

Antecedents to Satisfaction with Service Recovery

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Abstract

Building on disconfirmation theory, equity theory and affect-balance theory this paper considers antecedents to satisfaction with service recovery. A theoretical model is proposed and tested empirically based on a cross-sectional national sample of 201 dissatisfied complaining customers of services. The results suggest that perceived performance of service recovery has an impact on equity. Second disconfirmation of expectations of service recovery and perceived fairness of outcome of service recovery, have an impact on satisfaction with service recovery. Finally, negative affect caused by the initial service failure does not have an impact on satisfaction with service recovery.

Key words: Dissatisfaction, Service recovery, Negative affect, Equity, Customer retention, Norway.

Introduction

Two recent articles (Berry & Parasuraman, 1993; Fisk, Brown, & Bitner, 1993) track the development of the new academic field of service marketing. Both articles point to research related to the understanding of service quality and customer satisfaction as unique to the discipline. SERVQUAL (Parasuraman, Zeithaml, & Berry, 1985), equity (Homans, 1961) and disconfirmation of expectations (Oliver, 1980) have been used in predicting customer satisfaction. Measured by the impact and amount of work done within satisfaction research, it is fair to say that Oliver's disconfirmation of expectation have been the dominant paradigm (see Halstead, Hartman, & Schmidt, 1994 for an excellent review). Independent of theoretical platform, today it has become a truism that service quality is key to customer satisfaction. However, few if any companies manage to deliver services of expected quality all the time resulting in negative disconfirmation of expectations or the perception of inequity. Companies may respond to the service-failure independent of customer reactions or as a direct function of customer complaint. Service recovery refers to the actions a supplier takes in order to seek out dissatisfaction (Johnston, 1995) and as a response to poor service quality, i.e. service failure (Grönroos, 1988; Hart, Heskett, & Sasser, 1990).

The study of customer dissatisfaction and complaining behavior has gained momentum over the years, (Day & Landon, 1976; Gilly & Gelb, 1982; Bearden & Teel, 1983a; Richins, 1983b, 1983a, 1985, 1987; Singh, 1990; Folkes, 1984, 1988).

The primary focus of this research has been to explain which particular type of complaint behavior - redress seeking, negative word of mouth, or exit - a dissatisfied customer might choose. In a review of the complaint literature, Robinson (1978) underscored the historic emphasis on consumer orientation, reporting that almost all the studies focused on the person filing the complaint and the nature of the complaint. Briefly, previous research has found that dissatisfied customers choose to seek redress, engage in negative word-of-mouth behavior, or exit, based on the perceived *likelihood of successful redress* (Day & Landon, 1976; Day & Bodur, 1978; Day, Grabicke, Schaetzle, & Staubach, 1981; Gilly & Gelb, 1982; Bearden & Teel, 1983a; Bearden & Mason, 1984; Richins, 1983a, 1983b; Folkes, 1984; Folkes & Kotos, 1985; Folkes, Koletsky, & Graham, 1987; Singh, 1990), their *attitude toward complaining* (Richins, 1980, 1983a; Bearden & Mason, 1984), *the level of product importance* (Richins, 1985), and whether they perceive the problem to be *stable* or to have been *controllable* (Folkes, 1984).

In summary it is fair to say that the majority of the customer dissatisfaction and consumer complaint literature have studied why, who and how consumers respond to dissatisfaction with goods. Apart from the work done by Zeithaml, Berry, & Parasuraman (1996), Andreasen (1985, 1984) and Singh (1988, 1990) few if any studies have focused on antecedents to satisfaction with service recovery. This is surprising given current research focus on customer loyalty and relationship marketing.

The purpose of this paper is 1) to examine the direct and indirect impact of antecedents to satisfaction with service recovery, and 2) to estimate the relative impact of disconfirmation, negative affect, and equity on satisfaction with service recovery. Building on Oliver (1993a, 1997) a conceptual model treating expectations to service recovery, perceived quality of service recovery, initial negative affect and equity as latent variables with multiple indicators is proposed. Next, the results of an empirical study, testing the model is presented. Finally, the implications of the findings are discussed.

The conceptual model

Management discovers the organization's inability to satisfy its customers via two feedback mechanisms: exit and voice (Hirschman, 1970). Exit implies that the customer stops buying the company's services while voice is customer complaints expressing the consumers' dissatisfaction directly to the company. Assuming that companies respond to dissatisfied customers' complaint, these customers will be exposed to a new service loop, i.e. service recovery. Satisfaction with service recovery may be seen as a function of 1) negative affect cause by initial service failure, 2) expectations of service recovery, 3) perceived quality of service recovery, 4) disconfirmation of expectations, and 5) perceived fairness of outcome of service recovery, i.e. equity. Perceived (in) equity is partly a function of perceived quality of service recovery.

In our model satisfaction with service recovery is the dependent variable with initial negative affect, expectations of service recovery, disconfirmation, equity as latent independent variables which are anticipated to have a direct and/or indirect impact on the dependent variable. The conceptual model is illustrated in Figure 1.

Place Figure 1 about here

Since the effects of disconfirmation on satisfaction are well established, we will focus on initial negative affect and equity as the "new" variables, which may have an impact on satisfaction with service recovery.

Initial negative affect

Most references on affect build on Bradburn's (1969) affect-balance theory which claims that events in life alternate between the positive and the negative, and that instances of one do not preclude occurrences of the other. This argument is particularly relevant to services since the service product consists of a number of attributes which may be perceived as pleasant or unpleasant (Oliver, 1993b). Bearden and Teal (1983b) suggest that consumer complaint behavior (i.e. voice/no voice) is an action resulting from the emotions of dissatisfaction. Due to monetary costs, frustration, anxiety, tension the customer begins in a deficit (Oliver, 1997).

Initial negative affect is the common denominator describing the unsatisfactory service encounter experienced by customers who voiced or have not voiced their dissatisfaction to the company. Depending on degree of deficit, initial negative affect is believed to impact on the satisfaction judgment of the recovery process and future repurchase intention. Affect is a generic term covering a whole range of preferences, evaluations, moods and emotions. Emotions refer to a complex variety of affects, beyond merely feeling good or bad. It involves intense feelings with physiological arousal, which may last for some time (Fiske & Taylor, 1991). Research in consumer satisfaction (cf. Westbrook, 1980) and in psychology (cf. Schwartz & Clore, 1983) shows that positive and negative affective orientations color later affective judgment of every variety. The Mano and Oliver Framework (1993) identifies negative affect as a negative antecedent to satisfaction. Initial negative affect triggered by the initial service failure may thus have a negative impact on the satisfaction judgment of service recovery due to the customer being in a negative state of mind. It is also likely that initial negative affect for the same reason may have a negative impact on future repurchase intention. Based on the above discussion there is ample reason to believe that excitation transferred from one source, i.e. dissatisfaction with the initial service, to another, i.e. satisfaction with service recovery, may color subsequent future repurchase intention both directly and indirectly.

In summary, a customer who is dissatisfied with the initial service encounter experiences some degree of negative affect, e.g. anger, disgust, contempt. For customers who have voiced their dissatisfaction to the company initial negative affect is believed to impact on the satisfaction judgment of service recovery and future repurchase intention. In this respect both cognitive and affective elements are assumed to influence future repurchase intention, i.e. whether customers exit or remain.

Based on the above discussion and arguments we will make the following propositions:

Proposition 1.0: *Negative affect caused by the initial service failure is believed to impact on satisfaction with service recovery.*

Equity

Popular in *social psychology* (Walster, Walster, & Berscheid, 1978), *sociology* (Jasso, 1980) and *organizational behavior* (Pritchard, 1969), equity theory has received little attention in the marketing literature (Adams, 1965; Huppertz, Arenson, & Evans, 1978). Generally, equity theory suggests that parties involved in an exchange feel equitably treated and thus satisfied if their amount of input to the exchange is somewhat in balance with their output of the exchange. In contrast to disconfirmation where the satisfaction judgment is a function of expectations prior to consumption compared to perceived outcome, equity is a relative dimension.

Stated differently: disconfirmation is the result of comparing predictive expectations to performance whereas perceived justice is the result of comparing normative standards to performance. In equity theory the outcome of the interaction is seen as a function of input to the interaction and relative to the outcome of the other party in the interaction. Equity judgment is based on two steps; first, the consumer compares her outcome to her input, second, she performs a relative comparison of this to the other exchange party. Equity or inequity has been known to affect the satisfaction or dissatisfaction of those who are sensitive to this phenomenon. This is supported by the literature in sociology, psychology, social psychology, and organizational psychology, cf. (Guillermina, 1980; Cook & Messick, 1983). Satisfaction or dissatisfaction judgment is believed to be formed as a summary of equity/inequity of one's own outcome relative to the other party's outcome, given input. Key to this comparison is the perception of fairness as it explicitly implies a form of distributive justice whereby individuals get what they deserve based on their inputs (Cook & Messick, 1983). The customer will have expectations with regard to the outcome, e.g. fairness of the process of the complaint handling. Seen from the customer's point of view the outcome may be perceived as fair or unfair. An unfavorable outcome will be perceived as unfair and create low satisfaction with service recovery. A favorable outcome will be perceived as fair and thus create positive satisfaction with service recovery. According to attribution theory (Weiner, 1980; Weiner, 1985; Folkes, 1984) the complainer is convinced that the supplier causes her dissatisfaction. In this respect

it seems plausible that the complainer is focused on restoring justice and that her satisfaction judgment is driven by perceived fairness of the outcome of complaining. In two studies (Oliver & DeSarbo, 1988; Oliver & Swan, 1989) both equity and disconfirmation were found to have a significant impact on satisfaction. Oliver and Swan (1989) argue that disconfirmation and equity are conceptually distinct and can be considered as complementary drivers of satisfaction. According to the authors the two concepts differ fundamentally on 1) the standard of comparison; 2) the nature of this standard; 3) the attributes and dimensions used in the comparison; 4) whether inputs are used; 5) the stages in the comparison process, and 6) the emotion reaction to the various states of the two concepts. Despite equity being different from disconfirmation we will argue that the attribute performance evaluation of service recovery is part of the equity judgment.

Based on the above discussion and arguments we will make the following propositions:

Proposition 2.0: *Perceived quality of service recovery (PQSR) is believed to impact on equity (EQ).*

Proposition 2.1: *The perception of fairness in the outcome of service recovery (equity) is believed to impact on satisfaction with service recovery.*

Satisfaction with service recovery

Oliver claims that satisfaction is derived from the Latin *satis* (enough) and *facere* (to do or make) (Oliver, 1997, p. 11). Satisfaction is consequently related to providing what is being sought to the point where fulfillment is reached. In the marketing literature, satisfaction is defined in several ways:

The evaluation of emotions. (Hunt, 1977, p. 460)

Favorability of the individual's subjective evaluation. (Westbrook, 1980, p. 49)

Summary psychological state resulting when the emotion surrounding disconfirmed expectations is coupled with the consumer's prior feelings about the consumption experience. (Oliver, 1981, p. 27)

A positive outcome from the outlay of scarce resources. (Bearden & Teel, 1983a, p. 21)

Satisfaction is the consumer's fulfillment response. It is a judgment that a product or service feature, or the product or service itself, provided (or is providing) a pleasurable level of consumption-related fulfillment, included levels of under- or overfulfillment. (Oliver, 1997, p. 13)

From the above definitions it is understood that satisfaction is related to a subjective evaluation of emotions. The emotion occurs as a function of

disconfirmation and relative output to input. The end result is a positive or negative feeling of fulfillment.

The structural model

We treat initial negative affect, expectations of service recovery, perceived quality of service recovery, equity, disconfirmation, and satisfaction with service recovery as latent variables with multiple indicator measures (i.e. n_i , e_i , p_i , eq_i , d_i , and s_i) (Bolton & Drew, 1991; Oliver, 1992). Satisfaction with service recovery (SSR) is a function of initial negative affect (-INA), disconfirmation of expectations (+DC), equity (+EQ), perceived quality of service recovery (+PQSR), and expectations of service recovery (+/-EXP). Disconfirmation of expectations is a function of perceived quality of service recovery (+PQSR) and expectations to service recovery (+/-EXP). Equity (EQ) is a function of perceived quality of service recovery (+PQSR). This can be expressed as:

$$\text{Eq. 1} \quad \text{SSR} = f_1(\text{DC}, \text{EQ}, \text{PQSR}, \text{EXP}, \text{INA}, \zeta_1)$$

$$\text{DC} = f_2(\text{EXP}, \text{PQSR}, \zeta_2)$$

$$\text{EQ} = f_3(\text{PQSR}, \zeta_3)$$

ζ_1 , ζ_2 and ζ_3 are error terms containing all other elements not accounted for in the equations.

The structural model analyzed is illustrated in Figure 2.

Place Figure 2 about here

Based on theory from consumer behavior and affect-balance theory, we have argued that initial negative affect, expectations of service recovery, perceived quality of service recovery, disconfirmation of expectations of service recovery, and equity are believed to be direct or indirect antecedents to satisfaction with service recovery. The existence of significant path coefficients in the right direction with the right sign is needed in order to clarify the proposed antecedents to satisfaction with service recovery. The hypotheses are expressed formally below. Hypotheses H_0 to H_4 are related to disconfirmation of expectation paradigm.

H_0 : Expectations of service recovery (ESR) is correlated with disconfirmation (DC).

H_1 : Expectations of service recovery (ESR) is correlated with satisfaction with service recovery (SSR).

H_2 : Perceived quality of service recovery (PQSR) is positively correlated with disconfirmation (DC).

H_3 : Perceived quality of service recovery (PQSR) is positively correlated with satisfaction with service recovery (SSR).

H₄: Disconfirmation (DC) is positively correlated with satisfaction with service recovery (SSR).

The literature (for example Oliver, 1997) argues that equity is a more comprehensive construct than disconfirmation both in forming (in)equity, the norm for comparison, and input variables. We will argue that perceived quality of service recovery is part of the input to the equity formation. This is expressed as:

H₅: Perceived quality of service recovery (PQSR) is positively correlated with equity (EQ).

In line with previous research we claim that equity has an impact on satisfaction. We express this as:

H₆: Equity (EQ) is positively correlated with satisfaction with service recovery (SSR).

Dissatisfaction caused by initial service failure is believed to cause negative affect. This negative affect is believed to have a carry-over effect on the recovery process. As such we believe that negative affect may have a negative impact on the satisfaction judgment of service recovery. We express this as:

H₇: Initial negative affect (INA) is negatively correlated with satisfaction with service recovery (SSR).

The above hypotheses can be tested empirically by calculating the significant path coefficients.

Methodology

Sample

Data for this study were generated as a function of the annual process of collecting data for the Norwegian Customer Satisfaction Barometer (NCSB) in 1996. At the end of the NCSB-interview each respondent was asked if she, within the last six months, had reason to be dissatisfied with the service for which he or she was interviewed. If the respondent answered affirmatively, he or she was, as the last question of the NCSB-interview, asked to participate in a new dissatisfaction study at some agreed date and time within the next two to three weeks. No incentives were promised or mentioned. If the respondent accepted the invitation, he or she was called back and interviewed at the agreed date and time. Each interview lasted from 12 to 15 minutes. No response at this stage was handled using three callbacks. All telephone interviews both for the NCSB and the dissatisfaction study were handled by an independent professional market research bureau.

The final sample contained 201 respondents, of which 55.2 per cent were males and 44.8 per cent females. The average household income was about NOK 380,000 (USD 60,000). The respondents' age varied between 18 and 80, a small skewness

toward younger respondents. Mean birth year was 1955. Average education was one to two years of college education, with a small bias towards respondents not having finished their college degree. The respondents were equally distributed between urban and rural areas. Respondents by service industry are illustrated in Appendix A.

Measures

Quality can be used to operationalize utility (Perreault & Russ, 1976), i.e. satisfaction. Satisfaction with service recovery cannot be measured directly by using an objective measure (Simon, 1974). If, however, satisfaction with service recovery is treated as an abstract and theoretical phenomenon it can be measured as a weighted average of multiple indicators (Johnson & Fornell, 1991). Measurement errors in the index are taken care of through the quality and quantity of the measures being used (Fornell, 1989). Following this, expectations to service recovery, perceived quality of service recovery, satisfaction with service recovery, initial negative affect, and equity were measured using multiple indicators. A description of the indicators is presented in Appendix B. Standardized parameter estimates for the indicators of the latent variables in the model are included in Appendix B. Characteristics of the latent variables are given by the number of items making up each measure and Cronbach alpha coefficients, which express internal consistency in measures. The Cronbach alpha coefficients are presented in Appendix C. According to Nunnally (1967) a score above .5 is

adequate for basic research. This score was later adjusted to 0.7 (Nunnally, 1978). All Cronbach alpha scores are within the accepted zone.

Model

A reflective measurement model was used, where the observed variables are caused by the latent variables (Bollen, 1989). Endogenous (dependent) latent variables are labeled h , and the exogenous (independent) latent variable is labeled x . The dependence of the latent variables is then expressed as $\eta = B\eta + \Gamma\xi + \zeta$.

The relationships hypothesized in this study were analyzed by using structural equation modeling (LISREL VIII, ML) (Jöreskog & Sörbom, 1989). A selection of fit indices reported by LISREL 8.12a is included in Appendix D. According to the fit indices the theoretical models fit the data reasonably well (Medsker, Williams, & Holahan, 1994; Hair, Anderson, Tatham, & Black, 1995). Reestimation of the same model using Generalized Least Squares (GL) reports parameter estimates in the same range with the same sign. This is an indication of good model fit of the structural model (Olsson, 1996).

Parameter estimates

According to Jöreskog (1993) and Anderson and Gerbing (1988) a two-step approach is preferable for testing structural equation models.¹ First, the measurement model is estimated without imposing any structural constraints. This allows for inspection of the lack of fit that can be attributed to the measurement alone. The second step includes the structural relationships proposed by the theoretical framework. By using the two-step approach one avoids the confusion in interpretation that can result from one-step approach (Anderson & Gerbing, 1988). This study employed the two-step approach.

The estimated standardized path coefficients between the endogenous and exogenous variables (i.e. the gamma matrix) are illustrated in Table 1.

Place Table 1 about here

As can be seen from Table 1 both disconfirmation of expectations and equity as a significant impact on satisfaction with service recovery. Contrary to our expectations negative affect has no impact on satisfaction with service recovery.

¹ Fornell and Yi (1992) who claim that the underlying assumptions of the two-step approach are difficult to meet, challenge this view.

The estimated standardized path coefficients between the endogenous variables disconfirmation, satisfaction with service recovery, and equity are illustrated in Table 2.

Place Table 2 about here

In line with previous research in customer satisfaction we find that both disconfirmation and equity has an impact on satisfaction with service recovery. The fact that they impact satisfaction with service recovery in tandem is in line with our hypothesis. Interestingly, equity seems to have a stronger impact on satisfaction with service recovery than disconfirmation.

Discussion

In keeping with the growing focus on relationship marketing there is a growing need for a deeper understanding of antecedents to satisfaction with service recovery.

Based on the model structured and the data sampled H_0 and H_1 are accepted. Expectations of service recovery have a significant (positive) impact on disconfirmation and satisfaction with service recovery.

H_2 and H_3 are accepted. Perceived quality of service recovery has a significant positive impact on disconfirmation and satisfaction with service recovery.

H₄ is accepted. Perceived quality of service recovery has a significant impact on equity.

H₅ is accepted. Equity has a significant positive impact on satisfaction with service recovery.

H₆ is accepted. Disconfirmation has a significant positive impact on satisfaction with service recovery.

H₇ is rejected. Initial negative affect does not have a significant negative impact on satisfaction with service recovery.

In keeping with the findings from other studies of customer satisfaction with services or products, we have confirmed the disconfirmation paradigm, but in a new context. In the context of dissatisfaction with services the correlation between expectations of service recovery and disconfirmation is in contrast to Dröge and Halstead (1991). They claim that declining memory for expectations may cause a non significant correlation between the two constructs. For complaining customers the incident for which they were interviewed for in our study occurred 3.6 months prior (stand. dev. 1.75) on average.

Initial negative affect does not have a significant impact on satisfaction with service recovery. This finding is in contrast to Oliver's prediction (1997, p 366). We believe that this finding may be attributed either to the operationalization of the construct or to the structural equations, i.e. other paths take priority with loss

of significance on the INA → SSR correlation. It could also imply that negative affect do not have an impact on satisfaction with service recovery but rather have an impact on customer loyalty.

The fact that disconfirmation rather than expectations have a dominant impact on satisfaction with service recovery indicates that the satisfaction judgment is contrast- rather than assimilation-driven. The covariation between expectations and disconfirmation in the satisfaction-with-service recovery model is 0.46. A low significant correlation between expectations and satisfaction with service recovery, and positive covariation between expectations and disconfirmation, is interesting. First, it indicates that the satisfaction judgment of service recovery is based on contrast rather than assimilation. The contrast effect in the satisfaction judgment can be attributed to the fact that customers have an initial dissatisfaction and negative affect. A successful service recovery is a positive surprise and will create strong positive feelings (delight). An unsuccessful recovery as perceived by the complainer will create strong negative feelings (anger).

Second, in the context of dissatisfaction with services low expectations encourage positive disconfirmation, and high expectations of service recovery encourage negative disconfirmation. This may be attributed to a halo effect whereby complainers bring overall positive or negative biases to the judgment task. Thus low-expecting complainers will see only positive, better-than-expected outcomes,

and high-expecting complainers will see only negative results (Oliver, 1997, p. 110).

The act of complaining is motivated by a need to reduce a deficit (i.e. dissatisfaction with a service). The objective is to be able to return to the neutral situation. We believe that the complainer has expectations of both the recovery process as well as the outcome. We have documented that this also is the case. The fact that equity has a stronger impact on satisfaction with service recovery than disconfirmation, indicate that the perception of justice is more important to the complainer than the recovery process. In other words, the perception of injustice will remain despite a positive disconfirmation of expectations of service recovery.

Managerial implications

Failures in the production and/or delivery of services are inevitable and will happen to almost all service organizations. What companies do with regard to seek out dissatisfied customers or efforts they undertake to turn an unhappy customer is important to future revenue. The findings from the present study illustrate the importance of a professional recovery process and an ability to create a perception of fairness in the outcome of the complaint. We claim that complaint handling should focus on the outcome primarily and the process secondly. The perception of fairness in the outcome of the complaint is more important than the

disconfirmation of expectations of service recovery. Fairness does not necessarily imply that the customer is always right. Information provided as to the cause of the incident may alter the complaining customer's attribution of cause and effect. Dissatisfied complaining customers expect a good explanation of what has happened, an apology, that the company empathize with their situation and that the company will make an effort in trying to make them happy again. In short, they expect the company to take responsibility of the situation and solve it. Consequently, a speedy recovery when things go wrong is important. This implies that front personnel must be empowered to do what they perceive as right or fair given the situation and customer in question. Front personnels' behavior when receiving the complaint is important in providing good service recovery. When speedy recovery is not possible due to for example complex legal matters, it is imperative that the company provides the customers with updated information in the process. Given these findings there are a number of efforts managers of service organizations can do. First, they must upgrade the status of the service recovery function within the company. You are being promoted to head of Service Recovery. Second, managers must make sure that the best service providers become members of the recovery team. Third, managers must make sure that a typology pertaining to what goes wrong, when and why is developed. Coupled with a customer satisfaction measurement system which is linked to business processes, managers can prioritize are for improvement and which can reduce number of dissatisfied customers. Four, customer dissatisfaction data must be fed

back to policy makers who's performance is partly dependent on these data. Finally, the companies must be willing to let doubt benefit the customer. The company's starting point must be that our customer is honest and that his claim is legit. Starting by thinking that the customer is dishonest will most likely take the company farther away from the customer.

Summary

Building on theory from disconfirmation of expectation and equity theory this paper have studied antecedents to satisfaction with service recovery. The findings support the disconfirmation paradigm. Second, the study proves that disconfirmation and equity operates i tandem as two factors, which have a significant impact on satisfaction with service recovery. Third, perceived quality of service recovery is an important input factor in the equity formation. Finally, the anticipated negative impact from the negative affect caused by the initial service failure on satisfaction with service recovery was not confirmed.

Appendix A

Measures

The following three exogenous (independent) and endogenous (dependent) variables are used in this study: initial negative affect, expectations of service recovery, perceived quality of service recovery, disconfirmation, equity, and satisfaction with service recovery.

Initial negative affect

Using Watson & Telgen's (1985) typology of affect, high negative affect was measured combining three works (Watson & Tellegen, 1985; Russel, 1980; Plutchik, 1980).

- disappointed (Plutchik, 1980)
- angry (Plutchik, 1980; Russel, 1980)
- surprised (Watson & Tellegen, 1985)

To which degree would you say that your dissatisfaction at that moment can be described as follow: (to the interviewer: by “that moment” we refer to the moment dissatisfaction arose)

1. Disappointment (possible description of dissatisfaction at the moment dissatisfaction arose) (-5=in very low degree, +5=in very high degree)
2. Anger (possible description of dissatisfaction at the moment dissatisfaction arose) (-5=in very low degree, +5=in very high degree)
3. Surprise(possible description of dissatisfaction at the moment dissatisfaction arose) (-5=in very low degree, +5=in very high degree)

Expectations of service recovery (ESR)

were measured using four items partly based on three focus groups with dissatisfied customers of package tour services and partly derived from the literature:

- empathy (Bell & Zemke, 1987)
 - provide an explanation as to what have happened
 - do anything to make you happy
 - apology (Bell & Zemke, 1987; Goodwin & Ross, 1990)
1. When you for first time contacted *?COMPANY (verbally or by written) in relation to your complaint, to which degree were you counting on that *?COMPANY was going to give you a good explanation for what happened? (-5=in very low degree, +5=in very high degree)

2. When you for first time contacted *?COMPANY (verbally or by written) in relation to your complaint, to which degree were you counting on that *?COMPANY was going to apologize for what happened? (-5=in very low degree, +5=in very high degree)
3. When you for first time contacted *?COMPANY (verbally or by written) in relation to your complaint, to which degree were you counting on that *?COMPANY was going to show understanding for your complaint? (-5=in very low degree, +5=in very high degree)
4. When you for first time contacted *?COMPANY (verbally or by written) in relation to your complaint, to which degree were you counting on that *?COMPANY was going to do anything in its capacity to make you satisfied? (-5=in very low degree, +5=in very high degree)

Perceived quality of service recovery (PQSR)

was operationalized by three measures which were constructed based on focus groups:

- behavior and attitude of contact persons
 - efficiency in arriving at outcome
 - information provided by the company during the process
1. How satisfied or dissatisfied were you with the way the individuals you were in contact with in *?COMPANY, behaved towards your person (treated you)? (-5=very dissatisfied, +5=very satisfied)

2. How satisfied or dissatisfied were you with the time the whole process took, from the day you complained until the final result was in place? (-5=very dissatisfied, +5=very satisfied)
3. How satisfied or dissatisfied were you with the information provided in the process? (-5=very dissatisfied, +5=very satisfied)

Disconfirmation (DC)

was measured by one question identifying to what extent the overall experience exceeded, was equal to or fell short of expectations (Oliver, 1980).

1. Having in mind your experiences with *?COMPANY's way of considering your complaint, to which degree would you say that your expectations were met? (-5=much less than expected, +5=much more than expected)

Equity (EQ)

Tapping into both distributive justice and interactional justice, equity or fairness was operationalized using two items:

- perceived fairness of outcome (Homans, 1961)
- explanation provided as background for the outcome

1. How satisfied or dissatisfied were you with the actual outcome of the process? (-5=very dissatisfied, +5=very satisfied)

2. How satisfied or dissatisfied were you with the explanation that was given as the foundation for the outcome of your complaint? (-5=very dissatisfied, +5=very satisfied)

Satisfaction with service recovery

Market researchers distinguish between transaction-specific satisfaction and their global evaluation of the service (Holbrook & Corfman, 1985; Olshavsky, 1985). In this study satisfaction with service recovery (SSR) was measured using two items ;

- overall satisfaction with service recovery (aided)
- compared to ideal performance, i.e. service recovery (Olsson, 1996)

1. How satisfied or dissatisfied are you with the way *?COMPANY has so far kept you informed regarding the development of your case? (-5=very dissatisfied, +5=very satisfied)
2. Imagine an ideal way of processing complaints. If you consider *?COMPANY's way of processing your complaint so far, how far from or close to do you think *?COMPANY is to this ideal? We are thinking here in how far the processing of your complaint has evolved in relation to what you would consider ideal. (-5= very far from the ideal, +5= very close to the ideal)

Appendix A

Type of respondents by industry

| Industry | Frequency | % |
|-----------------------------|------------------|----------|
| Fast food | 4 | 2.0 |
| Insurance | 19 | 9.5 |
| Postal services | 6 | 3.0 |
| Regional newspapers | 21 | 10.4 |
| National newspapers | 0 | 0 |
| Telecomm. | 6 | 3.0 |
| Personnel transportation | 5 | 2.5 |
| Bank | 36 | 17.9 |
| Service stations | 9 | 4.5 |
| Car dealers | 41 | 20.4 |
| Charters | 36 | 17.9 |
| Grocery chains | 18 | 9.0 |
| Total | 201 | 100.0 |

Appendix B

Standardized parameter estimates for the indicators of the seven latent variables in the model

| Indicator | Estimate |
|--|----------|
| Initial negative affect λ_{x11} | 0.61 |
| Initial negative affect λ_{x12} | 0.57 |
| Initial negative affect λ_{x13} | 0.66 |
| Expectations of service recovery λ_{x24} | 0.75 |
| Expectations of service recovery λ_{x25} | 0.63 |
| Expectations of service recovery λ_{x26} | 0.73 |
| Expectations of service recovery λ_{x27} | 0.55 |
| Perceived quality of service recovery λ_{x38} | 0.56 |
| Perceived quality of service recovery λ_{x39} | 0.84 |
| Perceived quality of service recovery λ_{x310} | 0.64 |
| Disconfirmation λ_{y11} | 1.0 |
| Equity λ_{y22} | 0.92 |
| Equity λ_{y23} | 0.54 |
| Satisfaction with service recovery λ_{y34} | 0.94 |
| Satisfaction with service recovery λ_{y35} | 0.54 |

Appendix C

Chronbach alpha coefficients for seven constructs

| Construct | Number of items | Cronbach's alpha |
|---------------------------------------|------------------------|-------------------------|
| Expectations of service recovery | 4 | .73 |
| Perceived quality of service recovery | 3 | .75 |
| Equity | 2 | .69 |
| Satisfaction with service recovery | 2 | .88 |
| Initial negative affect | 3 | .55 |
| Corporate image | 4 | .79 |
| Future repurchase intention | 2 | .76 |
| “Norms” | | |
| (Nunnally, 1967, p. 226) | | 0.5 - 0.8 |
| ((Nunnally, 1978, p. 245-246) | | 0.7 - 0.8 |
| (Peterson, 1994) | | 0.77 ² |

² Mean score across 4.286 alpha coefficients, 1.032 samples and 832 studies investigated

Appendix D

Fit indices provided by LISREL

In view of the growing popularity in the use of SEM, numerous fit indices are proposed in the literature. A number of the most used and accepted fit indices are now available in LISREL 8.12a (Jöreskog & Sörbom, 1993). Although the various fit indices are inter-correlated, the same model may fit one index, but at the time score poorly on another. In this study several fit indices are reported. To test the overall fit of the models we have included a selection of fit indices reported by LISREL 8.12a; stand alone (chi-square, GFI, AGFI, NFI, and CN) and relative (NNFI, CFI, RMSEA). Both CFI and RMSEA are non-centrality indices. RMSEA also measures the error of approximation, including a confidence interval around the RMSEA fit indices (Browne & Cudeck, 1993). GFI, AGFI, NFI and NNFI are included since these indices are frequently used to report overall fit of structural equation models. CN, CFI and RMSEA are relatively new indices developed to overcome some of the weaknesses associated with the other indices.

| Indices | Values |
|--|------------------------------------|
| Chi square | 129.72 df = 82 (P = 0.00062) |
| RMSEA | 0.054 |
| P-value for test of close fit (RMSEA < 0.05) | P = 0.34 |
| GFI | 0.93 |
| AGFI | 0.89 |
| NFI | 0.88 |
| NNFI | 0.94 |
| CFI | 0.95 |
| CN | 177.85 |

Table 1

Influence on the exogenous variable on the endogenous variables

| | Expectations to service recovery | Perceived quality of service recovery | Initial negative affect |
|---------------------------------------|-------------------------------------|--|----------------------------|
| Satisfaction with service recovery | 0.17 t = 2.09 | 0.63 t = 3.62 | - 0.04 t = - 0.52 |
| Disconfirmation | 0.15 t = 2.12 | 0.69 t = 7.28 | |
| Equity | | 0.62 t = 5.60 | |

Table 2

Relationship between endogenous variables

| | Disconfirmation | Equity |
|------------------------------------|------------------|------------------|
| Satisfaction with service recovery | 0.29 t = 2.60 | 0.34 t = 3.42 |

Figure 1

The conceptual model

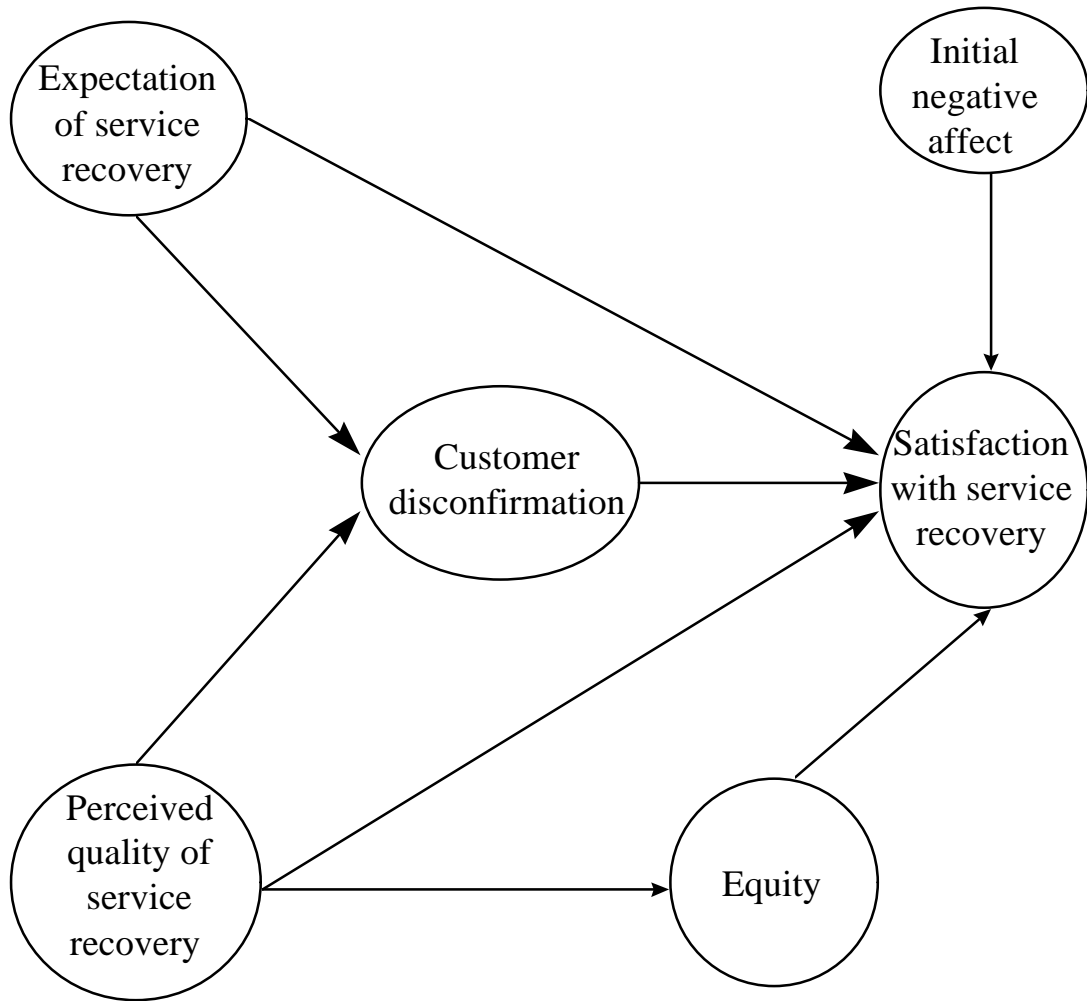
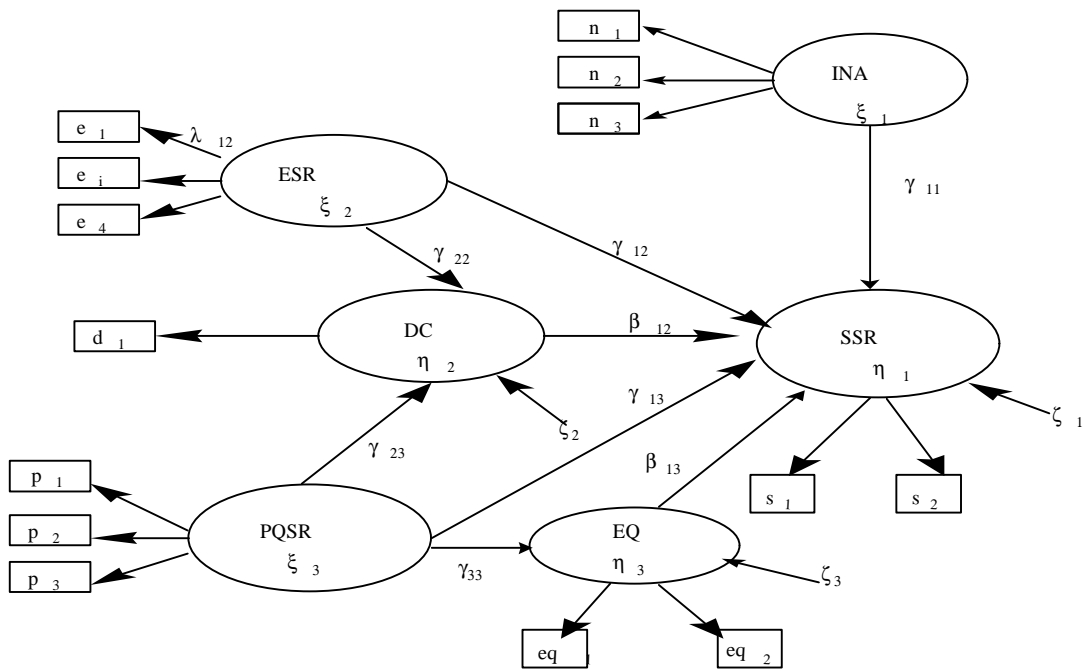


Figure 2

The structural model



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