“Consumer responses to process and outcome failures in service firms”

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Consumer responses to process and outcome failures in service firms

Abstract

This study aims to explain the effect of consumer’s value orientation on his/her dissatisfaction with service failures by applying hierarchical regression approach. Consumer responses to service failures are a function of consumer value orientation. The author identified two aspects of the universal values: face consciousness (FC) and fate submissiveness (FS). Two types of service failure were also identified as process and outcome. The findings show that the interaction effect of FC with failure type is significant although there isn’t the direct effect of FC on consumers’ overall dissatisfaction with service failure. The effect of FC on consumer dissatisfaction is stronger for a process failure than for an outcome failure. There is the significant moderator effect of FS on overall dissatisfaction with service failure. Consumers who are higher in FS are less dissatisfied with a service failure. Hence, the effect of FS on consumer dissatisfaction is stronger for an outcome failure than for a process failure, as opposite to FC. Consumers have different sensitivities toward the two failure types. In terms of demographic characteristics of consumer, the age and income affect to dissatisfaction with process and outcome failure. The present study enriches our understanding about both the impact of consumer value orientations and failure type on consumer’s dissatisfaction. The useful implementations for researchers and practitioners are presented.

Keywords: service failures, dissatisfaction, face consciousness, fate submissiveness, Turkey.

JEL Classification: M31.

Introduction

A distinguishing feature of service industry from manufacturing is that consumer is an integral part of the production process. In manufacturing, the consumer can be separated from many operational failures with adequate quality controls and inventory. In services, operational failures are often evident to the consumer, because the service is indistinguishable from the process that provides it (Bitner et al., 1994). Service failures can be detrimental due to the impact on consumer future sales.

Along with the service industry’s growing importance, the industry has observed increasing customer expectation, frustration and dissatisfaction with service encounters (Anderson et al., 2005). Compared to manufacturers, satisfaction ratings of most service organizations have declined (Hess, 1999). Service performance is very important for consumer satisfaction. However, service failures are inevitable because of inherent variability of service performance (Zeithaml et al., 1990). Consumers are likely to experience with failures during service encounters because services are human intensive. Many aspects of service delivery can go wrong due to the highly complex nature of service interactions. “A service failure is defined as a service performance that falls below a customer’s expectations (Hess, 1999, p. 3)”. Service marketing literature has distinguished between two types of service failure: process and outcome (Hui et al., 2004). Consumers may have different sensitivities toward the two failure types.

Service failures can expose a number of different reactions in consumers involving affective responses (e.g., anger, satisfaction), cognitive responses (e.g., attributions of causality, quality, disconfirmation) and behavioral intentions (e.g., complain, exit, repurchase, loyalty, negative word-of-mouth) (Hess, 1999). Findings existing in the service marketing literature have shown the complexity of consumer responses to service failures. Thus, better understanding of this process is important for marketers. Although previous studies have examined the detrimental effects of failures in the service dimensions (e.g., Bitner, 1990), very little research has examined customer responses to service failures. Further examination of service failures is needed because these failures can be equally detrimental to customer satisfaction. Considering the detrimental effects produced by poor quality service performance, it is important for organizations to gain a greater comprehension of how customers respond to such negative service encounters. Service marketers should understand how service failures affect customer dissatisfaction. Thus, marketers will be able to suggest recovery strategies. Goldstein et al. (2002) point out that we know very little about the role of service concept during service recovery periods.

Consumer’s reactions can vary according to their value orientation. In this paper, we propose that consumer responses to service failures are a function of consumer value orientation. Similarly to Chan et al.’s (2007) study, we also identified two aspects of the universal values obtained by Schwartz (1992): face consciousness (FC) and fate submissiveness (FS). FC refers to the importance attached to one’s public self image. FS refers to the importance attached to one’s fate/luck. These values may affect consumer dissatisfaction with service failures. On
basis of marketing and social psychology literatures, this study seeks to advance theoretical understanding of consumer responses to service failures. Service marketers should understand how service failures affect customer dissatisfaction on basis of consumer value orientation. Little research exists that has addressed this issue.

Presented research provides many contributions to both academicians and practitioners. Primarily, the study examines customer response to process and outcome failures, separately. Hence, it has tested the effect of value orientation of consumer on their dissatisfaction. The study especially deals with theory development rather than pragmatic contribution. At the cultural level, previous studies involved mainly Western and Asian cultures, this study is setting Turkey culture. Turkey is a bridge between Europe and Asia. Although this speaking has been the validation for geographic basis, we can think the statement valid for cultural basis, as well. Turkey has turned its direction to western since 1923, which is the date of establishing of Turkey Republic. Assimilation of both West culture and East culture has been continuing for over years. Therefore, this study can be good example for validation of previous findings.

The paper is organized as follows. The conceptual framework is explained based on theoretical literature and, the research model is formed. Next, the survey procedure and data analysis is described. The results of the study and implementations for researchers and practitioners are presented.

1. Literature review

In the service marketing literature, Dewitt and Brady (2003) and Miller et al. (2000) have identified that employees are critical to recovery in the process of service delivery. Dewitt and Brady (2003) posit that employee interactions are an important antecedent of service failures. They have found that when good rapport exists between customers and employees before a service failure, a subsequent failure has a diminished impact on customer satisfaction, repurchase intentions and negative word of mouth as compared to situations where no prior rapport was established. Miller et al. (2000) have found that recovery from a service failure is more likely if the first employee involved in the recovery tries to solve the problem and is empowered to do so. Gremler and Gwinner (2000) have stated that high quality employee interactions produce customer satisfaction, which in turn, stimulates demand that is more resilient to competition and achieved at lower long-run cost than otherwise. Smith et al. (1999) have found that consumers are sensitive to failure type. Namasivayam and Hinkin (2003) have stated that a sense of control on the part of hotel consumers may compensate for “unfair” behaviors on the part of service providers.

From perspective of the attribute-based model of customer, Anderson et al. (2005) and Roth and Menor (2003) have found that service providers’ performance is more influential determinant of overall satisfaction in the event of service failure than otherwise. Anderson et al. (2005) have also found modest evidence that this relation is attenuated when customers assign greater blame for the service failure to the service provider. These results are consistent with the customer satisfaction literature, which finds an important role for attributions in customer evaluation processes, and with the service operations literature, which suggests an increased importance of employee performance during service failures. Park (2004) has found that a hedonic value contributes to a higher frequency of fast food consumption in Korea.

As a different point from previous researches, this study focuses on consumer behavior by revealing a joint effect of failure type and consumer value orientation on service dissatisfaction.

2. Conceptual framework

The model of the study has been constituted to explain the relationships among consumer’s value orientation, demographic variables and dissatisfaction with service failure (Figure 1).

![Conceptual model](image-url)
2.1. Consumer dissatisfaction with process and outcome failures. Service marketing literature has distinguished between two types of service failure: process and outcome (Hui et al., 2004). Consumers may have different sensitivities toward the two failure types. In similar vein, Grönroos (1984) has identified two type of service quality. First one is the process of service delivery. It refers to the manner in which the core service is transferred to the consumer. Second one is the service outcome. It means the core service that the consumer receives. In general, the former involves social/psychological factors, whereas, the latter involves physical/instrumental factors (Driver and Johnston, 2001). In the other mean, process quality is interpersonal, whereas outcome quality is impersonal. Although the relative importance of both varies from one service to another, typically, a service covers either process or outcome attributes (Hinkin and Tracey, 2003; Hui et al., 2004; Chan et al., 2007). Chan et al. (2007, p. 531) stated that “according to Smith et al. (1999), a process failure occurs when the core service is delivered in a flawed or deficient manner, resulting in the loss of social resources (e.g. status, esteem) for the consumer. On the other hand, an outcome failure occurs when some aspects of the core service is not delivered, resulting in the loss of economic resources (e.g., money, time) for the consumer. In a hotel, the consumer experiences process failure if the front desk personnel are impolite and outcome failure if the room is unclean”.

2.2. Consumer value orientation. Values are crucial variables that explain consumer behaviors. Conceptually, a “value” is an enduring belief that certain behaviors or outcomes are preferable, thereby driving various consumer behaviors (Rokeach, 1979). We identified two values explaining the reactions of consumers to service failure in the line with the values stated by Schwartz (1992). These are face consciousness and fate submissiveness.

2.2.1. Face consciousness (FC). FC is defined as the extent to which an individual attaches importance to the maintenance and enhancement of face in social interactions (Bao et al., 2003). Face is threatened when a person’s feelings or wants are ignored, disapproved, or challenged. Having been threatened one’s face, this situation may lead to negative emotional responses such as: “annoyance, anger, and outright hostility” (White et al., 2004, p. 103).

Interpersonal interactions are an integral part of service encounters (Parasuraman et al., 1985). Moreover, the hospitality services are characterized by high level of interaction between customers and service providers. Hospitality services failures may affect to face of an individual during interpersonal interactions. As consumers higher in FC attached greater importance to face preservation, we can expect that they would be more dissatisfied in the event of a hospitality service failure, and purpose the following hypothesis.

H1: Consumers who are higher in FC will be more dissatisfied with a service failure.

Parasuraman (1985) stated that consumer evaluation of services is often based more on process elements than on service outcomes. Hence, Chan et al., (2007) found that the effect of FC on consumer dissatisfaction was stronger for a process failure than for an outcome failure. The face-conscious consumers, who are known to react more strongly to the loss of social resources than the loss of economic resources, are likely to more react to process failure than outcome failure. Thus, we purpose the following hypothesis.

H2: The effect of FC on consumer dissatisfaction will be stronger for a process failure than for an outcome failure.

2.2.2. Fate Submissiveness (FS). FS is defined as the extent to which an individual attaches importance to fate as a powerful force shaping events and outcomes. When someone confronts with unexpected event or outcome, he/she often interprets that situation in terms of fate and luck. Broadly speaking, fate and luck both refer to some mystical power that is believed to contribute to an event or outcome. It is thought to bring about positive or negative events or outcomes to a person by virtue of a predestined order or transient condition characterized by good or ill fortune (Chan et al., 2007). Although some researchers refer to that there are subtle differences between fate and luck (“fate” carries a sense of pre-determination and “luck” is perceived as transitory), this study has used both concepts as the same meaning, due to our thinking in the line with recommendation Leung and Bond (2004). In the consumer behavior literature in Western cultures, stable individual differences in FS have been found to impact different aspects of consumer behavior (e.g. Moven and Carlson, 2003). The higher the FS is, the stronger the influence of fatalistic thinking is. Hospitality service consumption involves a high degree of risk and uncertainty (Namasivayam and Hinkin, 2003). This results in the reliance on human service providers and impossibility of quality inspections before consumption. Consumers are likely to confront with undesirable events that inevitably occur time to time, such as: unclean hotel rooms, not orderly cooked food. Given the reality hospitality services failures are virtually unavoidable we expect that FS impacts to consumer responses. As consumers higher in FS are more prone to fatalistic interpre-
tations, they would be less dissatisfied in the event of a hospitality service failure. Thus, we purpose the following hypothesis.

**H3**: Consumers who are higher in FS will be less dissatisfied with a service failure.

According to Chan et al. (2007, p. 532) “the mitigating effect of FS on customer dissatisfaction is likely to reduce when unambiguous causal dissatisfaction is identifiable. The cause of an outcome failure may be complex and hard to specify relative to process failure”. We may expect that unambiguous interpretation is available for process but not outcome failures. Thus, we purpose the following hypothesis.

**H4**: The effect of FS on consumer dissatisfaction will be stronger for an outcome failure than for a process failure.

### 2.3. Demographic variables

Overall, there are several control variables that significantly affect customers’ responses to service failures. Many of these variables reveal some opportunities for segmentation. We identified five demographic variables of consumer affecting their dissatisfaction with service failure: past experience with service failure, gender, age, education and income. If an individual has failed in the past and also fails at the present attempt (consistency), the cause may be attributed to task difficulty or to lack of aptitude. However, if an individual has had many previous successes but fails at the present attempt (inconsistency), bad luck or lack of effort may be elicited for the cause of the present outcome. Likewise, within a services context, customers utilize the evidence gained through multiple interactions with a service organization to formulate customers’ causal attributions. The consistency (or inconsistency) of past and present service performances is likely to affect their dissatisfaction with service failure. Therefore, we purpose the following hypotheses.

**H5**: Past experience with service failure is related to dissatisfaction with process failure.

**H6**: Past experience with service failure is related to dissatisfaction with outcome failure.

Although the gender is thought as important characteristic of consumer in many studies, we don’t think that it cause to significant differences on basis of consumer’s dissatisfaction with service failure in this study context. Therefore, we purpose the following hypotheses.

**H7**: Gender of consumer is not related to dissatisfaction with the process failure.

**H8**: Gender of consumer is not related to dissatisfaction with the outcome failure.

The age of consumers may influence their perceptions of the service failure. Older customers are less satisfied with the process and outcome failure. This statement may be explained by generational differences. Older customers, in general, may have been raised during a time when stricter social etiquette was the norm. Hence, older customers may have different expectations about the manner in which customers and people in general should be treated by others. Because of these generational differences, older customers are likely to consider service failures to be more controllable by the organization and more likely to reoccur in the future with the employee (Anderson, et al., 2005). These differences may also bias their evaluations of different aspects of service delivery, such as the core service component. Thus, we purpose the following hypotheses.

**H9**: Older customers are less satisfied with the process failure.

**H10**: Older customers are less satisfied with the outcome failure.

Consumers who have high level of education may be less satisfied with the process failure. They may expose reaction to the service failures involving social/psychological factors because they have high statue in society. Thus, we purpose the following hypothesis.

**H11**: Consumers who have high level of education are less satisfied with the process failure.

Consumers who have high level of income may be less dissatisfied with the process and outcome failure, because they may have higher tolerance level or utilize from better or luxury service providers (e.g., from five-star hotel) than consumers who have low level income. Thus, we purpose the following hypotheses.

**H12**: Consumers who have high level of income are less dissatisfied with the process failure.

**H13**: Consumers who have high level of income are less dissatisfied with the outcome failure.

### 3. Methodology

#### 3.1. Research context and unit of analysis

To test the hypothesized associations, a survey was conducted among university personnel. The reason of doing so is the requirement of population list for the random sampling process. Each person working in university was selected as key informant without considering their statues because each of them represents as a consumer in the line with our research.

#### 3.2. Sample and data collection

The research setting is Mustafa Kemal University, Antakya, Turkey. The data used in this study have been drawn from the personnel of four faculties at the university, namely, the faculty of agriculture, faculty of economics and administrative sciences, the faculty of
education and the faculty of engineering and architecture. The study’s target population consist of 282 persons. The study aims to reveal whole target population generated from databases of university. Personnel from the university were asked to be voluntary to participate in the study. Because some people have rejected to answer the questionnaire, sample size has been realized as 130 respondents and response rate of the study is 46%. Personal interview was used for communication. The survey questionnaire was self-administered.

3.3. Measures. Face Consciousness (FC) scale and Fate Submissiveness (FS) scale, each of them was measured with 6 indicator variables adapted from study of Chan et al. (2007). Five-point Likert type scales was used, indicating from “strongly disagree” (1) to “strongly agree” (5). A list of the items and details of scale is shown in Table 1. Participants were exposed to a hotel service scenario depicting either process or an outcome failure (see Table 1 for the failure scenarios). The two hotel failure scenarios were checked in by the pretests conducted to ensure that both scenarios were realistic, easy to understand and perceived as equally severe. This was followed by the dissatisfaction measures. Demographics variables are also asked.

Table 1. Scale items

<table>
<thead>
<tr>
<th>Scale</th>
<th>Items</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>The FC scale</strong> (Chan et al., 2007): “strongly disagree” (1) and “strongly agree” (5)</td>
<td>I care about praises and criticisms from others. I care about others’ attitudes toward me. I hate being taken lightly. I will be very angry if others are impolite to me. I will be very happy if I am treated with respect. I will be very upset if I am criticized in public.</td>
</tr>
<tr>
<td><strong>The FS scale</strong> (Chan et al., 2007): “strongly disagree” (1) and “strongly agree” (5)</td>
<td>Many things in life are predetermined. Fate determines one’s successes and failures. Bad things happen to me mostly because of bad luck. Many things in life are beyond my control. Many important life outcomes are predestined. Luck, rather than effort is crucial to success.</td>
</tr>
</tbody>
</table>

**Hotel scenarios**

**Process failure**: You are traveling in Antalya. You arrive at the four-star hotel at approximately 7 p.m. and go to the front desk to check in. The representative at the front desk talks on the phone for 1 to 2 minutes while you are trying to check in, and does not smile during the check-in process.

**Outcome failure**: You are traveling in Antalya. You arrive at the four-star hotel at approximately 7 p.m. and go to the front desk to check in. The representative at the front desk looks up your reservation on the computer, and informs you that you have to wait 20 minutes for the room to be cleaned.

**Dissatisfaction measure** (Chan et al., 2007): “strongly disagree” (1) and “strongly agree” (5)

As a whole, you are not satisfied with the hotel.
You are unhappy about your overall experience with the hotel.
You are satisfied with the overall quality of the hotel (R).
Note: (R): Reverse coded.

**Past experience with service failure (in the last three years)**: “none” (1) and “very much” (5)

Have you ever confronted with service failures in the last three years?

3.4. Analyses. To test the hypotheses, several analyses were applied. Firstly, profile of respondents was identified with the descriptive statistics. Scales’ reliability was assessed by calculating Cronbach’s alpha coefficient. Independent samples t-test concerning two means was applied to understand effects of FC and FS values on dissatisfaction with a service failure. The interaction effects of FC, FS and failure type on dissatisfaction with service failure were tested by hierarchical regression analysis. Demographics variables of consumer were also tested by regression analysis.

3.4.1. Profile of respondents. Profile of the study sample is shown in Table 2. Respondents have approximately high level of face consciousness (mean: 3.66). We could say that this finding results from Turkish culture characteristic. But, they have low level of fate submissiveness (mean: 2.78). We could say that the respondents have realistic rather than fatalistic thinking. They are averagely dissatisfied in the event of process failure and outcome failure in a service firm (M_{PF}: 3.09; M_{OF}: 2.98). Most of them confronted many times with service failure in the last three years (37.7%). Most of respondents are men (65.4%) and have master degree (67.7%). The large part of respondents has obtained income around $ 900-1299 per month (42.3%) and they are in 30-40 age groups (54.6%).
Table 2. Characteristics of the study sample

<table>
<thead>
<tr>
<th>Variables</th>
<th>Mean/ std.deviation</th>
<th>Frequency</th>
<th>Percent (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Face consciousness (FC)</td>
<td>3.66 / 0.74</td>
<td>1700+</td>
<td>55.4</td>
</tr>
<tr>
<td>Face submissiveness (FS)</td>
<td>2.78 / 0.65</td>
<td>1300-1699</td>
<td>42.3</td>
</tr>
<tr>
<td>Dissatisfaction with process failure</td>
<td>3.09 / 0.85</td>
<td>900-1299</td>
<td>30.0</td>
</tr>
<tr>
<td>Dissatisfaction with outcome failure</td>
<td>2.98 / 0.81</td>
<td>1300-1699</td>
<td>30.0</td>
</tr>
<tr>
<td>Overall dissatisfaction</td>
<td>3.04 / 0.69</td>
<td>1700+</td>
<td>55.4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Past experience with service failure (in the last three years)</th>
<th>2.65/1.00</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>21</td>
</tr>
<tr>
<td>Very few</td>
<td>32</td>
</tr>
<tr>
<td>Few</td>
<td>49</td>
</tr>
<tr>
<td>Much</td>
<td>27</td>
</tr>
<tr>
<td>Very much</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>130</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Gender</th>
<th>85</th>
<th>65.4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>45</td>
<td>34.6</td>
</tr>
<tr>
<td>Total</td>
<td>130</td>
<td>100.0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Age (years)</th>
<th>20-30</th>
<th>25</th>
<th>19.2</th>
</tr>
</thead>
<tbody>
<tr>
<td>30-40</td>
<td>71</td>
<td>54.6</td>
<td></td>
</tr>
<tr>
<td>40-50</td>
<td>27</td>
<td>20.8</td>
<td></td>
</tr>
<tr>
<td>50+</td>
<td>7</td>
<td>5.4</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>130</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Education</th>
<th>5</th>
<th>3.8</th>
</tr>
</thead>
<tbody>
<tr>
<td>High school</td>
<td>37</td>
<td>28.5</td>
</tr>
<tr>
<td>University</td>
<td>88</td>
<td>67.7</td>
</tr>
<tr>
<td>Total</td>
<td>130</td>
<td>100.0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Income ($)</th>
<th>20</th>
<th>15.4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 900</td>
<td>55</td>
<td>42.3</td>
</tr>
<tr>
<td>900-1299</td>
<td>39</td>
<td>30.0</td>
</tr>
<tr>
<td>1300-1699</td>
<td>16</td>
<td>12.3</td>
</tr>
<tr>
<td>Total</td>
<td>130</td>
<td>100.0</td>
</tr>
</tbody>
</table>

3.4.2. Scales’ reliability. Constructs’ reliability was assessed by calculating Cronbach’s alpha coefficient. The alpha values for two constructs, namely, FC and FS were above (or close to) the commonly recommended minimum level (i.e., alpha value greater than 0.70), indicating good reliability. The results of this procedure indicate that two constructs possessed adequate measurement properties. We found alpha values for FC scale: 0.74 and FS scale: 0.68. Three other criteria for reliability of construct are ‘the total variance explained’ for construct, ‘item-to-total correlation’ for each indicator (variable) within the construct and ‘factor loadings’ for each indicator within the construct. The results of analysis show that values of these criteria are greater than 0.50. The total variance explained for FC construct was found as 0.62. Item-to-total-correlations ranged from 0.50 to 0.58 for each indicator within the FC construct. Factor loadings ranged from 0.64 to 0.76. And also, the total variance explained for FS construct was found as 0.54. Item-to-total-correlations ranged from 0.51 to 0.57 for each indicator within the FS construct. Factor loadings ranged from 0.51 to 0.57 for each indicator within the FS construct. Factor loadings ranged from 0.54.

3.4.3. The effect of FC and FS on the dissatisfaction with service failure. We used the mean value of FC scale to determine the high (low) FC group. Respondents who have FC score above mean value were assigned to first group, namely, high FC group. Respondents who have FC score below mean value were also assigned to second group, namely, low FC group. Overall dissatisfaction value was identified as the average of dissatisfaction with process and outcome failure. The independent sample t-test concerning two means was applied to understand the difference between two groups on basis of their dissatisfaction score with a service failure. Similar procedure was applied to FS variable (Table 3). The findings show that there isn’t the moderator effect of FC on dissatisfaction with service failure (sig. 0.42). But, there is significant moderator effect of FS on dissatisfaction with service failure (sig. 0.02). Consumers who are higher in FS will be less dissatisfied with a service failure. H1 hypothesis is rejected, while H3 hypothesis is accepted.

Table 3. Group differences in basis of dissatisfaction with service failure

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Mean</th>
<th>t</th>
<th>d.f.</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low FC group</td>
<td>40</td>
<td>3.11</td>
<td>0.809</td>
<td>71.890</td>
<td>0.42</td>
</tr>
<tr>
<td>High FC group</td>
<td>90</td>
<td>3.00</td>
<td>2.47</td>
<td>24.864</td>
<td>0.02**</td>
</tr>
</tbody>
</table>

Note: **0.05 sig. level.

3.4.4. The interaction effects of FC, FS with failure type on dissatisfaction with service failure. Hierarchical regression analysis. The interaction effects of FC and FS with failure type on dissatisfaction with service failure considered in this study were assessed via hierarchical regression analysis. The overall dissatisfaction (dependent variable) was regressed on the main variables (independent variables), the FC, FS and failure type. Failure type variable was determined as categorical variable (coded 1 for process failure and 0 for outcome failure). To accomplish this task, respondents were randomly assigned to either a process failure or an outcome failure condition. Failure type is likely to play an important role in shaping dissatisfaction of consumer via its interaction with FC and FS. We ran a series of regression models that increased in complexity, and interpreted the highest-order term(s) in each model. We also dropped some variables due to collinearity problem for regression analysis (e.g., FC x FS x failure type). The level of correlations among some independent variables appeared high in the basis of correlation matrices. Finally, hierarchi-
cal regression analysis revealed two significant effects: a FC x failure type interaction ($\beta = -0.70$, at $p < 0.05$) and a FS x failure type interaction ($\beta = -0.63$, at $p < 0.05$). The set of FC, FS and failure type explains 5 percent of the variance in the dissatisfaction with service failure. The regression model is useful for exploring the relationship between FC, FS and dissatisfaction with service failure (F value: 3.644; sig. 0.05). There is no autocorrelation problem because Durbin-Watson coefficient was found accessible level as 2.089. The results of hierarchical regression analysis are summarized in Table 4. H2 and H4 hypotheses are confirmed. The effect of FC on consumer dissatisfaction will be stronger for a process failure than for an outcome failure. However, the effect of FS on consumer dissatisfaction will be stronger for an outcome failure than for a process failure.

Table 4. The effects of FC, FS and failure type on dissatisfaction with service failure

<table>
<thead>
<tr>
<th>Variables</th>
<th>Beta</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>7.802</td>
<td>0.000</td>
<td></td>
</tr>
<tr>
<td>FC</td>
<td>-0.09</td>
<td>-0.888</td>
<td>0.37</td>
</tr>
<tr>
<td>FS</td>
<td>0.06</td>
<td>0.465</td>
<td>0.64</td>
</tr>
<tr>
<td>FC x Failure type</td>
<td>0.70</td>
<td>2.098</td>
<td>0.03**</td>
</tr>
<tr>
<td>FC x Failure type</td>
<td>-0.63</td>
<td>-1.909</td>
<td>0.05**</td>
</tr>
</tbody>
</table>

R$^2$ = 0.05, F = 3.644 Sig. F = 0.05 Dur. W = 2.089

Note: Dependent variable: Overall dissatisfaction. Abbreviations are referred to $R^2$: Coefficient of determination. F: F-value. Sig. F: Significant of F value. p: significant level. Dur. W: Durbin Watson test statistics. ** 0.05 sig. level.

3.4.5. The effect of demographic characteristics of consumers on dissatisfaction with process and outcome service failure. In terms of demographic characteristics of consumer, the age, education and income affect to dissatisfaction with process failure ($\beta_{age} = 0.17$, at $p < 0.10$; $\beta_{edu} = 0.24$, at $p < 0.05$; $\beta_{inc} = -0.23$, at $p < 0.05$). “Gender” and “past experience with service failure” variables were found as insignificant. H7, H9, H11 and H12 hypotheses are accepted. H5 is rejected. Older customers are less satisfied with the process failure. Consumers who have high level of education are less satisfied with the process failure. Consumers who have high level of income are less dissatisfied with the process failure. Gender of consumers is not related to dissatisfaction with the process failure. Past experience with service failure is not related to dissatisfaction with process failure. The parameter estimates are presented in Table 5.

Table 5. The effect of demographic characteristics of consumers on dissatisfaction with process failure

<table>
<thead>
<tr>
<th>Variables</th>
<th>Beta</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>1.766</td>
<td>0.080</td>
<td></td>
</tr>
</tbody>
</table>

Note: Dependent variable: Outcome failure. *** 0.01 sig. level; ** 0.05 sig. level; * 0.10 sig. level.

Conclusion and implications

This study corroborates that consumers are sensitive to the process and outcome distinction in service delivery identified by previous research. FC and FS opposite influence on consumer responses to service failure type. While FS affects on consumer responses to overall service failures, FC does not affect directly consumer responses to overall service failure, in general. Consumer’s age, education and income influence on process failure. Age and income also affect outcome failure. Overall, this research provides better understanding of consumer behavior by revealing a joint effect of failure type and value orientation on service dissatisfaction.

Implementations for practitioners. Managers of hospitality services should take into consideration the distinction between process and outcome attributes and, their relative contributions to consumer satisfaction. The service firms which focus on out-
come attributes (e.g., rent car firms), process elements such as courtesy and helpfulness could make a big difference. Process quality likely becomes the point of differentiation.

Hence, managers should take into consideration face issues in designing their process of services and promotional programs. They could provide to their customers various opportunities which face concerns are heightened. For example, a manager of bank can design service which is given priority to the frequent users during the bank service delivery. Remembering and addressing customers by name can enhance satisfaction and loyalty of face conscious consumers who demand a high level of attention and respect in service encounters.

An important problem confronted by hospitality business is capacity control. The common practice of overbooking optimizes capacity utilization, but results in disgruntled customers. Fate submissive customers, being more tolerant of negative outcomes, may give up their reservations (for a reasonable compensation) without hard feelings. If identified, they may serve as an insurance policy when demand exceeds capacity.

Because age, education and income are easy characteristics to identify and use for segmentation purposes, service organization should make extra efforts to satisfy these customers following service failures. Older customers are less satisfied with the process and outcome failure. Consumers who have high level of education are less satisfied with the process failure. Consumers who have high level of income are less dissatisfied with the process and outcome failure. Therefore, a service organization has to determine effective recovery strategies for them. For example, one of the steps in effective service recovery strategy is “listen to the customer”. Employees need to listen carefully to determine what the customer perceives a solution suggested. A hotel employee might assume that a customer who’s irritated about a long wait to check in will be satisfied with an apology. But the customer might be expecting to receive a free drink as compensation for the wait.

In recent years, large-scale customer data bases and sophisticated analytical tools make it possible to identify segments of customers with similar values. Cross-referencing consumers’ media habits and consumption patterns with surveys of value orientations would yield value segments compatible with micro-targeting tactics. Service managers can reach customers via e-mail and promote service packages tailored to their values.

**Implementations for researchers.** Future research may explore service settings that would strengthen or weaken the impacts of two consumer values. The impact of FC may be heightened for publicly consumed luxury services (e.g., fine dining). On the other hand, FS has correlation with various socio-economic and psychological variables (Leung and Bond, 2004). Future research may address the relationships between two values and pertaining to variables such as consumer lifestyle, search habits and switching behavior. Future research can also explore consumers’ responses to various recovery strategies of service firms.

**Limitations and future research**

Some research limitations should be acknowledged. First, the research sample was relatively small because of cost and time limitations. Secondly, the sample is homogeneous and consists of only the workers at the university. Thirdly, the study was limited by scenario-based method. Although it is useful to maximize internal validity in the theory-building stage, future research should be conducted in more realistic settings to improve external validity. The findings should be interpreted with caution because they may reflect Turkish culture characteristics, before future research are replicated in different cultures. The present study enriches our understanding about the impact of consumer value orientations and failure type on consumer’s dissatisfaction. Therefore, it leads to make effective strategic decisions which in turn, provide more customer satisfaction and competitive advantage for service firms.

**References**


