

A DUAL-MEDIATION MODEL OF JUSTICE AND SERVICE RECOVERY

Yingzi Xu^a, Roger Marshall^a, Bo Edvardsson^b, Bård Tronvoll^b

^aAuckland University of Technology, NZ, yingzi.xu@aut.ac.nz

^bKarlstad University, Sweden, bo.edvardsson@kau.se

ABSTRACT

In this service recovery research, distributive justice is set against a composite variable composed of procedural and interactive justice with co-creation, to compare the variables' influence on satisfaction with the service recovery and subsequent repurchase intentions. The two variables (what the customer gets and how they get it) are hypothesized to mediate each other. A dual-mediation structural model is constructed and tested on survey data sought from multicultural respondents. The mediation idea is supported and the implications developed.

JUSTICE THEORY IN SERVICE RECOVERY

Customers appear to rate an organization's recovery effort by comparing the reparation offered by the company with their loss due to the failure, so that a recovery is deemed effective when the organization makes a significant effort to compensate their loss fairly; Justice Theory is thus relevant to customers' evaluation of service recovery. Prior service recovery research shows justice perceptions to have both psychological outcomes such as satisfaction, commitment and trust, and behavioral outcomes such as word of mouth and repurchase intentions (Chebat and Slusarczyk 2005; Dewitt et al. 2008; Dong et al. 2008; Ha and Jang 2009; Kim et al. 2008; McCollough et al. 2000; Smith and Bolton 1998; Tax et al. 1998).

THE STRUCTURE OF THE JUSTICE CONSTRUCT

Perceived justice is typically considered to comprise of three dimensions; distributive justice, procedural justice and interactional justice (Ha and Jang 2009; Kim et al. 2008; Maxham III and Netemeyer 2002a; McCollough et al. 2000; Rio-Lanza et al. 2009; Smith et al. 1999; Tax et al. 1998). Distributive justice is the extent to which customers feel they have been treated fairly with respect to the final recovery outcome (Maxham III and Netemeyer 2002b). It often refers to the assignment of tangible resources by the company to compensate for the service failure, such as refund or discounts – it is what the customer receives as a final outcome of the recovery and is consequently called “outcome justice.”

Procedural justice refers to the perceived fairness of the policies, procedures and criteria used by decision-makers in arriving at the outcome (Lind and Tyler 1988; Thibaut and Walker 1975). Interactional justice is closely related, and refers to how a customer is treated during the recovery process; it concerns both the manner of the service company and the interactions between the service company and the customer (Smith et al. 1999; Tax et al. 1998). Although distinct, these two closely-related aspects of justice are conceptualized here as “process justice.”

THE RELATIONSHIP OF OUTCOME AND PROCESS JUSTICE

The relationship between the principal components of the justice construct is complex. Some authors agree with Blodgett, Wakefield, and Barnes (1995), and believe that outcome justice and process justice are so strongly interrelated that they form a single, overall, perception of justice rather than independent aspects of a company’s effort to address service failure (Blodgett et al. 1997).

Some researchers have separated the outcomes of service recovery from the process, to understand their individual affect on the satisfaction outcomes of the recovery. McColl-Kennedy and Sparks (2003) claim that although outcome justice perceptions are formed through comparison, often customers do not know what others in the same circumstance received. Others agree that evaluation outcome fairness is difficult, so customers rely more on process justice in evaluating the overall fairness of a service recovery (Van den Bos et al. 1997).

Although there is little or no empirical research that directly compares the relative power of outcome and process justice, process justice has been empirically found to be particularly important in dealing with service recovery (Clemmer 1993; Sparks and McColl-Kennedy 2001; Tax et al. 1998). McColl-Kennedy et al. (2003) and Smith et al. (1999) found that satisfaction and intention to return to the organization are strongly influenced by how the service recovery is handled.

Between the extreme views, of treating justice as a single construct and the process and outcome components as independent variables, there lays a logically-attractive third view, to treat each variable as a mediator of the other as well as an independent variable in its own right. Given two customers with the same physical reparation, the customer who is better treated may well perceive his/her reparation as greater. Similarly, if one customer in a particular situation is given a larger refund than another,

then that customer may well consider that the company has treated him/her better. Thus this research proposes a dual-mediation model of service recovery, where the “how” and “what” in a service recovery effort have both a direct impact upon the customer’s satisfaction with the recovery effort and each also mediates the effect of the other.

CO-RECOVERY, DEVELOPING PROCESS JUSTICE

Karande et al. (2007) operationalized procedural justice through measuring the extent to which a customer “has a say” in the recovery process. Dong et al. (2008) paid even more attention to the role of customers in the process of recovery. Their study introduces a new construct, “customer participation in service recovery,” and empirically tests the linkage between this construct with customer satisfaction and intention toward future participation. It remains to be seen if customer participation in service recovery affects post-recovery behaviors such as repurchase and word-of-mouth recommendations.

There is a burgeoning literature around the concept of firms working with customers to create value. Resources do not have value *per se*, instead value is the outcome of a process (e.g. a service recovery process) in which customers integrate and use available resources, including their own knowledge, skills and motivation (Vargo and Lausch 2009). The term “co-creation” is adopted from Vargo and Lusch’s Service Dominant logic research (2004). The concept of customer co-creation emphasizes value creation by customers’ engaging in the service process; it includes customers using the supplier’s prescribed processes to solve a particular problem (Payne et al. 2008). This work extends customer co-creation to the context of service recovery, and conceptualizes it as “co-recovery,” in which a customer is involved in taking actions with the service provider to respond to a service failure.

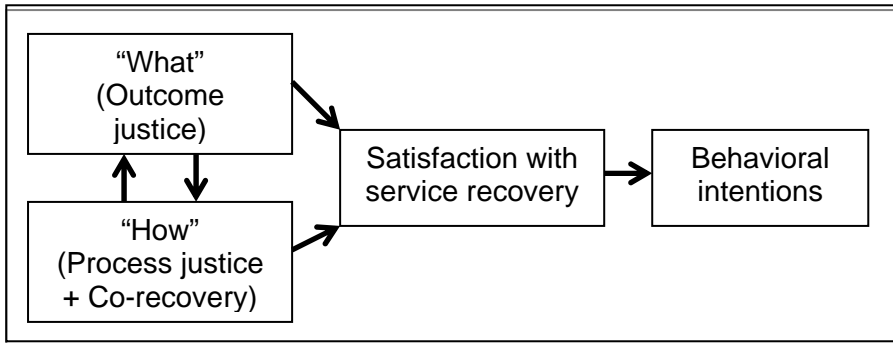
These comments are in line with the consensus in the psychology literature that judgments of the fairness of a decision-making procedure are enhanced when the individual involved in the situation is offered an opportunity to express his or her views and opinions before the decision is made (Lind et al. 1990). Those given opportunities to express their views believe that they have greater control over the outcomes, which leads to greater procedural fairness judgment.

This study makes the assumption that customers who are involved in co-recovery have greater control over the process aspects of the service recovery, and are thus more likely to experience a favorable outcome. Moreover, co-recovery is an important part of process recovery and,

together with interaction justice and procedural justice forms a new, richer, indication of process justice.

RESEARCH MODEL

Figure 1: An exploratory, dual-mediation, model of service recovery



Drawing from the above discussion, a dual-mediation model of perceived justice and service recovery is shown in Figure 1. An empirical test of the model, using a structural equation model, is described in the sections that follow.

RESEARCH DESIGN

A scenario-based experiment is used to test the SEM research model, in a hospitality-industry setting. This scenario-based approach is consistent with other studies on service failure (Smith et al. 1999), and enables costly and difficult manipulations to be more easily operationalized. Ethical considerations associated with observing or enacting actual service failures are avoided and the biases often associated with retrospective self-reports of actual situations, such as memory lapses and rationalization tendencies (Smith et al. 1999) are also avoided. Finally, albeit at the cost of some external validity, the technique also provides researchers more control (Bitner et al. 1990).

Sample

Students in Masters' programs at five universities in Sweden, Taiwan and New Zealand participated voluntarily in this research. The Masters of Business and MBA students were selected for several reasons, apart from convenience. Most of these more mature students have travel experience so can relate to the scenario settings. Mainly, though, they

offer a chance to construct a balanced group of respondents, in terms of several possible moderating influences.

Thus Parasuraman, Zeithaml and Berry (1985) and others indicate that an individual's prior experiences with a company are a key determinant of their expectations (Hess, Ganesan and Klein, 2003). Similarly, it is suggested in the justice literature that men tend to be more task-oriented and focus on outcomes, while women tend to be more process-oriented and pay more attention to how service companies treat them (McColl-Kennedy et al, 2003). Culture also plays a role in customer's justice perception after a service failure, as culture shapes the way people interpret justice (Mattila and Patterson 2004).

Thus data is gathered from 432 respondents, 49% are men. The average age of respondents is 28 years old. 80% of the respondents have work experience; half in frontline job positions. 55% of the respondents are Eastern (42% Chinese and the balance Southeast Asians), 45% are Western (30% New Zealanders, 10% Swedes and 5% West Europeans).

Materials

A service failure concerning a hotel reservation error due to website maintenance is described in each of three scenarios. Variation in the model is introduced by using three levels of (costless) co-creation. The basic scenario describes a solution offered by the hotel. Standard apologies and explanation is provided in each scenario, but the second scene described a co-creative process instigated by the customer and the third a similar effort instigated by the hotel. This is consistent with Mohr and Bitner's study (1995) on the role of employee effort.

Each scenario is followed by an identical set of questions designed to measure the constructs in the research model. 10-point scales are used throughout. The measurement items for outcome justice and process justice were adopted from Blodgett, Hill and Tax (1997), Smith, Bolton, and Wagner (1999) and Maxham III and Netemeyer (2002b). Measures for satisfaction with the recovery experience were also adapted from Maxham III and Netemeyer (2002b), while those for behavioral intentions (including word-of-mouth and repurchase intentions) were adopted from Maxham III and Netemeyer (2002a; 2002b). Perceived co-recovery is measured by introducing its definition, "After an unfavourable service experience, co-recovery is the process of creating a solution through interactions between a service company and its customer(s)," then asking participants to rate to what extent they agree the scenario they were exposed to is an example of co-recovery.

Procedure

Data collection took place in a classroom setting. A group of students were greeted by a researcher and informed of the nature of the quasi-experiment. After listening to the general instructions, each participant was randomly assigned to read a scenario and answer the questions. The scenarios and measurement scales were pretested and manipulation checks were successfully performed using a group of Master progress students (including international students), PhD students and faculty members at a university in Sweden. Pretest subjects also evaluated the realism of the scenarios as well as completing the survey. Before the data collection was carried out in Taiwan, the materials were translated into Chinese using back-translation to achieve linguistic equivalence.

RESULTS

A confirmatory factor analysis, using AMOS 16 SEM procedure, was conducted to analyze the measurement properties of the various scales used, before path analysis was conducted. As there are no values of kurtosis or skewness larger than ± 2.58 , non-normality is not a serious concern, so the maximum likelihood estimation technique is used. The model exhibits good fit ($\chi^2/df = 2.47$, GFI = .93, AGFI = .90, Normed Fit Index = .97, Tucker-Lewis Index = .97, Root Mean Square Error of Approximation (RMSEA) = .058).

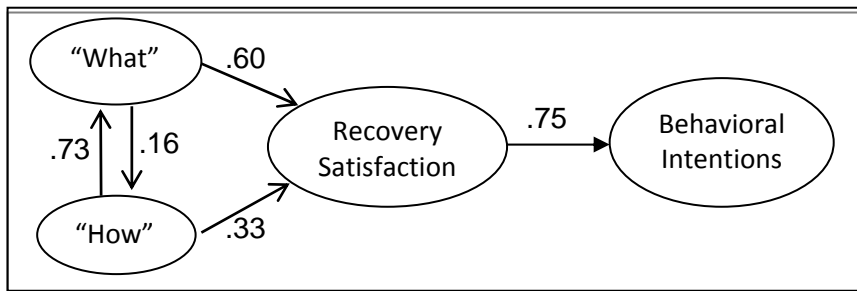
The variables in the model meet both convergent and discriminant validity criteria (Fornell and Larcker, (1981). Convergent validity is assessed by the significance of *t* statistics representing the relationships between the items and their latent constructs (all factor loadings are highly significant). In addition, convergent validity is also reflected through construct reliability. Table 1 shows that the model construct reliability ranged from .81 to .97, exceeding the standard requirement of .70, average variances extracted exceeded .50 and all item loadings are significant. This evidence demonstrates convergent validity. 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. In Table 1 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.

Table 1: Convergent and descriptive validity

Variables	Descriptives			Squared correlations			
	M	SD	Alpha	1	2	3	4
Outcome justice	4.9	2.2	.81	.77	.64	.65	.51
Process justice	5.5	2.2	.94		.82	.74	.46
Recovery satisfaction	5.1	2.4	.94			.89	.55
Behavioral intention	3.7	2.3	.97				.90

The structural model provides strong support for the proposed model ($\chi^2/df = 2.58$, GFI = .92, AGFI = .89, IFI = .98, TLI = .97, RMSEA = .061). This is a non-recursive model, with a reciprocal loop between “What” and “How.” This type of model is intrinsically unstable and is not often reported in the marketing literature; the reported stability index between these two variables is .117, however, which suggests the liner system is quite stable (Fox 1980). The estimated path coefficients are shown in Figure 2; all p values are smaller than .001.

Figure 2: Structural model with Path estimates



DISCUSSION

This research makes two contributions to the service recovery literature, pertaining to the relationship of the process and outcome aspects of perceived justice, and to the role of co-recovery in recoveries. Prior studies have pointed out that customer reactions to service failure depend on what is done to fix problems as well as how they are resolved. This study goes further, however, to show that both aspects of justice have not only a direct effect on satisfaction outcomes but also an indirect effect through their mutual moderation. Credibility is added to this observation by the evidence that the process aspects of service recovery seem to have more power to affect satisfaction with the recovery than the outcome. Although this seems almost counter-logic, it is in line with the suggestion of several other authors discussed above.

The second contribution lies with the addition of co-recovery to procedural and interactional justice to better reflect the process aspects of justice. Although Karande et al (2007) and Dong et al (2008) have indicated the way, this study represents the first empirical test of the idea.

Compensating a customer is expensive; the results here suggest that service companies can enhance customers' post-recovery evaluation at minimal cost by inviting them to co-create a feasible solution.

REFERENCES

- Bitner, Mary jo, B.H. Booms, and M.S. Tereault (1990), "The service encounter: Diagnosing favorable and unfavorable incidents," *Journal of Marketing*, 54 (1), 71-84.
- Blodgett, Jeffrey G., Nonna 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.
- 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, 664-73.
- Clemmer, E.C (1993), "An investigation into the relationship of fairness and customer satisfaction with services," in *Justice in workplace: Approaching fairness in human resource management*, R.Cropanzano, Ed. Hillsdale, NJ: Lawrence Erlbaum.
- Dewitt, Tom, Doan T. Nguyen, and Roger Marshall (2008), "Exploring customer loyalty following service recovery: The mediating effects of trust and emotions," *Journal of Service Research*, 10 (3), 269-81.
- Dong, Beibei, Kenneth R. Evans, and Shaoming Zou (2008), "The effects of customer participation in co-created service recovery," *Journal of the Academy Marketing Science*, 36, 123-37.
- 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.

Fox, J. (1980), "Effect analysis in structural equation models," *Sociological Methods and Research*, 9, 3-28.

Ha, Jooyeon and Soocheong Jang (2009), "Perceived justice in service recovery and behavioral intentions: The role of relationship quality," *International Journal of Hospitality Management*, 28, 319-27.

Karande, Kiran, Vincent P. Magnini, and Leona Tam (2007), "Recovery voice and satisfaction after service failure: An experimental investigation of mediating and moderating factors," *Journal of Service Research*, 10 (2), 187-203.

Kim, Taegoo, Woo Gon Kim, and Hong-Bumm Kim (2008), "The effects of perceived justice on recovery satisfaction, trust, work-of-mouth, and revisit intention in upscale hotels," 2009, 30, 51-62.

Lind, E. Allan and Tom R. Tyler (1988), *The Social Psychology of Procedural Justice*. New York: Plenum Press.

Lind, E. Allen, Ruth Kanfer, and Christopher P. Early (1990), "Voice control and procedural justice: Instrumental and Noninstrumental concerns in fairness judgments," *Journal of Personality and Social Psychology*, 59 (5), 952-59.

Mattila, Anna S. and Paul G. Patterson (2004), "Service recovery and fairness perceptions in collectivist and individualist contexts," *Journal of Service Research*, 6 (4), 336-46.

Maxham III, James G. and Richard G. Netemeyer (2002a), "A longitudinal study of complaining customers' evaluations of multiple service failures and recovery efforts," *Journal of Marketing*, 66 (October), 57-71.

Maxham III, James G. and Richard G. Netemeyer (2002b), "Modeling customer perceptions of complaint handling over time: the effects of perceived justice on satisfaction and intent," *Journal of Retailing*, 78, 239-52.

McCullough, Michael A., Leonard L. Berry, and Manjit S. Yadav (2000), "An empirical investigation of customer satisfaction after service failure and recovery," *Journal of Service Research*, 3 (2), 121-37.

Mohr, Lois A. and Mary Jo Bitner (1995), "The role of employee effort in satisfaction with service transactions," *Journal of Business Research*, 32, 239-52.

Payne, Adrian F., Kaj Storbacka, and Pennie Frow (2008), "Managing the co-creation of value," *Journal of Academy of Marketing Science*, 36, 83-96.

Rio-Lanza, Ana Belen del, Rodolfo Vazquez-Casielles, and Ana M Diaz-Martin (2009), "Satisfaction with service recovery: perceived justice and emotional responses," *Journal of Business Research*, 62, 775-81.

Smith, Amy K. and Ruth N. Bolton (1998), "An experimental investigation of customer reactions to service failure and recovery encounters: Paradox or peril?," *Journal of Service Research*, 1 (1), 65-81.

Smith, Amy K., Ruth N. Bolton, and Janet Wagner (1999), "A model of customer satisfaction with service encounters involving failure and recovery," *Journal of Marketing Research*, 36 (August), 356-72.

Sparks, Beverley A. and Janet R. McColl-Kennedy (2001), "Justice Strategy options for increased customer satisfaction in a services recovery setting," *Journal of Business Research*, 54 (3), 209-18.

Tax, Stephen S., Stephen W. Brown, and Murali Chandrashekar (1998), "Customer evaluations of service complaint experiences: Implications for relationship marketing," *Journal of Marketing*, 62 (April), 60-76.

Thibaut, John and Larrance Walker (1975), *Procedural Justice: A Psychological Analysis*. Hillsdale, NJ: Lawrence Erlbaum.

Van den Bos, Kees, Riel Vermunt, and Henk.A. M. Wilke (1997), "Procedural and distributive justice: What is fair depends more on what comes first than on what comes next," *Journal of Personality and Social Psychology*, 72 (1), 95-104.

Vargo, Stephen L. and Robert Lausch, F. (2009), "A service-dominant logic for marketing," in *The SAGE handbook: Marketing Theory*, Panline Maclaran and Michael Saren and Barbara Stern and Mark Tadajewski, Eds.: SAGE.