined as:

... a fairness, rightness, or deservingness comparison to other entities, whether real or imaginary, individual or collective, person or non-person (Oliver, 1997).

When applied to a service encounter, a customer will make a balance of the inputs invested and the outcomes received during the encounter and subsequently this will be traded off against the inputs and outputs of the service provider. Customer inputs may be monetary expenses, time and effort. On the other hand, customer outputs may be service performance or image building. Inputs for the service provider may be time and effort, while outcomes can be monetary gains, customer retention and positive word of mouth. Oliver and Swan (1989a, 1989b) investigated how customers interpret equity and found that it is related to positive inequity. Thus, customers perceive higher equity when they receive relatively more outcomes than the provider. This was also affirmed by the research of Lapidus and Pinkerton (1995), who looked at complaint situations in a retail setting using an equity theory perspective. In the case of a service failure, most customers will face a situation of negative inequity and will attempt to restore equity with postpurchase behaviour. These postpurchase behaviours include complaining, word-of-mouth communication, brand loyalty and repurchase intention (Lapidus and Pinkerton, 1995). Next to these postpurchase processes, customers may lose feelings of trust in the service provider. An effective

service recovery should avoid these negative consequences and instead create positive postpurchase behaviours.

Equity, also referred to as fairness, is a multidimensional construct. The manner in which inputs and outputs are divided between the parties is referred to as distributional fairness. There are however two other dimensions of fairness, which are the procedural and the interactional fairness perceptions. Procedural fairness represents the fairness of the process that leads to a certain outcome (Thibaut and Walker, 1975). Customers want to participate in and influence the distributional decision, or alternatively stated, they want to have a “voice” (Goodwin and Ross, 1992). The manner in which the consumer is treated in terms of respect, politeness and dignity is captured by interactional fairness (Bies and Moag, 1986). Therefore, procedural fairness could be mitigated by a rude, impersonal interactional style through which information is obtained and outcomes are communicated. An apology could be viewed as an example of interactional fairness. Goodwin and Ross (1992) have studied the importance of procedural and interactional fairness perceptions for consumer responses to service failures and found that both fairness dimensions enhanced fairness and satisfaction perceptions in the case of a favourable outcome (distributional fairness). In the case of a negative outcome, the two dimensions had a weaker effect and had the potential to decrease fairness and satisfaction perceptions. Furthermore, they suggested that effective complaint resolution may differ between goods and services. Finally, Oliver (1997) points out that equity sensitivity might be varying at the individual level. He makes a distinction between benevolent, equity sensitive and entitled customers. Benevolent customers should be sensitive to under reward or negative inequity, equity sensitive customers to equity and entitled customers to over reward or positive inequity. Within every service encounter, customers make evaluations of equity and compare actual service delivery to expectations and the corresponding level of disconfirmation. Either the initial service is (at least) acceptable or a service failure follows and a service recovery should be initiated. The recovery effort should be tailored to reflect customer recovery expectations. These expectations are influenced by variables such as equity sensitivity, organisational commitment, etc. Together with perceptions of equity, recovery expectations determine customer satisfaction with the recovery and thus recovery effectiveness. In the end, both satisfaction with the initial service and with the recovery effort influence the long-term relationship variables overall satisfaction, loyalty and trust.

Although many relationships have been investigated, some problems remain unsolved. First, it is not yet clear how recovery expectations are influenced by the tangibility of the product (good or service). One could expect that the failure of a tangible good leads to different recovery expectations than the failure of an intangible service. Second, the relationship between equity sensitivity and recovery expectations has not been empirically established. Benevolent customers may hold less stringent expectations than entitled customers, but the existence of these groups has not been evidenced. Third, it is

not clear how companies could offer tailor-made recoveries to their customers who hold different recovery expectations. If profitability of recovery efforts is to be maximised, companies should efficiently recover from service failures without wasting resources. In other words, recovery efforts should be tailored depending on the magnitude of the failure (does the customer feel annoyed or victimised?), the tangibility of the product (good or service), organisational commitment (new or established customer), customer's equity sensitivity (benevolent, equity sensitive or entitled), potential negative or positive word of mouth and the expenditures necessary to recover. At the same time, such a tailoring of recovery efforts might lead to decreased levels of perceived fairness, especially when recovery efforts are very visible to other customers. If customer people receive tailored recoveries, some of them might feel deprived if other people receive a more advantageous treatment following a similar complaint (Goodwin and Ross, 1990). Fourth, the relationship between service recovery actions and long-term relationship variables has not yet been extensively examined. Goodwin and Ross (1992) examined the link between recovery actions and perceptions of fairness and satisfaction. They found that procedural and interactional dimensions of equity were positively related to perceptions of fairness and satisfaction in the case of a favourable outcome. Lapidus and Pinkerton (1995) investigated the relationship between equity and behavioural intentions, but did not make the three dimensional distinction within equity. Instead, they focused on the distributional aspect of equity and concluded that high outcome situations resulted in more behavioural intentions (returning to and recommending the business). Another long-term relationship variable that recently has received attention is trust (Kumar *et al.*, 1995; Geyskens *et al.*, 1996). So far, trust has mainly been used in inter-organisational research. It is likely that trust is important as well in long-term relationships between firms and customers experiencing service recovery. Therefore, our study will include this relationship variable as well, as will be discussed in the next section. In Figure 1 an overview of relevant variables and their relationships is given.

Research questions

The main goal of our study is to examine the role service recovery plays in establishing long-term relationships. Every time a service failure occurs, this has a negative effect to perceptions of fairness. Unless a service provider tries to reinstall equity by for example offering an apology or compensation, a victimised customer will have feelings of unfair treatment. It is likely that feelings of negative inequity will decrease perceptions of service quality and consequently lower customer satisfaction, which was shown by the research of Goodwin and Ross (1992). A necessary distinction has to be made between encounter satisfaction and overall satisfaction. Several authors have emphasised the short-term benefits of service recovery efforts (Berry and Parasuraman, 1991; Kelly and Davis, 1994; Zeithaml and Bitner, 1996), which are more related to encounter satisfaction than to overall satisfaction.

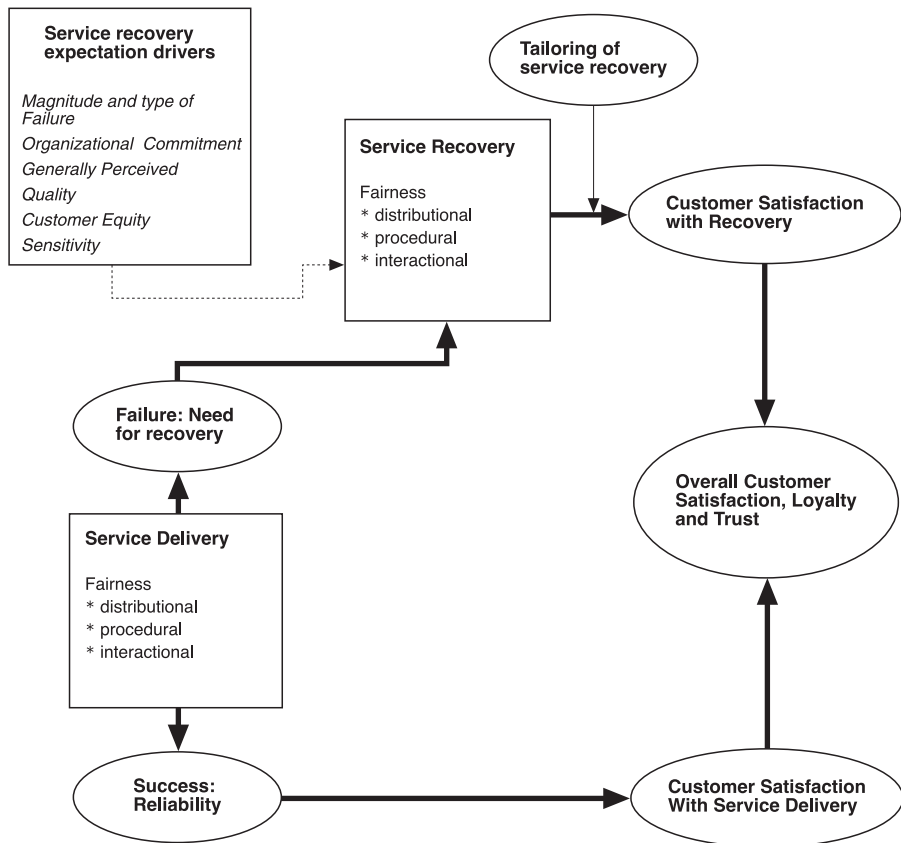


Figure 1.
A service recovery
framework

Customers who have a satisfactory relationship with a service provider will not turn away after just one service failure. It will only be after several failures that customers will drop their loyalty, due to a lack of service reliability. Therefore, service recovery may be less effective as a relationship tool. Still, successful service recovery that directly increases encounter satisfaction increases overall satisfaction as well, though maybe to a lesser extent.

It is important to note that the effects of a single service failure will be different for existing or new customers. New customers do not have any previous good experiences with the service provider, which means that a failure will weigh more seriously in their evaluations of that provider. Instead, existing customers that have a good relationship with the provider will be more tolerant of a service failure. On the other hand, it was suggested that established customers would have more stringent recovery expectations due to stronger commitment to the organisation (Kelly and Davis, 1994). Therefore, a service recovery that fails to restore feelings of equity for existing customers should still have serious effects on the long-term relationship variables.

As was mentioned before, trust has not yet been investigated extensively in relationships between firms and end-customers. Particularly in a service recovery context, the variable has received little attention. A service failure with the consequent feelings of inequity will have severe effects on a customer's confidence in the service provider, especially when service recovery does not succeed in reinstating feelings of fairness. Initially, customers should have confidence that the service provider will be able to deliver according to expectations. In the case that a service failure occurs this confidence is damaged. However, if the service provider acknowledges the inequity that results from a failure and tries to recover successfully, it may be possible to win a customer's trust again. The preceding discussion results in the following hypotheses:

- H1.* Service recovery with higher equity leads to more positive evaluations of service quality.
- H2.* Service recovery with higher equity leads to more positive perceptions of customer satisfaction.
- H3.* Service recovery with higher equity leads to higher customer loyalty.
- H4.* Service recovery with higher equity leads to more trust in the service provider.

Additionally, an important research question we aim to address is whether the aforementioned relationships differ across different service types.

Research design

An experiment was done in which the level of equity in a service recovery was manipulated. A 2x2x2x4 between-subjects, factorial design was chosen in which the three dimensions of fairness were manipulated on two levels in four service sectors.

- (1) Distributional fairness was manipulated by:
 - offering a favourable outcome; or
 - offering an unfavourable outcome.
- (2) Interactional fairness was manipulated by:
 - offering an apology; or
 - offering no apology.
- (3) Procedural fairness was manipulated by:
 - giving the opportunity to express feelings; or
 - giving no opportunity to express feelings.
- (4) The level of equity is then determined by:
 - the sum of these three dimensions.

Thus, in a service recovery with a maximum amount of equity, customers will get consideration, an apology and a form of compensation. In the other extreme case, with a minimum amount of equity, customers will get none of these. Four

service sectors were included to increase the generalisation of the findings and to detect potential differences among service sectors. The four service providers included were a hairdresser, a dining restaurant, a department store and a bank. These service providers were chosen to make sure that subjects are familiar with the service encounters in the experiment.

Scenarios were written, in which a service failure and the following service recovery actions of the service provider were described. In a pre-test, these scenarios were evaluated by customers and service experts to check the realism of the scenarios. Minor adaptations were made. In Appendix 1 an illustrative scenario is included. In a mid-sized city in The Netherlands, respondents who were randomly selected were instructed to carefully read one scenario and to fill out a questionnaire. The questionnaire consisted of statements with a 7-point Likert-scale from totally agree to totally disagree. The statements included manipulation checks and items to measure perceived service quality, overall customer satisfaction, customer loyalty and trust in the service provider. Twenty-five respondents were approached per sample cell.

To operationalise the dependent measures validated scales were used. Service quality (SQ) was measured using the original ten dimensions of the SERVQUAL-scale: tangibles, reliability, responsiveness, competence, courtesy, credibility, security, access and communication (Zeithaml *et al.*, 1990). For each dimension an item appropriate to the recovery setting was developed. Customer satisfaction (CS) was operationalised with the six satisfaction items developed by Oliver (1980). The loyalty-scale (CL) was composed of three items from a scale developed by Ramsey and Sohi (1997). Finally, customer trust in the service provider was operationalised on the basis of a scale developed by Ramsey and Sohi (1997). This scale consists of four items that measure the extent to which the customer could rely on the service provider to behave in accordance with the best interest of the customer. Sample items for the four dependent variables are included in Appendix 1.

Results

Manipulation checks

The manipulation checks provided strong evidence that the subjects did not have any problems identifying intended situations. The differences in mean scores between offering a favourable and a unfavourable outcome ($F=10.19$; $p < 0.001$), offering an apology and no apology ($F = 7.35$; $p < 0.001$) and giving the opportunity to express feelings and not giving that opportunity ($F = 19.99$; $p < 0.001$) were all as intended by the design. Thus, subjects had a correct state of mind concerning the service recovery actions of the service provider. Moreover, effects sizes were satisfying when n^2 was determined (apology: 0.476; voice: 0.716; outcome: 0.543).

Reliability and correlation dependent measures

The reliability of the scales was determined by the calculation of coefficient alpha. The reliability was satisfactory with coefficient alpha of 0.81 (SQ), 0.85

(CS), 0.89 (CL) and 0.73 (CT). Next, the correlation-matrix of the four dependent measures revealed that substantial correlation existed. When dependent measures are correlated, the use of one MANOVA is more appropriate than the use of separate ANOVAs for each dependent variable (Tabachnik and Fidell, 1996). MANOVA controls the experiment error rate in this case. However, separate ANOVAs still have to be used to find out which variables cause differences among the scenarios. The large number of tests conducted means that a couple of apparently significant results may occur just by chance. On the other hand, the number of observations in each cell is sufficiently large to set the significance level at 5 per cent.

Outlier detection

The data were analysed to reveal potential outliers, as extreme cases can negatively influence the validity of MANOVA results. Although the possibility of outliers is small, due to the interval-scales that were used and the severe preliminary screening of the questionnaires, the data were analysed to detect potential extreme cases. Univariate z-values were calculated for every observation using the corresponding cell-means of the dependent variables. None of the values was so substantially large that exclusion of the observation was deemed appropriate. Box plots did reveal some extreme cases for each dependent variable, but none of them was a consistent outlier when all four dependent variables were considered.

Assumptions MANOVA

The first assumption that was investigated was normality of the data set. For each cell the degree of skewness and kurtosis was calculated per dependent variable. An approximate z-value based on the skewness was used to test univariate normality (Tabachnik and Fidell, 1996). Our results revealed only minor deviations from the normality assumption. Furthermore, with regard to multivariate normality, several authors suggested that the robustness of MANOVA procedures makes departures from this assumption inconsequential (Bray and Maxwell, 1993; Tabachnik and Fidell, 1996). Overall, the normality of the data was judged acceptable and therefore the data were not transformed. Additionally, equality of variance-covariance matrices is another assumption that needs to be regarded. Univariate homogeneity of variance tests indicated that for none of the dependent variables was this assumption violated (Bartlett-Box F statistics insignificant). Box's M test was used for the assumption of multivariate homogeneity of variance and again the corresponding p-value was not significant (Box's M: 401,29; $F = 1,07$; $p = 0,206$). Finally, power analysis indicated that power levels were above 0.8 for most of the significant effects.

Results: effects of apology, voice, outcome and industry

The effects of the experimental factors are summarised in Table I. For the dependent variables the univariate F-values are given, if significant. Besides,

Table I.
Effects of
manipulations on
dependent measures

Factor	Quality (ANOVA)	Satisfaction (ANOVA)	Loyalty (ANOVA)	Trust (ANOVA)	Wilks Lambda (MANOVA)
Voice	24,82 ^a	11,96 ^b	11,97 ^b	54,36 ^a	0,84 ^a
Outcome	21,60 ^a	21,12 ^a	30,94 ^a	25,78 ^a	0,88 ^a
Apology	ns	ns	ns	16,11 ^a	0,95 ^b
Service	ns	10,96 ^a	16,03 ^a	ns	0,80 ^a
Voiceoutcome	ns	ns	ns	ns	ns
Voiceapology	ns	ns	6,02 ^c	ns	ns
Voice-service	ns	ns	ns	ns	ns
Outcomeapology	ns	ns	ns	ns	ns
Outcomeservice	4,23 ^b	ns	ns	ns	ns
Apologyservice	ns	ns	ns	3,11 ^c	ns
Voiceoutcomeapology	ns	ns	ns	ns	ns
Voiceoutcome-service	ns	ns	7,11 ^a	ns	0,92 ^c
Voiceapologyservice	ns	ns	ns	ns	ns
Outcomeapologyservice	ns	ns	ns	ns	ns
Voiceoutcomeapology-service	ns	ns	ns	ns	ns

Notes: ^a $p < 0.001$; ^b $p < 0.01$; ^c $p < 0.05$

the value of Wilks Lambda resulting from the MANOVA is presented as well. In Tables II and III the results are specified for the four different service types.

Only the main effects of voice and outcome are significant for service quality. The effect of apology on customer perceptions of service quality does not seem to be important. These results partly support *H1*; customers evaluate service quality more positively as long as a higher level of equity is the result of a favourable outcome and/or the opportunity to express feelings. When apology is used to increase feelings of equity, no significant effect on service quality is seen. Furthermore, a significant interaction effect between outcome

Table II.
Means for construct
scores per treatment

Industry	Service quality	Satisfaction	Loyalty	Trust
Hairdresser	5,07	3,89	3,87	4,38
Dining café	5,23	4,80	4,97	4,78
Department store	4,92	4,16	4,23	4,52
Bank	5,12	4,71	5,21	4,67
<i>Voice</i>				
Low	4,83	4,17	4,32	4,15
High	5,35	4,62	4,85	5,04
<i>Outcome</i>				
Unfavorable	4,85	4,11	4,15	4,30
Favorable	5,33	4,70	5,02	4,89
<i>Apology</i>				
No apology	4,95	4,29	4,45	4,34
Apology	5,22	4,49	4,71	4,84

Service effect	Quality	Satisfaction	Loyalty	Trust	Customer equity considerations	
	(F = 1,63; <i>p</i> = 0.181)	(F = 9,84; <i>p</i> = 0.000)	(F = 15,34; <i>p</i> = 0.000)	(F = 1,44; <i>p</i> = 0.230)		
<i>Means</i>						
Hairdresser	5,09 ¹	3,92 ¹	3,82 ¹	4,39 ¹	101	
Dining café	5,27 ¹	4,80 ³	5,03 ²	4,74 ¹		
Department store	4,92 ¹	4,21 ^{1,2}	4,29 ¹	4,55 ¹		
Bank	5,14 ¹	4,71 ^{2,3}	5,23 ²	4,70 ¹		
<i>Apology</i>						
Hairdresser	ns	ns	ns	5,24 ^c		
Dining café	7,04 ^c	ns	ns	9,53 ^b		
Department store	ns	ns	ns	ns		
Bank	4,50 ^c	4,03 ^c	6,18 ^c	11,94 ^b		
<i>Outcome</i>						
Hairdresser	ns	ns	6,19 ^c	4,03 ^c		
Dining café	27,27 ^a	19,99 ^a	25,51 ^a	24,38 ^a		
Department store	ns	5,56 ^c	8,97 ^b	5,71 ^c		
Bank	ns	ns	ns	ns		
<i>Voice</i>						
Hairdresser	11,13 ^b	6,94 ^c	4,11 ^c	22,97 ^a		
Dining café	7,75 ^b	ns	ns	6,90 ^c		
Department store	5,54 ^c	9,85 ^b	14,04 ^a	17,76 ^a		
Bank	ns	ns	ns	8,51 ^b		

Notes:

Interactions are not included, as only three interactions were significant: interaction between outcome and voice for hairdresser for customer loyalty; interaction between apology and voice for hairdresser for customer loyalty; interaction between outcome and voice for hairdresser for customer satisfaction.

The differences among means were tested for significance with Scheffe's test of multiple comparisons. Means with the same numbers form a homogeneous subset.

F-values are given with: ^a *p* < 0.001; ^b *p* < 0.01; ^c *p* < 0.05

Table III.
Main effect of service on dependent measures

and service sector is reported. In other words, the effect of a favourable outcome on service quality was not equal among the industries. For the dining café, a favourable outcome resulted in substantial higher perceptions of service quality, whereas for the other sectors the outcome effect was insignificant, mainly due to a high variance within groups (see Table III).

Similarly, the main effects of voice and outcome are significant for customer satisfaction, but apology is not. The statement of an apology does not seem to be important for overall customer satisfaction. Similar results were reported by Goodwin and Ross (1992), who provided evidence that an apology is not a high contributor to perceptions of fairness and (consequently) to customer satisfaction. *H2* therefore is partly supported: higher equity as a result of a favourable outcome and/or the opportunity to express feelings, increases customer satisfaction. On the contrary, interactional fairness in the form of the statement of an apology does not affect customer satisfaction significantly. The main effect of service was significant as well. In Table III the satisfaction

means are given for each service sector, indicating that respondents in the dining café scenario and the bank scenario were more satisfied than respondents in the other scenarios. Maybe this could imply that service failures in these sectors are more accepted or more easily solved in a satisfying way.

H3 is also partly supported by the results of the experiment. Again, the statement of an apology does not significantly influence customer loyalty. Therefore, interactional fairness does not seem to be critical for customer loyalty. The main effects of the other dimensions of equity, outcome and voice, are significant though, as well as the service effect. Table III shows that dining café and bank respondents seem to be more loyal than department store and hairdresser respondents. For bank customers this may be correct; due to the relatively high switching costs customers tend to stay with their bank. However, why dining café customers would be more inclined to loyalty is not clear. Additionally, an interaction effect between voice and apology is significant. Our results show that the effect of an apology tends to increase in combination with the opportunity to express feelings (voice). In the case where, subjects receive a low voice an apology hardly improves respondents' evaluations of service quality, customer satisfaction and trust (interactions not significant though). Customer loyalty even worsens if an apology is offered in combination with low voice.

Main effects for apology, voice and outcome are all significant for customer trust in the service provider. All three dimensions of equity seem to be important for trust, which provides strong evidence for *H4*. Trust is then the only long-term variable for which the statement of an apology seems to be directly important. The main effect of service is not significant, indicating that the mean levels of trust do not differ among the service industries. On the contrary, the results give a significant interaction effect between service and apology. Probably the effect of apology is not equal among the four service industries. Table III reveals that apology has only effect on trust in the case of the dining café and the bank. For the other two service sectors the offer of an apology has no significant effect on trust.

Overall, it can be concluded that the manipulations have diverging results across the service industries (see Table IV).

Although the main effect of service is not significant for service quality and trust when considered on an overall level, on the industry level there are differences in significance. For example, an apology has no significant effect on the service quality score for the hairdresser and the department store. On the contrary, apology does significantly influence service quality for the dining café and the bank. If manipulation effects are idiosyncratic to specific services, this suggests that the dependent variables are influenced by different equity dimensions across service industries. This will be discussed in more detail in the next section.

Discussion

The results of this study partly support the hypotheses. On the overall level, distributional fairness (outcome) and procedural fairness (voice) during the

Service industry	Dependent variables	Main influencing equity dimensions
Hairdresser	Service quality	voice ^b
	Customer satisfaction	voice ^c
	Customer loyalty	voice ^c , outcome ^c
	Trust in service provider	voice ^a , outcome ^c
Dining café	Service quality	outcome ^a , voice ^b , apology ^c
	Customer satisfaction	outcome ^a
	Customer loyalty	outcome ^a
	Trust in service provider	outcome ^c , apology ^b , voice ^c
Department store	Service quality	voice ^c
	Customer satisfaction	voice ^b , outcome ^c
	Customer loyalty	voice ^a , outcome ^b
	Trust in service provider	voice ^a , outcome ^c
Bank	Service quality	apology ^c
	Customer satisfaction	apology ^c
	Customer loyalty	–
	Trust in service provider	apology ^b , voice ^b

Notes: ^a $p < 0.001$; ^b $p < 0.01$; ^c $p < 0.05$

Table IV.
Overview of equity effects per service industry

service recovery significantly improve scores for service quality, customer satisfaction, customer loyalty and trust. Interactional fairness (apology) only enhances the score for trust. Given the fact that the statement of an apology during the service recovery does not inflate perceptions of fairness (Goodwin and Ross, 1992), the importance of interactional fairness in building long-term relationships seems to be limited. Further research is encouraged to purify the role of interactional fairness in establishing feelings of trust in the service provider. Although a fair service recovery will be pre-eminently important for perceptions of service quality and satisfaction at the encounter level, the present study provides some evidence that a lack of equity during the service recovery might also have long-term consequences for the level of loyalty and trust. The long-term effects of a weak service recovery might be subject to the equity-sensitivity of the customer (Oliver, 1997). The large spread in answers within the groups may confirm this; while some respondents were still satisfied and loyal after a weak service recovery, other respondents were not at all satisfied and did not have intentions to stay loyal to the service provider.

The results of this study suggest that the effects of equity in a service recovery are idiosyncratic to specific service industries. If this is the case, then a focus on specific service industries is more valuable than an overall view. For each industry, one of the equity dimensions is consistently most important for all the relationship variables. In the case of the hairdresser, the opportunity to express feelings (voice), or procedural fairness, is the factor that primarily influences perceptions of service quality, customer satisfaction, customer loyalty and trust in the service provider. Further, distributional fairness (outcome) is important for customer loyalty and trust, although to a lesser

extent. This might imply that the service failure was too serious to be compensated, so that the proposed compensation was not accepted. Another explanation might be that customers value voice more than outcome even if the outcome is satisfactory. Interactional fairness (apology) by the hairdresser does not seem to have any effect on the relationship variables. However, the interaction effect between apology and voice was significant for customer loyalty, indicating that an apology only has effect in combination with the opportunity to express feelings. In the case of low voice an apology can hardly compensate. For the dining café distributional fairness is most critical during the service recovery. A form of compensation enhances scores on all the four variables. The other dimensions of equity have minor importance for an effective service recovery. Apparently, customers thought the service failure was serious enough to be compensated and a lack of compensation could not be covered up by an apology or high voice. A service recovery in a department store appears to be most dependent on procedural fairness and to a lesser extent on distributional fairness. The results are almost identical for the hairdresser, which suggests that recovery situations in these sectors may have comparable characteristics. Finally, equity in the service recovery of a bank has few significant effects on the relationship variables. Surprisingly, interactional fairness has several significant effects in the bank industry, while on the overall level it only had a significant effect on trust. The fact that there are few significant effects might be explained by a high degree of tolerance bank customers have. Service failures by banks might be more accepted than failures by the other sectors. Additionally, none of the equity dimensions influenced the score on customer loyalty. This might indicate that bank customers have a high degree of loyalty and that one service failure does not have a negative impact on loyalty, regardless of the service recovery actions undertaken. Several reasons might account for this finding. It may be that the relative length of patronage of bank customers, their perceived relationship benefits and relatively high switching costs (there is probably much time and effort involved in changing banks) leads to a relatively higher zone of tolerance in case of bank service failures.

Theoretical implications

Part of the strength of a research project lies in the recognition of its limitations. This may suggest potential issues that merit future research and hence have important theoretical implications. In the first place, we did not measure and include in the design the effect of individual characteristics, such as the aforementioned distinction made by Oliver (1997) pertaining to benevolent, equity sensitive and entitled customers. It may very well be that these characteristics have a profound effect on service recovery evaluations. Therefore, in future research attention should be paid to the effect of customer equity sensitivity differences. Second, we find that the effect of apology is not equal among the four service industries. Apology has an effect on trust in the case of the dining café and the bank, while for the other two service sectors the

offer of an apology has no significant effect on trust. Further investigation would be needed to determine if an apology has indeed differential effects on trust for the dining café and the bank on the one hand and the hairdresser and the department store on the other hand. Thirdly, several issues pertaining to the research method provide directions for future research. As we used an experimental research design, the external validity of our findings is restricted. In other words, the generalizability of the findings to real-life settings may be limited, as it is very hard to simulate the value of a relationship, for instance. Furthermore, the use of scenarios in this study may be criticised. Scenarios require imagination from the respondent: the respondent is asked to imagine a relationship with a service provider and then to evaluate the impact of a service recovery on that relationship. In fact, the respondent lacks the rich history of a real-life relationship. As a result, a couple of respondents indicated that some items were difficult to answer with the information given in the scenarios. In the future, a comparable experiment may be conducted in a real-life setting, although several ethical and practical problems will complicate this methodology. Another shortcoming is that the present research did not make an explicit distinction between the encounter and the overall level. The service quality and customer satisfaction scales were intended to measure constructs on the overall level and not on the encounter level. However, it might be possible that some respondents have answered the questionnaire with the specific service encounter in their minds instead of the overall relationship. Future research may distinguish more accurately between these two levels, so that encounter satisfaction is separated from overall satisfaction and that encounter quality is separated from overall quality. Finally, further research should be conducted to validate the differences among the service sectors.

Managerial implications

In terms of managerial implications, the findings of this study underscore the importance of an effective service recovery. More specifically, a form of compensation and a listening ear are very important to recover from a service failure and to nurture long-term relationships. The statement of an apology seems less critical. Service personnel should then be trained to handle complaints, so that they have consideration in the case of a service failure and allow customers to express frustration freely. Furthermore, service personnel should have the autonomy to help customers in real-time. This means that service personnel must have the authority to offer a form of compensation without interference from management.

Given the importance of service recovery, managers should investigate fairness for their specific industry, since fairness appears to have different meanings across service industries. Whereas for some service sectors distributional fairness is most important, for other sectors procedural or even interactional fairness may be more important. Additionally, it might be valuable to do an investigation into perceptions of fairness for the most frequently occurring service failures, so that service recovery actions can be

fine tuned to maximise feelings of fairness without wasting resources. In fact, this kind of research could simply be effectuated by just asking customers what they expect after a service failure.

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Appendix. Sample scenario "hairdresser"

You have an excellent relationship with your hairdresser. You have been a loyal customer for years. In general, you visit her hairdresser's shop once a month. That shop is a neat looking, independent shop with professional instruments. The ambience is relaxed with nice background music. You never have to wait long, because normally your hairdresser is an excellent organizer and in the case you should have to wait she has a good, acceptable reason for it. Most of the times, you have a pleasant conversation, while she is doing your hair, otherwise you read one of the magazines your hairdresser has subscribed to. In general, you agree that she provides good service for the price you have to pay. You perceive yourself as a satisfied customer. However, you experience the following incident.

You have been invited for a wedding of a good friend of yours, that will take place next weekend. Of course, you want to appear on the wedding in great shape and therefore you decide to quickly visit your hairdresser to have your hair perfected. You phone your hairdresser to make an appointment and she is willing to help you the next day.

As agreed upon, you appear at the hairdresser's shop the next day. You explain that you want to have your hair-cut perfected for the wedding. After you have taken a seat, your hairdresser

starts her work while you read a magazine. After a while, your hairdresser says she is ready and you stand up to walk to the mirror. The moment you see your hair-cut you notice in panic that your hairdresser has been cutting your hair far too short.

Your hairdresser sees your depressed face and asks immediately what went wrong. She listens patiently while you explain that the hair-cut does not fulfill your expectations. Your hairdresser lets you finish your story and offers her apology right away. She says: "Unfortunately, I must have misunderstood you. I am very sorry for this serious inconvenience". She understands that your complaint can hardly be corrected, but she does an effort to compensate you. She says: "I hope I can make it up to you by giving you a 20 per cent discount on the bill". You pay the remaining amount and then you leave.

Sample items dependent variables[1]:

Service quality: "The service provider is willing to help you".

Customer satisfaction: "My choice to go to the service provider was a wise one".

Customer loyalty: "I plan to remain a customer from this service provider".

Trust: "The service provider was sincere".

Note

1. The word "service provider" was substituted for hairdresser, waiter, salesperson and bank employee for respectively the airdresser, dining café, department store and bank industry.