

UNDERSTANDING THE IMPACT OF SERVICE FAILURE AND RECOVERY JUSTICE ON CONSUMERS' SATISFACTION AND REPURCHASE INTENTION

Sheng-Wen Huang, Department of Information Management, National Sun Yat-sen University, Kaohsiung, Taiwan, R.O.C., awen0331@gmail.com

Yu Wen Hung, Department of Information Management, National Sun Yat-sen University, Kaohsiung, Taiwan, R.O.C., d004020004@student.nsysu.edu.tw

Tzu-Wei Fu, Department of Information Management, National Sun Yat-sen University, Kaohsiung, Taiwan, R.O.C., danny210095@gmail.com

Jack Shih-Chieh Hsu, Department of Information Management, National Sun Yat-sen University, Kaohsiung, Taiwan, R.O.C., jackshsu@mis.nsysu.edu.tw

Chao-Min Chiu, Department of Information Management, National Sun Yat-sen University, Kaohsiung, Taiwan, R.O.C., cmchiu@mis.nsysu.edu.tw

Abstract

This research attempts to explore the impacts of different types of justice and their interactions on the satisfaction toward service failure recovery. We attempt to classify justices into hygiene, motivator, or asymmetric variable, based on the concept of asymmetric effect and two factors theory proposed by Herzberg. Specifically, we predict that procedural and distributive justices are hygiene or performance factor and interpersonal justice is motivator. In addition, based on expectancy-disconfirmation theory (EDT), we also attempt to understand the interaction between paired justices by arguing that motivator can generate more effect when hygiene factor or performance factors meet initial expectation. An experiment, with 3x2x2 between-subjects factorial design consisting of three factors to represent different levels of justice provided by online retailer, will be conducted to test the proposed hypotheses. A two-step approach will be used to (1) confirmation the types (hygiene, performance, or motivator) that each justice dimension belongs to, (2) understand the impact of each justice on satisfaction, and (3) test whether motivator will generate more effect when hygiene and performance factor are satisfied.

Keyword: Expectation disconfirmation theory, Justice theory, Service failure and recovery, Two factor theory, Satisfaction

1 INTRODUCTION

Even though the owners of online stores strive to offer high quality service to survive in the challenging and competitive market, service failure still occurs occasionally and is difficult to avoid. A web survey from Ibridge Research Plus (2009) indicated that 45% of online shoppers have been experienced service failure. The major service failures include late delivery, insufficient product/service information, credit card overcharged, and poor customer service support in real business settings. While service failure may prompt a variety of responses, which include complaining, negative word-of-mouth, decisions not to repurchase, and decisions to switch, proper successful service recovery provides a second opportunity for online retailers to regain consumers' trust and loyalty.

Given the importance of retaining current customers from service failure, academia has paid significant attention to exploring the determinants of satisfaction toward service failure. One research stream adopts the justice perspective and argues that high satisfaction toward service recovery may be achieved when customers feel that they are treated fairly. According to perceived justice theory, customers evaluate the fairness of the recovery based on three dimensions of justice: distributive justice (how fair the compensation received is?), procedural justice (how fair the process is?), and interactional justice (how fair the consumer is treated in the recovery process?) (Brockner & Wiesenfeld 1996). Most studies reached a common conclusion that justice perception of recovery is one critical factor of satisfaction. Furthermore, these three dimensions affect satisfaction individually and jointly (Blodgett, et al. 1997; Chang, et al. 2012; Hocutt, et al. 1997; Kuo & Wu 2012).

Even though the importance of perceived justice has been confirmed, some research opportunities remain. *First*, most past studies argue and examine the effect of perceived justices only. As an outcome, in addition to highlight the importance of three justices, those studies can only further illustrate the relative importance of each justice under difference context (e.g., in an organizational context or in a marketing context). However, expectancy theories, e.g. expectation disconfirmation theory (EDT), indicate that meeting initial expectation is also critical (Bhattacharjee 2001; Oliver 1977, 1980; Oliver & DeSarbo 1988; Venkatesh & Goyal 2010). It is reasonable to believe that customers form an initial expectation before receiving remedies from service providers. It is also reasonable to believe that meeting initial expectation may be critical for some justices. For example, while meeting expectation is critical for goal-based style justice (e.g., distributive justice), interactional justice is experiential based and performance may be more critical.

Second, most past studies assume a symmetric effect between justices and satisfaction. Customer satisfaction with service recovery is critical in maintaining positive relationships with consumers after service failure. Satisfaction has been a core research topic of numerous studies from diverse perspective (Kau & Loh 2006). Most studies in the literature have focused on customer satisfaction as one of the key drivers in measuring customer loyalty and repurchase intention. The relationships between determinants and satisfaction are usually considered linear and symmetric. However, the results are inconsistent. Researchers suggested considering asymmetric effects on satisfaction (e.g., Lankton & McKnight 2012). Asymmetric effects can help explain why increasing service recovery efforts or disconfirmation do not have a corresponding increase in satisfaction.

Further, several past studies adopted two-factor theory introduced by Herzberg (1966) to identify hygiene factors and motivators (e.g., Bharati & Chaudhury 2006; Chowdhary & Prakash 2005; Lee, et al. 2009). According to two-factor theory, there are two sets of factors for satisfaction and performance: hygiene factor and motivator. Further, Kano (1984) classified the service according to their characteristics into must-be, attractive, and performance factors. Hygiene factors or "must-be" factors lead to dissatisfaction if not fulfilled but do not positively influence satisfaction if present. Motivators or "delighter" factors increase satisfaction if delivered. Performance factors may have an equivalent impact on satisfaction in either direction. That is, a decrease in hygiene factor has a greatly negative influence on satisfaction, while an increase in hygiene factor does not necessarily increase satisfaction significantly. Motivators are expected to significantly increase satisfaction, but their absence or insufficiency does not necessarily cause dissatisfaction. Even though past studies have

proposed several ways to demonstrate asymmetric effect and identify hygiene factor and motivator, one important question hasn't been answered is whether motivator can generate more effect when hygiene factors are satisfied. This research question is critical because it guides resources allocation for practitioners. For academia, in addition to the identification of hygiene factor and motivator, this study hints a need to understand their interaction.

Based on the above discussion, the purposes of this research are as therefore to: (1) clarify the importance of meeting initial expectation for three justices in service failure recovery toward online shopping, and (2) clarify whether motivator can generate more effect when hygiene or symmetric variable meet the initial expectation.

2 LITERATURE REVIEW

2.1 Service Failure and Recovery

In such a challenging and competitive online market, the managers of online stores attempt to offer high quality service to customers. However, it is difficult to avoid occasional service failures such as late delivery, insufficient product/service information, credit card overcharged, and poor customer service support in real business settings. Service failure can occur anytime and anywhere if service delivery falls below customer expectations. Service failure can result in dissatisfied customers and negative word of mouth (NWOM). The more dissatisfied customers become, the more likely they are to spread negative word of mouth regarding their service experiences. Thus, recovery efforts are critically needed in service failure situations.

Service recovery refers to the actions that service providers response in order to correct a problem following the service failure (Grönroos 1988). The objective of service recovery efforts is to put a smile on a customer's face and move customers from a state of dissatisfaction to a state of satisfaction and, more importantly, to develop strong relationships with customers (Zemke 1993). Once a service failure has been successfully resolved, customers may have stronger loyalty and commitment to the online stores (Abrams & Pease 1993). More studies indicated that customer satisfaction after receiving adequate recover is higher than the satisfaction before service failure occurs (De Matos, et al. 2007). Also, successful service recovery could result in better satisfaction, higher repurchase intention, and higher word-of-mouth intention (Blodgett, *et al.* 1997; Maxham III 2001; Wirtz & Mattila 2004).

During the service recovery process, customers usually expect fairness in making up for the loss that occurred during the service failure. Previous studies suggested that some elements are essential for successful service recovery such as apology, urgent reinstatement, empathy, atonement, and follow up (Bell & Zemke 1987). Researchers further indicated that service recovery efforts are evaluated by the perceived fairness of recovery attempt, which is the foundation of the justice theory.

2.2 Perceived Justice Theory on Service Failure and Recovery

Justice theory has drawn a great attention within academia as a theoretical framework for service recovery (Blodgett, *et al.* 1997; Fan, et al. 2010). Previous research suggested that customer satisfaction and future behavior intention (e.g., repurchase intention and word-of-mouth) are affected by customer perceived justice in service recovery. Based on the justice framework, service recovery justice can be defined as the customer's assessment of the fairness of the way in which service failure are handled from three different dimensions: distributive, procedural, and interactional justice.

In service recovery context, distributive justice refers to the fairness of specific outcomes of the online store's recovery effort, such as discounts, refunds, store credits, etc. Some research provided evidences has pointed that distributive justice is a key factor for pre-estimate consumers' satisfaction with complaint handling and service recovery (Goodwin & Ross 1992; Smith, et al. 1999; Tax, et al. 1998). Procedural justice is related to the perceived fairness of procedures to reach the recovery outcomes. It may include time, speed of handling service failure, and formal policies related to service recovery. Previous studies evaluated the procedure justice on service recovery by measuring the

situations such as flexibility of handling, waiting time of processing and efficiency of responses to the consumers (Bitner, et al. 1990; Hui & Bateson 1991; Parasuraman, et al. 1985). Interactional justice refers to the perceived fairness of the manner during the process to reach recovery outcomes. It may include interpersonal sensitivity and treating customer with empathy and courtesy. Therefore, many studies examined the impact of three dimensions of justice on compliant handling (e.g., Falk, et al. 2010; Ha & Jang 2009; Hsu, et al. 2014; Kim, et al. 2009; Kincl & Štrach 2012; Wang, et al. 2011).

2.3 Asymmetric effect

Herzberg's two factor theory (motivator-hygiene theory), originally developed to identify factors influencing motivation level of employees at work place, has been applied to identify quality attributes for customer satisfaction (Bloemer & Kasper 1995). Hygiene factors are considered not to give positive satisfaction, though dissatisfaction results from absence; they are basic, extrinsic, and "must-be" factors. Motivator factors are considered to give positive satisfaction, arising from intrinsic conditions; they are "delighter" factors (Rattanawicha & Esichaikul 2005).

Kano, inspired by Herzberg's theory, indicated that characteristics of service can be classified into three types: must-be, attractive, and performance factor (Kano 1984). As must-be regards as what consumers anticipate, and attractiveness regards as the feature that exceed over consumers need and expect. This classification aligns with the asymmetric research stream (e.g., Falk, *et al.* 2010; Kincl & Štrach 2012; Mittal, et al. 1998). The effects of hygiene (must be) and motivator (attractive) factors on satisfaction are not the same when they are present or absent. In other words, customers are very sensitive to must-be factors when an online store performs below them. One can argue that a must-be factor has an asymmetric effect for poor performance since customers are more sensitive to negative performances. On the other hands, since a motivator is considered as delighter, customers are less likely to be unsatisfied when an online store underperforms them. An attractive factor tends to generate an asymmetrically positive effect for good performance since it is more sensitive to positive performance. Lastly, performance factor is considered as traditional variable generate symmetric effect, whereas the presence of such factor lead to satisfaction and the absence of such factor cause dissatisfaction.

Based on Herzberg's and Kano's model, three dimensions of justice on service recovery could be categorized into three types: performance factor, hygiene factor, and motivator. . Distributive justice in service recovery refers to the tangible outcome that consumer actually perceived. Since distributive justice is extended from exchange theory with a more specific and substantial concept, consumer can form their expectation of distributive justice much easily and concrete. Thus, while the expectation of distributive did not be contented, it might cause dissatisfaction of consumers. Meanwhile, from the aspect of service providers, since the expectation of distributive justice from consumer is clear, then it is also easier for service provider to offer exceed what consumers' expected to create the higher satisfaction level. Overall, because the existence of distributive justice in recovery not only prevented dissatisfaction, but also increased satisfaction, we suggested that *distributive justice* have an equivalent impact on satisfaction, which *acts as a performance (symmetric) factor*. Prior research evaluated procedural justice in service recovery by measuring response speed, and convenience of process. Thus, due to procedural justice is related to time issue, it is also easier for consumers to form a specific expectation. For example, consumer could develop their expectation toward service recovery like "expected retailer could solve the problem in three days". However, unlike distributive justice, from the aspect of retailer, the time costing always have a minimum limitation and hard to create more impressive experience to consumer. Therefore, we suggested that *procedural justice is more likely a hygiene factor* in service recovery context. In contrast, interactional justice in service recovery refers to a complex feeling about perceived fairness treatment. Interactional justice is abstractive, vague and emotional-oriented concept to consumer, thus, it not easy for consumer to develop their expectation before experience them in real. However, due to consumer cannot form their expectation clearly about interactional justice, this is an opportunity for retailer to provide an unexpected service and create more outstanding experience. Therefore, we argue that *interactional justice is more likely a motivator*.

3 HYPOTHESIS DEVELOPMENT

After reviewing the service failure and recovery literature, there are several studies and research noted factors that influence the consumers' satisfaction and their post-purchase behavior. We extended the EDT model and integrated with the justice theory to evaluation the impact of service recovery on consumers' satisfaction. The model is aimed to measure the effect on consumers' satisfaction and post-purchase behavior via the service recovery of distributive justice, procedural justice, and interactional justice through recovery expectation, recovery perception, and recovery disconfirmation of consumers. Furthermore, the goal of this study tends to find the relationship between the consumers' satisfaction and service recovery under different dimensions of justice.

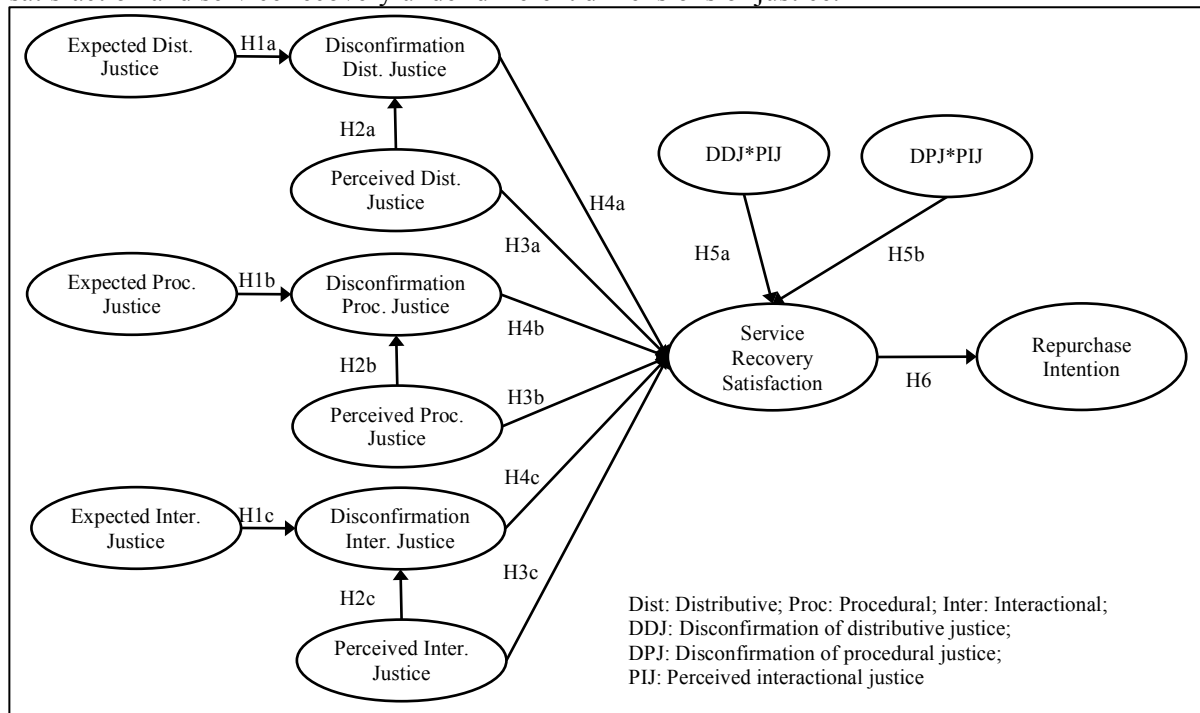


Figure 2. Research Model

EDT indicates that, while countering service failure, consumers form their expectation prior to service recovery based on their previous experiences. After consumers experience service recovery, the process of comparison, called confirmation, results in (1) confirmed status which perceived recovery performance met the initial expectation and (2) disconfirmed status which perceived recovery performance is higher or lower than the initial expectation. However, according to EDT, as expectation is regards as the reference role in comparison with perceived performance of confirmation, the higher expectation is easier to cause the negative disconfirmed status. On the other hand, the lower expectation is easier to lead the positive disconfirmed status (Churchill & Surprenant 1982; Oliver 1980). Aligning with EDT, we construct the links between consumers' expectation and confirmation toward different justice dimensions.

H1a: Expected distributive justice negatively influences distributive justice disconfirmation.

H1b: Expected procedural justice negatively influences procedural justice disconfirmation.

H1c: Expected interactional justice negatively influences interactional justice disconfirmation.

According to the EDT proposed by Oliver (1980), consumers develop a cognition called perceived performance, after experiencing a particular product or service. When service failure takes place, in general situation, consumers receive redress as recovery for the service failure. Therefore, the process of receiving redress from service provider turns to consumers' perceived performance in service recovery. Since perceived performance plays a role as comparative standard in the confirmation comparison, the higher perceived performance is easier to raise the positive disconfirmation. We therefore proposed the followings.

- H2a: Perceived distributive justice positively influences distributive justice disconfirmation.*
H2b: Perceived procedural justice positively influences procedural justice disconfirmation.
H2c: Perceived interactional justice positively influences interactional justice disconfirmation.

EDT suggests that satisfaction is a function of perceived performance, in addition to disconfirmation. The impact of perceived performance on satisfaction also has been examined in service recovery context. For example, Maxham & Netemeyer (2002) measured the recovery performance based on three justice dimensions. The distributive justice refers to tangible compensation (e.g., refund, discount, free gift) which is considered as the most important factor in evaluating consumers' satisfaction. The procedure justice refers to a fair procedure of recovery process (e.g., speed, flexibility) and has the positive impact on consumers' satisfaction. In similar way, the interactional justice refers to the manner of interpersonal treatment (e.g., politeness, friendless, offering apology) which has effect on the consumers' satisfaction of service recovery as well. Therefore, we hypothesize that

- H3a: Perceived distributive justice positively influences satisfaction*
H3b: Perceived procedural justice positively influences satisfaction
H3c: Perceived interactional justice positively influences satisfaction

The central concept in EDT is disconfirmation/ confirmation result which came from comparison of consumer initial expectation and perceived performance has critical influence on consumer satisfaction judgment. For example, Spreng & Mackoy (1996) demonstrates that disconfirmation has impact on satisfaction of product attribute and on overall satisfaction as well. In fact, the positive relationship between disconfirmation and satisfaction has been intensively tested in many areas, such as retail business (Swan & Trawick 1981), information system using (Bhattacharjee 2001). Following the traditional wisdom, we also hypothesize that

- H4a: Distributive justice disconfirmation positively influences satisfaction in service recovery.*
H4b: Procedural justice disconfirmation positively influences satisfaction in service recovery.
H4c: Interactional justice disconfirmation positively influences satisfaction in service recovery.

Different from previous studies that largely focus on the direct effect of perceived performance and disconfirmation on satisfaction, we attempt to examine the interaction effect among the different justice to service recovery satisfaction. According to two-factor theory, hygiene factors are easier to expect and consider as must-be factors. The presence of those factors prevents dissatisfaction but does not lead to strong positive satisfaction. On the other hand, performance factors are those factors related to satisfaction and dissatisfaction. Customers are satisfied when such factor is present and are dissatisfied when it is absent. This implies that, as a minimum requirement, the service recovery process should content the hygiene factors and performance factors to ensure that consumers' initial expectations were fulfilled. That is, the service recovery process and outcome should at least not frustrate customers.

However, purely assuring the presence of hygiene factors and performance factors are not sufficient. Asymmetric effect and two-factor theory indicate that the presence of motivator factors is more likely to be viewed as unexpected event and strong satisfaction can be observed. Those factors were more likely impress consumers and increase their satisfaction level. However, we further argue that consumers pay more attention on motivators when their initial expectations are satisfied (Tontini, et al. 2013). According to EDT, meeting initial expectation refers to confirmation or positive disconfirmation. Motivators can generate more effect when hygiene or performance factors are satisfied can be viewed as the condition that perceived performance of motivator has stronger impact on satisfaction when the confirmation of hygiene and performance factors are high. Since we predict that distributive justice and procedural justice are performance and hygiene factor, we therefore propose that distributive justice disconfirmation and procedural justice disconfirmation can be considered as moderator factors of the relationship between perceived interpersonal justice and satisfaction. Therefore, we propose that

- H5a: The positive relationship between perceived interactional justice and service recovery*

satisfaction is stronger when distributive justice which consumer perceived has been confirmed or better than expectation.

H5b: The positive relationship between perceived interactional justice and service recovery satisfaction is stronger when procedural justice which consumer perceived has been confirmed or better than expectation.

In the EDT model, the repurchase intention of consumers is mainly determined by their satisfaction with prior experience of a product or service (Oliver 1980). Several studies concluded that satisfaction is an important antecedent of continuance intention, for example, e-commerce users view satisfaction as a key factor to decide whether to continue using the system (Bhattacharjee 2001). In addition, the research on consumer satisfaction pointed that the level of consumer satisfaction is a key determinant of whether a willing attitude to repurchase a product or a service. Aligning with theory and empirical evidences, we hypothesize that

H6: Service recovery satisfaction positively influences repurchase intention.

4 RESEARCH METHODS

To test the above-positated hypotheses, we will design a 3x2x2 between-subjects factorial design consisting of three factors. Distributive justice will be manipulated on three levels: high, medium, and low. Procedural justice and interactional justice will be manipulated on two levels: high and low.

Role-playing scenario will be developed reflecting the experimental design. The purpose of the scenario will help subjects put themselves into the situation in order to test the hypotheses. Each scenario contained the description of a hypothetical service failure and recovery of an e-retailer. Prior to the treatments, the subjects will read a scenario about a service encounter which describes a situation that consumer felt unsatisfied with the product after online shopping, and will be asked about consumer's recovery expectation of three dimensions of justice. Then, the subjects will be randomly assigned to read another scenario about how the online retailer provided its service recovery strategies to solve the problem. After reading 2nd scenario, the subjects will be given some questions containing items designed to assess the validity of the manipulations. In order to ensure the validity of experiment, we will present these scenarios via animated video to make the scenario more vivid and emotionally involving. Finally, respondents will be asked about their perception of the recovery, disconfirmation of perceived performance, overall satisfaction to the recovery, as well as continuance intention.

Measurement items in each construct will be adapted from the previous literature. All items will be measured on a 5-point Likert-type scale, anchored with (1) strongly disagree and (5) strongly agree. The operational definition and sources of measurement of each construct are summarized as Table 1. The questionnaire will be pre-tested with IS professors and doctoral student. Furthermore, a pilot test will be conducted involving 30 MBA students who have online service failure and recovery experiences.

Constructs	Definition	Sources of measurement
Expected Distributive Justice	The consumers' expectation of service recovery on tangible and substantial compensation after a service failure	(Blodgett, <i>et al.</i> 1997; Blodgett & Tax 1993; Oliver & Swan 1989)
Perceived Distributive Justice	The consumers' perception of service recovery on tangible, substantial compensation during or after the real recovery experience	
Distributive Justice Disconfirmation	The consumers' perception between expectation of service recovery on tangible and substantial compensation and its real performance	
Expected Procedural Justice	The consumers' expectation of service recovery on speed of process, convenient and fairness of treatment after a service failure	(Blodgett, <i>et al.</i> 1997; Blodgett & Tax 1993)
Perceived Procedural Justice	The consumers' perception of service recovery on speed of process, convenient and fairness of treatment during or after the real recovery experience	
Procedural Justice Disconfirmation	The consumers' perception between expectation of service recovery on speed of process, convenient and fairness of treatment and its real performance	
Expected Interactional Justice	The consumers' expectation of service recovery on attitude and interpersonal treatment after a service failure	(Blodgett, <i>et al.</i> 1997; Blodgett & Tax 1993)
Perceived Interactional Justice	The consumers' perception of service recovery on attitude and interpersonal treatment during or after the real recovery experience	

Interactional Justice Disconfirmation	The consumers' perception between expectation of service recovery on attitude and interpersonal treatment and its real performance	
Service Recovery Satisfaction	consumers' emotional response with perception and disconfirmation after the real recovery experience	(Boshoff 1997; Wirtz & Mattila 2004)
Continuance Intention	Consumers' intention to continue purchasing.	

Table 1. *Operational definition and sources of measurement*

5 EXPECTED CONTRIBUTION

The major purpose of this research is to understand the relationship between service recovery and consumers' satisfaction through incorporating consumers' expectation, perception, and disconfirmation of different justice dimensions. Furthermore, another interesting issue of this research is to examine the interaction between different justice dimensions based on Herzberg's motivation-hygiene theory. The research is designed to understand whether motivator can generate more effect when hygiene factors meet customers' initial expectation.

According to the research model and hypotheses, the expected findings are: (1) aligning EDT, the relationship between disconfirmation and perceived performance is positive and significant for all types of justice; (2) disconfirmation is not always critical in service recovery satisfaction, however, it depends on the type of justice; (3) all types of justice perception are related to service recovery satisfaction; (4) perceived interactional justice has stronger impact on service recovery satisfaction when other two justices meet initial expectation; (6) service recovery satisfaction had a positive relationship with repurchase intention of consumers.

Thus, this research is expected to provide feedback to related theories and contribute to practitioners by highlighting the impact of justice and their interaction. For theories, we contribute to both service failure and recovery research stream and to traditional expectancy theories (e.g. EDT). For service failure and recovery research, while past studies have included all three justices dimension to understand their importance, they large focus on the performance of each justice dimension only, no matter direct or interaction effects. In this study, we move further and distinguish these three justice dimensions into hygiene, motivator, and performance factor. By knowing the intrinsic nature of each justice, practitioners can better arrange their resources based on their goal (to satisfy or to delight customers). For expectancy theories, recently studies have highlighted the need to decompose expectation, perceived performance, and disconfirmation into different types, based on the research context. For example, Hsu et al. (2014) separated value of using social networking sites into utilitarian and hedonic two types. In this study, based on the concept that not all confirmation always matter, we expect that not all disconfirmations of justices can boost satisfaction while taking effects from all dimensions into consideration simultaneously.

In addition, past studies have shown the interaction effect of paired justices. For example, satisfaction level is higher when both distributive justice interactional justice are high in service recovery context (Hocutt, *et al.* 1997). In this study, we attempt to move further and show the interaction between disconfirmation of one dimension and perceived performance of another dimension. Especially, we argue that the perceived performance of motivator (e.g. interpersonal justice) can generate more effect when hygiene or performance factors are confirmed. We expect that consumers tend to be more satisfied when their expectation of distributive justice on service recovery was contented. Then, under this condition, the high perception of interactional justice will have greater influence on satisfaction. With the expected results, service provider can determine the steps of service failure recovery. Given that motivator can generate more effect after hygiene and performance factors are satisfied, online service providers should emphasize hygiene (procedural justice) and performance (distributive justice) factors first so that motivator (interpersonal justice) can generate more effect.

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