

Journal of Service Research

<http://jsr.sagepub.com>

Exploring Customer Loyalty Following Service Recovery: The Mediating Effects of Trust and Emotions

Tom DeWitt, Doan T. Nguyen and Roger Marshall

Journal of Service Research 2008; 10; 269 originally published online Dec 27, 2007;

DOI: 10.1177/1094670507310767

The online version of this article can be found at:
<http://jsr.sagepub.com/cgi/content/abstract/10/3/269>

Published by:



<http://www.sagepublications.com>

On behalf of:

Center for Excellence in Service, University of Maryland

Additional services and information for *Journal of Service Research* can be found at:

Email Alerts: <http://jsr.sagepub.com/cgi/alerts>

Subscriptions: <http://jsr.sagepub.com/subscriptions>

Reprints: <http://www.sagepub.com/journalsReprints.nav>

Permissions: <http://www.sagepub.com/journalsPermissions.nav>

Citations <http://jsr.sagepub.com/cgi/content/refs/10/3/269>

Exploring Customer Loyalty Following Service Recovery

The Mediating Effects of Trust and Emotions

Tom DeWitt

University of Hawaii at Hilo

Doan T. Nguyen

University of Queensland

Roger Marshall

Auckland University of Technology

Existing research shows that loyalty is a function of customer perceptions of trust following service recovery. The authors propose a cognitive appraisal model that portrays trust and emotions as key mediators in the relationship between perceived justice and customer loyalty. A structural equation model was used to test the conceptual model. The findings support the conjecture that emotions and trust have important mediating roles during the service recovery process. Furthermore, while existing research has focused primarily on negative emotion, the authors' model adopts a two-dimensional view of emotion (positive and negative emotions), and the results support the inclusion of both dimensions. Overall, the empirical support for the proposed model has important managerial implications for effective relationship management. By understanding the important mediating roles of trust and emotion, service employees can deliver more effective service recovery strategies and thereby enhance customer loyalty.

Keywords: *service recovery; emotions; trust, cognitive appraisal; loyalty*

Effective complaint handling lies at the heart of any successful efforts by firms to develop long-term customer relationships (Morgan and Hunt 1994). For service providers, a complaint offers an opportunity not only to retain a customer but also to garner valuable feedback. For customers who experience service failures, the complaint process represents both a genuine attempt to make corrections in the offending firms' delivery systems and to offer the service providers a chance to reaffirm the complainants' choice to enter into relationships with the firms in the first place. However, for more than half the customers who do complain, firms' attempted recovery efforts appear to only reinforce dissatisfaction (Hart, Heskett, and Sasser 1990). Furthermore, failed recoveries represent a leading cause of customer switching behavior (Keaveney 1995). The effectiveness of complaint handling as a relationship marketing strategy is further complicated by the fact that only 5% to 10% of dissatisfied customers ever bother to complain (Tax and Brown 1998).

Prior studies clearly show the role of service recovery in ensuring customer loyalty (Blodgett, Hill, and Tax 1997; Maxham and Netemeyer 2000, 2003; Smith, Bolton, and Wagner 1999). This literature suggests that

successful recovery efforts strengthen a customer relationship (Maxham and Netemeyer 2002; Tax, Brown, and Chandrashekar 1998), while poor recovery attempts intensify the negative effects of failures (Blodgett, Hill, and Tax 1997). Tax, Brown, and Chandrashekar (1998) also noted that when retailers recover successfully from failures, customers feel a greater sense of trust and are more committed to the relationships. Furthermore, Maxham and Netemeyer (2002) showed that these customers are more likely to patronize the service providers in the future and to share their positive experience with others.

Despite significant advances in recovery research, gaps remain in the literature. First, while there is broad agreement that trust is an essential building block in the development of customer relationships (e.g., Morgan and Hunt 1994), little is known of how customer perceptions of justice in a recovery situation influence trust or how trust influences loyalty (Tax, Brown, and Chandrashekar 1998). Furthermore, although many authors have attributed a high degree of emotionality to loyalty, customers' emotional responses to service recoveries have been largely ignored (Chebat and Slusarczyk 2005). The manner in which service providers respond to failures is likely to influence customers' emotional states, with a consequence of either endearing them to the organizations or driving them away. Finally, while the literature makes a clear distinction between attitudinal and behavioral loyalty, service recovery research has focused primarily on the behavioral outcomes of service recovery (e.g., patronage intentions, word of mouth), with little consideration of customer attitudinal responses. Although this is not a problem in itself, studying customers' attitudinal responses in addition to their behavioral responses adds richness to our understanding of service recovery effectiveness.

We aimed in this study to address these gaps in the service recovery literature. Specifically, we investigated the mediating roles of trust and emotion on customer loyalty. We propose a cognitive appraisal model that portrays trust and emotions as key mediators in the relationship between perceived justice and customer loyalty. Because customer loyalty is essential for the long-term success of any business, the mediating roles of trust and emotion are potentially important and warrant investigation. In a theoretical sense, our cognitive appraisal model extends the conventional justice-based model used in service recovery literature. As such, it may facilitate a more thorough understanding of the service recovery process. In practical terms, the findings of this study also have important managerial implications. By understanding the important mediating roles of trust and emotion, service employees can deliver more effective service recovery strategies, thereby enhancing customer loyalty.

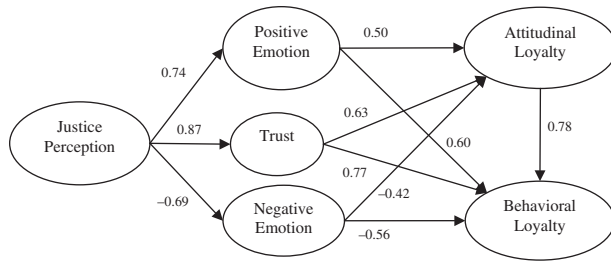
The remainder of this article is organized as follows. We begin with a theoretical development of the cognitive appraisal model to include trust and emotion as mediators between perceived justice and customer loyalty. A number of testable hypotheses are proposed. Using survey data collected from two hospitality-industry settings, the theoretical model was empirically tested by a structural equation modeling approach. We conclude with a discussion of the results and relevant managerial implications, along with the limitations of the research and a number of suggested future research directions.

CONCEPTUALIZATION

The model proposed in this study draws on key aspects of two relevant theories: justice theory and cognitive appraisal theory. Conventional service recovery research views customer loyalty as a function of customer perceptions of justice in service recovery (Smith, Bolton, and Wagner 1999; Tax, Brown, and Chandrashekar 1998). In the service recovery context, cognitive appraisal theory explains how a customer's evaluation of a recovery attempt results in emotional and cognitive outcomes. The emotional outcome is reflected by the customer's discrete emotions, and the cognitive outcome is reflected by the customer's trust in the service provider (Chebat and Slusarczyk 2005). Collectively, we propose that trust and emotion are two important mediators in the service recovery process. Figure 1 depicts this conceptual model.

Justice theory states that a customer evaluates a service recovery attempt as just or unjust. Consequently, this evaluation of justice influences the customer's loyalty to the service provider. Service research often conceptualizes perceived justice as a three-dimensional construct, namely, distributive, procedural, and interactional justice (Maxham and Netemeyer 2002; Tax, Brown, and Chandrashekar 1998). Distributive justice involves the tangible outcomes of a service recovery process. Procedural justice involves the procedures by which a recovery attempt is conducted. Interactional justice involves the manner in which a customer is treated during a service recovery process. While it is generally accepted that the three dimensions of justice are independent of one another, ultimately their combination determines a customer's overall perception of justice and therefore his or her subsequent attitude and behavior (Blodgett, Hill, and Tax 1997). Moreover, there is evidence that customers use a compensatory model to arrive at an overall perception of justice (Blodgett, Hill, and Tax 1997; Goodwin and Ross 1989; Tax, Brown, and Chandrashekar 1998). Accordingly, Figure 1 shows that this study used a single global construct for justice perception instead of three individual dimensions of justice.

FIGURE 1
Cognitive Appraisal Model of Service Recovery



The ultimate outcome of service recovery models is customer loyalty. Oliver (1997) defined customer loyalty as “a deeply held commitment to re-buy or re-patronize a preferred product/service provider consistently in the future, thereby causing repetitive same-brand or same brand-set purchasing” (p. 196). Such a conceptualization of loyalty takes into consideration two elements of loyalty that have been described in previous loyalty research—attitudinal and behavioral (Day, 1969; Oliver 1999). Attitudinal loyalty reflects a higher order commitment of a customer to an organization that cannot be inferred by simply measuring repeat purchase intentions (Shankar, Smith, and Rangaswamy 2003). In addition, customers’ attitudinal loyalty can sometimes generate exceptional value to a firm through positive word of mouth (Dick and Basu 1994; Reichheld 2003), a willingness to pay premium prices, and an increased likelihood of future patronage (Chaudhuri and Holbrook 2001). In this study, we adopted a two-dimensional conceptualization of loyalty reflecting the interrelated, but nonetheless separate, attitudinal and behavioral components.

The major contribution of our model is the adaptation of cognitive appraisal theory to explain the mediating roles of trust and emotion between justice perception and customer loyalty. Cognitive appraisal is “a process through which a person evaluates whether a particular encounter with the environment is relevant to his or her well-being” (Folkman et al. 1986, p. 992). In a service recovery context, the cognitive stage of the complaint recovery process begins with a customer’s cognitive appraisal of the fairness of the resolution of his or her complaint. Subsequently, the outcome of that appraisal determines the specific emotions and degree of trust. The following subsections provide a brief rationale for the mediating roles of trust and emotion depicted in Figure 1.

The Mediating Role of Emotions

Emotion has been described as “a mental state of readiness that arises from cognitive appraisals of events

or thoughts . . . and may result in specific actions to affirm or cope with the emotion, depending on its nature and meaning for the person having it” (Bagozzi, Gopinath, and Nyer 1999, p. 184). Cognitive appraisal theory suggests that specific emotions result from an individual’s assessment of the current situation he or she is facing, with justice generally considered to be an evaluative judgment about the appropriateness of an individual’s treatment by others (Dunn and Schweitzer 2005; Furby 1986; Watson and Pennebaker 1989). Thus, an individual’s emotional response is likely to depend on whether the outcome of a judgment is attributed to oneself, to others, or to impersonal circumstances (Smith and Ellsworth 1985). For example, when a customer perceives that a recovery attempt is unfair, he or she is more likely to experience intensified emotions if the recovery outcome is viewed as being under the direct control of the service provider (Smith and Ellsworth 1985).

Note that the majority of service recovery research focuses on customers’ negative emotions, since service failures are viewed as negatively valenced (Andreassen 1999; Bougie, Pieters, and Zeelenberg 2003). Consequently, the possible coexistence of positive and negative emotions has been largely neglected (Williams and Aaker 2002). The omission of positive emotions is problematic. For example, when a service provider makes a good recovery, a customer’s negative emotions (e.g., distress, rage) may be reduced, while certain positive emotions (e.g., happiness, pleasure) may be increased. Similarly, poor recovery has the ability to both exacerbate negative emotions and diminish positive emotions. Figure 1, therefore, shows that a customer’s perception of the justice in recovery can influence his or her positive and negative emotions simultaneously. This suggests two hypotheses:

Hypothesis 1a: The justice perception of a service recovery has a positive effect on positive emotion.

Hypothesis 1b: The justice perception of a service recovery has a negative effect on negative emotion.

Naturally, the emotions experienced by customers as a result of perceived justice affect their loyalty. Coping theory suggests that following a service recovery, individuals try to both reduce the possibility of experiencing negative emotions in the future and increase the likelihood of experiencing future positive emotions (Lazarus 1991). In the event of a poor recovery, a customer’s avoidance coping strategy may very well be to take his or her patronage elsewhere. Conversely, in the event of a good service recovery, a customer is likely to remain loyal to the service provider. Figure 1 depicts the relationship of positive and negative emotions to the two

dimensions of customer loyalty discussed above. Thus, we hypothesize as follows:

Hypothesis 2a: Positive emotion following a service recovery has a positive effect on customer loyalty.

Hypothesis 2b: Negative emotion following a service recovery has a negative effect on customer loyalty.

Hypothesis 2c: Attitudinal loyalty has a positive effect on behavioral loyalty.

The Mediating Role of Trust

Trust is defined by Moorman, Deshpande, and Zaltman (1993) as “a willingness to rely on an exchange partner in whom one has confidence” (p. 315). Therefore, when exchange partners interact in ways that demonstrate their care for the needs and benefits of others, trust is strengthened (Holmes and Rempel 1989). In general, trust is affected by perceptions of the trustee’s ability, integrity, and benevolence, but in addition, these attributes are also influenced by past experiences and the trustee’s reputation (Butler 1991). In a service recovery context, a customer’s trust reflects his or her willingness to accept vulnerability on the basis of a positive expectation of the service failure resolution (Dunn and Schweitzer 2005).

As noted above, the majority of dissatisfied customers choose not to complain. Those who do complain do so not only with the belief that their problems will be resolved in an equitable manner but also in a way that validates their decisions to enter into relationships with the providers in the first place. Therefore, if a complainant receives a poor response from an organization, the customer is likely to perceive that the organization as untrustworthy. We therefore hypothesize as follows:

Hypothesis 3: Perceived justice following a service recovery will have a positive effect on customer trust.

Morgan and Hunt (1994) argue that a customer’s perception of a firm’s trustworthiness is positively related to his or her level of commitment and repurchase intention. Commitment is the cognitive and attitudinal process that is based primarily on an enduring desire to maintain a relationship between partners. When service providers recover in a way that builds customer trust, the perceived risk in complaining to the providers in the future is likely to be reduced. This allows customers to make confident predictions about the providers’ future recovery behaviors and therefore commit themselves to ongoing relationships (Morgan and Hunt 1994). Therefore, we hypothesized as follows:

Hypothesis 4: Trust following service recovery will have a positive effect on customer loyalty.

RESEARCH METHOD

The research model was tested using a scenario-based experiment in two hospitality-industry settings (restaurants and hotels). These settings were chosen for two reasons. First, hospitality settings provided a familiar context for the respondents. Second, prior research has documented that service failures and recovery occur frequently within the hospitality industry (Smith and Bolton 2002; Smith, Bolton, and Wagner 1999).

Sample

Approximately 40 undergraduate students were trained in interviewing skills as part of a course exercise. The trained student assistants recruited a study sample of 471 service customers at multiple locations (including shopping malls, parks, and a sporting event) in a medium-sized U.S. metropolitan area. During a 1-week data collection period, the research assistants introduced participants to scenarios from one of two service settings (either a restaurant or a hotel). The researchers provided the assistants with specific selection instructions to ensure that the sample would be representative of the regional population from which the sample was drawn. This included varying the days and times that data were collected. Accordingly, stratified quota groups were composed of six age groups, six ethnicity groups, and six education levels. Furthermore, the distribution of respondents by gender was approximately even within each group (48% male and 52% female).

Study participants completed a single questionnaire, and the researchers contacted 10% of the participants after data collection to verify their responses. Multiple missing values necessitated that 12 questionnaires be discarded, leaving 459 usable questionnaires.

Materials

The research method involved a 2 (scenarios) \times 3 (conditions) between-subjects design. Each participant evaluated a written scenario describing service failure and the service provider’s response (Appendix A provides a sample scenario). Each scenario began with an identical service failure. This was followed by one of three different recovery responses designed to elicit stimulus-based emotions and trust judgments, and subsequently loyalty intentions in response to the service recovery. The procedure was designed to manipulate perceptions

TABLE 1
Descriptive Statistics: Experimental Conditions

Variable	Experimental Condition					
	Low Justice (n = 151)		Medium Justice (n = 155)		High Justice (n = 153)	
	M	SD	M	SD	M	SD
Justice	1.65	0.72	3.48	.84	5.43	1.11
Positive emotion	1.32	0.76	2.16	1.38	4.24	1.54
Negative emotion	5.35	1.52	3.81	1.70	2.48	1.74
Trust	1.55	0.86	2.57	1.24	4.52	1.47
Attitudinal loyalty	1.49	0.97	2.13	1.32	2.78	1.28
Behavioral loyalty	1.76	1.12	2.74	1.50	3.93	1.58

of justice (low, medium, and high levels) and to create variability in participants' emotional responses and trust judgments. More specifically, the low-justice scenario suggested that the participant received no response to his or her complaint. The medium-justice scenario suggested a response in a reasonable amount of time (procedural) and an offer of fair compensation (distributive), but the firm did not appear to be genuinely concerned with the participant's problem (interactional). The high-justice scenario suggested that the problem was not only resolved in a reasonable amount of time (procedural) and with adequate compensation (distributive), but the firm also appeared to be genuinely concerned about the participant's problem (interactional).

The scenarios and measurement scales were pretested, and manipulation checks were verified using a sample of staff and faculty subjects from the university. Pretest subjects evaluated the realism of the scenario as well as completing the measurement instrument. The pretest confirmed the perceived realism of the scenario, the effectiveness of manipulation, and the reliability and validity of the measurement scales.

Scales

All constructs were measured using a 7-point, Likert-type scale. The measurement items for the perceived justice construct were adopted from Smith, Bolton, and Wagner (1999) and Blodgett, Hill, and Tax (1997). The three dimensions of justice (distributive, procedural, and interactional justice) were combined into a single global justice perception construct. Measures for trust and behavioral loyalty were adopted from Garbarino and Johnson (1999), while the measures for attitudinal loyalty followed Ganesh, Arnold, and Reynolds (2000).

The emotion scales were measured using a 7-point, Likert-type scale anchored by *not at all* and *very much*.

These scales were drawn from Smith and Bolton (2002) for negative emotion and from Ellsworth and Smith (1988), Richins (1997), and Smith and Ellsworth (1985) for positive emotion. Appendix B contains a table summarizing these measurement items.

Method

A structural equation modeling approach was used to analyze the data as follows. First, manipulation checks were conducted to ensure the validity of the scenarios used in the experimental design. Measurement items were validated using confirmatory factor analysis in LISREL 8.51. Subsequently, the structural model was tested according to the hypotheses above. For completeness, we then ran three competing models against the proposed model to provide further conceptual and statistical support for our proposed model.

ANALYSIS

Manipulation Check

A manipulation check using the justice scale indicated that the justice manipulation was successful. A one-way analysis of variance revealed that the level of justice was significantly different across the high-justice ($M = 5.43$), medium-justice ($M = 3.48$), and low-justice ($M = 1.65$) conditions, $F(2, 456) = 737, p < .001$. In addition, a Tukey post hoc test showed that each of the group means was significantly different from the others. Cell means for each of the model constructs are provided in Table 1.

The scenario settings (restaurant and hotel) were combined to obtain a higher response variance. An F test was performed to determine if pooling the data was appropriate. The results of the F test suggested that combining the

TABLE 2
Measurement Model: Confirmatory
Factor Analysis

Variable	Loading	t	p
Distributive justice	.89	23.88	<.001
Procedural justice	.90	24.15	<.001
Interactive justice	.93	25.62	<.001
Positive Emotion 1	.97	N/A	
Positive Emotion 2	.96	53.18	<.001
Positive Emotion 3	.95	49.58	<.001
Positive Emotion 4	.94	48.53	<.001
Negative Emotion 1	.92	N/A	
Negative Emotion 2	.96	41.86	<.001
Negative Emotion 3	.97	43.44	<.001
Negative Emotion 4	.95	39.87	<.001
Negative Emotion 5	.79	23.76	<.001
Trust 1	.87	N/A	
Trust 2	.92	28.08	<.001
Trust 3	.93	28.63	<.001
Behavioral Loyalty 1	.82	N/A	
Behavioral Loyalty 2	.96	26.96	<.001
Behavioral Loyalty 3	.94	26.33	<.001
Attitudinal Loyalty 1	.83	N/A	
Attitudinal Loyalty 2	.88	20.81	<.001
Attitudinal Loyalty 3	.74	17.26	<.001

NOTE: Confirmatory factor analysis: $\chi^2 = 339$, $df = 174$, comparative fit index = .99, incremental fit index = .99, Tucker-Lewis index = .97, root mean square error of approximation = .05.

two industry subsamples was appropriate, because no significant difference, $F(1, 457) = 3.57$, $p = .059$, was found between the response condition (justice) across the two groups.

Measurement Model

A 21-item, 6-factor, covariance structure measurement model was estimated to assess the goodness-of-fit statistics, discriminant validity, and internal consistency of all constructs in the model. Table 2 documents good model fit statistics ($\chi^2 = 339$, $df = 174$, comparative fit index = .99, incremental fit index = .99, Tucker-Lewis index = .97, root mean square error of approximation = .05). In addition, the confirmatory factor analysis showed that all scale items loaded satisfactorily on the relevant latent variables.

We followed Fornell and Larcker's (1981) approach to assess construct convergent and discriminant validity. This procedure is regarded to be a rigorous method of testing a measurement model. The results suggested that the measurement model met both convergent and discriminant validity criteria. Convergent validity is assessed by the significance of t statistics representing the relationships between the items and their latent constructs (refer to Table 2). In addition, convergent validity is also

reflected through construct reliability. Table 3 shows that the model construct reliability ranged from .89 to .98, exceeding the standard requirement of .70. The discriminant validity of a construct is established when its average variance extracted is greater than the squared correlations between the construct and all other variables. As shown in Table 3, all possible pairs of constructs met this most stringent criterion for discriminant validity (i.e., the average variance extracted was at least .80 for all six scales).

Structural Model

The full model of hypothesized relationships was estimated using LISREL 8.51. To avoid model identification issues, estimates of the equations for hypotheses were obtained through restricted path analyses (Hess 2001). Specifically, the coefficient estimate of an endogenous construct is obtained after restricting other paths to ensure the number of paths estimated do not exceed the number of the exogenous variables. Table 4 presents the empirical estimates for the structural model depicted in Figure 1. Similar to the measurement model, the goodness-of-fit statistics for the model were excellent ($\chi^2 = 340$, $df = 179$, comparative fit index = .99, incremental fit index = .99, Tucker-Lewis index = .97, root mean square error of approximation = .04). All paths were significant and in the hypothesized direction. To facilitate interpretation, the estimated path coefficients are shown in Figure 1.

The relationships between perceived justice and both positive emotion and negative emotion were significant ($\beta = .74$ and $-.69$, respectively). Similarly, perceived justice significantly influenced customer trust ($\beta = .87$). Positive emotion following a service recovery affected customer loyalty ($\beta = .50$ for attitudinal loyalty, $\beta = .60$ for behavioral loyalty). Likewise, negative emotion following a service recovery had a negative influence on customer loyalty ($\beta = -.42$ for attitudinal loyalty, $\beta = -.56$ for behavioral loyalty). Customer trust significantly affected both types of loyalty ($\beta = .63$ for attitudinal loyalty, $\beta = .77$ for behavioral loyalty). Last, attitudinal loyalty significantly influenced behavioral loyalty ($\beta = .78$). The variables in the model accounted for a reasonable proportion of the total variance in this model. Attitudinal loyalty had an R^2 value of .39, behavioral loyalty of .68, positive emotion of .55, negative emotion of .46, and trust of .76.

A major purpose of this study was to explore the potential mediating roles of trust and emotion between justice perception and customer loyalty. We did this following the approach of Baron and Kenny (1986). Specifically, we first established direct paths between justice and loyalty. We then added the mediating variables to the model. According to Baron and Kenny, full mediation would occur only if (a) the direct path from

TABLE 3
Measurement Model Descriptive Statistics: Convergent and Discriminant Validity

Variable	Descriptive Statistics			Squared Correlations					
	M	SD	Reliability	1	2	3	4	5	6
1. Justice	3.52	1.87	.93	.82	.60	.48	.68	.26	.44
2. Positive emotions	2.51	1.76	.98		.93	.36	.55	.22	.38
3. Negative emotions	3.81	2.10	.98			.80	.45	.15	.31
4. Trust	2.92	1.78	.96				.93	.29	.51
5. Attitudinal loyalty	2.13	2.13	.89					.91	.42
6. Behavioral loyalty	2.82	1.69	.94						.85

NOTE: The calculated values of the squared correlations of the path coefficients between all possible pairs of constructs are presented in the upper off-diagonal. Average variances extracted are presented in boldface type along the diagonal. The discriminant validity of a construct is established when the value of its average variance extracted is larger than the squared correlation values in associated cells.

TABLE 4
Structural Equation Model: Path Coefficients

Relationship	Hypothesized Direction	Estimate	t	p
1. Justice perception → positive emotion	+	.74	17.73	<.001
2. Justice perception → negative emotion	-	-.69	-15.75	<.001
3. Justice perception → trust	+	.87	19.46	<.001
4. Positive emotion → attitudinal loyalty	+	.50	10.47	<.001
5. Positive emotion → behavioral loyalty	+	.60	13.35	<.001
6. Negative emotion → attitudinal loyalty	-	-.42	-8.44	<.001
7. Negative emotion → behavioral loyalty	-	-.56	-12.27	<.001
8. Trust → attitudinal loyalty	+	.63	12.84	<.001
9. Trust → behavioral loyalty	+	.77	16.73	<.001
10. Attitudinal loyalty → behavioral loyalty	+	.78	15.39	<.001

NOTE: A common assumption made in estimating structural equation models is that variable error terms are uncorrelated. However, given the nature of the relationships between certain variables in this model and for model identification purposes, error term correlations between (a) positive and negative emotions and (b) behavioral and attitudinal loyalty were allowed, while restricting other error term correlations to zero.

perceived justice to loyalty was insignificant, and (b) the indirect paths through emotion and trust were significant. Partial mediation would occur if (a) the direct path between perceived justice and loyalty was significant, and (b) the indirect paths are significant.

Table 5 summarizes the results of the Baron and Kenny (1986) procedure. Trust appeared to have a full mediating role. The direct path between justice and loyalty became insignificant when the trust mediator was added. In addition, the indirect path through trust was significant. Table 5 suggests that emotion had a partial mediating role. The only unsupported mediating role was from negative emotions to attitudinal loyalty. In summary, the Baron and Kenny procedure supported our model's incorporation of trust and emotions as mediators between justice and loyalty.

Competing Models

The results to this point provide strong support for the model proposed in this study. For completeness, we

conclude with a brief comparison of the proposed model against a number of plausible alternatives. In the interest of brevity, the primary focus of this analysis is the statistical fit of the models.

The first competing model assumes a straightforward sequence leading from the customer's perception of justice to his or her consequent judgment of a provider's trustworthiness, which triggers an emotional state. This emotional state then drives both attitudinal and behavioral loyalty (see Figure 2a). The second competing model (Figure 2b) depicts a different sequence in the model. Here, a customer's judgment of fairness in recovery triggers a positive or negative emotion. Subsequently, the emotion shapes the customer's trust in the company, which again affects attitudinal and behavioral loyalty.

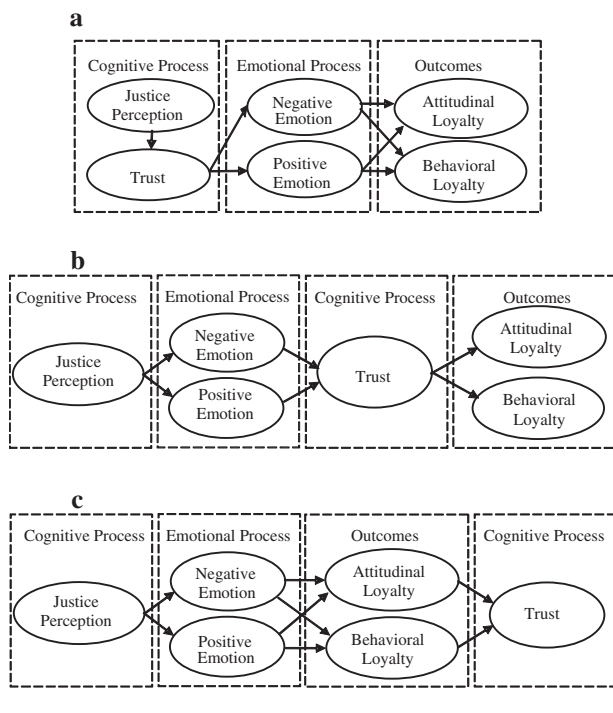
Finally, the third competing model is based on the idea that loyalty generates trust. Thus, a loyalty decision is made directly from the positive or negative emotions generated by the recovery effort, and this loyalty then precedes a decision to trust the successfully recovered company (see Figure 2c). This notion not has only face

TABLE 5
The Mediation Role of Trust and Emotion

Mediator	Relationship	Full Mediation	Partial Mediation	Not Supported
Positive emotion	Justice → attitudinal loyalty		X	
Negative emotion	Justice → attitudinal loyalty			X
Positive emotion	Justice → behavioral loyalty		X	
Negative emotion	Justice → behavioral loyalty		X	
Trust	Justice → attitudinal loyalty	X		
Trust	Justice → behavioral loyalty	X		

NOTE: Goodness-of-fit statistics for the emotion-mediating model: goodness-of-fit index = .98, comparative fit index = .99, incremental fit index = .99. Goodness-of-fit statistics for the trust-mediating model: goodness-of-fit index = .96, comparative fit index = .97, incremental fit index = .97. Results of the mediating tests are summarized above. These tests were conducted according to Baron and Kenny's (1986) suggested procedure. First, direct paths between justice and loyalty were established. Second, the mediating variables were added to the model. According to Baron and Kenny, full mediation would occur only if (a) the direct path from perceived justice to loyalty is insignificant, and (b) the indirect paths through emotion and trust are significant. Partial mediation would occur if (a) the direct path between perceived justice and loyalty is significant, and (b) the indirect paths are significant.

FIGURE 2
Competing Models of Service Recovery:
(a) Competing Model 1; (b) Competing Model 2;
(c) Competing Model 3



validity but is also consistent with Bem's (1972) self-perception theory (Zanna and Cooper 1974).

Table 6 reports goodness-of-fit statistics for these competing models, in addition to our proposed model. Across a range of measures, the proposed model displayed superior fit indices over the alternatives. Because the competing models were non-nested, a model with

higher goodness-of-fit statistics, a smaller Akaike information criterion, and a χ^2/df ratio less than 2.0 is considered superior (Mackenzie 2001). In brief, these results suggest that our proposed model is conceptually and statistically a better model than the competing models examined.

DISCUSSION

The results of this study both support and augment the findings in prior literature. Consistent with existing research, we document a relationship between customers' perceived justice and their discrete emotions (Chebat and Slusarczyk 2005; Smith and Bolton 2002). However, our findings extend the understanding of such a relationship by using both negative and positive emotions simultaneously. The results show that both positive and negative emotions play partial mediating roles between perceived justice and customer loyalty.

When a customer experiences a good recovery, he or she tends to perceive a high level of justice that, in conjunction with positive emotions, creates a positive attitude toward the service provider (i.e., attitudinal loyalty) and increases the likelihood of future repatronage (behavioral loyalty). In contrast, customers who experience poor service recovery perceive low levels of justice. Combined with the resulting negative emotions, these customers are likely to exit the relationship with the service provider (i.e., behavioral loyalty). However, negative emotions do not appear to play a mediating role between perceived justice and customer attitudinal loyalty. Consistent with coping theory, this finding implies that a customer dissatisfied with the recovery attempt does not change his or her attitude to the service provider, he or she simply leaves the service provider.

TABLE 6
Fit Statistics of Competing Models versus Proposed Model

<i>Fit Statistic</i>	<i>Proposed Model</i>	<i>Competing Model 1</i>	<i>Competing Model 2</i>	<i>Competing Model 3</i>
χ^2	340	654	579	646
<i>df</i>	179	182	183	180
Comparative fit index	.99	.96	.97	.96
Incremental fit index	.99	.96	.97	.96
Tucker-Lewis index	.97	.95	.96	.98
Root mean square error of approximation	.04	.08	.07	.08
χ^2/df	1.90	3.59	3.16	3.59
Akaike information criterion	486	794	717	790

NOTE: The competing models were non-nested. Therefore, a model with higher goodness-of-fit statistics, a smaller Akaike information criterion, and a χ^2/df ratio less than 2.0 is considered superior.

Turning to trust, our results confirm prior findings of relationships between perceived justice and trust, and subsequently trust and loyalty. We extend previous models by examining the mediating role of trust between justice and loyalty. The results suggest that trust has a full mediating role. In other words, a good recovery positively affects customer trust and subsequently enhances both attitudinal and behavioral loyalty to the service provider.

To summarize, customers typically view service providers as being largely in control of the complaint-handling process. Our findings show that customers' perceived levels of justice following service recoveries influence their emotions for and trust in service providers. In turn, customers' emotions and trust have a direct, yet differential influence on their behavior and attitudes toward service providers.

CONCLUSION

Prior service recovery research has developed an understanding of the role of service recovery in building customer loyalty and trust. However, the relationships between perceived justice and trust and between trust and loyalty are less well understood (Tax, Brown, and Chandrashekar 1998). Furthermore, the emotional response of customers to service failure and recovery has not been extensively researched (Chebat and Slusarczyk 2005; Smith and Bolton 2002).

This study contributes to this growing literature by highlighting the important mediating roles of trust and emotion in service recovery. Specifically, we propose a cognitive appraisal model that not only portrays trust and emotions as key mediators in the relationship between perceived justice and customer loyalty but also simultaneously incorporates both negative and positive emotions.

Consistent with prior literature, we document a relationship between a customer's perceived justice and emotions.

However, we also report evidence that perceived justice is significantly related to both positive and negative emotions following a service recovery. Furthermore, both positive and negative emotions significantly influence customer loyalty. Because prior work has largely adopted a unidimensional view of emotions (predominantly negative emotions), our findings using two dimensions (negative and positive emotions) add to the richness of our understanding of the role of emotions in service recovery.

We also highlight the role of trust in the service recovery process. The results document a full mediating role for trust between justice and loyalty. This finding is significant: Without the inclusion of trust as a mediator, our understanding of the relationship between justice and loyalty is incomplete.

Limitations and Future Research Directions

There are a number of limitations to this study and consequently potential future research directions. First, the model developed in the study was tested using a single experimental design (i.e., a hospitality setting). As such, the findings are not necessarily generalizable to other contexts. Further research into the mediating roles of emotions and trust in service recovery in other settings may be fruitful (e.g., hedonic service consumption, retail, health care).

Second, the research methodology used in this study involved a single scenario and elementary manipulations of service recovery actions. The validity of the current findings would be enhanced by further testing of the proposed model using multiple scenarios and more comprehensive manipulations of service failure and recovery incidents. A third limitation lies in the content of our scenario, which was geared toward negative emotions. This may have introduced bias into our findings. Conceivably, the model could be retested using scenarios involving positive recovery outcomes that elicit clear positive emotions.

While the current study created latent constructs of positive and negative emotions that are a composite of

specific emotions (see Appendix B), the model could be further expanded to explicitly incorporate discrete emotions as latent constructs (e.g., anger, happiness, pleasure, distress). Our understanding of the mediating roles of emotions and trust might also be enhanced using a longitudinal study to assess changes in customer's emotions and trust through time.

Managerial Implications

To date, research has largely ignored the role of customer emotions in response to service failure and recovery. While this study suggests that service providers should endeavor to provide fair service recovery in developing customer trust and loyalty intentions, the research also suggests that managers should be mindful of how the fairness of their recovery effort influences customer emotions. Since a poor recovery effort potentially magnifies customers' negative emotions, financial and human resource investments designed to improve processes or interactional justice may be for naught.

There are inferences here that are critical to the development of lasting customer relationships. Prior research has linked trust and customer loyalty. Perhaps the most significant contribution of this research lies in the development of this thread of research to show the differential impact that positive and negatively valenced emotions have on customer loyalty. The generation of positive emotions should be the primary goal of any recovery strategy. The increased trust resulting from a fair recovery is likely to play a pivotal role in developing customer loyalty. Furthermore, strategies designed to reduce negative emotions and create positive emotions are likely to provide an ancillary benefit in the creation of customer loyalty. For example, employee training in conflict resolution, empathetic listening skills, and rapport building will not only help increase (interactional) justice but are also likely to have a direct impact on positive felt emotions.

In conclusion, this study holds critical implications for effective service recovery as a relationship marketing tool. Trust forms a foundation for enduring relationships. When a customer complains, it reflects an opportunity for a company to validate the relationship in the eyes of the customer. This study suggests that fairness helps shape trust judgments following a service recovery. This research also suggests that trust judgments and positive emotions underlie the formation of attitudinal loyalty, which relates strongly to behavior. Therefore, practitioners should take steps to ensure that the outcomes provided to customers match the service failure in type and magnitude in order to maximize positive emotional and trust responses and, consequently, customer loyalty.

APPENDIX A Study Scenarios

Hotel

You recently made a reservation to stay a night in a hotel. Upon arriving at the front desk, you found that nobody was there. After peering over the counter and waiting longer than you would normally expect, a less than enthusiastic clerk arrived at the front desk. You could not help but notice that the clerk's shirt was wrinkled and tie was undone. After providing the clerk with your name and confirmation number, you were informed that the hotel had no record of your reservation and that there were no vacant and clean rooms available. You protested, but the employee told you that there was nothing that he/she could do. The clerk then asked you to wait in the lobby while housekeeping cleaned a room. After waiting for forty-five minutes, you approached the front desk to enquire as to the status of the room, only to find that the original clerk had left and was replaced by a similarly disinterested employee. The new clerk informed you that the room was available a long time ago, checked you in, and provided you with a key to the room. However, upon arriving at the room you found that housekeeping had yet to clean the room! The bed had not been made and dirty towels were lying all over the floor. You returned to the front desk only to have the front desk clerk unapologetically state, "Oops, I must have given you the wrong room!" After being issued another key, you made your way to the second room. Upon returning home, you draft a letter of complaint to the hotel, detailing your experience.

Restaurant

You arrive at the restaurant hostess stand and see a sign asking you to wait to be seated, but no one is there. After waiting longer than you would normally expect, a less than enthusiastic restaurant employee appears. Upon giving the employee your name and your reservation time, the employee tells you that there is no record of your reservation. You protest, but the employee tells you that there is nothing that he/she can do. Finally, he/she suggests that you wait in the bar until a table becomes available. Reluctantly, you and your party make your way to the crowded bar, where you are forced to stand for forty-five minutes while waiting for a table, but can barely hear one another because of the noise in the bar. You are eventually seated at a small table in the smoking section next to the noisy kitchen entrance. The server comes to take your order. You attempt to place your order, but he/she informs you that the restaurant is out of the entrée you had selected. You make another selection. The server brings your entrees, but fails to bring your beverages. He/she never checks on you while you are eating and drops off the bill without asking if you want anything more. Upon returning home, you send a letter of complaint to the restaurant, detailing your experience.

Recovery Response

Participants received one of the following recovery responses:

- Low justice: The company fails to respond to your complaint in a reasonable amount of time.
- Medium justice: The company responds in a reasonable amount of time, offers adequate compensation, but they

fail to mention the specifics of your complaint or how they plan to address it. In fact, it appears that they have written you a form letter.

- High justice: The company responds in a reasonable amount of time, offers adequate compensation, and they acknowledge your problem and indicate the actions that that have been taken to address your complaint.

APPENDIX B Measurement Scales

Construct

Distributive justice (Smith, Bolton, and Wagner 1999; 1 = *strongly disagree*, 7 = *strongly agree*)

1. The outcome I received was fair.
2. I did not get what I deserved. (R)
3. In resolving the problem, the service firm gave me what I needed.

Procedural justice (adapted from Blodgett, Hill, and Tax 1997 and Smith, Bolton, and Wagner 1999)

1. The firm responded quickly and fairly to my needs.
2. The firm showed adequate flexibility in dealing with my problem.
3. The policies and procedures the firm had in place were adequate for addressing my concerns.

Interactional justice (adapted from Smith, Bolton, and Wagner 1999)

1. The firm was appropriately concerned about my problem.
2. The firm did not put the proper effort into resolving my problem.
3. The firm's communications with me were appropriate.

Positive emotions (adapted from Ellsworth and Smith 1988, Richins 1997, and Smith and Ellsworth 1985; 1 = *not at all*, 7 = *very much*)

1. Enjoyment
2. Joy
3. Pleasure
4. Happiness

Negative emotions (Smith and Bolton 2002; 1 = *not at all*, 7 = *very much*)

1. Enraged
2. Incensed
3. Furious
4. Irate
5. Distressed

Trust (Garbarino and Johnson 1999; 1 = *strongly disagree*, 7 = *strongly agree*)

1. The firm puts the customer's interests first.
2. I can count on the firm to respond to my requests.
3. The firm can be relied upon to keep its promises.

Behavioral loyalty (Garbarino and Johnson 1999; 1 = *strongly disagree*, 7 = *strongly agree*)

These questions discuss your future intentions based on your experience. Please indicate the numbered response that best reflects your level of agreement with the following statements.

1. I intend to switch to a competitor of the service firm. (R)
2. I will not acquire services of this service firm anymore in the future. (R)
3. I would not visit this service firm again. (R)

Attitudinal loyalty (Ganesh, Arnold, and Reynolds 2000; 1 = *strongly disagree*, 7 = *strongly agree*)

These questions discuss your future intentions based on your experience. Please indicate the numbered response that best reflects your level of agreement with the following statements.

1. I would be dedicated to doing business with this service firm.
 2. If this service firm were to raise its prices, I would continue to be a customer of the firm.
 3. If a competing firm were to offer better prices or a discount on their services, I would switch. (R)
-

REFERENCES

- Andreassen, Tor Wallin (1999), "What Drives Customer Loyalty With Complaint Resolution?" *Journal of Service Research*, 1 (4), 324-332.
- Bagozzi, Richard P., Mahesh Gopinath, and Prashanth U. Nyer (1999), "The Role of Emotions in Marketing," *Journal of the Academy of Marketing Science*, 27 (2), 184-206.
- Baron, Reuben M. and David A. Kenny (1986), "The Moderator-Mediator Variable Distinction in Social Psychological Research: Conceptual, Strategic, and Statistical Considerations," *Journal of Personality and Social Psychology*, 51 (6), 1173-1182.
- Bem, Daryl J. (1972), "Self-Perception Theory," in *Advances in Experimental Social Psychology*, Vol. 6, L. Berkowitz, ed. New York: Academic Press, 1-63.
- Blodgett, Jeffrey G., Donna J. Hill, and Stephen S. Tax (1997), "The Effects of Distributive, Procedural, and Interactional Justice on Postcomplaint Behavior," *Journal of Retailing*, 73 (2), 185-210.
- Bougie, Roger, Rik Pieters, and Marcel Zeelenberg (2003), "Angry Customers Don't Come Back, They Get Back: The Experience and Behavioral Implications of Anger and Dissatisfaction in Services," *Journal of the Academy of Marketing Science*, 31 (4), 377-393.
- Butler, John K. (1991), "Toward Understanding and Measuring Conditions of Trust: Evolution of Conditions of Trust Inventory," *Journal of Management*, 17, 643-663.
- Chaudhuri, Arjun and Morris B. Holbrook (2001), "The Chain of Effects from Brand Trust and Brand Affect to Brand Performance: The Role of Brand Loyalty," *Journal of Marketing*, 2 (April), 81-93.
- Chebat, Jean-Charles and Witold Slusarczyk (2005), "How Emotions Mediate the Effects of Perceived Justice on Loyalty in Service Recovery Situations: An Empirical Study," *Journal of Business Research*, 58 (5), 644-673.
- Day, George S. (1969), "A Two-Dimensional Concept of Brand Loyalty," *Journal of Advertising Research*, 9 (September), 29-36.
- Dick, Alan S. and Kunal Basu (1994), "Customer Loyalty: Towards an Integrated Conceptual Framework," *Journal of the Academy of Marketing Science*, 22 (Spring), 99-113.
- Dunn, Jennifer R. and Maurice E. Schweitzer (2005), "Feeling and Believing: The Influence of Emotion on Trust," *Journal of Personality and Social Psychology*, 88 (5), 736-748.
- Ellsworth, Phoebe C. and Craig A. Smith (1988), "Shades of Joy: Patterns of Appraisal Differentiating Pleasant Emotions," *Cognition and Emotion*, 2 (4), 301-331.
- Folkman, Susan, Richard S. Lazarus, Christine Dunkel-Schetter, Anita DeLongis, and Rand J. Gruen (1986), "Dynamics of a Stressful Encounter: Cognitive Appraisal, Coping, and Encounter Outcomes," *Journal of Personality and Social Psychology*, 50 (5), 992-1003.
- Fornell, Claes and David F. Larcker (1981), "Evaluating Structural Equation Models With Unobservable Variables and Measurement Errors," *Journal of Marketing Research*, 18 (February), 39-50.
- Furby, Lita (1986), "Psychology and Justice," in *Justice: Views from the Social Sciences*, R. L. Cohen, ed. New York: Plenum, 153-203.
- Ganesh, Jaishankar, Mark J. Arnold, and Kristy E. Reynolds (2000), "Understanding the Customer Base of Service Providers: An Examination of the Differences Between Switchers and Stayers," *Journal of Marketing*, 64 (July), 65-87.
- Garbarino, Ellen and Mark S. Johnson (1999), "The Different Roles of Satisfaction, Trust, and Commitment in Customer Relationships," *Journal of Marketing*, 63 (April), 70-87.
- Goodwin, Cathy and Ivan Ross (1989), "Salient Dimensions of Perceived Fairness in Resolution of Service Complaints," *Journal of Consumer Satisfaction/Dissatisfaction and Complaining Behavior*, 2, 87-92.
- Hart, Christopher W. L., James L. Heskett, and Earl W. Sasser (1990), "The Profitable Art of Service Recovery," *Harvard Business Review*, 68 (July/August), 148-156.
- Hess, James D. (2001) "Unidentifiable Relationships in Conceptual Marketing Models," *Review of Marketing Science*, May, 1-47.
- Holmes, John G. and John K. Rempel (1989), "Trust in Close Relationships," in *Review of Personality and Social Psychology: Close Relationships*, Vol. 10, Clyde Hendrick, ed. Beverly Hills, CA: Sage, 187-220.
- Keaveney, Susan M. (1995), "Customer Switching Behavior in Service Industries: An Exploratory Study," *Journal of Marketing*, 59 (2), 71-82.
- Lazarus, Richard S. (1991), "Cognition and Motivation in Emotion," *American Psychologist*, 46 (April), 352-367.
- Mackenzie, Scott B. (2001), "Opportunities for Improving Consumer Research Through Latent Variable Structural Equation Modeling," *Journal of Consumer Research*, 28 (1), 159-167.
- Maxham, James G., III and Richard G. Netemeyer (2003), "Firms Reap What They Sow: The Effects of Shared Values and Perceived Organizational Justice on Customers' Evaluations of Complaint Handling," *Journal of Marketing*, 67 (1), 46-57.
- and ——— (2002), "Modeling Customer Perceptions of Complaint Handling Over Time: The Effects of Perceived Justice on Satisfaction and Intent," *Journal of Retailing*, 78 (4), 239-252.
- and ——— (2000), "A Longitudinal Study of Complaining Customers' Evaluations of Multiple Service Failures and Recovery Efforts," *Journal of Marketing*, 66 (4), 57-68.
- Moorman, Christine, Rohit Deshpande, and Gerald Zaltman (1993), "Factors Affecting Trust in Market Relationships," *Journal of Marketing*, 57 (January), 81-101.
- Morgan, Robert M. and Shelby D. Hunt (1994), "The Commitment-Trust Theory of Relationship Marketing," *Journal of Marketing*, 58 (July), 20-38.
- Oliver, Richard L. (1999), "Whence Consumer Loyalty?" *Journal of Marketing*, 63 (Special Issue), 33-44.
- (1997), *Satisfaction, a Behavioral Perspective on the Consumer*. New York: McGraw-Hill.
- Reichheld, Frederick F. (2003), "The One You Need to Grow," *Harvard Business Review*, 81 (12), 46-54.
- Richins, Marsha L. (1997), "Measuring Emotions in the Consumption Experience," *Journal of Consumer Research*, 24 (2), 127-146.
- Shankar, Venkatesh, Amy K. Smith, and Arvind Rangaswamy (2003), "Customer Satisfaction and Loyalty in Online and Offline Environments," *International Journal of Research in Marketing*, 20 (2), 153-175.
- Smith, Amy K. and Ruth N. Bolton (2002), "The Effect of Customers' Emotional Responses to Service Failures on Their Recovery Effect Evaluations and Satisfaction Judgments," *Journal of the Academy of Marketing Science*, 30 (1), 5-23.
- , ———, and Janet Wagner (1999), "A Model of Customer Satisfaction With Service Encounters Involving Failure and Recovery," *Journal of Marketing Research*, 36 (3), 356-369.
- Smith, Craig A. and Phoebe C. Ellsworth (1985), "Patterns of Cognitive Appraisal in Emotion," *Journal of Personality and Social Psychology*, 48 (4), 813-838.
- Tax, Stephen S. and Stephen W. Brown (1998), "Recovering and Learning From Service Failure," *Sloan Management Review*, 49 (1), 75-88.
- , ———, and Murali Chandrashekar (1998), "Customer Evaluations of Service Complaint Experiences: Implications for Relationship Marketing," *Journal of Marketing*, 62 (2), 60-77.
- Watson, David and James W. Pennebaker (1989), "Health Complaints, Stress and Distress: Exploring the Central Role of Negative Affectivity," *Psychological Review*, 6, 234-254.
- Williams, Patti and Jennifer L. Aaker (2002), "Can Mixed Emotions Peacefully Coexist?" *Journal of Consumer Research*, 85 (March), 636-649.
- Zanna, M. P. and J. Cooper (1974), "Dissonance and The Pill: An Attribution Approach to Studying the Arousal Properties of Dissonance," *Journal of Personality and Social Psychology*, 29 (5), 703-709.

Tom DeWitt, PhD, is an assistant professor of marketing in the College of Business and Economics at the University of Hawaii at Hilo. His research and teaching focus on the areas of services marketing and consumer behavior. His research has appeared in the *Journal of Service Research*, the *Journal of Marketing Theory and Practice*, and the *Journal of Relationship Marketing*.

Doan T. Nguyen, PhD, is a lecturer in marketing in the UQ Business School at the University of Queensland. Her research focuses on services marketing, service recovery, and marketing metrics. Her research has appeared in the *International Journal of Sport Marketing and Sponsorship*, the *Australasian Marketing Journal*, and *Professional Marketing* and at several international

conferences, including the Academy of Management, the American Marketing Association's Frontiers in Services, the Australian and New Zealand Marketing Academy Conference, and the American Marketing Association World Marketing Congress.

Roger Marshall, PhD, is a professor and chair of marketing in the Business School at the Auckland University of Technology in New Zealand. After an extensive business career, Dr. Marshall read for his PhD at the University of Western Australia, majoring in cognitive psychology. Roger conducts research and teaches in business-to-business marketing, buyer behavior, and marketing management but currently teaches research methodology in the Graduate School at the Auckland University of Technology.