The Influence of Procedural and Interactional Justice, and Disconfirmation on Customers’ Postrecovery Satisfaction Evaluations

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Abstract

This study examines the influence of distributive and interactional justice and disconfirmation on customers’ postrecovery satisfaction evaluations, and in so doing, combines, for the first time, two existing instruments to operationalise the interactional justice construct. Using Structural Equation Modelling, the findings suggest that while both disconfirmation and justice are important predictors of satisfaction, distributive justice has the greatest influence. The research presented here reports on a section of a larger experiment-based study examining how customers’ postrecovery satisfaction evaluations are influenced by the way in which the organisation responds to the failure.

Literature Review and Hypotheses

The two important theoretical paradigms in service recovery research are disconfirmation theory, which examines the difference between expectations and perceptions (Oliver, 1981) and equity theory which encompasses customers’ perceptions of the fairness of a situation or a decision (Adams, 1965). This study examines the influence of distributive and interactional justice, and disconfirmation on consumers’ postrecovery satisfaction evaluations. The joint influence of disconfirmation and perceived justice on customer satisfaction has rarely been modelled (see, for example, Andreassen 2000; Smith, Bolton and Wagner, 1999; Oliver and Swan, 1989a, 1989b). Failure to include disconfirmation as a predictor of postrecovery satisfaction could result in misleading conclusions with respect to the influence of various organisational recovery endeavours (Smith, Bolton and Wagner, 1999). In this study, interactional justice is operationalised as employee “effort.” To better capture this sub-dimension of interactional justice, two previously validated instruments are combined.

Justice theories provide a theoretical framework for understanding whether a recovery strategy is acceptable to consumers (e.g., Sparks and McColl-Kennedy, 2001; 1998; Tax, Brown and Chandashekaran, 1998). Distributive justice centres on the perceived fairness of the outcome offered to consumers to resolve their complaints (Blodgett, Hill and Tax, 1997). Typical distributive outcomes cited in the literature include compensation (e.g., coupons, free upgrades, discounts); and offers to mend or totally replace/reform. Complaint handling incidents that are favourably rated usually include redress in line with the customer’s perceived costs (Kelley, Hoffman and Davis, 1993), thus supporting an equity-based evaluation of complaint outcomes (Blodgett, Hill and Tax, 1997).

Interactional justice deals with “interpersonal behaviour in the enactment of procedures and the delivery of outcomes” (Hoffman and Kelley 2000, p.421). It has been operationalised in the literature as empathy (e.g., Parasuraman, Zeithaml and Berry, 1988), effort observed in attempting to resolve the situation (e.g., Folkes, 1984), courtesy and politeness demonstrated by personnel (e.g., Blodgett, Hill and Tax, 1997), the organisation’s willingness to provide an explanation as to why the situation occurred (e.g., Bitner, Booms and Tetreault, 1990;
Recent studies show strong support for the influence of distributive justice on satisfaction (e.g., Hocutt, Chakraborty and Mowen, 1997; Smith, Bolton, and Wagner, 1999). For example, Smith, Bolton and Wagner (1999) conducted an experiment in the hotel and restaurant industries and reported that compensation has a positive influence on distributive justice, leading to an increase in service provider satisfaction. Research also supports the influence of interactional justice on customer satisfaction (e.g., Blodgett, Wakefield and Barnes, 1995; Hocutt, Chakraborty and Mowen, 1997). For example, Sparks and Bradley (1997) reported that communication style and effort influenced postrecovery satisfaction in a hotel context. An organisation that performs poorly on any one justice dimension may limit severely the potential for customer satisfaction with the service recovery (Tax and Brown, 2000). It is anticipated that the two justice elements under investigation each contribute to recovery evaluations and combine to explain a high percentage of variation in customers’ service recovery evaluations (e.g., Smith, Bolton and Wagner, 1999; Tax and Brown, 2000).

H1: Customers’ perceptions of: a) distributive justice and b) interactional justice have a positive influence on their postrecovery satisfaction evaluations.

Disconfirmation theory posits that customers evaluate performance against their prior expectations when making satisfaction evaluations (Oliver, 1981; Patterson and Johnson, 1993). When perceptions of performance exceed expectations, positive disconfirmation results; negative disconfirmation arises when outcomes are less than expected. The process of complaining (dis)satisfaction is said to follow the same pattern as for initial dissatisfaction with the product (Oliver, 1997). Consumers “[…] will generally have: 1) expectations of the outcomes of complaining, 2) perceptions of the organisation’s response, 3) the willingness to compare this response to their expectations (complaint disconfirmation), and 4) the motivation for form satisfaction judgements” (Oliver, 1997, p. 365). Smith, Bolton and Wagner (1998) argued that customers’ postrecovery satisfaction is dependent on predictive expectations and normative standards, while disconfirmation arises from a comparison of predictive performance and expectations. Perceived justice perceptions occur following a comparison of normative standards and performance. Smith, Bolton and Wagner (1998) suggested that both predictive expectations and normative standards must be taken into account to understand service recovery satisfaction and observed that failure to include disconfirmation as a predictor of postrecovery satisfaction could result in misleading conclusions with respect to the influence of various organisational recovery efforts.

H2: In a service recovery encounter, disconfirmation of expectations will influence customers’ evaluations of postrecovery satisfaction.

Method

This analysis forms part of a larger experiment-based study that examines how guests’ postrecovery evaluations are influenced by the way in which a hotel responds to various service failures. In this paper, we present preliminary finding for the Structural Equation Modelling (SEM) component of the model. Web-based self-report survey data was collected from subjects who took part in an Australian online panel. Email addresses for 1269 panel members who fit the study criteria (aged 18 years or over who had stayed at a hotel in the
past) were drawn via a computer-assisted random selection. These members were then sent a short survey invitation and the survey URL. A “forced” answering approach (Zikmund, 2003) was utilised, hence, there was no missing data. A total of 809 usable responses were collected. Distributive justice was operationalised using five-items measured on a 7-point Likert scale (Tax, Brown and Chandrashekaran, 1998), that were adapted from studies by Oliver and Swan (1989a; 1989b) and the dissertation work of Tax (1993).

As previously mentioned, interactional justice was operationalised as employee “effort” in this study. It was measured by combining instruments developed separately by Smith, Bolton and Wagner (1999) and Tax, Brown and Chandrashekaran (1998). The former is a more “general” interactional justice instrument encompassing one item to measure each of the concern, communication, effort and courtesy components of the construct. The latter instrument was developed to measure specifically, the “effort” sub-dimension of the interactional justice construct. All items were measured on 7-point Likert scales ranging from 1 = “Strongly disagree” to 7 = “Strongly agree. Combining the two instruments was thought to provide a more holistic operationalisation of the interactional justice construct in the context of this study. Satisfaction with the service recovery was measured via the six-item, seven-point semantic differential scale developed by Oliver and Swan (1989a, 1989b). The construct was captured using the statement, “Think about the problem you experienced and the hotel’s handling of the problem. How do you feel about the hotel on this occasion?” Expectancy disconfirmation was applied to model satisfaction as a function of customers’ service recovery expectations and the quality of the recovery performance. It was measured utilising a single indicator, taken from Smith, Bolton, and Wagner (1999). Their instrument, adapted from the work of Oliver and Swan (1989a, 1989b), captured the construct using the statement, “The hotel’s overall response to my problem was.” A 7-point scale ranging from 1 = “much worse than expected” to 7 = “much better than expected” was employed.

**Analysis and Results**

As all instruments have been validated in previous studies (cf. Smith, Bolton, and Wagner, 1999; Tax, Brown, and Chandrashekaran, 1998) a Confirmatory Factor Analysis (CFA) using Amos 7 was applied to the data. As recommended by Anderson and Gerbing (1988), to achieve unidimensionality of each factor, a measurement model embedding three factors with 19 selected items (including the single-item disconfirmation measure) was estimated prior to the assessment of the structural model. Each of the items was constrained to load on only its associated latent variable and all latent variables were permitted to correlate. A model is considered to have an acceptable fit to the data if the P-value for chi-square is greater than or equal to 0.05 (Hu and Bentler, 1999). However, significant P-values can be expected when the sample size is large and the number of observed variables exceeds 12 (Hair, Black, Babin, Anderson and Tatham, 2006) as is the case in this study. Hence, it is common to supplement chi-square with other fit indices such as: Goodness-of-fit (GFI); Adjusted Goodness-of-fit (AGFI); Root mean square error of approximation (RMSEA); standard root mean square residual (SRMR); Normed fit index (NFI); and the Comparative fit index (CFI). Hu and Bentler (1999) suggested that values greater than 0.95 for GFI, AGFI, CFI, and NFI enable researchers to conclude that the fit between the data and the hypothesised model is a relatively good one. RMSEA values of below 0.05 and SRMR values below .05 have been advocated as demonstrating good fit (Schumaker and Lomax, 2004). As illustrated in Table 1 (Model 1), CFA results suggest that the model provides a poor fit of the data, with fit indices failing to meet acceptable levels (see Hu and Bentler, 1999). To identify misfitting parameters and
achieve a clear factor structure with unidimensional factors, CFA was employed in an exploratory fashion (e.g., Lastovicka et al., 1999; Netemeyer et al., 1996). Items showing high modification indices and/or standardised residuals, possibly as a result of nonnormally distributed data, model misspecification, or nonlinear relationships (Jöreskog and Sörbom, 1996), were subsequently removed from the variable list. As a result, the original 19-item instrument was reduced to 14. A second measurement model was estimated, and as exhibited in Table 1 (Model 2), the model had a good representation of the data. All of the fit indices met the acceptable cut-off levels (Hair et al., 2006). No standardised residuals were over the absolute value of 2.5 (the largest positive standardised residual was 2.45 and the largest negative residual was -2.42). All factor loadings exceeded 0.70 (and were all significant at p<.001) as advocated by Hair et al. (2006) and all construct reliability scores (Cronbach’s alphas) were greater than 0.70, as recommended by Fornell and Larker (1981) and Anderson and Gerbing (1998). Therefore, the model shows evidence of convergent validity. Discriminant validity was achieved for each of the three latent variables as the square root of the Average Variance Extracted (AVE) from distributive justice (0.90), interactional justice (0.95) and satisfaction (0.96) were all greater than the standardised correlation coefficients between these constructs (the smallest standardised coefficient value was .60 and the largest was .79), as suggested by Fornell and Larker (1981).

<table>
<thead>
<tr>
<th>Fit Measure</th>
<th>Model 1 Congeneric Model (19 items, 4 factors)</th>
<th>Model 2 Congeneric Model (14 items, 4 factors)</th>
<th>Model 3 Structural Model (14 items, 4 factors)</th>
</tr>
</thead>
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<tr>
<td>$\chi^2$</td>
<td>1545.80</td>
<td>217.85</td>
<td>217.85</td>
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<td>Degrees of freedom</td>
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<td>71</td>
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<td>$p$</td>
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<td>0.000</td>
<td>0.000</td>
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<tr>
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<td>34</td>
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<tr>
<td>$\chi^2$/df</td>
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<td>3.068</td>
<td>3.068</td>
</tr>
<tr>
<td>GFI</td>
<td>0.820</td>
<td>0.963</td>
<td>0.963</td>
</tr>
<tr>
<td>CFI</td>
<td>0.948</td>
<td>0.992</td>
<td>0.992</td>
</tr>
<tr>
<td>AGFI</td>
<td>0.770</td>
<td>0.945</td>
<td>0.945</td>
</tr>
<tr>
<td>SRMR</td>
<td>0.036</td>
<td>0.027</td>
<td>0.027</td>
</tr>
<tr>
<td>RMSEA</td>
<td>0.109</td>
<td>0.051</td>
<td>0.051</td>
</tr>
</tbody>
</table>

To test the previously stated hypotheses, we modelled the relationships involving the four aforementioned constructs (refer to Figure 1). Maximum Likelihood (ML) was used to estimate the model parameters. As illustrated in Table 1 (Model 3), and in Figure 1, the fit indices demonstrate a good fit of the model to the data. The model illustrates that the two justices and disconfirmation have a significant positive influence (p<.001) on postrecovery satisfaction, therefore H1a, H1b and H2 are supported. Distributive justice has the largest standardised coefficient ($\gamma$=0.49), followed by disconfirmation and interactional justice ($\gamma$= 0.28 and 0.19, respectively) suggesting that distributive justice is the most important determinant of postrecovery satisfaction, followed by disconfirmation and interactional justice.

**Discussion and Conclusions**

Results suggest that the two justice dimensions and disconfirmation of expectations together explain a high proportion of the variance in satisfaction following service recovery. While Tax, Brown and Chandrashekaran (1998) found that interactional justice is the strongest
predictor of a customer’s overall satisfaction, the results of this study suggest that distributive justice is a more important driver of consumers’ satisfaction evaluations, providing support for the findings of Smith, Bolton and Wagner (1999). While both disconfirmation and fairness are important predictors of customer satisfaction, disconfirmation has been found to have the lesser influence (Smith, Bolton and Wagner, 1999; Oliver and Swan, 1989a, 1989b). The results suggest that while distributive justice has a greater influence on postrecovery satisfaction than disconfirmation, disconfirmation is more important than interactional justice in predicting postrecovery satisfaction. A combined instrument for measuring interactional justice (when it is operationalised as employee “effort”) was validated in this study. Other researchers might combine instruments (where available) in a similar fashion to operationalise any of the three justice constructs.

Most organisational surveys include measures of disconfirmation, however managers should also include justice questions given that justice is also a strong driver of postcomplaint satisfaction. While the findings highlight the importance of the delivery of equitable ‘outcomes,’ it appears that the combination of ‘what’ (e.g., compensation) and ‘how’ (e.g., effort) is more successful than applying either strategy in isolation. Offering compensation is costly and influences the organisation’s bottom line; training staff to produce the required ‘effort’ to fix the customer’s problem is less-expensive but difficult to standardise in a hotel environment (Levesque and McDougall, 2000). Ultimately, the costs of any recovery strategy must be offset by the improvement in customer retention. It is suggested that future studies incorporate the influence of procedural justice on postcomplaint satisfaction and also examine other sub-dimensions of interactional justice such as empathy or courtesy.

Figure 1: Structural Relationship for Postrecovery Satisfaction
References


