SERVICE FAILURES IN E-RETAILING: EXAMINING THE EFFECTS OF RESPONSE TIME, COMPENSATION, AND SERVICE CRITICALITY

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Abstract

This study examines the role of response time in recovering from service failures in e-retailing. Employing an experimental design, the study reveals that customers construe time in abstract terms. Response time during service recovery is evaluated in combination with the compensation provided by the firm and criticality of the service experience. The extent to which the three factors – response time, compensation, and criticality – activate abstract construals, matters to customers. The study demonstrates that delaying the process of recovery can result in customer satisfaction, repatronage, and positive word of mouth, when an apology is provided and criticality of the service is low. Further, delay in service recovery is acceptable when negative emotions elicited by the failure are low. The findings provide empirical insights on the viability of delayed recovery following service failures in e-retailing, contravening the notion that delayed recovery is always inefficacious. The study advances a novel perspective on the role of response time in online service failure and recovery, and also accounts for how customers construe recovery efforts. Whilst establishing the prominence of construal levels in understanding customer responses to online service recovery, the study highlights new avenues for research and innovative managerial perspectives for e-retailers.

Keywords: online service failure, service recovery, time, compensation, criticality, e-retailing

1. Introduction

Service failures are recurrent problems, and increasingly, customers show unwillingness to forgive the firms for providing poor service. A 2016 report by the UK Ombudsman Services reveals that customer complaints have increased from 67 per cent in 2013 to 82 per cent in 2015 (Ombudsman Services, 2016). The report also indicates that retailing is the worst performing sector, registering 13 million complaints in 2015 alone (23 per cent of total complaints). In particular, the growth of online-only stores is shown to drive this surge in complaints, with 12 per cent of the total complaints being related to online retail alone. Service failures can be highly detrimental to customer experiences and in turn company profitability, given that such events often result in the defection of profitable customers (Keaveney, 1995). Whilst service failures are often inevitable, managing these events through effective recovery can be a 'profitable art', resulting in restoration of customer satisfaction and prevention of defection (Hart, Heskett, & Sasser, 1990). Given the above background, understanding how retailers can best recover from service failures in e-retail settings is crucial, and represents the focus of the present study.

Amongst other recovery strategies, timely processing of recovery is recognized as a salient organizational effort for addressing service failures. Timeliness is, in fact, a widely-used key performance indicator in customer-facing roles (Marr & Neely, 2004; Robinson & Morley, 2006). Ensuring timely recovery process, however, can be resource-intensive and often impractical for retailers operating in the online domain. Frequently, firms experience situations where the IT department is required to investigate the reason for the online service breakdown. In such instances, recovery processes can be time consuming, and lead to delays in the resolution of the failure. In addition, websites largely lag in the provision of online recovery, as first pointed out by Holloway and Beatty (2003), and recently supported by Tan, Benbasat, and

Centefelli (2016). The lack of customer-employee direct interaction in technology-enhanced retail environments, coupled with delay in recovery, could exacerbate customer dissatisfaction and negatively influence their repurchase intentions. In this regard, questions pertinent to retailers operating online relate to whether, and how, delayed service recovery can be employed as an effective strategy for maintaining customer-retailer relationships.

In scholarly research, evidence on the effectiveness of timely recovery process is mixed. Conventional wisdom that customers who receive timely recovery are more satisfied than those who do not receive timely recovery is supported by a number of studies (e.g., Smith, Bolton, & Wagner, 1999; Tax, Brown, & Chandrashekaran, 1998). The above studies share the unanimous view that timely recovery is effective at restoring customer perceptions of fairness that are initially undermined by the failure event, and in particular, at addressing customer needs for procedural fairness (e.g., Homburg & Fürst, 2005; Kim, Kim, & Kim, 2009; Liao, 2007). Contrasting evidence, however, indicates that timely recovery does not always lead to positive customer outcomes (e.g., Blodgett, Hill, & Tax, 1997; Boshoff, 1997; Mattila & Mount, 2004; Zhou et al., 2014).

For instance, Blodgett et al. (1997) show that timeliness does not positively impact customer repurchase intentions and positive word of mouth (PWOM). The above authors note that employee behavior and redress for the failure overshadow the effect of timeliness in service recovery. Arguably, the context of the above study, namely product failure followed by a face-to-face employee-customer interaction, might also explain the weak effect of timely recovery processes. Further, Boshoff (1997) indicates that customers are concerned about timeliness following a long, rather than a short delay. Recent experimental research goes a step further to demonstrate that delays in failure resolution lower negative emotions, especially in the context of

technology-separated services (Zhou et al., 2014). The finding is attributed to the fact that customers are flexible with timing when dealing with technology-separated services, as compared with non-separated services which require physical presence and in turn, effort on the part of customers.

The above studies, however, do not account for how other recovery strategies employed by firms could influence customer response to delay in the process of failure resolution. For instance, customers might accept delayed response to failures when it is considered along with other recovery efforts, such as a monetary compensation. Importantly, as suggested by Macdonnell and White (2015), consumers construe time in abstract terms, and they exhibit a zone of indifference for small time losses (Festjens & Janiszewski, 2015). Given that time is ambiguous and difficult to quantify, consumers could perceive time losses associated with delayed failure resolution as acceptable. This is especially the case when tangible and less ambiguous resources that compensate for the time loss are provided by the firm. In addition, the criticality of the failed service may influence whether customers are willing to accept delayed response from the firm, or not. As noted by Ostrom and Iacobucci (1995), the criticality of the service encounter influences how customers value services.

Further, emotions are likely to play an important role in explaining customer acceptance of delay. Prior service recovery research suggests that emotional states influence customer behavior following *offline* failures (e.g., Bagozzi, Gopinath, & Nyer, 1999; Chebat & Slusarczyk, 2005; McColl-Kennedy, Sparks, & Nguyen, 2011; Schoefer & Diamantopolous, 2008). Emotions are expected to be particularly important in the online environment where support from employees is limited, or non-existent, and technology mediates customer-firm interactions. Within such context, customers inevitably participate in the service delivery when making online purchases,

and as a result, they might experience heightened stress and negative emotions, and associated perceptions of self-blame (Shank, 2013; Zhu et al., 2013). As shown by Bendapudi and Leone (2003), customers who are given the choice to participate in the production of goods and services perceive themselves as partly responsible for an outcome. The present study contends that acceptance of delay in the resolution of online service failures is contingent upon customers' emotional state, wherein they are likely to embrace a delay with failure resolution when negative emotions elicited by the failure are low.

The issue of time is, therefore, especially relevant for services delivered in the online environment. The fast accessibility of the Internet and innovations in mobile and wireless technologies have dramatically changed the way firms deliver services and interact with customers. Customer-firm interactions are increasingly mediated by technology (Schumann, Wünderlich, & Wangenheim, 2012). For firms, technology is a cost-effective channel to support the provision of services as well as retail processes (Pantano & Priporas, 2016). For customers, technology eliminates the time boundaries associated with brick and mortar services and traditional retail settings (Bourlakis, Papagiannidis, & Li, 2009). E-retailing, which entails the selling of products and services over the Internet, has registered a remarkable growth over the years. Established retailers have expanded their operations on e-retail websites, whilst pure online retailers such as Asos and Amazon have entered the marketplace. The total online sales of products in the UK were £42.5b in 2015, and this figure is set to increase at an annual rate of 11.6 per cent until 2020 (Mintel 2016).

Whilst experiencing a rapid growth, e-retailing is prone to service failures. Within the online retail setting new forms of service failures have emerged, including issues related to privacy, security, on-time delivery of online orders and ease of navigation (Holloway & Beatty,

2003; Singh & Crisafulli, 2016). E-retailing, therefore, represents a highly pertinent context for the study of service recovery overall, and recovery processing time in particular. A perspective on time lapsed following service failures in e-retailing is that, by removing time barriers in the provision of goods and services, e-retailing sets expectations for seamless and convenient recovery (Kang, Mun, & Johnson, 2015). In other words, as customers use e-retailing for convenience (Rose, Clark, Samouel, & Hair, 2012), they may expect recovery from failures in online retailing to be equally seamless and convenient. An alternative perspective is that e-retailing, and online services in general, reduce the need for the service provider and the customer to be co-located (Schumann et al., 2012). Consequently, the line of visibility between customers and onstage actions on the part of the retailer is reduced, with technology mediating customer-retailer interactions. Due to reduced visibility, customers are less likely to think of alternative actions the retailer could undertake in order to resolve the service failure, but they are likely to acknowledge that failure resolution requires prolonged effort on the part of the firm.

Despite the ubiquity of failures in e-retailing and the importance of response time in the context, the currernt knowledge on how retailers can effectively recover from such events is sparse. Specifically, the effects of response time in e-retail settings, and its interplay with compensation, criticality of the service and emotions, on profitable customer outcomes remain unknown. The continuing growth of e-retailing as well as the rise of complaints in this sector underscore the importance of providing effective service recovery, and scholars have called for research in the domain (e.g., Tan et al., 2016). Seeking to address the above knowledge gap, the present study investigates customer perceptions of delayed response to service failures in an e-retailing setting. Underpinned by the well-established construal level (Trope & Liberman, 2003) and prospect theories (Kahneman & Tversky, 1979), the study addresses three research

objectives: (1) to understand how response time following service failures in e-retailing impacts customer post-recovery satisfaction and behavioral intentions, (2) to examine the interplay between time, compensation and criticality of the service, and (3) to assess whether the impact of response time on customer satisfaction, repatronage and PWOM is contingent upon customer negative emotions.

The study makes important theoretical contributions. First, it advances knowledge in an increasingly important area of research relating to online service recovery management. In particular, it provides evidence on a cost-effective service recovery option, namely delayed response to failures, as well as its consequences and its interplay with compensation and criticality of the service. Second, through testing for the moderating effect of negative emotions, the study provides insights on the boundary conditions of delayed recovery process in e-retailing. Third, the study furthers knowledge on how technological advances in retailing impact customer-retailer relationship building and maintenance. From a practical perspective, the findings provide managerial guidelines on designing effective recovery strategies that address service failures in e-retailing, and on employing planned delay as a recovery strategy.

The remainder of the paper is organized as follows. First, the theoretical underpinnings of the study and research hypotheses are presented. Second, the methodology employed in the study is outlined. Thereafter, the analysis and findings are discussed. Finally, the paper ends with a discussion of relevant implications for theory and practice, limitations, and avenues for further research.

2. Theoretical Background and Hypotheses Development

Extant research recognizes the relevance of justice as a cognitive mechanism for explaining how service recovery influences customer attitudes and behavioral intentions (e.g., Chebat & Slusarczyk, 2005; Smith et al., 1999; Tax et al., 1998). Studies incorporating the justice framework, however, apply only to offline service contexts, barring a few recent exceptions that examine the above issues in an online service context (e.g., Lin, Wang, & Chang, 2011; Singh & Crisafulli, 2016). In general, prior studies in the online context include typologies of online service failures (Forbes, Kelley, & Hoffman, 2005; Holloway & Beatty, 2003), the role of contingency factors to customer perceptions of online service failures such as cumulative online purchase experience (Holloway, Wang, & Parish, 2005), customer-employee familiarity (Pizzutti & Fernandes, 2010), and comparisons of customer responses to offline versus online failure encounters (Harris, Grewal, Mohr, & Bernhardt, 2006). Notably, extant research is sparse on areas such as the role of *time* in recovering from online service failures, its combined effect with other recovery strategies such as compensation, and the situational factors, such as criticality of the service.

Consumer psychology literature refers to time and money as scarce resources in human life, yet also as the *'principal means of attaining and experiencing what life has to offer'* (Macdonnell & White, 2015, p. 551). Individuals tend to be less accountable for, and aware of, how they spend their time, than how they spend their money, and they construe time in more abstract terms than money (Macdonnell & White, 2015). Time is often associated with feelings and people's connection to others, whereas money is tangible and associated with self-interests (Leclerc, Schmitt, & Dube, 1995). According to construal level theory (Trope & Liberman, 2003), detailed, contextualized representations of objects and/or events are indicative of concrete construals, while decontextualized representations denote abstract construals. An example is

unsatisfactory experiences with an online grocery retailer, whereby failure resolution is delayed. The online retailer's response to such encounters can be construed in concrete terms (e.g., thinking of the money invested) or in abstract terms (e.g., need for reassurance that the problem will be resolved). Further, the level of importance attached by the customer to the online purchase (i.e. criticality), and the negative emotions elicited by the unsatisfactory experience, could influence the extent to which the retailer's recovery efforts are perceived as acceptable. The role of response time following service failures in e-retail settings, and its combined effect with compensation and criticality of the service are, therefore, the focus of the present study. The theoretical underpinnings of the study and related research hypotheses are outlined in the sections below.

2.1 The impact of response time on customer post-recovery satisfaction and behavioral intentions

Extant research refers to response time, and specifically the speed of response to service failures, as a key determinant of customer post-recovery perceptions and behavior (Davidow, 2003). The evidence on the effect of response time on consumers, however, is inconsistent. For example, a number of studies support the view that timely response to service failures (e.g., Conlon & Murray, 1996; Durvasula, Lysonski, & Mehta, 2000; Hoffman, Kelley, & Rotalsky, 1995) and related perceptions of procedural fairness (e.g., del Río-Lanza, Vázquez-Casielles, & Díaz-Martín, 2009; Homburg & Fürst, 2005; Smith et al., 1999; Tax et al., 1998) are effective at restoring customer satisfaction. By contrast, other studies show that timely recovery fails at encouraging repurchase intentions (e.g., Blodgett et al., 1997; Boshoff, 1997; Davidow, 2000; Kim et al., 2009), increasing positive emotions (e.g., Chebat & Slusarczyk, 2005), or lowering

complaining intentions (e.g., Voorhees & Brady, 2005). Timely response to failures is found to either lead to positive customer outcomes when combined with redress or to have no positive effect on satisfaction or repurchase intentions (e.g., Clark, Kaminski, & Rink, 1992).

The above inconsistency of findings indicates that response time can take different forms in service recovery encounters, and lead to different customer perceptions. Consistent with the above, Davidow (2003) proposes a distinction between three response times: immediate response, necessary and unnecessary delay, and calls for further research on the role of delay. Whilst customers are unlikely to accept unnecessary delay, they are also likely to perceive necessary delay as justified and acceptable. This suggests that necessary delay in recovery could be a viable organizational response to service failures, leading to positive customer outcomes. For instance, Zhou et al. (2014), in an experimental study, show that delayed process of recovery lowers negative customer emotions in the context of separated (technology-mediated) services, but not in the context of non-separated services. The authors attribute the finding to the fact that customers allocate time more efficiently when dealing with technology-separated services, as compared to non-separated services. Efficient allocation of time, therefore, results in greater tolerance of reasonable delays. Further, in Zhou et al. (2014), the use of a distraction learning task prior to presenting the recovery scenario could have arguably lowered participants' attention toward the passage of time. Whilst enhancing understanding on the causal effect of delayed recovery process on customer emotions, the above study includes financial compensation as a form of recovery, yet it does not test the impact of compensation on consumers, and its interplay with response time.

Prior to testing the interplay between compensation and response time, the present study examines the independent effect of response time on customer attitudes and behavioral

intentions. The focus here is on service failures taking place in an e-retail setting. E-retailing is growing at a fast pace, and understanding customer post-recovery behavioral intentions in this context is crucial for retailers' long-term profitability. From the firm perspective, the adoption of e-retailing can result in cost efficiencies (Schumann et al., 2012). From the customer perspective, factors such as information availability and variety, efficiency and convenience turn e-retailing an attractive business model (e.g., Liu, Arnett, Capella, & Taylor, 2001; Rose et al., 2012; Srinivasan, Anderson, & Ponnavolu, 2002). Customers are increasingly accustomed to the immediacy derived from a variety of activities, including instant messaging (Dolev-Cohen & Barak, 2013), and social media exchanges (Pittman & Reich, 2016). The need for immediacy can raise the bar of expectations from the service encounter, both expectations of the initial service delivery, and of the recovery process (Kang et al., 2015). Given the above considerations, it would seem intuitive to expect that customers will welcome an efficient and timely resolution to service failures in e-retailing. In a departure from the pervasive 'as-soon-as-possible' belief, this study posits that a necessary delay in addressing online service failures is often necessary and it can lead to positive customer outcomes.

Delay can have a 'quenching' effect on customer-firm conflicts, as suggested Brehm (1999) through the lens of neuropsychology. The passage of time enables customers to cognitively assess whether the delay is justified or not, and to respond rationally, rather than emotionally, to the failure. In other words, time allows customers to rationalize the situation and makes them willing to accept the delayed resolution of the failure. Moreover, construal level theory (Trope & Liberman, 2003) contends that customers interpret time in abstract terms, not as a physically and conceptually finite resource. Notably, consumer research shows that firms' stimuli are most persuasive when aligned with customer construals (Macdonnell & White, 2015).

Due to technology mediation and lowered customer visibility of the recovery process, online service encounters are likely to be construed in abstract terms, similar to time. Online service encounters are, therefore, expected to garner support for the processing of an abstract resource such as time.

Given the ambiguity and lack of contextual features inherent to time, customers are expected to pay little attention to small, necessary delays from the firm. Accordingly, drawing on the concept of marginal utility, prospect theory (Kahneman & Tversky, 1979) argues that the value of time is tied to its use (or utility). Individuals value blocks of time, which are sufficiently large to allow meaningful use, for instance, to perform a valued activity. In comparison, small blocks of time are likely to be inconsequential to the customers, such that small time losses are of little value and result in customer indifference (Festjens & Janiszewski, 2015). Extending the above logic to the context of the present study, it is logical to assume that customers will be indifferent to small losses associated with necessary minor delays in the resolution of online service failures.

Further, the onlinr context under investigation can explain why a necessary delay in the process of recovery can lead to positive customer outcomes. When online services fail, customers typically lodge a complaint by email, phone or live chat features on websites (Singh & Crisafulli, 2016). In order to handle the complaint, firms often need to investigate the service breakdown. In such instances, customers are willing to give some leeway of time in handling the failure (Davidow, 2003). An immediate response may, indeed, backfire by giving the impression that the firm did not invest time looking into the problem and trying to find a resolution. Based on the above discussion, this study posits that delayed (vs. immediate) response to service

failures in e-retail settings leads to customer post-recovery satisfaction, PWOM, and repurchase intentions. Hence:

H1: Following service failures in e-retail settings, delayed response is likely to lead to greater (a) recovery satisfaction (b) PWOM, and (c) repurchase intentions than immediate response.

2.2 The impact of compensation and criticality of the service on customer post-recovery satisfaction and behavioral intentions

As an extensively-researched organizational response to service failures, financial compensation is regarded as a key mechanism for lowering customer dissatisfaction and encouraging PWOM and repurchase intentions (e.g., Chebat & Slusarczyk, 2005; Davidow, 2003; Gelbrich, Gäthke, & Grégoire, 2015; Grewal, Roggeveen, & Tsiros, 2008). The basic premise of extant research on compensation is that service failures cause unfairness, and compensation on the part of the firm restores distributive fairness and the customer-firm relationship at equitable levels (Adams, 1965). Scholarly research provides extensive empirical support for the above premise, as pointed out by Roschk and Gelbrich (2014) in a meta-analysis of the literature on recovery compensation. Several studies imply that firms should consider financial compensation in the form of free ancillary services, discounts, upgrades and refund as recovery strategy (e.g., McCollough, 2000; Sparks & McColl-Kennedy, 2001). Notwithstanding, evidence on the optimal level of financial compensation remains sparse. Despite the prevalent belief that financial compensation leads to customer satisfaction, there is evidence suggesting that the marginal utility of financial compensation diminishes as its size increases, and accordingly, overcompensation is unnecessary and detrimental to firms (Crisafulli & Singh,

2016; Gelbrich & Roschk, 2011). Importantly, as a recovery strategy, financial compensation is often not perceived favorably by the firms due to the associated costs.

A cost-effective alternative to financial compensation is psychological compensation, such as apology (e.g., Davidow, 2000; Roschk & Kaiser, 2013; Wirtz & Mattila, 2004). Whilst largely agreeing on the relevance of apology as a recovery strategy, research findings on the effectiveness of apology are mixed. A number of studies show a positive, direct relationship between apology and post-recovery satisfaction (e.g., Boshoff & Leong, 1998; Martin & Smart, 1994), or an indirect relationship through the mediation of interactional justice perceptions (e.g., Mattila, 2001; Smith et al., 1999). By contrast, other studies find no relationship between apology and satisfaction (e.g., Goodwin & Ross, 1992; Ruyter & Wetzels, 2000) or repurchase intentions (e.g., Davidow, 2000; Liao, 2007; Martin & Smart, 1994). Roschk and Kaiser (2013) allude to the importance of considering the manner of rendering an apology. The authors suggest that apology is effective when intense, empathetic, and provided at the right time during the failure resolution process. As a cost-effective strategy, psychological compensation warrants further research. Importantly, as noted by Roschk and Kaiser (2013), apology should not be evaluated in isolation, but in relation to response time. The above view is echoed by Zhou et al. (2014) who call for further research on customer perceptions of response time when different types of compensation (both financial and psychological) are provided.

In addition, beyond the compensation rendered by the firm, situational factors can influence customers' post-recovery attitudes and behavioral intentions. For instance, Ostrom and Iacobucci (1995) note that customers value different attributes of services depending on the criticality of the service. In a recovery context, research points out the relevance of criticality of service consumption in influencing customer evaluations of service recovery (e.g., Mattila, 1999;

Teng, Chen, Chang, & Fu, 2014; Webster & Sundaram, 1998). Despite the preponderance of research supporting the pivotal role of financial and psychological compensation, as well as criticality of the service in explaining customer responses to service failure and recovery encounters, so far there is no research examining the extent to which the above factors influence customer perceptions of *online* service failures. Seeking to advance research in the domain, this study investigates the interplay between response time, compensation and criticality, for service failures taking place in e-retailing.

Further, construal level theory (Liberman & Trope, 1998) suggests that time is construed in more abstract terms than money. The theory posits that the alignment of the firm's stimuli with customers' construal levels is important in shaping perceptions. For instance, research on charitable giving demonstrates that appeals to charitable causes are most effective when the cause activates a construal, which is aligned with the construal of the resource being requested, whether time or money. In this regard, Macdonnell and White (2015) show that when social causes are positioned abstractly (i.e. feelings and connection to others are promoted), consumers are likely to donate a resource in kind, such as time (also construed in abstract terms). The reverse is true when causes are positioned more concretely (i.e. concrete action are advertised), and donations of money are encouraged.

Further, research shows that temporal distance is an important domain related to construal level. Temporally close actions, events, or objects are represented by low level construals; these events are construed in concrete terms, thus customers focus on constraints and the feasibility of achieving outcomes. By contrast, temporally distant events are represented by low level construals; these events are construed in abstract terms, thus customers are encouraged to focus on the benefits and desirability of outcomes (Zauberman & Lynch, 2005). Customer

construals lead to distinct consequences (Leclerc et al., 1995). For instance, Fujita, Eyal, Chaiken, Trope, and Liberman (2008) establish that social appeals drawing on concretely framed messages are particularly effective at generating temporally proximal donations (i.e. money), but not temporally distant donations. In a similar vein, Jin and He (2013) note that temporal distance influences customer evaluation of persuasive messages embedded within service guarantee policies. The above study shows that compensation set in the guarantee is construed in concrete terms, therefore, it is relevant for temporally close purchase decisions. Ease of invoking the guarantee, on the other hand, is construed in abstract terms and it is most effective at influencing distant decisions.

Drawing on construal level theory (Liberman & Trope, 1998) and the evidence from past consumer research, the present study proposes that customer satisfaction and behavioral intentions following service failures in e-retail settings are positively affected when response time and compensation activate similar construal levels (Macdonnell & White, 2015). From the customer perspective, financial compensation determines the *money* obtained from the recovery encounter, whereas psychological compensation determines the *self-worth* obtained from the same encounter. Since financial compensation and temporally close events are construed in concrete terms, it is expected that financial compensation activates construals which are best aligned with immediate response to the failure. By contrast, psychological compensation and temporally distant events are construed in abstract terms (Zauberman & Lynch, 2005). Psychologycal compensation in the form of apology is considered as future-driven, and as such, it provides a basis for future customer-firm interactions (Basso & Pizzutti, 2016). It is, therefore, expected that the construal levels associated with delayed response to the online service failure

are best aligned with psychological compensation. In other words, delayed response to the failure is likely to be effective when combined with psychological compensation.

Further, since money is construed concretely and time is construed abstractly, the effectiveness of delayed response involving (psychological or financial) compensation will be dictated by the degree of abstractness (or concreteness) conveyed by the service experience (Macdonnell & White, 2015). Services perceived as high in criticality (i.e. the customer urgently needs these services) are likely to be construed in concrete terms; customers might not be willing to postpone failure resolution to a later stage and would, therefore, be receptive of immediate recovery accompanied by financial compensation. By contrast, services perceived as low in criticality (i.e. the customer does not urgently need these services) are likely to be construed in abstract terms; customers might be willing to postpone failure resolution and to accept delayed response accompanied by psychological compensation (Zauberman & Lynch, 2005). Following the precepts of construal level theory, the present study posits a three-way interaction between response time, compensation, and criticality of the service. Therefore:

H2a: Following service failures in e-retail settings, for service experiences of low criticality, delayed response combined with psychological compensation will lead to greater (a) recovery satisfaction, (b) PWOM, and (c) repurchase intentions, than delayed response combined with financial compensation.

H2b: Following service failures in e-retail settings, for service experiences of high criticality, immediate response combined with financial compensation will lead to greater (a) recovery satisfaction, (b) PWOM, and (c) repurchase intentions, than immediate response combined with financial compensation.

2.3 The moderating effect of emotions

Emotions have long been recognized to play an important role in explaining customer evaluations (Bagozzi et al., 1999). In service recovery research, emotions have received attention over the past decade or so. Extant research refers to emotions as a mechanism for explaining the link between customer perceptions of recovery fairness (or justice) and behavioral intentions. For example, Schoefer and Diamantopoulos (2008) show that low perceptions of recovery fairness elicit negative emotions, and in turn, negative word of mouth. Further, Chebat and Slusarczyk (2005) demonstrate that perceived fairness of customer-employee interactions at the time of recovery lowers negative emotions, and in turn, switching intentions. In the hospitality context, del Río-Lanza et al. (2009) note that procedural fairness towards recovery processes affects customer satisfaction through the mediation of positive emotions.

Unlike the above research that undertakes the dimensional view of emotions (positive vs. negative), other studies consider discrete emotions. For example, McColl-Kennedy et al. (2011) examine how perceived justice dimensions differentially influence whether customers target anger at the service employee or the firm. Whilst extant research considers emotions as outcomes of perceived justice, and as antecedents to customer attitudes and behavioral intentions, empirical research addressing how customer emotional state following service failures influences evaluations of service recovery is sparse. An exception is the study by Smith and Bolton (2002) showing that failure-elicited emotions influence customer responses to organizational recovery efforts. The above authors consider customer responses to failed offline hotel and restaurant services. The way customer emotional state influences evaluations of response time following *online* service failures, however, is so far not known. Seeking to advance knowledge in the area,

the present study investigates the extent to which the effect of delayed (vs. immediate) response to online service failures is contingent upon customer emotional state.

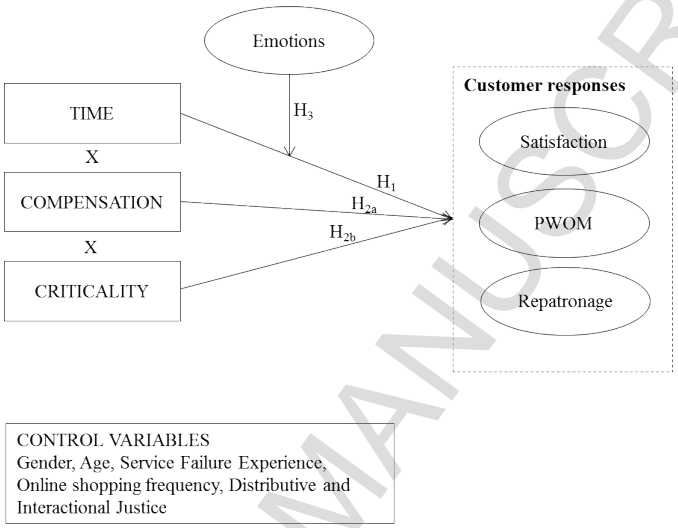
According to research in neuropsychology, emotions are natural, instinctive responses of the individual to threats in the environment (e.g., Brehm, 1999; Nowlis, Mandel, & McCabe, 2004; Zhou et al., 2014). Negative emotions, at their peak, elicit the desire to take revenge and to harm the other party. Such desire, however, subsides over time as emotions lower in intensity (Grégoire, Tripp, & Legoux, 2009). The above implies that the passage of time could lead to a positive emotional state and frame of mind. Further, research following an information-processing perspective shows that customer emotional state dictates the information-processing strategy customers use in order to evaluate companies' stimuli (e.g., Bless, Bohner, Schwarz, & Strack, 1990). Customers in a positive emotional state tend to process less information and use more abstract reasoning or heuristics than those in a negative emotional state, who rely upon concrete reasoning and analytical processes of elaborating information (Mackie & Worth, 1989).

Extending the above evidence, the present study investigates whether the effect of recovery delay on consumers is compounded (or not) by negative emotions elicited by the failure. The study posits that the effect of response time in online service failures will be contingent upon whether the customer is in a positive, or negative, emotional state and frame of mind. When compared with customers in a positive emotional state, those who are in a negative emotional state will evaluate delayed response to the online service failure more systematically. This group of customers will be less likely to show satisfaction and willingness to revisit the online retailer. By contrast, customers in a positive emotional state will engage in abstract reasoning when evaluating delayed response to the online service failure, and they will show willingness to 'forgive' the retailer for the delay. Thus, it is hypothesized that:

H3: Following service failures in e-retail settings, customer negative emotions will interact with response time in influencing (a) recovery satisfaction, (b) PWOM and (c) repurchase intentions.

The hypothesized relationships are illustrated in the conceptual model in Figure 1.

Figure 1: Conceptual model



3. Methodology

3.1 Research Design

In order to test the research hypotheses, a scenario-based experiment was conducted. The method is appropriate for investigating naturally occurring events such as service failures and to avoid issues of recall and negativity bias typically associated with self-reporting techniques, whereby customers are asked to recall their negative experiences happened in the past (e.g., Smith et al., 1999; Van Vaerenbergh, Larivière, & Vermeir, 2012; Wirtz & McColl-Kennedy, 2010). The study employed a 2 (response time: immediate vs. delayed) x 2 (compensation: monetary vs. psychological) x 2 (criticality: high vs. low), between-subjects design. Scenarios of a failure with an online retailer were designed. The scenario described a case of service failure

during an online purchase via the website of a grocery e-retailer. In the process of completing the online transaction, the system failed and the transaction was unsuccessful. After receiving a customer complaint via live chat feature on the website, the firm attempted service recovery.

Response time. Immediate response was operationalized by inserting the following statement into the scenarios: "In answer to the complaint, the customer service agent on the live chat resolves the problem and *immediately apologizes for the inconvenience* / *immediately resolves the problem and provides a 30% off the online purchase*. A message also appears on the screen saying: we apologize for the inconvenience". The corresponding statement for the condition with delayed response read as follows "You exchanged several messages with the customer service agent on the live chat. *You are asked to wait until someone looks into the problem. After three hours, the agent calls you, confirms that there is an issue with the online order system* and provides a 30% off the online purchase / apologizes for the inconvenience".

Compensation. Financial compensation was operationalized with the following statement: "In answer to the complaint, the customer service agent on live chat resolves the problem and *provides a 30% off the online purchase*." The corresponding statement for the condition with psychological compensation read as follows "..the agent *immediately apologizes for the inconvenience*".

Criticality. The scenarios high (low) in criticality stated that the online purchase was of critical (minor) urgency as the customer lacks (has) alternatives. A sample of the scenarios is provided in Appendix A.

3.2 Measures

Established scales were adapted for the study. The process of selecting the measures followed the best practice guidelines for detecting psychometrically sound measures outlined by

Bearden, Netemeyer and Haws (2011). Accordingly, the selected measures (1) share the theoretical definition in the present study, (2) exhibit good psychometric properties (i.e. validity and reliability), and (3) are relevant to the population of interest to this study (i.e. consumers). The scales were contextualized for the online context. Four items from Maxham and Netemeyer (2002) for recovery satisfaction and PWOM, two items from Maxham (2001) for repatronage, and six items from Gelbrich (2010) for emotions, were employed. All measures were on a 7-point Likert-type scale, anchored at 1=strongly disagree, 7=strongly agree (see Table 1). Control variables were established factors identified in prior research, including failure severity, age and gender (Guo, Lotz, Tang, & Gruen, 2015), prior experience (Karande, Magnini, & Tam, 2007), distributive and procedural justice perceptions (Tax et al., 1998). By including control variables, rigorous tests of the theoretical linkages proposed in Figure 1 were conducted and rival explanations were excluded, consistent with recommendations by Hair, Black, Babin, & Anderson (2010). All measures showed Cronbach's alpha values above the accepted threshold of .7 (Field, 2009), with the exception of repatronage intentions. However, composite reliability (P_c) for the same construct was above .7, therefore, deemed satisfactory (Hair, Hult, Ringle, & Sarstedt, 2016). Given the composite reliability (P_c) estimates and content validity issues typically associated with item removal, all items for repatronage intentions were retained.

Table 1: Measures

Constructs	**Measurement items**	**α**	**P_c**
Recovery satisfaction	1. On this occasion, THE FIRM provided a satisfactory resolution to the problem with the e-commerce website	.93	.96
	2. Regarding this particular inconvenience, I am satisfied with THE FIRM		
Repatronage intentions	1. I would continue purchasing food online from THE FIRM	.47	.75
	2. I would continue shopping online		
PWOM intent	1. I would recommend THE FIRM to my friends	.95	.96
	2. If my friends were looking for an online food retailer, I would tell them to try THE FIRM		

Negative emotions	Considering the problem with the e-retailing website, I feel... 1. angry with THE FIRM 2. mad with THE FIRM 3. furious with THE FIRM 4. frustrated about the situation 5. disturbed by the situation 6. annoyed by the situation	.93	.86

3.3 Procedure

For data collection, a self-administered questionnaire was designed and administered via the online survey building software Qualtrics. Consumers aged over 18 years old residing in the UK at the time of the research, and who regularly shop from online grocery retailers, were recruited through snowball sampling. Participants received a URL link directing them to the questionnaire. The questionnaire started with some screening questions confirming that participants were eligible for the study. Past experience of frequent online shopping ensured that the participants could easily project themselves in the scenarios. Next, they were presented with the experimental scenarios, followed by a battery of questions regarding emotions and behavioral intentions. A total of 161 valid responses were obtained (202 responses received out of which 41 responses were removed as incomplete). The sample included 46 per cent males, 56 per cent in the 18-24 age group, and 44 per cent in the 25-34 age group.

E-retailing was selected as context for the research given its tremendous growth in the UK over the last decade or so. Within e-retailing, online grocery shopping counts £9.92b sales in 2016, and the total online grocery market is estimated to reach up to £16.7b in sales by 2021 (Mintel, 2017). Frequent online shoppers include the Millennials (aged 21-34) and Generation Z (aged 15-20), both groups showing exceptional enthusiasm for the online channel (Nielsen, 2015). The growing traffic to retailers' online channel is, however, matched with growing

incidents of service failures and customer complaints (Ombudsman Services, 2016). Given the above background, e-retailing provided a topical and pertinent context for this research.

3.4 Realism, manipulation and control checks

Prior to the main data collection, a pilot study (n=20) was conducted. Qualitative feedback from potential participants was used to revise the length of the questionnaire, confirm the readability of the questions, and the levels at which to set the experimental manipulations (Blodgett et al., 1997). Subsequent statistical analyses confirmed that the failure and recovery scenarios were perceived as realistic (mean realism rating of 5.40, significantly greater than the scale mid-point of 4). Manipulation checks were conducted for the three factors included in the experiment. The response time manipulation was drafted following procedure suggested by Smith et al. (1999). The participants were also asked to indicate to what extent they agreed that "a resolution is provided as soon as you reported the problem" (1=strongly disagree, 7=strongly agree), consistent with Zhou et al. (2014). For response time, participants in the immediate response condition perceived that response had not been delayed (M=5.65), whereas those in the delayed response condition did not (M=5.45). Contrasts between psychological and monetary conditions also confirmed the efficacy of the compensation manipulation (M=5.43 vs. M=5.72). For criticality, participants were asked to indicate to what extent they agreed that "the online food order is critical for you" and "you have no alternative food options" (1=strongly disagree, 7=strongly agree), consistent with Webster and Sundaram (1998). Participants in the high criticality condition regarded the online grocery shopping experience as critical (M=5.40), while those in the low criticality condition did not (M=5.41). Given the above, the manipulations functioned as anticipated. In order to control for age, gender, education, past experience, severity and perceived justice, these variables were added into the ANOVA model. The effects of age,

gender, education, severity and past experience were not significant (p>.05). Distributive justice was significant as a covariate, thus included in the model.

3.5 Analysis and Results

Results from ANOVAs at 5% level of significance are summarized in Tables 2 and 3 below. As shown in Table 2, response time in online service failures has a significant main effect on recovery satisfaction F(1, 154)=5.71, p<.05, repatronage F(1, 154)=5.12, p<.01 and PWOM F(1, 154)= 9.86, p<.01. Participants in the delayed response condition reported lower satisfaction, repatronage and PWOM intentions (satisfaction, M=3.69, SD=.104; repatronage, M=4.86, SD=.086; PWOM, M=3.5, SD=.116) when compared with participants in the immediate response condition (satisfaction, M=4.02, SD=4.04; repatronage, M=5.14, SD=.085; PWOM, M=4.01, SD=.115). The effect of response time is, therefore, contrary to the research hypothesis. Hence, H1 is not supported.

The three-way interaction effect between response time, compensation and criticality of the service experience was significant for PWOM, F(1, 154)=3.64, p<.05 and repatronage, F(1, 154)=5.79, p<.05, not satisfaction, F(1, 154)=1.91, p>.05. The above result suggests that the effect of delayed response is complex and interdependent with compensation type and criticality of the service experience. The three-way interaction effects can be summarized as follows. For online service experiences of *low criticality*, when monetary compensation is provided, delayed response combined with monetary compensation (M=1.90, SD=1.26) leads to lower PWOM than delayed response combined with psychological compensation (M=3.68, SD=0.65). Similarly, delayed response combined with monetary compensation (M=3.75, SD=1.09) leads to lower repatronage than delayed response combined with psychological compensation (M=5.00,

SD=0.32). Although not hypothesized in the present study, the results reveal that, immediate response combined with monetary compensation also leads to lower PWOM than immediate response combined with psychological compensation (*M*=2.85, *SD*=1.16 vs. *M*=3.60, *SD*=1.20), as well as repurchase intentions (*M*=4.35, *SD*=0.67 vs. *M*=5.00, *SD*=0.85) in service experiences of low criticality.

For online service experiences of *high criticality*, when monetary compensation is provided, immediate failure resolution results in lower PWOM (*M*=4.36, *SD*=1.03) and repatronage (*M*=5.19, *SD*=0.89) than immediate failure resolution with psychological compensation (*M*=5.25, *SD*=0.83 and *M*=6.00, *SD*=0.69). Further, delayed response combined with monetary compensation also leads to lower PWOM than delayed response combined with psychological compensation (*M*=3.88, *SD*=0.98 vs. *M*=4.55, *SD*=1.05), as well as repurchase intentions (*M*=5.23, *SD*=0.66 vs. *M*=5.48, *SD*=0.72). The above findings confirm the interplay between response time, compensation and criticality, whilst also providing support for the relevance of psychological compensation as a form of atonement following service failures in technology-enhanced retail settings. Therefore, H2a and H2b are supported for PWOM and repatronage.

Further, in order to test whether the effect of response time is contingent upon customer emotional state, moderated regression analysis was carried out, following the approach suggested by Preacher and Hayes (2008). Results indicate that the effect of delayed response on recovery satisfaction, repatronage and PWOM is contingent upon low levels of negative emotions. Following service failures in e-retail settings, delayed response shows a significant positive effect on satisfaction at low levels of negative emotions, but a negative effect at high levels of negative emotions, $F(3, 158)=52.76$, $p<.05$. The same applies to repatronage, $F(3, 158)=23.84$,

p<.05, and PWOM F(3, 158)=55.09, p<.05. Delayed response to the online service failure has a positive effect on satisfaction at low levels of negative emotions (b=.231), but a negative effect at high levels of negative emotions, b=-.579, t(158)=-2.37, p=.019). The above also apply to repatronage (b=.101 vs. b=-.472, t(158)=-2.57, p=.011) and PWOM (b=.113 vs. b=-.822, t(158)=-3.72, p=.000). Hence, H3 is supported for PWOM and repatronage.

Table 2: ANOVA results

	ANOVAs		
	RecovSAT	**PWOM**	**RepurINT**
Main effect			
Response (RE)	5.71(.018)	9.86(.002)	5.12(.025)
Compensation (CO)	78.15(.000)	39.11(.000)	37.71(.000)
Criticality (CR)	199.8(.000)	84.58(.000)	61.85(.000)
Three-way interaction			
RE x CO x CR	1.91(.169)	3.64(.058)	5.79(.017)

Note: F-value in each cell, *p*-value provided in parentheses

Table 3: Mean values for the dependent variables

	High criticality				Low criticality			
	Monetary		Psychological		Monetary		Psychological	
Dependent variables	Immediate	Delayed	Immediate	Delayed	Immediate	Delayed	Immediate	Delayed
RecovSAT	4.62	4.13	5.68	5.18	2.38	1.78	3.50	3.70
PWOM	4.36	3.88	5.25	4.55	2.85	1.90	3.60	3.68
RepurINT	5.19	5.23	6.00	5.48	4.35	3.75	5.00	5.00

4. Discussion and Conclusions

The present study provides insights on the role of recovery response time in the context of service failures taking place in e-retailing, a fast growing sector. It examines the viability of *delayed* response as a recovery strategy for online retailers, its interplay with another recovery strategy namely compensation, the situational factor of service experience criticality, and failure-elicited emotions.

The study's findings reveal that, when considered individually, recovery response time is important in influencing customer satisfaction, repatronage and PWOM following online service failures. Nonetheless, the direction of the effect of response time is contrary to the hypotheses. Delayed failure resolution is not effective at restoring customer satisfaction and at encouraging repatronage or PWOM. By contrast, immediate response to the online failure is found to have a positive effect on customer attitudes and behavioral intentions. The above finding is consistent with a number of studies examining offline service recovery, and supporting the conventional wisdom that recovery is most efficacious when timely (e.g., Conlon & Murray, 1996; del Rio-Lanza et al., 2009; Durvasula et al., 2000; Hoffman et al., 1995; Homburg & Fürst, 2005; Smith et al., 1999; Tax et al., 1998). Customers use e-retailing because of high information availability and variety, efficiency and convenience associated with the online channel (Liu et al., 2001; Srinivasan et al., 2002). When services in e-retail settings fail, customers seem to react positively if an equally efficient and seamless recovery experience is provided.

Interestingly, as evidenced by the study's findings, perceptions of response time differ depending upon variables such as other recovery efforts undertaken by the firm, and situational factors. In particular, customers are concerned about the type of compensation received, whether financial or psychological, and the criticality of the service experience. In the context of online service experiences low in criticality, delayed response combined with psychological compensation (vs. financial) lead to repurchase intentions and PWOM. On the other hand, for online service experiences high in criticality, immediate response is most effective. In conclusion, the above demonstrates that response time following online service failures should not be considered and investigated in isolation.

The interface between response time, compensation and criticality of the service experience can be explained through the lens of construal level theory, suggesting that time and money activate differential construal levels (Macdonnell & White, 2015), and firm's actions have a positive impact on customer intentions when aligned with the construal level activated by customer resources of time and money (e.g., Fujita et al., 2008; Jin & He, 2013). Consistent with construal level theory, the firm's actions following online service failures have a positive influence on customer behavioral intentions when these activate similar construal levels. Given that financial compensation and temporally close events are construed in concrete terms, financial compensation is best aligned with immediate response to the online service failure. By contrast, psychological compensation and temporally distant events are construed in abstract terms; hence, psychological compensation is best aligned with delayed response to the failure. This evidence is consistent with recent research showing that, given their focus on the future, apologies restore customer trust more than financial compensation (Basso & Pizzutti, 2016).

The above interaction effects, however, do not hold when recovery satisfaction is considered. This finding can be attributed to the nature of the constructs under investigation. Satisfaction tends to be service encounter-specific; customers are likely to be heavily influenced by the online service failure in reporting their satisfaction. Repatronage and PWOM, on the other hand, typically concern more holistic, cumulative assessments of the provider and of the overall service encounter (Orsingher, Valentini, & de Angelis, 2010). This means that customers are likely to evaluate the overall shopping experience when reporting their intentions to revisit and to recommend the online retailer, whilst overlooking the failure event.

Lastly, the study's findings show that emotions are crucial for explaining customer attitudes and behavioral intentions following delayed response to online service failures. Delayed

response to the online service failure leads to satisfaction, repatronage and PWOM when negative emotions are low in intensity. When emotions are not at peak, customers are willing to accept and react favorably to delay. Conversely, negative emotions compound the viability of delayed recovery. The above findings support the view that emotions play an important role in explaining customer evaluations (Bagozzi et al., 1999), including evaluations of recovery (Smith & Bolton, 2002; Zhou et al., 2014).

5. Theoretical Contributions

By exploring the role of delayed response to service failures occurring in e-retail settings, its consequences and boundary conditions, the present study makes novel contributions to theory. The study seeks to enhance clarity on a contentious issue in service recovery literature regarding the efficacy of timeliness as a recovery strategy (Davidow, 2003). By doing so, it demonstrates that timely recovery is effective when considered as a standalone recovery strategy. However, timely recovery is one of other recovery strategies the retailer might use, and not always a viable one. Delay is often necessary, especially in online service failures, where customers lodge a complaint via email or over the phone, and the firm may need time to investigate the online service breakdown. Against this backdrop, the present study provides evidence that challenges the conventional view that recovery should always be timely, by showing that delay in failure resolution can be an effective strategy in low criticality service experiences. This is especially the case when psychological compensation in the form of an apology is provided.

In addition, the present study establishes the relevance of construal levels in the context of online service failure and recovery encounters. Prior research has demonstrated that time and money are construed differently, and construal levels influence customer actions (Leclerc et al.,

1995; Macdonnell & White, 2015). The present study shows that customers evaluate compensation and response time together, based on the construal level that these recovery strategies activate. Construal levels activated by recovery strategies are, therefore, theoretically important and should be considered in future research. With the above, the study also adds knowledge to consumer research by examining the interface of three well-established theories, namely construal level (Liberman & Trope, 1998), neuropsychology (Brehm, 1999) and prospect (Kahneman & Tversky, 1979) theories, and their applicability in online service recovery encounters.

Further, this study advances knowledge in service recovery and information system literature streams by providing insights on the boundary conditions to the effect of delayed response to service failures in e-retailing. By doing so, the study provides theoretical merit for considering customer emotions. Emotions are a major intervening factor influencing the efficacy of delay as a recovery strategy, following online service failures. Finally, the study makes an overarching contribution to a hitherto overlooked research area relating to *online* service failure and recovery management. In particular, it shows that, due to reduced customer visibility of the firm's recovery actions, technology-enhanced retail settings act as a catalyst for encouraging customer acceptance of delay in the process of online service failure resolution.

6. Managerial Implications

The results from this study have important implications for pure online retailers as well as traditional retailers operating online and offline, who are seeking to improve and innovate their online operations. First, the study offers a new perspective on service recovery management that allows managers to design effective strategies to recover from online service failures without

additional investment. The study suggests that, under certain conditions, delaying response to online service failures can result in positive customer outcomes, such as enhanced repatronage and PWOM. Delay is most effective in the context of low criticality service experiences, and when combined with psychological compensation. Based on the above finding, firms should consider admitting to customers that a delay is inevitable. This could involve blueprinting the online delivery and recovery processes that predictably lead to delays, assessing the level of criticality customers associate to online service experiences, and training employees to be apologetic to customers when online services fail.

Second, the study demonstrates that construal levels underpin customer evaluation of response time. Delayed response to the online service failure is likely to activate abstract construals, and it is well-accepted by the customers when combined with recovery efforts which also activate abstract construals. Both, the time associated with delay, and psychological compensation, are construed in abstract terms, and function in tandem. The above findings underscore the importance for firms to be aware of the fact that customers are naturally inclined to exhibit differential construals depending on the type of resource associated with recovery, whether time or money. Construals, in turn, influence customer post-recovery attitudes and purchase intentions. In the light of the above, firms are recommended to be proactive at managing online service failures in a way that recovery efforts are aligned, and activate similar construals.

Third, the study demonstrates that the effect of response time is contingent upon customer emotional state at the time of recovery. Delayed response to the online service failure does not seem to be effective when customers are in a negative emotional state, though it leads to positive outcomes if customer negative emotions are low. The above evidence highlights the

importance for firms to have processes in place for capturing customer emotions following online service failures. Such processes may involve, for instance, asking customers to report on their emotional state via the live chat feature on websites or via text messages, both after the online service failure and prior to recovery, and to have a record of such information in the firm's internal systems for future use.

7. Limitations and Avenues for Further Research

The study's limitations provide useful avenues for further research. First, the levels of response time warrant further consideration. Davidow (2003) classifies three types of response time: immediate, necessary and unnecessary delay. In this study, immediate and necessary delay were considered. Unnecessary delay is often perceived as inexcusable by customers, therefore, this response time was not examined. Nonetheless, future research could extend knowledge by investigating how customers respond to necessary versus unnecessary delay in failure resolution, and whether delayed response are effective with other recovery strategies such as providing explanations for the failure. Research in this direction can address issues concerning the extent to which failure resolution can be delayed, and the conditions under which delay is perceived as necessary. A related area of further investigation concerns the effect of response time when multiple failures occur within the same service encounter and/or following double deviation scenarios, whereby both the initial service and recovery fail.

Second, the results of this study indicate another area worthwhile of further investigation, regarding the circumstances under which time is construed in abstract terms, and the impact that such construal might have on profitable customer outcomes. It is possible that time is always construed as relatively abstract. Another possibility is that situational factors, such as failure

severity or the type of service failure (process vs. outcome), might activate more concrete thoughts about time. The failure scenarios employed in this study were relatively mild. The way highly severe failures impact customer responses to delayed recovery can be investigated. For example, highly severe failures may heighten customer perceptions of time loss associated with the delay, in which case the advantage of recovery delay would apply to low severity failures. It is, therefore, recommended that future studies consider the role of recovery time across failures of varying magnitude levels.

Third, the study advances prior knowledge by investigating how the effects of delayed response to online service failures vary according to the type of compensation offered to the customer, whether financial or psychological. Future research might consider whether the effect of delayed response to the failure also varies according to the communication provided to the customer, given that communication might also be construed in abstract terms. Fourth, this study examines whether and how negative emotions elicited by a failure influence the impact of response delay on customer outcomes. Future studies could extend our findings by investigating whether negative emotions impact the effects of compensation and criticality on positive customer outcomes.

APPENDIX A – SAMPLE SCENARIOS

Scenario A (Immediate response, Financial compensation, High criticality)

You live in a remote area and the nearest big supermarket is one hour drive. You have planned to invite some friends over to celebrate your birthday this weekend, so you have to do food shopping for the party. Because it is a long way to reach the supermarket, you decide to order food online. After spending almost two hours checking the items on discount and selecting the items you need, you proceed to checkout. The system asks you to insert your card details. Once you have done so, you click on the 'proceed' button to complete the transaction. However, the online transaction does not go through successfully because of an unknown system error with the site. You can only read the following on the screen: 'We are unable to proceed your order. Please try again later'.

You decide to wait 10 minutes before trying again. After 10 minutes, you insert your card details again and attempt to complete the transaction. However, the same error message appears on the screen and you are unable to complete the transaction. You contact Customer Services at FIRM NAME to report the issue with the online retailing site. For convenience, you use the live chat feature on the website to speak to the customer service agent.

The online purchase is very important to you as you have no food alternatives at home and really need to proceed with the online grocery shopping. In answer to your complaint, the agent on the live chat resolves the problem and provides you with a 30% off the online purchase.

Scenario B (Delayed response, Psychological compensation, Low criticality)

You live in a remote area and the nearest big supermarket is one hour drive. You have planned to invite some friends over to celebrate your birthday this weekend, so you have to do food shopping for the party. Because it is a long way to reach the supermarket, you decide to order food online. After spending almost two hours checking the items on discount and selecting the items you need, you proceed to checkout. The system asks you to insert your card details. Once you have done so, you click on the 'proceed' button to complete the transaction. However, the online transaction does not go through successfully because of an unknown system error with the site. You can only read the following on the screen: 'We are unable to proceed your order. Please try again later'.

You decide to wait 10 minutes before trying again. After 10 minutes, you insert your card details again and attempt to complete the transaction. However, the same error message appears on the screen and you are unable to complete the transaction. You contact Customer Services at FIRM NAME to report the issue with the online retailing site. For convenience, you use the live chat feature on the website to speak to the customer service agent.

Luckily you have other groceries at home. After exchanging several messages with the customer service agent, you are asked to wait until someone looks into the problem. After three hours, the customer service agent calls you, confirms that there is an issue with the online order system and immediately apologizes for the inconvenience. A message also appears on the screen saying 'we apologize for the inconvenience'.

References

Adams, J. S. (1965). Inequity in social exchange. In L. Berkowitz (Ed.), *Advances in Experimental Psychology* (pp. 267-299). New York, NY: Academic Press.

Bagozzi, R. P., Gopinath, M., & Nyer, P. U. (1999). The role of emotions in marketing. *Journal of the Academy of Marketing Science*, *27*, 184-206. doi: http://dx.doi.org/10.1177/0092070399272005

Basso, K., & Pizzutti, C. (2016). Trust recovery following a double deviation. *Journal of Service Research*, *19*, 209-223. doi: http://dx.doi.org/10.1177/1094670515625455

Bearden, W. O., Netemeyer, R. G., & Haws, K. L. (2011). *Handbook of Marketing Scales*. (3rd ed.). Thousand Oaks: California.

Bendapudi, N., & Leone, R. P. (2003). Psychological implications of customer participation in co-production. *Journal of Marketing*, *67*, 14-28. doi: https://doi.org/10.1509/jmkg.67.1.14.18592

Bless, H., Bohner, G., Schwarz, N., & Strack, F. (1990). Mood and persuasion: A cognitive response analysis. *Personality and Social Psychology Bulletin*, *16*, 331-345. doi: http://dx.doi.org/10.1177/0146167290162013

Blodgett, J. G., Hill, D. J., & Tax, S. S. (1997). The effects of distributive, procedural, and interactional justice on postcomplaint behavior. *Journal of Retailing*, *73*, 185-210. doi: http://dx.doi.org/10.1016/S0022-4359(97)90003-8

Boshoff, C. R. (1997). An experimental study of service recovery options. *International Journal of Service Industry Management*, *8*, 110-130. doi: http://dx.doi.org/10/1108/09564239710166245

Boshoff, C. R., & Leong, J. (1998). Empowerment, attribution, and apologizing as dimensions of service recovery: An experimental study. *International Journal of Service Industry Management*, *9*, 24-47. doi: http://dx.doi.org/10.1108/09564239810199932

Bourlakis, M., Papagiannidis, S., & Li, F. (2009). Retail spatial evolution: paving the way from traditional to metaverse retailing. *Electronic Commerce Research*, *9*, 135-148. doi: http://dx.doi.org/10.1007/s10660-009-9030-8

Brehm, J. W. (1999). The intensity of emotion. *Personality and Social Psychology Review*, *3*, 2-22. doi: http://dx.doi.org/10.1207/s15327957pspr0301_1

Chebat, J., & Slusarczyk, W. (2005). How emotions mediate the effects of perceived jus- tice on loyalty in service recovery situations: An empirical study. *Journal of Business Research*, *58*, 664-673. doi: http://dx.doi.org/10.1016/j.jbusres.2003.09.005

Clark, G. L., Kaminski, P. F., & Rink, D. R. (1992). Consumer complaints: Advice on how companies should respond based on an empirical study. *Journal of Consumer Marketing*, *6*, 41-50. doi: http://dx.doi.org/10.1108/07363769210035189

Conlon, D. E., & Murray, N. M. (1996). Customer perceptions of corporate responses to product complaints: The role of explanations. *Academy of Management Journal*, *39*, 1040-1056. doi: http://dx.doi.org/10.2307/256723

Crisafulli, B., & Singh, J. (2016). Service guarantee as a recovery strategy: the impact of guarantee terms on perceived justice and firm motives. *Journal of Service Management*, *17*, 117-143. doi: http://dx.doi.org/10.1108/JOSM-10-2015-0309

Davidow, M. (2000). The bottom line impact of organizational responses to customer complaints. *Journal of Hospitality & Tourism Research*, *24*, 473-490. doi: http://dx.doi.org/10.1177/109634800002400404

Davidow, M. (2003). Organizational response to customer complaints: What works and what doesn't. *Journal of Service Research*, *5*, 225-250. doi: http://dx.doi.org/10.1177/1094670502238917

del Río-Lanza, A. B., Vázquez-Casielles, R., & Díaz-Martín, A. M. (2009). Satisfaction with service recovery: perceived justice and emotional responses. *Journal of Business Research*, *62*, 775-781. doi: http://dx.doi.org/10.1016/j.jbusres.2008.09.015

Dolev-Cohen, M., & Barak, A. (2013). Adolescents' use of instant messaging as a means of emotional relief. *Computers in Human Behavior*, *29*, 58-63. doi: http://dx.doi.org/10.1016/j.chb.2012.07.016

Durvasula, S., Lysonski, S., & Mehta, S. C. (2000). Business to business marketing: Service recovery and customer satisfaction issues with ocean shipping lines. *European Journal of Marketing*, *34*, 433-452. doi: http://dx.doi.org/10.1108/03090560010311957

Festjens, A., & Janiszewski, C. (2015). The value of time. *Journal of Consumer Research*, *42*, 178-195. doi: http://dx.doi.org/10.1093/jcr/ucv021

Field, A. (2009). *Discovering statistics using SPSS* (3rd ed.). London: SAGE.

Forbes, L. P., Kelley, S. W., & Hoffman, K. D. (2005). Typologies of e-commerce retail failures and recovery strategies. *Journal of Services Marketing*, *19*, 280-292. doi: http://dx.doi.org/10.1108/08876040510609907

Fujita, K., Eyal, T., Chaiken, S., Trope, Y., & Liberman, N. (2008). Influencing attitudes toward near and distant objects. *Journal of Experimental Social Psychology*, *227*, 9044–9962. doi: http://dx.doi.org/10.1016/j.jesp.2007.10.005

Gelbrich, K. (2010). Anger, frustration, and helplessness after service failure: Coping strategies and effective informational support. *Journal of the Academy of Marketing Science*, *38*, 567-585. doi: http://dx.doi.org/10.1007/s11747-009-0169-6

Gelbrich, K., Gäthke, J., & Grégoire, Y. (2015). How much compensation should a firm offer for a flawed service? An examination of the nonlinear effects of compensation on satisfaction. *Journal of Service Research*, *18*, 107-123. doi: https://doi-org.ezproxy.kingston.ac.uk/10.1177/1094670514543149

Gelbrich, K., & Roschk, H. (2011). Do complainants appreciate overcompensation? A meta-analysis on the effect of simple compensation vs. overcompensation on post-complaint satisfaction. *Marketing Letters*, *22*, 31-47. doi: http://dx.doi.org/10.1007/s11002-010-9101-6

Goodwin, C., & Ross, I. (1992). Consumer responses to service failures: Influence of procedural and interactional fairness perceptions. *Journal of Business Research*, *25*, 149-163. doi: http://dx.doi.org/10.1016/0148-2963(92)90014-3

Grégoire, Y., Tripp, T. M., & Legoux, R. (2009). When customer love turns into lasting hate: The effects of relationship strength and time on customer revenge and avoidance. *Journal of Marketing*, *73*, 18-32. doi: https://doi.org/10.1509/jmkg.73.6.18

Grewal, D., Roggeveen, A. L., & Tsiros, M. (2008). The Effect of Compensation on Repurchase Intentions in Service Recovery. *Journal of Retailing*, 84, 424-434. doi: https://doi.org/10.1016/j.jretai.2008.06.002

Guo, L., Lotz, S. L., Tang, C., & Gruen, T. W. (2015). The role of perceived control in customer value cocreation and service recovery evaluation. *Journal of Service Research*, *19*, 1-18. doi: http://dx.doi.org/10.1177/109467051559721

Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2010). *Multivariate Data Analysis* (7th ed.). Englewood Cliffs: Prentice Hall.

Hair, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2016). *A primer on partial least squares structural equation modeling* (PLS-SEM) (2nd ed.). London: SAGE Publications.

Harris, K. E., Grewal, D., Mohr, L. A., & Bernhardt, K. L. (2006). Consumer responses to service recovery strategies: The moderating role of online versus offline environment. *Journal of Business Research*, *59*, 425-431. doi: http://dx.doi.org/10.1016/j.jbusres.2005.10.005

Hart, C. W. L., Heskett, J. L., & Sasser Jr., W. E. (1990). The profitable art of service recovery. *Harvard Business Review*, *68*, 148-156.

Holloway, B. B., & Beatty, S. E. (2003). Service failure in online retailing: A recovery opportunity. *Journal of Service Research*, 6, 92-105. doi: http://dx.doi.org/10.1177/1094670503254288

Hoffman, K. D., Kelley, S. W., & Rotalsky, H. M. (1995). Tracking service failures and employee recovery efforts. *Journal of Services Marketing*, *9*, 49-61. doi: http://dx.doi.org/10.1108/08876049510086017

Holloway, B. B., Wang, S., & Parish, J. T. (2005). The role of cumulative online purchasing experience in service recovery management. *Journal of Interactive Marketing*, *19*, 54-66. doi: http://dx.doi.org/10.1002/dir.20043

Homburg, C., & Fürst, A. (2005). How organizational complaint handling drives customer loyalty: an analysis of the mechanistic and the organic approach. *Journal of Marketing*, *69*, 95-114. doi: https://doi.org/10.1509/jmkg.69.3.95.66367

Jin, L., & He, Y. (2013). Designing service guarantees with construal fit: effects of temporal distance on consumer responses to service guarantees. *Journal of Service Research*, *16*, 202-215. doi: http://dx.doi.org/10.1177/1094670512468330

Kahneman, D., & Tversky, A. (1979). Prospect Theory: An Analysis of Decision under Risk. *Econometrica*, *47*, 263-291. doi: http://dx.doi.org/10.2307/1914185

Kang, J.-Y. M., Mun, J. M., & Johnson, K. K. P. (2015). In-store mobile usage: downloading and usage intention toward mobile location-based retail apps. *Computers in Human Behavior*, *46*, 210-217. doi: http://dx.doi.org/10.1016/j.chb.2015.01.012

Karande, K., Magnini, V. P., & Tam, L. (2007). Recovery voice and satisfaction after service failure: an experimental investigation of mediating and moderating factors. *Journal of Service Research*, *10*, 187-203. doi: https://doi.org/10.1177/1094670507309607

Keaveney, S. M. (1995). Customer switching behavior in service industries: an exploratory study. *Journal of Marketing*, *59*, 71-82. doi: http://dx.doi.org/10.2307/1252074

Kim, T., Kim, W. G., & Kim, H. B. (2009). The effects of perceived justice on recovery satisfaction, trust, word-of-mouth, and revisit intention in upscale hotels. *Tourism Management*, *30*, 51-62. doi: https://doi.org/10.1016/j.tourman.2008.04.003

Leclerc, F., Schmitt, B. H., & Dube, L. (1995). Waiting time and decision making: Is time like money? *Journal of Consumer Research*, *22*, 110-119. doi: http://dx.doi.org/10.1086/209439

Liberman, N., & Trope, Y. (1998). The role of feasibility and desirability considerations in near and distant future decisions: A test of temporal construal theory. *Journal of Personality and Social Psychology*, *75*, 5-18. doi: http://dx.doi.org/10.1037/0022-3514.75.1.5

Liao, H. (2007). Do it right this time: the role of employee service recovery performance in customer-perceived justice and customer loyalty after service failures. *Journal of Applied Psychology*, *92*, 475-489. doi: http://dx.doi.org/10.1037/0021-9010.92.2.475

Lin, H. -H., Wang, Y. S., & Chang, L. K. (2011). Consumer responses to online retailer's service recovery after a service failure: A perspective of justice theory. *Managing Service Quality*, *21*, 511-534. doi: http://dx.doi.org/10.1108/09604521111159807

Liu, C., Arnett, K. P., Capella, L. M., & Taylor, R. D. (2001). Key dimensions of web design quality as related to consumer response. *Journal of Computer Information Systems*, *42*, 70-82.

Macdonnell, R., & White, K. (2015). How construals of money versus time impact consumer charitable giving. *Journal of Consumer Research*, *42*, 551-563. doi: http://dx.doi.org/10.1093/jcr/ucv042

Mackie, D. M., & Worth, L. T. (1989). Processing deficits and the mediation of positive affect in persuasion. *Journal of Personality and Social Psychology*, *57*, 27-40. doi: http://dx.doi.org/10.1037/0022-3514.57.1.27

Marr, B., & Neely, A. (2004). Managing and measuring for value: The case of call centre performance. Fujitsu, *Cranfield School of Management*.

Martin, C. L., & Smart, D. T. (1994). Consumer experiences calling toll-free corporate hotlines. *Journal of Business Communications*, *31*, 195-212. doi: http://dx.doi.org/10.1177/002194369403100303

Mattila, A. S. (1999). An examination of factors affecting service recovery in a restaurant setting. *Journal of Hospitality and Tourism Research*, *23*, 284-298. doi: http://dx.doi.org/10.1177/109634809902300304

Mattila, A. S., & Mount, D. J. (2004). The impact of selected customer characteristics and response time on e-complaint satisfaction and return intent. *Hospitality Management*, *22*,135-145. doi: http://dx.doi.org/10.1016/S0278-4319(03)00014-8

Maxham, J. G., III (2001). Service recovery's influence on consumer satisfaction, positive word-of-mouth, and purchase intentions. *Journal of Business Research*, *54*, 11-24. doi: http://dx.doi.org/10.1016/S0148-2963(00)00114-4

Maxham III, J. G., & Netemeyer, R. G. (2002). Modeling customer perceptions of complaint handling over time: the effects of perceived justice on satisfaction and intent. *Journal of Retailing*, *78*, 239-252. doi: http://dx.doi.org/10.1016/S0022-4359(02)00100-8

McColl-Kennedy, J. R., Sparks, B. A., & Nguyen, D. T. (2011). Customer's anger voice: Targeting employees or the firm? *Journal of Business Research*, *64*, 707-713. doi: http://dx.doi.org/10.1016/j.jbusres.2010.08.004

McCollough, M. A. (2000). The effect of perceived justice and attributions regarding service failure and recovery on post-recovery customer satisfaction and service quality attitudes. *Journal of Hospitality and Tourism Research*, *24*, 423-447. doi: http://dx.doi.org/10.1177/109634800002400402

Mintel (2016). *Online retailing – July 2016*. Retrieved from: http://academic.mintel.com/display/779452/ (Accessed: 1 December 2016)

Mintel (2017). *Online grocery retailing – March 2017*. Retrieved from: http://academic.mintel.com/display/747983/ (Accessed: 1 June 2017)

Nielsen (2015), *The future of grocery*. Retrieved from: https://www.nielsen.com/content/dam/nielsenglobal/vn/docs/Reports/2015/Nielsen%20Global%20E-Commerce%20and%20The%20New%20Retail%20Report%20APRIL%202015%20(Digital).pdf (Accessed: 1 July 2016)

Nowlis, S. M., Mandel, N., & McCabe, D. B. (2004). The effect of a delay between choice and consumption on consumption enjoyment. *Journal of Consumer Research*, *31*, 502-510. doi: http://dx.doi.org/10.1086/425085

Ombudsman Services (2016). Consumer action monitor – January 2016. Retrieved from: https://www.ombudsman-services.org/downloads/CAM2016_report.pdf (Accessed: 1 July 2016)

Orsingher, C., Valentini, S., & de Angelis, M. (2010). A meta-analysis of satisfaction with complaint handling in services. *Journal of the Academy of Marketing Science*, *38*, 169-186. doi: http://dx.doi.org/10.1007/s11747-009-0155-z

Ostrom, A., & Iacobucci, D. (1995). Consumer trade-offs and the evaluation of services. *Journal of Marketing*, *59*, 17-28. doi: http://dx.doi.org/10.2307/1252011

Pantano, E., & Priporas, C.-V. (2016). The effect of mobile retailing on consumers' purchasing experiences: A dynamic perspective. *Computers in Human Behavior*, *61*, 548-555. doi: http://dx.doi.org/10.1016/j.chb.2016.03.071

Pittman, M., & Reich, B. (2016). Social media and loneliness: Why an Instagram picture may be worth a more than a thousand Twitter words. *Computers in Human Behavior*, *62*, 155-167. http://dx.doi.org/10.1016/j.chb.2016.03.084

Pizzutti, C., & Fernandes, D. (2010). Effect of recovery efforts on consumer trust and loyalty in E-tail: A contingency model. *International Journal of Electronic Commerce*, *14*, 127-160. doi: http://dx.doi.org/10.2753/JEC1086-4415140405

Preacher, K. J., & Hayes, A. F. (2008). Asymptotic and Resampling Strategies for Assessing and Comparing Indirect Effects in Multiple Mediator Models. *Behavior Research Methods*, *40*, 879-891. doi: http://dx.doi.org/10.3758/BRM.40.3.879

Robinson, G., & Morley, C. (2006). Call centre management: responsibilities and performance. *International Journal of Service Industry Management*, *17*, 284-300. doi: http://dx.doi.org/10.1108/09564230610667122

Roschk, H., & Gelbrich, K. (2014). Identifying appropriate compensation types for service failures: A meta-analytic and experimental analysis. *Journal of Service Research*, *17*, 195-211. doi: http://dx.doi.org/10.1177/1094670513507486

Roschk, H., & Kaiser, S. (2013). The nature of an apology: An experimental study on how to apologize after a service failure. *Marketing Letters*, *24*, 293-309. doi: http://dx.doi.org/10.1007/s11002-012-9218-x

Rose, S., Clark, M., Samouel, P., & Hair, N. (2012). Online customer experience in e-retailing: an empirical model of antecedents and outcomes. *Journal of Retailing*, *88*, 308-322. doi: https://doi.org/10.1016/j.jretai.2012.03.001

Ruyter, K. D., & Wetzels, M. (2000). Customer equity considerations in service recovery: A cross industry perspective. *International Journal of Service Industry Management*, *11*, 91-108. doi: http://dx.doi.org/10.1108/09564230010310303

Schoefer, K., & Diamantopoulos, A. (2008). The role of emotions in translating perceptions of (in)justice into post complaint behavioural responses. *Journal of Service Research*, *11*, 91-103. doi: http://dx.doi.org/10.1177/1094670508319091

Schumann, J. H., Wünderlich, N. V., & Wangenheim, F. (2012). Technology mediation in service delivery: A new typology and an agenda for managers and academics. *Technovation*, *32*, 133-143. doi: https://doi.org/10.1016/j.technovation.2011.10.002

Shank, D. B. (2013). Are computers good or bad for business? How mediated customer-computer interaction alter emotions, impressions, and patronage toward organizations. *Computers in Human Behavior*, *29*, 715-725. doi: http://dx.doi.org/10.1016/j.chb.2012.11.006

Singh, J., & Crisafulli, B. (2016). Managing online service recovery: Procedures, justice and customer satisfaction. *Journal of Service Theory and Practice*, *26*, 1-37. doi: http://dx.doi.org/10.1108/JSTP-01-2015-0013

Smith, A. K., & Bolton, R. N. (2002). The effect of customers' emotional response to service failure on their recovery effort evaluations and satisfaction judgments. *Journal of the Academy of Marketing Science*, *30*, 5-23. doi: http://dx.doi.org/10.1177/03079450094298

Smith, A. K., Bolton, R. N., & Wagner, J. (1999). A model of customer satisfaction with service encounters involving failure and recovery. *Journal of Marketing Research*, *6*, 356-372. doi: http://dx.doi.org/10.2307/3152082

Sparks, B. A., & McColl-Kennedy, J. R. (2001). Justice strategy options for increased customer satisfaction in a services recovery setting. *Journal of Business Research*, *54*, 209-218. doi: http://dx.doi.org/10.1016/S0148-2963(00)00120-X

Srinivasan, S. S., Anderson, R., & Ponnavolu, K. (2002). Customer loyalty in e-commerce: An exploration of its antecedents and consequences. *Journal of Retailing*, *78*, 41-50. doi: http://dx.doi.org/10.1016/S0148-2963(00)00120-X

Tan, C.-W., Benbasat, I., & Centefelli, R. T. (2016). An exploratory study of the formation and impact of electronic service failures. *MIS Quarterly*, *40*, 1-29.

Tax, S. S., Brown, S.W., & Chandrashekaran, M. (1998). Customer evaluations of service complaint experiences: Implications for relationship marketing. *Journal of Marketing*, *62*, 60-67. doi: http://dx.doi.org/10.2307/1252161

Teng, C.-I., Chen, A. S.-Y., Chang, H.-Y., & Fu, C.-W. (2014). Service failure, time pressure, and conscientiousness of service providers: the dual processing model perspective. *Service Business*, *8*, 659-677. doi: http://dx.doi.org/10.1007/s11628-013-0212-z

Trope, Y., & Liberman, N. (2003). Temporal construal. *Psychological Review*, *110*, 403-421. doi: http://dx.doi.org/10.1037/0033-295X.110.3.403

Van Vaerenberg, Y., Larivière, B., & Vermeir, I. (2012). The impact of process recovery communication on customer satisfaction, repurchase intentions, and word- of-mouth intentions. *Journal of Service Research*, *15*, 262-279. doi: http://dx.doi.org/10.1177/1094670512442786

Voorhees, C. M., & Brady, M. K. (2005). A service perspective on the drivers of complaint intentions. *Journal of Service Research*, *8*, 192-204. doi: http://dx.doi.org/10.1177/1094670505279702

Webster, C., & Sundaram, D. S. (1998). Service consumption criticality in failure recovery. *Journal of Business Research*, *41*, 153-159. doi: http://dx.doi.org/10.1016/S0148-2963(97)00004-0

Wirtz, J., & Mattila, A. S. (2004). Consumer responses to compensation, speed of recovery and apology after a service failure. *International Journal of service industry management*, *15*, 150-166. doi: https://doi.org/10.1108/09564230410532484

Wirtz, J., & McColl-Kennedy, J. R. (2010). Opportunistic customer claiming during service recovery. *Journal of the Academy of Marketing Science*, *38*, 654-675. doi: http://dx.doi.org/10.1007/s11747-009-0177-6

Zauberman, G., & Lynch Jr, J. G. (2005). Resource slack and propensity to discount delayed investments of time versus money. *Journal of Experimental Psychology: General*, *134*, 23-37. http://dx.doi.org/10.1037/0096-3445.134.1.23

Zhou, Y., Tsang, A. S. L., Huang, M., & Zhou, N. (2014). Does delaying service-failure resolution ever make sense? *Journal of Business Research*, *67*, 159-166. doi: http://dx.doi.org/10.1016/j.jbusres.2012.10.009

Zhu, Z., Nakata, C., Sivakumar, K., & Grewal, D. (2013). Fix it or leave it? Customer recovery from self-service technology failures. *Journal of Retailing*, *89*, 15-29. doi: http://dx.doi.org/10.1016/j.jretai.2012.10.004

Highlights

- Online retailers can benefit from delaying response to online service failures.
- Delayed response combined with apology are effective in low criticality services.
- Low negative emotions enhance customer acceptance of delayed recovery.
- Customers construe recovery strategies differentially.
- Online retailers should match recovery strategies with customers' construals.