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**Organizational response to goods failure complaints – The moderating role of culture  
on perceptions of interactional justice**

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## **Organizational Response to Goods Failure Complaints: The Role of Culture on Perceptions of Interactional Justice and Customer Satisfaction**

### **ABSTRACT**

It is well recognized that in a service failure context, cultural value orientations interact with firm responses to service failures to influence perceptions of fairness (justice) and satisfaction. We examine whether this effect is applicable in the case of goods failure complaint context. Using an experimental design with data from Hong Kong and Canada, we investigate how customer evaluations of firm responses are influenced by interplay of consumers' value orientation and nature of firm responses to the goods failure complaint [whether complaint resolution is initiated by the firm (vs. initiated by the customer), customer is informed about the progress of complaint resolution (vs. not informed about the progress)]. Our findings reveal that the cultural values of collectivism and uncertainty avoidance do interact with the nature of firm's response to influence perception of interactional justice. Finally, interactional justice positively impacts overall complaint resolution satisfaction.

**Keywords:** Satisfaction, cultural values, interactional justice, organizational response, product complaint

## **Introduction**

Customer evaluations of organizations' responses in the event of a product failure constitute an area of great concern in the study of consumer satisfaction (Levesque & McDougall, 2000). Consumers experience a loss due to a product failure. At this point, firms attempt to provide some gain to the consumer through their responses (Patterson, Cowley, & Prasongsukarn, 2006). This view aligns with social exchange and equity theories (Adams, 1965; Homans, 1958). A key area in this regard is consumers' perception of justice, which can be considered as an underlying psychological process that they use to evaluate organizational responses in the event of a product failure (Sabharwal & Soch, 2011; Smith, Bolton, & Wagner, 1999). Although some studies have examined the effects of perceived justice, they did not approach it as an underlying psychological process that consumers use to evaluate organizational responses, and, in most cases, focussed on the action itself rather than the consumer's perception of the fairness of the action (Davidow, 2003).

Given that consumer interactions with the organization during product failures are typically social exchanges, perceptions of organizational responses in such situations are affected by the consumer's cultural orientation (Patterson et al., 2006). Owing to the globalization of markets and easy movement of people and products across geographical and cultural borders, there is sufficient reason to factor cultural influences into consumer evaluations of organizational responses (van Birgelen, Ruyter, de Jong, & Wetzels, 2002). Research in social psychology has also yielded considerable evidence of social exchanges and processes that are culturally contingent (Fiske et al., 1998).

Extant studies have examined the role of culture in customer evaluations of organizational responses and perceived justice primarily in a service recovery context (e.g., Patterson et al., 2006; Wong, 2004). However, it appears that studies examining the role of culture specifically in a goods context have been limited. The most commonly cited differences between services and goods are (1) heterogeneity (variability is higher in a service), (2) inseparability (simultaneity of production and consumption in service delivery), (3) perishability of the output (high in the case of service), and (4) intangibility is high in the case of services (Zeithaml, Parasuraman, & Berry, 1985). Specifically, it is not clear whether the separability of production and consumption of goods and the tangibility of goods (versus intangibility of services) affect consumers' perceptions of justice in a goods failure complaint situation. We conducted our study in the context of goods failure complaints by arguing that consumers' cultural values interact with organizational responses to goods failure complaints in a similar manner as they do in a service recovery context to influence perceptions of interactional justice. In turn, interactional justice has a positive impact on consumer satisfaction after complaint resolution (Sabharwal & Soch, 2011).

The article is organized as follows. First, we briefly review the literature on consumers' perceptions of interactional justice, organizational responses to product failure, cultural value orientations of consumers, and the effects of their interactions on the perceptions of interactional justice and satisfaction. Second, we present the objectives and discuss the rationale of the current research. Third, we detail the methodology and present our results. Finally, we present our discussions, conclusions, managerial implications, limitations, and suggestions regarding future research.

## **Review of Literature**

### *Consumer perceptions of interactional justice*

Justice is defined as an act that is considered ‘just’ because someone perceives it as such (Leventhal, 1980; Seiders & Berry, 1998). Justice theories have been adapted from social exchange and equity theories, and the three dimensions of justice include distributive, procedural, and interactive. While initial theorizing on justice focussed on distributive justice (Adams, 1963), subsequent research demonstrated the importance of procedural justice (Korsgaard, Schweiger, & Sapienza, 1995). Contemporary justice researchers have also highlighted a third type of justice—namely, interactional justice. Interactional justice concerns decision-makers’ fairness during the enactment of the procedures relating to the outcome (Bies & Shapiro, 1987). Specifically, it concerns the dynamic aspects of outcome allocation processes, such as communication and the treatment meted out to individuals (Cropanzano & Greenberg, 1997). In view of the inseparability attribute (simultaneity of production and consumption) of services, interactional justice is particularly important in the recovery efforts of a service failure. Similarly, we argue that interactional justice is important in the context of goods failure, as research has shown that individuals are more accepting of the outcome or consequences if the process in which the outcome has been allocated to them is fair (for a summary of studies showing this effect, see Van den Bos, Lind, Vermunt, & Wilke, 1997). In other words, individuals may tolerate an outcome which is not favourable if it is delivered to them in a fair manner. Therefore, organizations can control the damage caused by an unfavourable outcome if it is delivered in a fair manner through regular and proper communication (Collie, Sparks, & Bradley, 2000). This

perspective on the process of the complaint resolution is centred on equity theory (Smith et al., 1999).

In summary, keeping the consumer informed of all that is happening regarding the resolution of a goods failure complaint affects their perception of interactional justice. Similarly, the way in which the organization's representatives treat the consumer during the process of addressing the complaint also affects their perception of interactional justice.

#### *Organizational response to product failures*

While there is no real consensus on how organizations should respond when there is a product failure, we argue that the timeliness of the response and facilitation of the complaint resolution process (Davidow, 2003) are important dimensions of response that positively affect consumer perceptions of interactional justice. Timeliness relates to the speed at which organizations respond to their supply of defective products in the marketplace. Proactively recalling defective products from the market has been shown to positively impact consumer perceptions. Quick responses have improved company image and have had positive effects on satisfaction and the intention to repurchase (Clark, Kaminiski, & Rink, 1992; Conlon & Murray, 1996). We argue that the extent to which the consumer needs to follow up to expedite the organization's resolution process in the event of a product failure is a key factor that affects consumer satisfaction. While one end of the continuum is comprised of organizations that leave it up to the consumer to repeatedly follow up with the organization for a solution regarding product failure, the other end is made up of organizations that proactively identify consumers who have received defective goods and rectify the problems through repairs, replacement, or compensation as appropriate. The other dimension (facilitation) relates to the various rules, policies, and

procedures that organizations have in place to facilitate complaint handling. More importantly, facilitation involves the extent to which the organization keeps in touch with consumers, updating them on the status of the complaint during the period when the goods are being repaired or replaced. Facilitation plays an important role in determining customer satisfaction levels. Good facilitation may also be seen as having a significant impact on reducing negative word of mouth (Davidow, 2003).

#### *Cultural value orientation of consumers*

Culture can be defined as the sum of all behavioural norms and patterns shared by the members of a social group (Usunier, 1996). Hofstede (1991) defined culture as the conditioning of 'one's mind from social environments in which one grew up' (p. 4).

Cultural issues represent the most complex aspect of international marketing. Each country is unique for reasons which are rooted in history, culture, language, geography, social conditions, race, and religion (Hofstede 1991). Differences in culture complicate international marketing activities and are fundamental issues that inform and guide how an organization should conduct business across borders. Further, drawing from social exchange theory, it can be inferred that consumers' interaction with an organization in the event of a product failure crisis constitutes a social exchange, and the social content of the interaction is an overriding influencer in the evaluation of the experience (Czepiel, 1990). Extant research has indicated that culture shapes a consumer's attitude towards organizational responses. Specifically, cross-cultural studies in marketing have shown that cultural values have a strong impact on consumers' relationships with organizations (Patterson & Smith, 2003). In sum, the cultural orientation of consumers will influence how they evaluate the organizational response in the event of a product failure complaint.



In view of the above discussions, it is important for an organization to direct its attention to individual consumer characteristics rather than country characteristics (Keillor, D'Amico, & Horton, 2001). Therefore, the cultural values of individual consumers may need to be considered as the unit of analysis to avoid the ecological fallacy when country-level generalizations are used to explain individual consumer behaviours. Here, the application of Hofstede's cultural topology at the individual level is justifiable because the values of an individual are identified in terms of the selected dimensions of culture (Donthu & Yoo, 1998). For example, an individual can be described culturally as having higher (lower) power distance, higher (lower) collectivism, stronger (weaker) uncertainty avoidance, and higher (lower) masculinity (Patterson et al., 2006).

#### *Collectivism and timeliness effect on interactional justice*

In a collectivistic culture, individuals see themselves as part of one or more groups and prioritize group goals over their individual goals. Individuals with a collectivist value orientation try to maintain harmony and avoid confrontation (Patterson et al., 2006). They are susceptible to social influence and are concerned with their self-presentation. Therefore, consumers with a collectivist orientation avoid excessive complaining and excessive follow-up with organizations to address their complaints regarding product failure. They prefer that the organization recognize the problem and initiate action to address the product failure appropriately (Triandis, 1995). Our study suggests that in the event of a goods failure, consumers with a higher collectivist value orientation are expected to perceive higher interactional justice when the extent of follow-up with the organization is minimal (when the organization recognizes the failure in a *timely* manner and proactively addresses

the concern by recalling the product from the market for repairs or replacement) than consumers with a lower collectivist value orientation.

#### *Uncertainty avoidance and facilitation effect on interactional justice*

Uncertainty avoidance is the extent to which people feel threatened by uncertain or unknown situations (Hofstede, 1991). This value is associated with a need for reducing ambiguity and a need for predictability. Individuals with high uncertainty avoidance are emotional and security seeking (Patterson et al., 2006), while individuals with low uncertainty avoidance are not emotional, are less aggressive, and accept personal risk (Triandis, 1995). Therefore, consumers with a high uncertainty avoidance orientation will require higher cognitive control over the whole complaint handling process (Patterson et al., 2006). They will prefer to be kept informed of the status at all stages of the organization's product complaint handling process. Therefore, good facilitation during complaint handling process will ensure consumer's high cognitive control which leads to high perceptions of interactional justice. Our study suggests that in the event of a goods failure complaint, consumers with a higher uncertainty avoidance orientation are expected to perceive higher interactional justice when given cognitive control through proper facilitation of the complaint management process (consumers are updated by the organization on a regular basis the status of repair or replacement of the defective good) than consumers with a lower uncertainty avoidance orientation.

#### *Interactional justice and customer satisfaction*

Customer satisfaction is a very important factor that decides future buyer behaviour (Sarkar & Baisya, 2005). Consistent with the satisfaction literature, consumer perceptions of firms' service recovery efforts have been shown to influence satisfaction (Levesque &

McDougall, 2000; Sabharwal & Soch, 2011). Further, Patterson et al. (2006) showed that irrespective of an individual's cultural orientation, interactional justice positively impacts customer satisfaction in a service recovery context. This study extends the above insight to suggest similarly in a goods failure complaint context, that irrespective of the consumer's cultural orientation, consumer satisfaction is expected to be related positively to perceptions of interactional justice.

### **Objectives**

Our first research objective is to test whether consumer cultural value orientations of collectivism and uncertainty avoidance interact with organizational responses of complaint resolution initiation (timeliness) and cognitive control (facilitation) respectively to influence consumer evaluations of interactional justice in the event of a goods failure complaint. The second objective is to test whether, irrespective of the consumer's cultural value orientation, evaluations of interactional justice influences consumer satisfaction in the event of a goods failure complaint.

### **Rationale of the Studies**

We draw our conceptual framework based on insights from justice theory which, as discussed in our earlier sections, is adapted from social exchange and equity theories. Justice perceptions are the individual subjective evaluations of organizational responses (Smith et al., 1999; Gelbrich & Roschk, 2011). The difference between the actual action taken by the firm (organizational response) and the consequent subjective evaluation of that response by the consumer (justice perception) is very critical because these perceptions are subjective and often a biased interpretation of reality (rather than actual) that account for consumer behaviour (Griffin & Ross, 1991). Specifically, the impact of organizational

responses, such as timeliness and facilitation, on the interactional justice perceptions of consumers is value dependent. Therefore, consumers' expectations and evaluations of the organizational responses vary depending on the consumers' cultural value orientation (Patterson et al., 2006). In order to theorize while taking into account the influence of cultural values, it is important to link the observed differences in cultural value orientation to specific dimensions of culture that are suggested to have produced the differences (Leung & Bond, 1989). Our conceptual framework (as shown in Figure 1) places interactional justice in the cross-cultural context by considering the dimensions of collectivism and uncertainty avoidance when consumers evaluate an organization's response to a goods failure complaint. In particular, these two cultural dimensions interact with the organization's responses to impact customer perceptions of interactional justice, which in turn influence the customer's overall satisfaction.

This study is important because, product failures represent outcomes of organizational errors as well as management failure (Singh, 2017). In a product failure situation, the firm's reputation is threatened, product quality is questioned, management systems come under scrutiny, and negative sentiments are generated (Cheah, Chan, & Chieng, 2007; Etayankara & Bapuji, 2009; Muralidharan, Bapuji, & Laplume, 2015; Rhee & Haunschild, 2006). Therefore, how an organization responds (Muralidharan, Bapuji, & Hora, 2019) especially in a cross-cultural context in the event of a product failure is critical, because the nature of the response can have a major impact on the consumer's post-product-failure behaviour.

-----Please insert Figure 1 about here-----

## **Methodology**

### *Design*

To test the effects of collectivism-timeliness and uncertainty avoidance-facilitation on interactional justice, we used two single factor experimental designs. Each design has a separate manipulation for organizational responses of timeliness and facilitation. While in both the designs, the respondent broadly reads the same description of the product failure, the two manipulations appear in the description of the organizational responses (one being *timeliness* operationalized by the complaint initiator and the other being *facilitation* operationalized by the extent of cognitive control given to the consumer).

Participants were randomly assigned to one of the two manipulations of organizational responses. Participants who were randomly assigned to *manipulation 1* first read a description of a product failure, where they had bought a Dell laptop from the local retailer two months prior, and from the second day of purchase, they faced problems with the laptop (details shown in the Appendix). They were then informed that the product repair had been initiated either by the organization ( which is considered *timely* and hence less follow up with the firm) or by themselves (which is considered not so *timely* as they had to follow up with the firm). The defective product was rectified in both situations.

Participants who were randomly assigned to *manipulation 2* first read the same description of a product failure (details shown in Appendix). They were then informed that they had been kept regularly updated on the progress of the repair while waiting for the rectified product (high *facilitation* because of high cognitive control as consumer was kept updated on the progress of complaint resolution) or had not been kept updated on the progress of the repair by the organization while waiting for the rectified product (low *facilitation* because of low cognitive control as consumer was not kept updated on the progress of complaint resolution). The defective product was rectified in both situations.

For analysis purposes the appropriate cultural value orientation was used in a median split resulting in two separate 2 x 2 between subjects designs (Patterson et al., 2006). The first manipulation was a 2 [organizational response: initiated by the organization (*and hence timely*) vs. initiated by the consumer (*and hence not timely*)] × 2 [high collectivist value orientation vs. low collectivist value orientation] design. The second manipulation was a 2 [high cognitive control (*high facilitation* where consumer was kept updated on the progress of complaint resolution) vs. low cognitive control (*low facilitation* where consumer was not kept updated on the progress of complaint resolution)] × 2 [high uncertainty avoidance vs. low uncertainty avoidance] design. Thereafter, regression analysis on the pooled data from the two manipulations was employed to test the relationship between perceptions of interactional justice and customer satisfaction (Patterson et al., 2006).

#### *Sample and Data Source*

Previous research has shown that participants in a Western (vs. Eastern) country are typically more individualistic and lower in uncertainty avoidance, both when the dimensions are measured at the country level and at the individual level (Triandis & Suh, 2002). To maximize the variance within each dimension, we collected data from two countries Hong Kong (from the east) and Canada (from the west). We selected these two regions because they have very different profiles according to Hofstede's (1980) national scores. A two-country sample strengthens the argument for using individual-level indicators of cultural value orientation (Patterson et al., 2006). We collected data from 313 university students from Hong Kong and Canada. Of these 132 students were from a university in Hong Kong and 181 students were from a university in Canada.

Questionnaires, which contained the manipulated scenarios (as in Appendix) and the questions related to the constructs being measured (as in Table 3), were administered to these students. Of the 313 students, 154 (65 from Hong Kong and 89 from Canada) of them were randomly assigned to manipulation 1 and 159 (67 from Hong Kong and 92 from Canada) were randomly assigned to manipulation 2. While, the responses from manipulations 1 and 2 were tested as separate designs to test the effects of collectivism-timeliness and uncertainty avoidance-facilitation on interactional justice, the pooled data from both the manipulations were used to test the relationship between interactional justice and overall customer satisfaction.

#### *Manipulation Checks*

The following manipulation checks were conducted. For *manipulation 1*, we asked the participants to rate two items: ‘The organization had initiated the repair process of your laptop before you complained’ and ‘You complained to the company first and then the company initiated the repair process’ (1 = strongly disagree, 7 = strongly agree). The results indicated that participants in the organization-initiated response (more timely) condition reported higher agreement on the first manipulation check ( $M_{\text{company}} = 4.57$ ,  $M_{\text{Customer}} = 2.55$ ;  $t = 7.46$ ,  $p < .01$ ) and lower agreement on the second manipulation check ( $M_{\text{company}} = 3.27$ ,  $M_{\text{Customer}} = 5.03$ ;  $t = -5.86$ ,  $p < .01$ ) than participants in the customer-initiated response (less timely) condition (details as shown in Table 1).

-----Please insert Table 1 about here-----

For *manipulation 2*, we asked participants to rate two items: ‘During the time of waiting for your laptop, you were NOT informed by the organization about the progress of the repair’ and ‘During the time of waiting for your laptop, you were informed regularly by

the organization about the progress of the repair' (1 = strongly disagree, 7 = strongly agree). The results indicated that participants in the 'no progress of repair given' (low cognitive control) condition reported higher agreement on the first manipulation check ( $M_{\text{not\_informed}} = 5.89$ ,  $M_{\text{informed}} = 2.00$ ;  $t = 17.28$ ,  $p < .01$ ) and lower agreement on the second manipulation check ( $M_{\text{not\_informed}} = 2.11$ ,  $M_{\text{informed}} = 5.81$ ;  $t = -15.34$ ,  $p < .01$ ) than participants in the 'progress of repair given' (high cognitive control) condition (details as shown in Table 2).

-----Please insert Table 2 about here-----

### *Dependent measures*

The perceptions of *interactional justice* and overall *customer satisfaction* with the organizational response to the product complaint were measured using scales adapted from Smith et al. (1999) and Oliver and Swan (1989).

*Perceptions of interactional justice* was measured using three items (items 1 to 3 of Table 3). An exploratory factor analysis confirmed a one-factor solution for this measure ( $\alpha = 0.78$ ). Further, confirmatory factor analysis (CFA) was performed to verify how well the items represented the construct (Hair et al., 2010). The overall model  $\chi^2$  was 426,  $p < 0.001$ ; Confirmatory Fit Index (CFI) was 1; and Tucker Lewis Index (TLI) was 1.

Regarding convergent validity (as shown in Table 3), the factor loading estimates of the measurement model of interactional justice were highly significant. The lowest loading was 0.62, Average Variance Extracted (AVE) estimated was 0.56, and construct reliability was 0.98 (exceeds 0.60), suggesting adequate reliability.

The *overall customer satisfaction* with the organizational response on the product complaint was measured using four 7-point scales (items 13 to 16 of Table 3) anchored



with unsatisfied–satisfied, displeased–pleased, unhappy–happy, and disappointed–delighted in response to the question, ‘How would you evaluate your experience of the company dealing with your complaint?’ Exploratory factor analysis confirmed a one-factor solution for this measure of satisfaction ( $\alpha=0.918$ ). As per CFA, the overall model  $\text{Chi}^2$  was 1,493,  $p < 0.001$ ; CFI was 0.996; and TLI was 0.987. Regarding convergent validity (as shown in Table 3), the factor loading estimates of the measurement model of overall customer satisfaction were highly significant. The lowest loading was 0.82, AVE estimated was 0.76, and construct reliability was 0.99 (exceeds 0.60), suggesting adequate reliability.

#### *Cultural value orientation measures*

The Cultural Values Scale (CVSCALE) (Donthu & Yoo, 1998; Yoo & Donthu, 2002) was used to investigate cultural value orientation at the individual level. This scale was previously used successfully to capture Hofstede’s (1991) five cultural dimensions at the individual level (e.g., Patterson et al., 2006). Four items each were used to measure *collectivism* (items 8 to 11 of Table 3) and *uncertainty avoidance* (items 4 to 7 of Table 3).

For *collectivism*, an exploratory factor analysis confirmed a one-factor solution for this measure ( $\alpha=0.83$ ). As per CFA, the overall model  $\text{Chi}^2$  was 787,  $p < 0.001$ ; CFI was 0.948; and TLI was 0.843. Regarding convergent validity (as shown in Table 3), the factor loading estimates of the measurement model of collectivism were highly significant. The lowest loading was 0.59, AVE estimated was 0.59, and construct reliability was 0.99 (exceeds 0.60), suggesting adequate reliability.

For *uncertainty avoidance* an exploratory factor analysis confirmed a one-factor solution for this measure ( $\alpha=0.878$ ). As per CFA, the overall model  $\text{Chi}^2$  was 1,065,  $p < 0.001$ ; CFI was 0.945; and TLI was 0.834. Regarding convergent validity (as shown in

Table 3), the factor loading estimates of the measurement model of uncertainty avoidance were highly significant. The lowest loading was 0.72, AVE estimated was 0.65, and construct reliability was 0.99 (exceeds 0.60), suggesting adequate reliability.

-----Please insert Table 3 about here-----

## **Results**

### *Manipulation 1*

This manipulation was designed to test the influence of collectivism on the relationship between the organization's timely response (repair initiated by the organization vs. repair initiated by the consumer) and perception of interactional justice by the consumer. As mentioned earlier, of the total 313 student respondents, 154 (65 from Hong Kong and 89 from Canada) were randomly assigned to this manipulation. The measure collectivism was used in a median split to separate respondents into high vs. low collectivist value oriented groups. An ANOVA with collectivist value orientation and organization's timely response (repair initiated by the organization vs. repair initiated by the consumer) as the two independent variables was run on the perceptions of interactional justice. There was a marginally significant interaction effect of organization's timely response (organization initiated vs. consumer initiated) and collectivist value orientation on the perceptions of interactional justice ( $F(1, 150) = 3.35, p = .07$ ). The interaction is presented in Figure 2. From the figure, it was inferred that when the problem resolution (or repair) was initiated by the organization, participants with higher collectivist orientation felt a greater sense of interactional justice than participants with lower collectivist orientation ( $M_{HC} = 5.17, M_{LC} = 4.69; t = -2.51, p < .05$ ). When the problem resolution (or repair) was initiated by customers, participants with either a higher or lower collectivist value orientation reported

no significant difference in the perceptions of interactional justice ( $M_{HC} = 4.64$ ,  $M_{LC} = 4.67$ ;  $t = .006$ ,  $p = .99$ ). The above results therefore support our proposition that in the event of a goods failure, consumers with a higher collectivist value orientation perceive higher interactional justice when the extent of follow-up with the organization is minimal (when the organization recognizes the failure in a *timely* manner and proactively addresses the concern) than consumers with a lower collectivist value orientation.

-----Please insert Figure 2 about here-----

### *Manipulation 2*

This manipulation was designed to test the influence of uncertainty on the relationship between the level of cognitive control through organizational response (consumer informed of repair progress vs. consumer not informed of repair progress) and perception of interactional justice by the consumer. As mentioned earlier, of the total 313 student respondents, 159 (67 from Hong Kong and 92 from Canada) were randomly assigned to this manipulation. The measure of uncertainty avoidance was used in a median split to separate respondents into high vs. low uncertainty avoidance value-oriented groups. An ANOVA with uncertainty avoidance value orientation and the level of cognitive control through organizational response (consumer informed of repair progress vs. consumer not informed of repair progress) as the two independent variables was run on interactional justice. There was a significant interaction on perceptions of interactional justice ( $F(1, 155) = 4.47$ ,  $p < .05$ ). The interaction is presented in Figure 3. From the figure, it was inferred that when consumers were informed of the repair progress of the complaint (high cognitive control), participants with higher uncertainty avoidance felt a greater sense of interactional justice than those with lower uncertainty avoidance ( $M_{HUV} = 5.57$ ,  $M_{LUV} = 4.85$ ;  $t = -3.68$ ,  $p < .05$ ). When they were not informed of the repair progress of the

complaint (low cognitive control), there was no significant difference in the perceptions of interactional justice between participants with higher and lower uncertainty avoidance ( $M_{HUV} = 3.99, M_{LUV} = 4.01; t = .08, p > .1$ ). The above results therefore support our proposition that in the event of a goods failure complaint, consumers with a higher uncertainty avoidance orientation perceive higher interactional justice when given cognitive control through proper *facilitation* of the complaint management process (consumers are kept informed by the organization on a regular basis the status of repair or replacement of the defective good) than consumers with a lower uncertainty avoidance orientation.

-----Please insert Figure 3 about here-----

#### *Influence of interactional justice on consumer satisfaction*

To test this relationship, we followed the process used by Patterson et al. (2006), in which the pooled data totalling 313 respondents (132 from Hong Kong and 181 from Canada) were analysed via regression analysis. As predicted, perceptions of interactional justice dimension was found to be positively related to consumer satisfaction ( $\beta_{interactional} = .58, t = 5.57, p < .05$ ). This result therefore supports the proposition that in a goods failure complaint context, irrespective of the consumer's cultural orientation, consumer satisfaction is expected to be related positively to their perceptions of interactional justice.

We further establish the role of perceived interactional justice as an underlying psychological mechanism (or a mediating role) in the relationship between organizational response to complaint resolution and consumer satisfaction. We carried out additional analysis as follows. Since our conceptual model (Figure 1) integrates moderation (the influence of cultural value orientation) and mediation (the role of perceived interactional justice in predicting consumer satisfaction), we used the test recommended for moderated

mediation by Hayes (2015). The test was conducted to check for moderated mediation for both our manipulations by estimating the index of moderated mediation (Hayes, 2015). The index of moderated mediation for *manipulation 1* (collectivist value orientation × organization-initiated response → perceived interactional justice → consumer satisfaction) was not significant (95% CI: -.0118, .5860). However, when the complaint resolution was initiated by the organization, perceived interactional justice served as a mediator between collectivist orientation and consumer satisfaction (95% CI: .0539, .4806). This result indicated a partial mediating role of perceived interactional justice on consumer satisfaction when the organization responded to a problem for consumers with different levels of collectivist value orientations. The index of moderated mediation for *manipulation 2* (uncertainty avoidance value orientation × cognitive control → perceived interactional justice → consumer satisfaction) was significant (95% CI: .0392, .5887). This result indicated a full mediating role of perceived interactional justice on consumer satisfaction for consumers with different levels of uncertainty avoidance depending on the perceived cognitive control provided by the organization (extent to which the consumer is kept informed of the progress of repair) during complaint resolution.

## **Discussion and Conclusion**

With increasing globalization, it is important to understand the international contexts in which products are marketed so that organizations can align themselves with the various cross-cultural opportunities (Bhandarker, 2014). Our study contributes to the customer complaints management literature by extending insights into the role of cultural value orientation in influencing customer responses to product failures. While many of the effects of organizational responses on consumer satisfaction have been studied as direct effects

(e.g., Raychaudhuri & Farooqi, 2013; Roy, Bhattacharya, & Sengupta, 2011), few studies have examined the underlying processes that lead to consumer satisfaction in the complaint management process. Questions like how consumers feel after receiving a particular type of response from an organization in a situation of goods failure will enable a nuanced understanding of the processes that influence the consumers' subsequent evaluation of the organization. Various theories of justice as adapted from social exchange and equity theories have been used to study the effects of perceived justice in consumers in the service industry (Patterson et al., 2006). We extend the understanding of perceived interactional justice, which is adapted from social exchange and equity theories, to define organizational responses experienced by the consumer in a context where the product is a tangible good. Our findings suggest that individuals with a higher collectivist orientation perceive higher interactional justice when organizations solve the problem in a timely manner (e.g., organizations proactively address product defects). Similarly, individuals with higher uncertainty avoidance perceive higher interactional justice when they have a sense of high cognitive control over the repair process (e.g., organizations keep them updated regularly on the progress of their complaint resolution). Finally, in line with extant studies, we also find that perceived interactional justice positively impacts consumer satisfaction in a goods complaint context.

Our key contribution is in extending the understanding of the interplay between organizational responses and consumer cultural value orientation and their effects on consumer perceived interactional justice in a product complaints context where the product is a tangible good. The understanding of perceived interactional justice in complaints management has been studied in a service recovery context, where the inseparability of the

service and service provider makes perceived interactional justice (which is moderated by individual cultural orientation) a key determinant of consumer behaviour. The findings in a service recovery context are also applicable in a goods failure complaint context. The other important contribution is that we add to literature that uses the individual as the unit of analysis when exploring cultural value orientations, where the relationship between value orientations and justice perceptions emerges only when cultural value orientations are captured at the individual level (Patterson et al., 2006). The findings from our moderated mediation analysis also contribute to understanding the role of psychological processes in determining consumer satisfaction in the context of product complaint management.

### **Managerial Implications**

From a managerial perspective, our study adds to the understanding of the cultural context in consumer behaviour. With the increasing globalization of markets and the ease with which people and products move across national borders, it is important for multinational organizations to be extremely sensitive to the cultural diversity of their consumer base (Maheswaran & Shavitt, 2000). Moreover, with the growing outsourcing of products by multinational countries to leverage cost arbitrage outside their headquarters, the chances of products being defective seem to be increasing, especially considering the number of product crises that have arisen in the recent past. Organizational responses in the event of product failures must be well-measured and proactive in handling culturally sensitive consumer responses. Doing so would help firms avoid dissatisfaction arising from inappropriate responses and develop suitable customer dissatisfaction management initiatives (Levesque & McDougall, 1996). Having adequate knowledge of consumers' cultural value orientation in advance will enable organizations to plan appropriate

responses in the event of product failure situations. Such culturally sensitive responses in product harm crisis situations will help build strong relationships with customers in different cultures that will positively influence firm performance (Kapoor & Sandhu, 2010; Soch & Sandhu, 2008). Specifically, understanding the underlying psychological processes of justice perceptions that determine consumer satisfaction can help organizations develop appropriate complaint management strategies across various cultures. Further, our cultural value orientations have been captured at the individual level. It is suggested that some individuals in every country hold values and beliefs different from those that are typical of the country they belong to (Kwok & Uncle, 2005). Cross-cultural marketing actions may therefore need to be directed at the individual level for improved success.

### **Limitations and Future Research**

One major limitation of this study is that the organization's reputation and product brand were not factored into the framework. Several studies have shown that a company's reputation and brand image are likely to be important influencers in consumers' post-product-failure attitudes. Specifically, it has been shown that the effects on well-known companies from countries with a positive image in a product failure situation can be minimal. Second, the organizational responses considered in our study were very customer-centric in that the responses were pro-consumer, and it is the extent of the influence of these responses on consumer satisfaction that is presently under discussion. Organizations' refusal to accept complaints through denial could be another major area of discussion in the domain of responses possible in the event of a goods failure. The response of denial may, therefore, be considered for future research. Third, this study did not factor in the effects of the technical complexity of the product. Will the results of this study be relevant across all



product categories, from the simplest, such as toys, to very complicated products, such as highly industrialized and technical products? Severity plays an important role in shaping customers' perceptions in the event of a product hazard (Levesque & McDougall, 2000). What is the role of severity in our model? Do interactional justice and culture (as manifested by liability of the country of origin of the product and firm) interact to influence the consumer's attribution of blame (Carvalho, Muralidharan, & Bapuji, 2015; Muralidharan, Wei, & Liu, 2017)? While service quality has been found to affect word of mouth (Hanaysha & Pech, 2018), future research may also examine the interplay between organizational responses, cultural orientation, and perceived interactional justice on word of mouth. These questions can be addressed through separate studies.

Clearly, the study of cultural orientation effects, especially at the individual level, as opposed to the national level, is an emerging area of research. It would be interesting to assess the moderating effect of other cultural dimensions, such as power distance, masculinity, and long-term orientation, on consumer perceptions at the individual level. Further research examining the interrelationship between organizational responses and cultural dimensions in other countries will be worthwhile for developing effective global product failure response approaches as well as for advancing existing knowledge in consumer satisfaction research. Research efforts of this nature will, therefore, further enhance our ability to design appropriate product failure response mechanisms that cut across cultural borders and geographies.

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## Tables and Figures

**Table 1. Details of manipulation checks**

<b>Manipulation check items</b>	<b>Manipulation 1</b>	
	<b>Self-Problem Identification</b>	<b>Company Problem Identification</b>
The organization had initiated the repair process of your laptop, before you complained	2.55	4.57
You complained to the company first and then the company initiated the repair process	5.03	3.27

**Source:** *Authors' own findings*

**Table 2. Details of manipulation checks**

<b>Manipulation check items</b>	<b>Manipulation 2</b>	
	<b>High cognitive control of repair process</b>	<b>Low cognitive control of repair process</b>
During the time of waiting for your laptop, you were NOT informed by the organization about the progress of the repair	2.00	5.89
During the time of waiting for your laptop you were informed regularly by the company about the progress of the repair	5.81	2.11

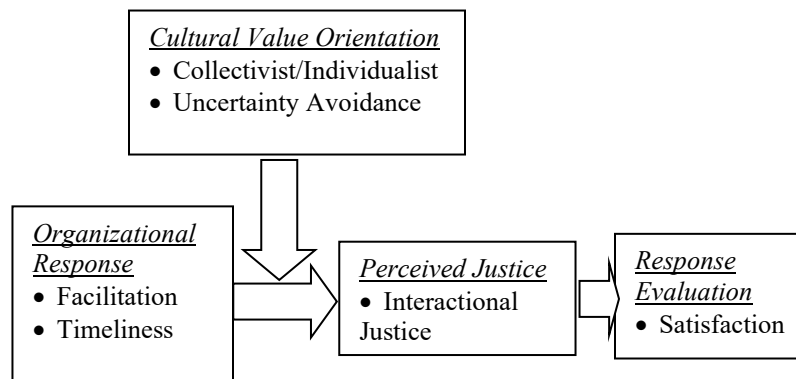
**Source:** *Authors' own findings*

**Table 3. Theoretical constructs and measurement items**

No	Constructs and Items	Factor Loading	AVE	Construct Reliability
<b><i>Interactional Justice</i></b>			<i>0.560</i>	<i>0.980</i>
1	The company's employees were appropriately concerned about my laptop problem.	0.62		
2	The company employee's communication with me was appropriate.	0.89		
3	In dealing with my laptop problem, the company's employees treated me in a courteous manner.	0.71		
<b><i>Uncertainty Avoidance</i></b>			<i>0.646</i>	<i>0.992</i>
4	It is important to closely follow instructions and procedures.	0.84		
5	Rules and regulations are important because they inform me of what is expected.	0.91		
6	Standardized work procedures are helpful.	0.72		
7	Instructions for operations are important.	0.74		
<b><i>Collectivism: CV Scale</i></b>			<i>0.588</i>	<i>0.992</i>
8	Group welfare is more important than individual rewards.	0.87		
9	Group success is more important than individual success.	0.85		
10	Individuals should only pursue their personal goals after considering group goals.	0.59		
11	Group loyalty should be encouraged even if individual goals suffer.	0.64		
<b><i>Satisfaction: How would you evaluate your experience with the company dealing with complaints.</i></b>			<i>0.758</i>	<i>0.995</i>
13	Unsatisfied to Satisfied	0.84		
14	Displeased to Pleased	0.91		
15	Unhappy to Happy	0.91		
16	Disappointed to Delighted	0.82		

**Source:** *Authors' own findings*

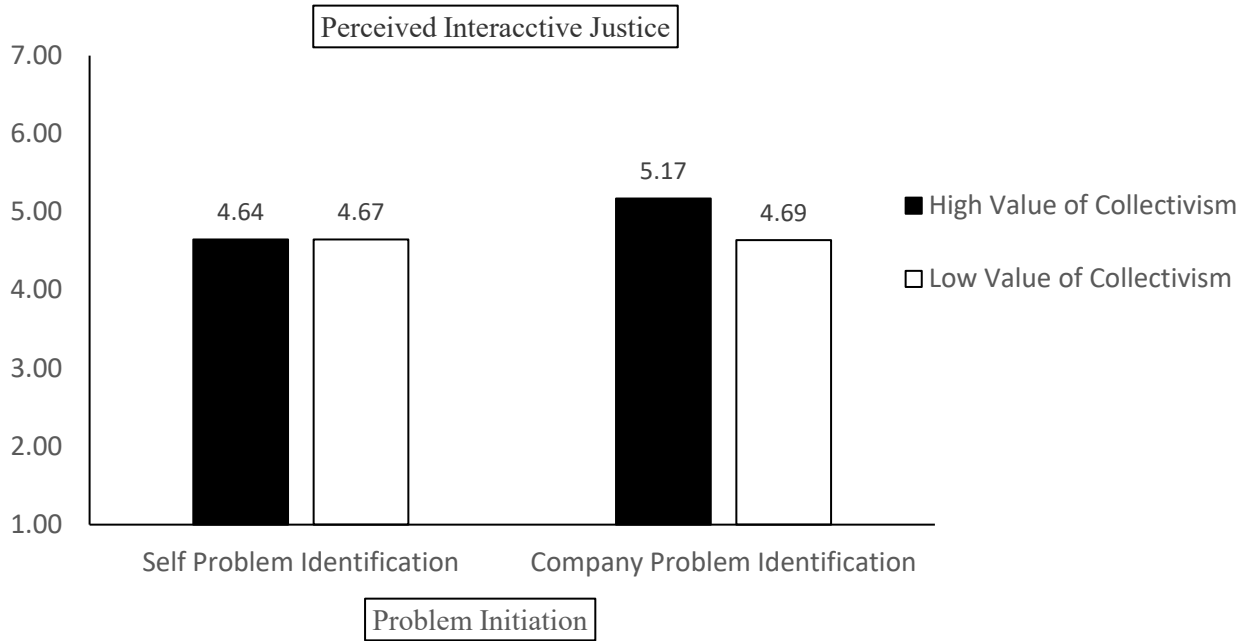
**Figure 1. Proposed Model**



**Source:** *Authors' own findings*

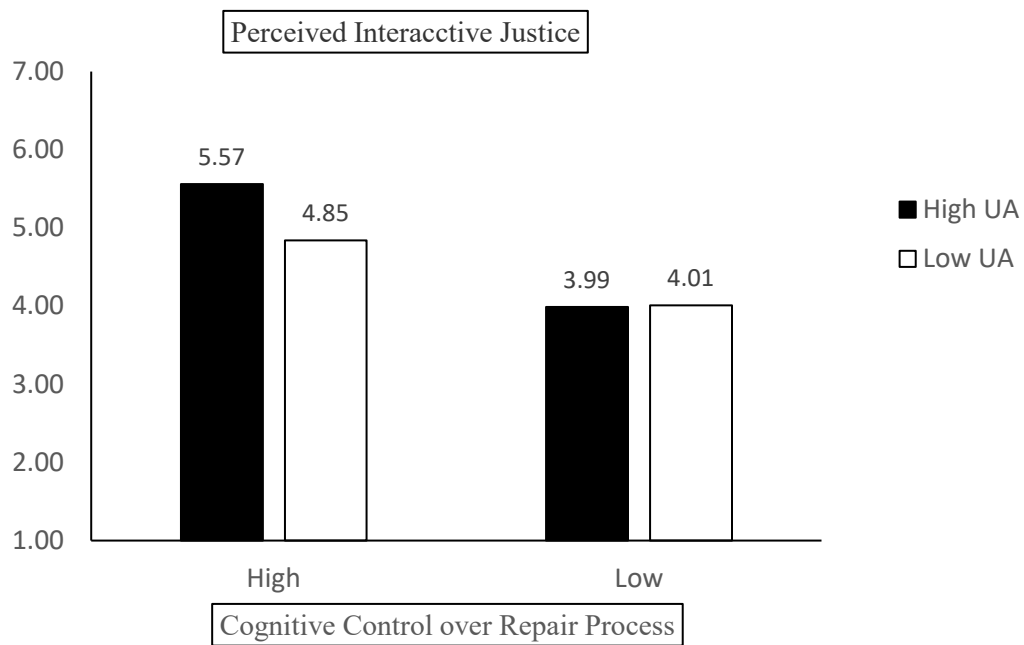


**Figure 2. The influence of collectivism on organizational response (problem identification)- interactional justice relationship-Manipulation 1**



**Source:** *Authors' own findings*

**Figure 3. The influence of uncertainty avoidance on cognitive control of repair process- interactional justice relationship- Manipulation 2**



**Source:** *Authors' own findings*

## Appendix- Recall Notice

### For Manipulation

#### Your Computer Problem

You own a laptop, which you just bought from a reputed company's retailer in your city. Right from the second day of purchase you have been facing problems with the laptop. Sometimes the battery gets heated up; the computer slows down and doesn't boot up fast (or even fails to boot up). This has been hampering your daily work schedules.

*You had decided to take the matter up with the company and therefore called in at their sales office and registered your complaint. The sales office had requested you to return the machine for repairs. You had therefore turned in your laptop for repairs. Two days after you returned the machine to company's local office, you received a call from the President (Sales & Marketing) of the company, apologizing for the defect in the laptop on behalf of the company.*

Or

*On the second week of your purchase you had decided to take the matter up with the company and therefore called in at their sales office and registered your complaint. The sales representative apologized for the defect and had requested you to return the machine for repairs. You had therefore turned in your laptop for repairs.*

The repaired laptop was delivered to you after four weeks from the time you handed it for repairs.