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Behavioural responses to service encounter involving failure and recovery: the influence of contextual factors

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This study investigates two features of customer satisfaction within the context of service failure and recovery: (i) the effect of perceived justice on customer satisfaction and (ii) the effect of customer satisfaction on repurchase intentions, negative word-of-mouth, and intention to complain. The study takes into account the influence of important contextual factors, including severity of failure, recovery responsiveness, attitude toward complaining, switching cost, and the relationship level. Based on a survey of 556 customers with complaints in Brazil, the results supported the influence of perceived justice on satisfaction and of satisfaction on behavioural responses. Specifically, findings revealed that perceived failure severity, attitude toward complaining, and switching costs were the more relevant contextual factors, as these were significantly associated with satisfaction, intention to complain, and negative word-of-mouth.

Keywords: failure severity; perceived justice; attitude toward complaining; customer satisfaction

Introduction

Business research has demonstrated that dissatisfaction deriving from a service failure does not prompt most customers to complain (Tax & Brown, 1998). However, research does show that dissatisfaction is a central factor in customer switching behaviour (Keaveney, 1995). As customer switching behaviour has a direct impact on company profitability, service managers are necessarily interested in identifying the reasons behind switching behaviour, and behind consumer complaint behaviour (CCB), which usually precedes customer switching.

CCB refers to factors causing consumers to express dissatisfaction, either formally to the service provider/consumer agency, or informally via negative recommendations to friends and relatives. The main variables of CBB include perceived justice in the complaint resolution process, satisfaction, repurchase intentions, word-of-mouth, and intent to complain. Although relationships between these variables are well established in the research literature (see Gelbrich & Roschk, 2011; Orsingher, Valentini, & de Angelis, 2010), most studies have failed to integrate important contextual factors and consequently use them as control variables in analyses.

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Our study considers variables such as (i) perceived severity of the experienced problem (failure severity), (ii) perceived responsiveness by the service provider in the recovery process (recovery responsiveness), (iii) consumer's attitude toward complaining (ATC), whether complaining is a good or a bad thing, (iv) difficulty faced by the customer when switching to another service provider (switching cost), and (v) the relationship level between the customer and the service provider, whether the customer exists in a transactional or a relational situation vis-à-vis the seller. Drawing upon services marketing literature, we hypothesize that subject to contextual factors the failure and recovery experience might produce different behavioural responses. One expects, for example, that those customers in a higher severity situation will become more dissatisfied and will be more likely to demand reparation (Weun, Beatty, & Jones, 2004).

We apply a twofold approach. Firstly, we analyse how perceived justice during the complaint resolution process affects customer satisfaction and how this satisfaction influences behavioural responses, such as repurchase intentions, negative word-of-mouth, and intentions to complain. Secondly, we take into account and estimate the influence of relevant contextual factors, including failure severity, recovery responsiveness, attitude toward complaining, switching cost, and relationship level. Even though existing literature has already tested some relationships that we assess in this study, our research differs significantly in that it situates the study of contextual factors within a comprehensive model of analysis.

The article is organized as follows. To start we describe the conceptual framework and introduce the proposed hypotheses. The survey thereafter comprises participants, measures, and procedures, followed by the presentation of results. These include the reliability/validity of the scales and of the hierarchical approach used in testing the proposed framework. The closing section briefly states research limitations, indicates implications for managers, and points towards directions for further research.

Conceptual framework and hypotheses

This section contains the theoretical background of the proposed framework and predictions regarding the direction of the relationships between constructs. The model in Figure 1 illustrates the constructs and relationships under investigation.

Perceived justice and satisfaction

Perceived justice refers to the level of fairness the customer perceives to have received during the complaint handling process following service failure (Maxham & Netemeyer, 2002; Tax, Brown, & Chandrashekaran, 1998; Voorhees & Brady, 2005). This concept is usually considered as a three-component construct – the distributive dimension (perceived fairness of redress offered by the service provider), the procedural dimension (perceived fairness of retailer's return and exchange policy), and the interactional dimension (nature of response by the service provider to customer complaint).

Many scholars have considered the correlation between perceived justice and customer satisfaction. Their studies have demonstrated that complaining customers expressing a favourable evaluation of justice are more likely to be better satisfied with the complaint resolution process (Blodgett, Hill, & Tax, 1997; Kau & Loh, 2006; Maxham & Netemeyer, 2002; Tax et al., 1998; Voorhees & Brady, 2005). In these studies, perceived justice is an important predictor of customer satisfaction. In the event of dissatisfaction, customers demand compensation from the firm. Reparation varies between tangible outcomes (distributive), efficient recovery procedures (procedural), and empathy displays (interactional). Some studies therefore investigated complaint-handling mechanisms, or ways in

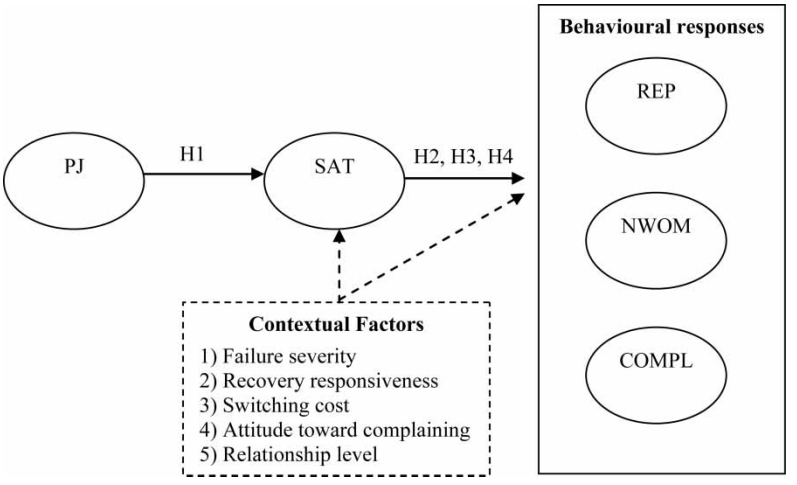

Figure 1. The proposed framework for the behavioural responses to service failure and recovery. Note: Contextual factors are tested based on direct relationships. Dotted lines are used only for highlighting the contextual factors.
PJ = perceived justice; SAT = satisfaction; REP = repurchase intentions; NWOM = negative word-of-mouth; COMPL = complaining intentions

which companies managed complaining customers. In contrast, and in line with Smith and Bolton (1998), our study focuses on customer satisfaction *after* the fact of service recovery. We consider customer satisfaction as it occurs after the company handles the problem. Based on this rationale, we propose:

H1: There will be a positive relationship between perceptions of justice regarding service recovery and customer satisfaction after service recovery.

Satisfaction after service failure and behavioural responses

Customer satisfaction is among the most keenly studied concepts in marketing literature (Szymanski & Henard, 2001). Specifically, the relationship between satisfaction and its consequences (e.g. repurchase intentions and word-of-mouth) has received extensive attention (Anderson, 1998; LaBarbera & Marzursky, 1983; Oliver, 1980, 1997; Szymanski & Henard, 2001). With regard to service failure and recovery, there is evidence that cumulative satisfaction is associated with repurchase intentions (Maxham & Netemeyer, 2002; Smith & Bolton, 1998) and word-of-mouth intentions (Maxham & Netemeyer, 2002). Likewise, a positive correlation has been reported between dissatisfaction and negative word-of-mouth (Holloway, Wang, & Parish, 2005; Szymanski & Henard, 2001). In other words, less-satisfied customers are more likely to be critical and engage in negative word-of-mouth (Anderson, 1998; Oliver, 1997; Roos, Edvardsson, & Gustafsson, 2004; Yanamandram & White, 2006). Based on this logic, we hypothesize:

H2: Customer satisfaction after service recovery will have a positive relationship with repurchase intentions.
H3: Customer satisfaction after service recovery will have a negative relationship with customer propensity for negative word-of-mouth.

Another relevant variable, as Singh (1988) suggests in his typology of consumer complaint behaviour (CCB), is the customer's propensity for complaint to the company (voice

response), the consumer agency (third party response), and/or to friends and relatives (private response). CCB is a multiple set of behavioural and non-behavioural (doing nothing) responses triggered by an unsatisfactory purchase episode (Singh, 1988, p. 94). Previous research has demonstrated that highly satisfied customers are less likely to complain after recovery (Bearden & Teel, 1983; Colgate & Norris, 2001; Voorhees & Brady, 2005). Likewise, customers with low satisfaction are motivated to express their dissatisfaction, as complaining is a means to expel negative feelings produced by an unsatisfactory experience (Wangenheim, 2005). We therefore hypothesize that satisfaction after service recovery is negatively associated with a customer's propensity for complaint. We hypothesize:

H4: Customer satisfaction after service recovery will have a negative relationship with future complaint intentions.

Contextual factors as control variables

In order to determine the influence of contextual factors on outcomes proposed in our model, our framework included variables relevant to service failure/recovery but employ them as control variables. This treatment of contextual factors constitutes the main strength of our study.

Service failure severity refers to the customer's perceived intensity of a service problem (Weun et al., 2004). The more intense or severe the service failure, the greater the customer's perceived loss. Research indicates that failure severity has a negative impact on customer satisfaction and re-patronage intentions (Smith & Bolton, 1998). In other words, service failure can become a means for customers to update their level of cumulative satisfaction. Negative experience deriving from failure might, for instance, influence future assessments of satisfaction by customers (Smith & Bolton, 1998).

Recovery responsiveness refers to the customer's perception of the service firm's willingness to remedy the problem, and provide a complaint-handling mechanism (Richins, 1987). Complaint-handling mechanisms motivate customers to communicate grievances (Tax & Brown, 1998) and seek reparation/compensation for service failure (Richins, 1987). Research has demonstrated that excellent service recoveries can enhance customer satisfaction (Bitner, Booms, & Tetreault, 1990; Smith & Bolton, 1998).

Attitude toward complaining is defined as the personal tendency of dissatisfied customers to seek compensation from the firm (Kim, Kim, Im, & Shin, 2003; Richins, 1987). Specifically, it refers to the customer's evaluation of complaining as a good or a bad thing. It is not restricted to a specific episode of dissatisfaction but instead takes into account the customer's overall evaluation of complaining (Kim et al., 2003). Indeed, empirical research has demonstrated that consumers with a more favourable attitude toward complaining also have higher complaining intentions (e.g. Fernandes & Santos, 2007). This is consistent with the general model predicting a positive correlation between attitudes and intentions (Ajzen & Fishbein, 1975).

Switching costs are the perceived costs that consumers associate with the process of switching from one provider to another (Burnham, Frels, & Mahajan, 2003). Switching costs transcend monetary loss to include the psychological impact of dependency on a new provider resulting from time and effort consumed by acquisition of a new product. The perceived cumulative burden of such costs is central to cases where customers despite unhappy experiences have chosen to retain service providers (Yanamandram &

White, 2006). Barring such exceptions, however, switching cost remains a key contextual factor in the explanation of variability in repurchase intentions.

Relationship level refers to the type of relationship (more transactional or more relational) between the customer and the service provider (Hedrick, Beverland, & Minahan, 2007). Research has demonstrated that these customers differ not only in the level of their evaluations, but also in the structural relationships of their evaluations (Garbarino & Johnson, 1999). Transaction-based customers are likely to engage in discrete buyer–seller exchanges. They do not expect to engage in future exchanges and bear obligations thereof. In contrast, cooperative action and intention to conduct futures exchanges define relationship-based customers (Garbarino & Johnson, 1999). Regarding switching cost, we expect that relationship level might provide insights into variations in repurchase intentions, as customers with better relationships might tend to retain their existing service provider despite service failures.

It is necessary to point out here that in studying contextual factors we focused not on comparing a given relationship between the subgroups of each contextual factor but only on attempting to neutralize, or control, factors that could affect dependent constructs (Hair, Wolfinbarger, Bush, & Ortinau, 2007). In this approach, which finds precedent in a study by Grégoire, Laufer, and Tripp (2010), the main objective, having taken into account the influence of a third variable, is to evaluate the effect of an independent variable on a dependent variable.

Methodology

Data collection procedures and sample

Data were collected by undergraduate students attending a marketing research course. They were directed to distribute the questionnaire among co-workers, relatives, and friends using a snowball sampling process. The instructor checked the completed questionnaires for accuracy and reliability. The survey instrument was personally administered. Participants were asked to recall a recent negative experience with a service provider and their reactions following the service failure. In an effort to reduce possible errors, we combined this retrospective design, which is typical in service research investigations (e.g. Keaveney, 1995; Pujari, 2004; Warden, Liu, Huang, & Lee, 2003), with additional instructions. We (a) asked participants to recall very recent events (those that had taken place within the three months prior to the survey), a measure that enabled respondents to select the service of their interest, and (b) provided respondents sufficient time to complete the survey.

A total of 691 individuals were contacted. No outlier was detected, and a listwise procedure was adopted to deal with the missing values. After these adjustments, 556 (80%) cases were retained in the dataset for subsequent analyses.

Measures

Before participants were asked to recall a problem experienced with a service firm, we first measured attitude toward complaining (ATC) using two items (seven-point Likert scale adapted from Voorhees & Brady, 2005). We followed the common procedure recommended for analysing covariates (Wildt & Ahtola, 1976) and presented the items at the beginning of the instrument. This measure aims to reduce the influence of emotions felt by the respondent during the recollection of his/her negative experience.

After measuring ATC, participants were asked to recall a problem with a service provider, following which we posed three questions. Firstly, what was the nature of the problem you experienced? Here, participants could pick from eight alternatives, including an 'other' option. Alternatives were adapted from previous research dealing with the most common categories of service failures (Keaveney, 1995). Secondly, what was the service industry? This was an open-ended question. Thirdly, did you complain to the company? Participants could choose between yes and no. Participants who had complained were asked about the method used to do so (personal visit, calling, writing a letter or e-mail, or 'other'). Finally, participants who had not complained were questioned regarding their motivations. Here we used categories established by Voorhees, Brady, and Horowitz (2006).

To compensate for the length of the questionnaire, we used single items to measure failure severity and company responsiveness. These varied from not at all severe to very severe, and not at all responsive to very responsive. Perceived justice was measured in terms of a unidimensional construct based on Blodgett, Granbois, and Walters (1993), with three items and a seven-point Likert scale adapted from these authors and from Goodwin and Ross (1992). See Table 1 for a list of the scale items.

Next, we measured satisfaction after service recovery effort (four items, using the semantic differential scale adapted from Smith & Bolton, 1998). Participants answered questions pertaining to their engagement in negative word-of-mouth. Here we used two items adapted from Zeithaml, Berry, and Parasuraman (1996), anchored by 1 = strongly disagree and 7 = strongly agree. In the sequence, respondents answered questions about their repurchase intentions. Two items were adapted from Smith and Bolton (1998) and Zeithaml et al. (1996). The scale ranged from 1 = very unlikely to 7 = very likely.

Subsequently, participants were asked about their future 'intentions to complain', which were measured using three items and anchors of very unlikely and very likely (Kim et al., 2003; Singh, 1988; Voorhees & Brady, 2005). Following Singh's typology (1988), one item measured the customer's intention to complain directly to the company (voice response). Another measured the intention to complain to a consumer services/legal agency (third party response). The last item measured the intention to complain to friends and relatives (private response).

In closing, the survey recorded participants' demographic characteristics such as gender and age. We also measured the contextual factors as control questions such as (i) the relationship level of the customer with the service provider – more transactional or more relational (Garbarino & Johnson, 1999; Hedrick et al., 2007), and (ii) the switching cost indicating difficulty encountered in changing the service provider (Burnham et al., 2003).

After data collection, we performed the following analyses using SPSS® and AMOS® 18.0: initial check for missing values and outliers; descriptive statistics of the scales and the demographic questions; scales purification based on confirmatory factor analysis, reliability analysis (Cronbach's alpha and composite reliability), and the average variance extracted (AVE), as suggested in the relevant literature (Fornell & Larcker, 1981; Hair, Anderson, Tatham, & Black, 1998); measurement model analysis and exclusion of items with standardized coefficients lower than 0.60; and structural model analysis, testing the proposed relationships in two stages, firstly without contextual factors, and then including contextual factors.

Results

Of the 556 participants, 52% were female and 48% male. Most respondents (43%) were under 25 years of age, while 27% fell in the 26–30 years range, 18% fell in the 31–40

Table 1. Summary of constructs' measures

Construct/Item	λ [a]	*t*	α [b]	CR [c]	AVE [d]
Attitude toward complaining (ATC)			0.68	0.69	0.53
When I am dissatisfied, it feels good to get my dissatisfaction off my chest by complaining.	0.66	8.3			
It bothers me if I do not complain about an unsatisfactory purchase.	0.79	8.6			
Perceived Justice (PJ)			0.81	0.82	0.60
Overall, the company action toward the problem was guided by a sense of justice.	0.77	19.7			
The outcome I received was fair.	0.69	17.2			
The company showed adequate flexibility in dealing with my problem.	0.86	22.8			
Satisfaction after service recovery (SAT)			0.90	0.90	0.69
Based on this experience, how do you evaluate your decision to choose this service provider?					
A terrible choice – a wonderful choice	0.87	25.3			
I am very unsatisfied – I am very satisfied	0.86	24.9			
Service is awful – Service is great	0.82	22.9			
I feel very unhappy with this service –feel very happy with this service	0.78	21.2			
Repurchase Intentions (REP)			0.91	0.91	0.84
After this experience with this company, what are the chances that you will...					
Choose this company the next time you need?	0.94	27.8			
Keep using the services of this company?	0.89	25.8			
Negative word-of-mouth (NWOM)			0.80	0.80	0.67
After this experience with this company, did you...					
Say negative things about this company to other people?	0.79	19.5			
Recommend to friends and relatives that they should not use the services of this company?	0.85	21.2			
Future complaint intentions (COMPL)			0.62	0.64	0.39
If the problem you cited happens to you again, what are the chances that you will...			0.64 [e]	0.68 [e]	0.52 [e]
Complain directly to the company. (*)	0.34	7.1			
Tell your friends and relatives about your bad experience.	0.82	17.4			
Make a formal complaint to the consumer agency.	0.63	13.7			
Relationship level (RELAT)			0.72	0.75	0.61
Before experiencing this problem, how was your relationship with the company?					
I was very committed to my relationship with the firm.	0.91	10.7			
The relationship was something I intended to maintain for a long time.	0.62	9.4			
Switching costs (SC)			0.82	0.82	0.60
Imagine that because of the service failure mentioned you think about switching provider. In this case, you would...					
1. ...have financial costs?	0.68	16.8			
2. ...have costs of time and effort to make a contract with a new service provider?	0.82	20.9			
3. ...have costs to begin a new relationship?	0.82	20.7			

NOTES: (a) Standardized Loading; (b) Cronbach's alpha; (c) Composite reliability; (d) Average Variance Extracted; (e) Recomputed values after scale purification; (*) Item excluded in the purification process; Recovery responsiveness and service failure severity were measured using single indicators.
Fit indexes of the measurement model (after purification): $\chi^2 = 377.29$, $df = 142$, $\chi^2/df = 2.66$; CFI = 0.96; GFI = 0.94; AGFI = 0.91; RMSEA = 0.05.

years range, and 12% were over 41 years of age. The option inconvenience/too long a wait was the most frequent response (34%). The subsequent sequence was as follows: mistake or problem with the service (27%); pricing problem (11%); employee interaction (9%); poor responses to a previous problem (7%); company policy problem (5%); ethical problem (3%); and others (4%). Participants were allowed to choose more than one alternative.

A content analysis was performed on the open-ended questions evaluating service categories. Most of the respondents (35%) encountered problems in the telecommunications sector, 15% in financial services, 14.5% in internet/computer services, 11.5% in stores, including electronics and home utilities, 6% in transportation, 5% in repair/technical assistance, 4.5% in entertainment, and 8.5% in others. These findings are consistent with the results of previous studies (e.g. Matos, Rossi, Veiga, & Vieira, 2009).

In total, 403 respondents (72.5%) affirmed they had complained about the experienced problem. Most respondents phoned in their complaints to the company (54%) or made them personally (34%), followed by letter/e-mail (11%). Among the 153 (27.5%) who did not complain, some affirmed lack of time to wait for a correction (38%). Some simply switched to a new service provider (26%). Some didn't want to appear like the complaining type (15%). A small number didn't find anybody to complain to (10%), while others claimed to be loyal customers of the service provider (7%). Only 4% claimed to have had other reasons.

In general, respondents perceived problem severity as relatively high ($M = 5.29$; $SD = 1.44$) and company responsiveness as medium ($M = 3.00$; $SD = 1.75$). Predictably, analyses of variance revealed that this evaluation of severity and responsiveness did not differ across failure types or service categories. This indicates, notwithstanding variation in service failures and respondents' recoveries, that the incidents themselves are comparable in terms of perceived problem severity and company responsiveness.

Measurement properties

Our assessment of measurement models followed Fornell and Larcker (1981). We tested each construct for internal consistency (Cronbach's alpha), composite reliability (CR), and average variance extracted (AVE). We also excluded items sharing a weak relationship with the construct of interest (i.e. standardized coefficient lower than 0.60). These results appear in Table 1.

We can see from Table 1 that all scales of the model presented favourable results, with Cronbach's alpha varying from 0.63 to 0.91, composite reliability varying from 0.68 to 0.91, and average variance extracted (AVE) varying from 0.52 to 0.84. These findings are consistent with the suggested limit of 0.70 for reliability and 0.50 for AVE (Hair et al., 1998). Overall, the scales of attitude toward complaining and future complaint intentions presented relatively lower values for reliability (0.69 and 0.68 respectively) and AVE (0.53 and 0.52 respectively). These findings are consistent with the difficulty involved in measuring and predicting consumer complaining responses, as documented in the literature (Bearden & Mason, 1984; Bloemer, de Ruyter, & Wetzels, 1999; Singh, 1988; Zeelenberg & Pieters, 1999).

Following criteria laid out by Fornell and Larcker (1981), discriminant validity was conducted by comparing the shared variance (squared correlation) of constructs with the AVE of each construct. Findings appear in Table 2. As anticipated, a high correlation (0.72) was found between satisfaction and repurchase intentions. In this pair, the squared correlation (0.52) was lower than the AVE of each of the constructs (0.69 in satisfaction

Table 2. Correlations[1], squared correlations and average variance extracted (AVE)

	Mean	*SD*	PJ	SAT	REP	NWOM	COMPL	RELAT	SC	ATC
PJ	3.56	1.67	**0.60**	0.61 *(0.54;0.67)*	0.56 *(0.49;0.62)*	−0.41 *(−0.49; − 0.32)*	−0.27 *(−0.36; − 0.19)*	0.10[ns] *(0.0;0.19)*	−0.07[ns] *(−0.16;0.02)*	0.08[ns] *(−0.03;0.17)*
SAT	3.28	1.43	0.38	**0.69**	0.72 *(0.66;0.77)*	−0.53 *(−0.61; − 0.47)*	−0.40 *(−0.49; − 0.31)*	0.13 *(0.04;0.23)*	−0.02[ns] *(−0.10;0.07)*	−0.01[ns] *(−0.11;0.09)*
REP	3.01	1.76	0.31	0.52	**0.84**	−0.59 *(−0.65; − 0.53)*	−0.47 *(−0.56; − 0.37)*	0.11 *(0.02;0.18)*	0.01[ns] *(−0.08;0.10)*	0.01[ns] *(−0.08;0.10)*
NWOM	4.59	1.96	0.16	0.29	0.35	**0.67**	0.63 *(0.52;0.70)*	−0.01[ns] *(−0.09;0.10)*	0.17 *(0.09;0.26)*	0.13 *(0.01;0.23)*
COMPL	5.12	1.68	0.07	0.16	0.22	0.39	**0.52**	0.09 *(0.09;0.18)*	0.19 *(0.09;0.28)*	0.26 *(0.10;0.39)*
RELAT	4.86	1.54	0.01	0.02	0.01	0.00	0.01	**0.61**	0.29 (0.16;0.37)	0.10[ns] *(−0.02;0.19)*
SC	4.08	1.84	0.01	0.00	0.00	0.03	0.04	0.08	**0.60**	0.05[ns] *(−0.06;0.16)*
ATC	4.30	1.60	0.01	0.00	0.00	0.02	0.07	0.01	0.00	**0.53**

NOTES: Values in diagonal are the AVE of each construct, values above the diagonal are the correlation and values below the diagonal are the squared correlations (i.e. shared variance).
([1]) Confidence intervals for the correlations are provided in parentheses, ([ns]) Not significant.
PJ = perceived justice; SAT = satisfaction; REP = repurchase intentions; NWOM = negative word-of-mouth; COMPL = complaining intentions; RELAT = relationship level; SC = switching cost; ATC = attitude toward complaining.

and 0.84 in repurchase intentions). All other comparisons also supported discriminant validity.

A descriptive analysis of the constructs indicates that respondents presented lower evaluations for satisfaction with the company responsible for the service failure, and for repurchase intentions (3.28 and 3.01 respectively). Consequently, they were likely to engage in negative word-of-mouth and more likely to engage in complaining behaviour in the future (see the means column in Table 2).

Test of the hypotheses

We used a hierarchical model approach. We first tested the hypotheses without contextual factors (model 1), and then these factors were included (model 2) and the new results were subsequently evaluated. Model 1 presented the following fit indexes: $\chi^2 = 326.87$; $df = 61$; sig. $= 0.001$; $\chi^2/df = 5.36$; GFI $= 0.92$; AGFI $= 0.88$; CFI $= 0.94$; and RMSEA $= 0.09$. Overall, an improvement was observed in the fit indexes with the inclusion of the control variables in model 2: $\chi^2 = 578.33$; $df = 184$; sig. $= 0.001$; $\chi^2/df = 3.14$; GFI $= 0.91$; AGFI $= 0.88$; CFI $= 0.93$; and RMSEA $= 0.06$. The final indexes were in agreement with structural equations modelling literature (Byrne, 2001; Hair et al., 1998).

The amount of variance explained in the endogenous constructs presented relatively higher values for repurchase intentions (56% in both models) and satisfaction (40% in model 1 and 41% in model 2) when compared to negative WOM (32% in model 1 and 39% in model 2) and intentions to complain (20% in model 1 and 33% in model 2). This finding is consistent with the general consensus on the difficulty involved in measuring and predicting intentions to complain. We should note that there was a variance increment of 1% in satisfaction, 7% in negative WOM, and 13% in complaining intentions.

We tested hypotheses 1 through 4 by checking the direction and significance of the regression coefficient in each relationship of the structural model. The results of the two models converged in the test of the hypotheses, and appear in Table 3. We refer to model 2 in the following interpretation.

We can see from Table 3 that the effects of perceived justice on satisfaction were positive and significant ($p < 0.001$). In other words, the more the consumer perceived the company as having acted justly and fairly, the more satisfied he/she would be after service recovery. This result supports H1. The high value for the standardized coefficient ($\beta = 0.58$) suggests that this variable is an important predictor of customer satisfaction in service failure/recovery.

Hypotheses *H2* through *H4* deal with the consequences of satisfaction after service failure/recovery. Supporting H2, customers with higher satisfaction indicated a higher level of repurchase intentions ($\beta = 0.75$, $p < 0.001$). Moreover, an inverse relationship was found between satisfaction and negative word-of-mouth ($\beta = -0.56$, $p < 0.001$). This supported *H3* and indicated that customers with higher (lower) satisfaction tend to engage in lower (higher) negative recommendations of the service provider. Similarly, customers with lower satisfaction presented higher complaining intentions ($\beta = -0.47$, $p < 0.001$). This finding supported *H4*.

Regarding contextual effects, model 2 controlled for the main effects of perceived severity of failure, recovery responsiveness, attitude toward complaining, switching cost, and relationship level. These results constitute the central significance of our paper.

Firstly, the results demonstrated that satisfaction was significantly influenced by the perceived severity of failure ($\beta = -0.08$, $p = 0.037$) – meaning that when participants mentioned a failure of higher importance, satisfaction was lower.

Table 3. Parameter estimation for the hierarchical models

Relations	Regression weights	Standard errors	Standardized weights (β)	Critical ratios (t)	p-value
Model 1: without contextual factors					
H1 PJ → SAT	0.61	0.05	0.63	12.85	0.001
H2 SAT → REP	0.94	0.05	0.75	19.0	0.001
H3 SAT → NWOM	−0.63	0.06	−0.57	−9.93	0.001
H4 SAT → COMPL	−0.44	0.05	−0.45	−8.48	0.001
Model 2: contextual factors included					
H1 PJ → SAT	0.54	0.06	0.58	9.28	0.001
H2 SAT → REP	0.94	0.05	0.75	18.91	0.001
H3 SAT → NWOM	−0.65	0.06	−0.56	−10.67	0.001
H4 SAT → COMPL	−0.42	0.05	−0.47	−8.50	0.001
Contextual factors					
Fail.Sev. → SAT[a]	−0.07	0.04	−0.08	−2.09	0.037
Rec.Resp. → SAT	0.05	0.04	0.06	1.17	0.240
ATC → COMPL[b]	0.34	0.07	0.34	5.27	0.001
SC → REP	0.02	0.04	0.02	0.49	0.621
RELAT → REP	0.02	0.04	0.02	0.48	0.635
Fail.Sev. → NWOM[c]	0.10	0.05	0.09	2.06	0.039
ATC → NWOM	0.18	0.07	0.14	2.67	0.007
SC → NWOM	0.14	0.05	0.13	2.87	0.004

NOTES: PJ = perceived justice; SAT = satisfaction; REP = repurchase intentions; NWOM = negative word-of-mouth; COMPL = complaining intentions; Fail.Sev. = failure severity; Rec.Resp. = recovery responsiveness; ATC = attitude toward complaining; SC = switching cost; RELAT = relationship level.
$\boldsymbol{R^2}$: Model 1: SAT = 0.40; REP = 0.56; NWOM = 0.32; Complain = 0.20;
Model 2: SAT = 0.41; REP = 0.56; NWOM = 0.39; Complain = 0.33.
Fit indexes: Model 1: $\chi^2 = 326.87$; $df = 61$; sig. = 0.001; $\chi^2/df = 5.36$; GFI = 0.92; AGFI = 0.88; CFI = 0.94; RMSEA = 0.09.
Model 2: $\chi^2 = 578.33$; $df = 184$; sig. = 0.001; $\chi^2/df = 3.14$; GFI = 0.91; AGFI = 0.88; CFI = 0.93; RMSEA = 0.06.
[a]Variance increment associated with the control variable was 1%.
[b]Variance increment associated with the control variable was 13%.
[c]Variance increment associated with the control variable was 7%.

Secondly, customers' intentions to complain were significantly influenced by their attitude toward complaining ($\beta = 0.34$, $p < 0.001$). This indicated that individuals who have a relatively favourable attitude toward complaining have greater intentions to complain. Although the inclusion of failure severity as a control variable improved the explained variance by a marginal index of 1% in satisfaction, the attitude toward complaining increased the variance of complaining intentions by 13%.

Thirdly, customers' intentions to spread negative WOM was significantly associated with failure severity ($\beta = 0.09$, $p < 0.039$), attitude toward complaining ($\beta = 0.14$, $p < 0.007$), and switching costs ($\beta = 0.13$, $p < 0.004$). The positive coefficients indicate that customers with a more favourable attitude toward complaining, or those experiencing higher failure severity and/or higher difficulty in switching providers, were more likely to engage in negative WOM.

On the other hand, the perceived recovery responsiveness was not associated with customer satisfaction ($\beta = 0.06$, $p = 0.240$). Likewise, repurchase intentions were influenced neither by perceived switching costs ($\beta = 0.02$, $p = 0.621$) nor by the customer's relationship level with the service provider (i.e. more relational or more transactional), with $\beta = 0.02$, $p = 0.635$.

Discussion

Service failure and recovery is an important research subject in services marketing literature. Studies typically investigate ways in which customers react to service failure and recovery, while also addressing which specific variables impact relevant behavioural responses, such as complaining intentions, repurchase intentions, and word-of-mouth (e.g. Chang & Hsiao, 2008; Lin, 2010). Within this literature, some studies have specifically analysed how situational variables affect behavioural responses (e.g. Harris, Grewal, Mohr, & Bernhardt, 2006; Mattila, 2001; Smith & Bolton, 1988; Voorhees & Brady, 2005). However, very few have integrated contextual factors into their research and consequently used them as control variables in their analyses.

In contrast, the central aim of our research was to test the influence of contextual factors on a service recovery framework in which customer satisfaction is affected by perceived justice in the complaint resolution process and the final satisfaction influences repurchase intentions, negative word-of-mouth, and intention to complain.

Building on this theoretical framework, we presented a synthesis of the literature and proposed relationships among relevant constructs. Hypothesized links were tested in a twofold process. After conducting a survey, in which customers were asked to recall a recent service failure, we analysed the collected data using structural equation modelling (Byrne, 2001).

First, descriptive results indicated that the most common problem respondents experienced related to 'inconvenience/too long a wait', with 34% identifying the issue. This goes to show that convenience, and conversely inconvenience, constitutes important factors in customers' dealings with service providers. At the same time, 50% of the participants cited telecommunications and financial services in their responses – precisely those industries that are machine-based and consequently provide less and less human contact to customers with grievances. It goes without saying that such industries, in their own interest, should upgrade to better customer service systems that alleviate the inconvenience of too long a wait. The descriptive analyses are consistent with the above responses. They showed a high average level for problem severity (mean = 5.29 in a seven-point scale) and a medium level for company responsiveness (mean = 3.0). The bottom line is, overall, companies are ineffective in recovering services failures.

Second, results in model 1 and model 2 indicated that perceived justice was significantly associated with satisfaction after service recovery (H1). Customers who perceive fairness in the complaint resolution tend to have higher satisfaction after service recovery. This result is also consistent with previous studies (e.g. Tax, Brown, & Chadrashekaran, 1998).

Third, results also supported the hypothesis that satisfaction after service recovery is (i) positively associated with repurchase intentions (H2), and (ii) negatively associated with negative word-of-mouth (H3) and complaining intentions (H4). These results are consistent with findings in the literature (Maxham & Netemeyer, 2002; Voorhees & Brady, 2005).

Fourth, regarding contextual factors, which constitute the central focus of our study, the most relevant findings support the notable influence of failure severity, attitude toward complaining (ATC), and switching costs in their role as control variables. These variables significantly affect dependent variables and help to increase the explained variance. This result is worth a special note because it corroborates recent propositions that failure severity and ATC are important variables in service failure and recovery (e.g. Fernandes & Santos, 2007; Grégoire et al., 2010). Specifically, Grégoire et al. (2010) found that perceived failure severity, after taking age, gender, commitment, and interaction frequency into account, was the only significant variable. Mattila (1999) also found a significant effect of failure severity on satisfaction. With respect to ATC,

studies have indeed suggested that the more favourable the customer attitude toward complaining, the higher his/her intention to complain (Fernandes & Santos, 2007; Kim et al., 2003). These results suggest that for proposed models to provide effective explanations and a better understanding of boundary conditions they must necessarily contemplate service failure and recovery, as well as consumers' attitudes toward complaining.

Finally, there were also some non-significant relationships. The perceived recovery responsiveness, for instance, was not significantly associated with customer satisfaction after service recovery. We can infer that service recovery does not always make a difference, a result that is consistent with the findings of other studies (e.g. Colgate & Norris, 2001; Matos et al., 2009). The fact that perceived severity is significantly associated with final satisfaction, while perceived recovery responsiveness is not, seems to be consistent with prospect theory, suggesting that losses from service failures will exert a greater impact than gains received during service recovery (Kahneman & Tversky, 1979; Weun et al., 2004).

Likewise, switching costs and relationship level were not significantly associated with repurchase intentions, possibly because repurchase intentions for participants in the sample were driven mainly by satisfaction level. Confirmation might be found in the high standardized regression coefficient for the link satisfaction – repurchase (0.75). On the other hand, switching costs were significantly associated with negative WOM, suggesting that customers who feel constrained by the service provider are more likely to engage in negative WOM, also consistent with previous research (e.g. Jones, Reynolds, Mothersbaugh, & Beatty, 2007).

Conclusions

In conclusion, the findings from the survey of 556 complaining customers indicated that customer-perceived justice in the complaint resolution process has a significant impact on customer satisfaction after service recovery. This, in turn, impacts repurchase intentions, complaining intentions, and the propensity for negative word-of-mouth. By taking into account contextual factors, the study revealed that failure severity, attitude toward complaining, and switching costs were the most relevant situational variables. Managers dealing with a service failure situation should keep in mind that customer-perceived justice significantly impacts satisfaction, and this should prompt them to facilitate a fair complaint-handling process. Service providers adopting this principle have a greater chance of enjoying the patronage of satisfied customers, who, in turn, will likely repurchase and refrain from negative word-of-mouth.

Our study, which obtained results from a wide variety of service settings, contributes towards external validity (generalizability) and strengthens implications for academicians and managers. In closing, we point to one limitation – our choice of a cross-sectional design. Here, predictor and response variables were measured without time-lapse. Future studies could apply a longitudinal approach in order to check, for instance, how intentions to complain result in actual complaining behaviour and which specific variables relate to this process.

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