

Where service recovery meets its paradox: implications for avoiding overcompensation

Service
recovery
paradox

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Abstract

Purpose – The service recovery paradox (SRP) is the phenomenon that happens when customer satisfaction level post-service failure and recovery surpasses the customer satisfaction level achieved at error-free service. The aim of this study was to identify how large the size of compensation has to be at recovery for customer satisfaction to surpass that of error-free service (i.e. to identify a threshold value for SRP). The purpose of this is to inform managers how to restore customer satisfaction yet avoid overcompensation.

Design/methodology/approach – The paper covers two studies. Study 1 used the novel approach of asking participants who had experienced a service failure in the hotel industry what amount of money (recovery) would make them more satisfied than in the case of error-free service. Study 2 then tested the compensation levels expressed by Study 1 participants to be sufficient for the service recovery paradox to occur.

Findings – Study 1 indicated that the threshold for the SRP was (on average) around 1,204 SEK, or just over 80% of the original room reservation price of 1,500 SEK (approx. \$180). Study 2 found that (on average) the customer satisfaction of participants who received 1,204 SEK in compensation for service failure marked the point where it surpassed that of error-free service. Participants who received 633 SEK were less satisfied; participants who received 1,774 SEK were more satisfied.

Research limitations/implications – The findings are context-specific. Future research should test the findings' generalizability.

Practical implications – The approach used in this paper could provide managers with a tool to guide their service recovery efforts. The findings could help hotel managers to make strategic decisions to restore customer satisfaction yet avoid overcompensation, given a legitimate service failure in which the organization is at fault.

Originality/value – Numerous previous studies have investigated the occurrence or absence of the SRP at predetermined compensation levels. This paper used a novel approach to find a quantitative threshold at which the magnitude of the recovery effort makes customer satisfaction surpass that of error-free service.

Keywords Service recovery paradox, Compensation, Hotel industry, Customer satisfaction

Paper type Research paper

1. Introduction

Companies sometimes fail when trying to provide their services to customers (Fayos-Gardó *et al.*, 2017; Ok *et al.*, 2007). Service failures left unchecked can lead customers to switch to other providers and spread negative, damaging word-of-mouth (Hazarika *et al.*, 2019; Norvell *et al.*, 2018). To address this, companies need to understand how customer satisfaction can be maintained through service recovery, by compensating customers for service failures.

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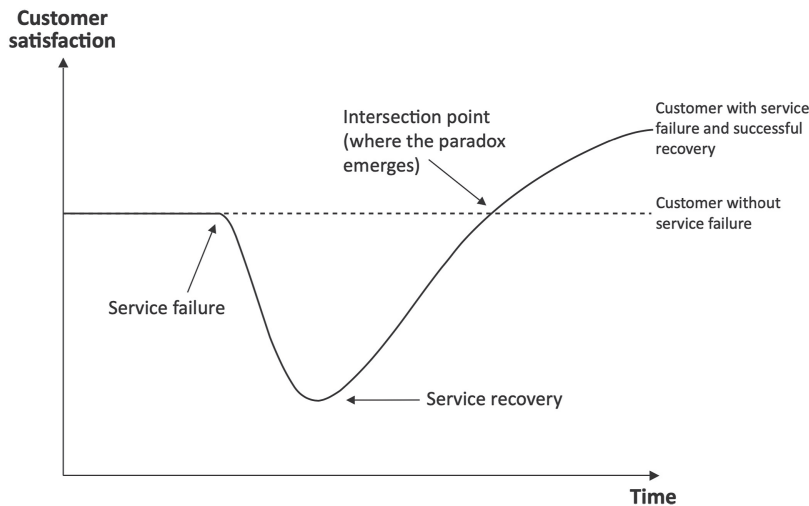
Managers would therefore benefit from knowing how much compensation is needed to regain a desirable level of customer satisfaction, without overcompensating – in part to save resources, and in part because the relationship between the size of compensation and the resulting customer satisfaction may not be linear. The purpose of the current paper is to help managers by trying to estimate the size of compensation needed after a service failure to restore their customers' satisfaction yet avoid overcompensation, given a legitimate service failure in which the organization is at fault.

Even small increases in customer retention from service recovery can result in major impacts on profitability. If a service recovery is not satisfying enough, however, one service performance can leave the customer with two dissatisfying experiences. This can happen, for example, when a customer orders home delivery, pays in advance and the pizza delivery person brings the wrong order (service failure). This may be followed by compensation that the customer considers insufficient. For instance, if the customer receives a voucher as compensation, the customer may be upset because the value of the voucher does not meet the customer's demands (failed service recovery). The double deviation of a service failure followed by a flawed recovery magnifies the customer's overall dissatisfaction (De Matos *et al.*, 2007; Norvell *et al.*, 2018). Hence, providing service recovery not only presents an opportunity but also poses a risk. When customer service expectations are not met, effective restoration of customer satisfaction by means of recovery can also be seen as a necessity for continuing customer relationships (Ok *et al.*, 2007). Moreover, customers are more likely to be forgiving of a business that controls effectively what they can, and manages those problems that they cannot (De Matos *et al.*, 2007). By apologizing directly to the customer and offering additional promotions or compensation, the failure may become an opportunity to promote (Gohary *et al.*, 2016).

Service recovery can make customers believe that they are receiving the most favorable solution for service failures, which, in turn, can influence their satisfaction with service recovery, their repurchase intentions and co-creation of the service recovery (Hazée *et al.*, 2017). Repurchase intentions and co-creation can, in turn, influence brand equity, demonstrating the importance of compensation in service recovery (Albrecht *et al.*, 2018). The relationship between service recovery and satisfaction in conditions of lower and higher compensation for other customers might, in addition, help to increase our understanding of how the customer's satisfaction with recovery efforts is shaped (Albrecht *et al.*, 2018; Roschk and Gelbrich, 2014), which, in turn, may influence the firm's service recovery strategies in the future.

There are situations in which the service failure cannot be fully attributed to the organization. An example of this is when an aviation company cancels a flight due to bad weather. In other situations, the organization is clearly responsible for the fault, such as when a hotel makes a reservation on the same room twice on the same date. In this scenario, a guest with a reservation may arrive at a hotel with no rooms available in the reserved category. A potential recovery solution in this situation can be that the hotel upgrades the guest to a suite. Here, the customer could report extreme satisfaction with the recovery, a higher customer satisfaction than if the room originally booked had been available (Wilson *et al.*, 2016). This phenomenon is called the *service recovery paradox* (De Matos *et al.*, 2007; McCollough *et al.*, 2000; Van Vaerenbergh *et al.*, 2019), a term coined by McCollough and Bharadwaj (1992). The service recovery paradox (SRP) occurs when a customer's level of satisfaction after a service failure followed by successful service recovery is higher than if the initial service had been error-free to begin with (Figure 1), given a legitimate service failure in which the organization is at fault.

The SRP should not be used as a managerial tool in itself (Zeithaml *et al.*, 2017). Managers should not try to achieve higher customer satisfaction by deliberately causing failures and then compensating for the failures, as this would be a very risky strategy. The customer may,



Note(s): The figure illustrates the key concepts of the service recovery paradox. The dotted line illustrates the experience of a customer who does not experience a service failure, whereas the continuous line illustrates the experience of a customer who experiences service failure, followed by service recovery. The service recovery paradox emerges when customer satisfaction post-recovery exceeds that of customer satisfaction without failure, given a legitimate service failure in which the organization is at fault

Figure 1.
Illustration of the key
concepts of the service
recovery paradox

for example, not be satisfied with the service recovery, which would lead to a double negative experience of service failure and failed service recovery (De Matos *et al.*, 2007; Norvell *et al.*, 2018). There is also a risk in customers perceiving the service failure as a result of some stable attribute of the organization rather than some temporary deviation. If this happens, there is a risk of damaged customer loyalty. However, as long as service failures are unavoidable, it would be useful for managers to know how much compensation is needed after a service failure to restore their customers' satisfaction yet avoid overcompensation.

1.1 Literature review

The findings from research on SRP are inconsistent (Krishna *et al.*, 2011; Norvell *et al.*, 2018; Van Vaerenbergh *et al.*, 2019). While several studies have found the service recovery paradox (Fayos-Gardó *et al.*, 2015; Garg, 2013; Gohary *et al.*, 2016; Magnini *et al.*, 2007; Ok *et al.*, 2007; Smith *et al.*, 1999), others have failed to do so (Boshoff, 1997; Fayos-Gardó *et al.*, 2017; Krishna *et al.*, 2014; Lin *et al.*, 2011; Maxham, 2001; Norvell *et al.*, 2018). In a study on restaurant customers, for example, Ok *et al.* (2007) found evidence suggesting that SRP did indeed manifest under certain conditions. A prerequisite for the effect, however, was that the recovery had to be "exceptional." A study by Magnini *et al.* (2007), where students were introduced to different restaurant-related failure scenarios, showed similar results. However, in their study, the occurrence of SRP was dependent on several contextual influences, including the history of the customer's relationship with the restaurant and the severity of the service failure.

When examining service failures in the airline industry, McCollough *et al.* (2000) found no evidence of SRP. On the contrary, in this case, customer satisfaction seemed to be lower after

the service recovery efforts were made. In a study of online retailing, [Lin et al. \(2011\)](#) also found themselves among those who found no support for SRP. In the cases where support for SRP has been found, researchers have claimed that the paradox is likely to occur when effective recovery communication is exercised ([Mount, 2012](#)). Other elements found to affect the occurrence of SRP are a customer's potential guilt feelings in the failure process ([Cheng et al., 2015](#)), whether the examination of customer satisfaction extends over a longer time period or not ([Norvell et al., 2018](#)), the level of recovery effort ([Ok et al., 2007](#)), the degree of the consumer's generosity ([Krishna et al., 2014](#)) and the consumer's sociodemographic characteristics and shopping experience ([Fayos-Gardó et al., 2017](#)). Feelings of justice ([Babin et al., 2021](#); [Cheng et al., 2015](#)) and fairness ([Albrecht et al., 2018](#)) also play an important part.

Furthermore, compensations tend to have a stronger effect when they are unexpected ([Garg, 2013](#)). This means that the severity of a service failure must be relatively low in order for the compensation to be able to raise customer satisfaction above that of error-free service ([Balaji and Sarkar, 2013](#); [Krishna et al., 2014](#); [Smith et al., 1999](#)). Otherwise, the negative effects of service failure appear resistant to compensation ([Boshoff, 1997](#); [McCullough et al., 2000](#)). The magnitude of the compensation offered during service recovery also plays an important role. That is, the compensation must be quite substantial for the paradox to emerge ([Garg, 2013](#); [Ok et al., 2007](#)), since SRP is only likely to occur at the very highest recovery-satisfaction levels ([Smith et al., 1999](#)).

1.2 The current studies

While many contextual factors influence SRP, as reviewed above, the focus of the current paper is the magnitude of service recovery. The intended contribution of the studies was not just another test of *whether* the paradox would occur (or not) in a specific service failure-recovery scenario. Rather, the aim was to try to find an approximate threshold value of compensation needed for SRP to occur. Finding such a threshold could help managers to avoid overcompensation and be used as a starting point to narrow down a monetary interval within which it might be possible to predict the function of the size of compensation and its effect on customer satisfaction, concrete guidance that managers would arguably benefit from. Rather than examining the magnitude of service recovery at which SRP appears, previous SRP research has largely focused on determining whether or not it does appear at given compensation points/levels. It has also looked specifically at the effects of qualitatively different service failures and service recovery techniques ([De Matos et al., 2007](#); [McCullough et al., 2000](#); [Michel and Meuter, 2008](#)). In a study by [McCullough et al. \(2000\)](#), for example, the service failure comprised a canceled flight. The service recovery effort consisted of a \$150 ticket voucher, meal vouchers and an offer to use the phone, an effort the study concluded was insufficient to yield the SRP.

Examining SRP by presenting participants with both failure- and predetermined recovery scenarios only helps managers to draw conclusions on a case-by-case basis, and does not show them whether they are overcompensating. Fixed and qualitatively distinct recovery scenarios such as meal vouchers and tickets enable them to conclude categorically *whether or not* these compensations are sufficient for SRP to occur. However, they do not indicate *how much* is required for SRP to occur. Similarly, if a specific amount of compensation is not sufficient to generate the paradox, it is not possible to know where the tipping point might be. For example, in [McCullough et al.'s \(2000\)](#) study, the \$150 ticket voucher was not enough to raise customer satisfaction above an error-free experience. Still, the service recovery paradox might theoretically have been found had they used a ticket voucher value of \$160 or \$2,000. Furthermore, if a \$2,000 voucher would have yielded the paradox, an \$800 voucher may also have. If so, the airline could be said to have overcompensated each passenger by \$1,200 and wasted valuable resources by providing \$2,000 vouchers.

There is thus a gap in the design of previous SRP studies, in that examining fixed recovery effort levels makes it nearly impossible to determine the point at which SRP emerges (cf. [Allen et al., 2015](#)). If such a tipping-point could be determined, even if only approximate, it would be a step toward identifying an interval within which SRP would occur, provided that the size of service-recovery compensation falls within that interval. Having an informed and as accurate a picture as possible of this interval would help managers to win back the customer's satisfaction and at the same time avoid overcompensation (i.e. restore customer satisfaction at the lowest possible cost).

It is worth noting here that the SRP might be a rare and unlikely event ([Michel and Meuter, 2008](#)). In view of this, it is therefore of interest to study the dose-response relationship (i.e. the function between the magnitude of the cause and the magnitude of the effect) between the magnitude of service recovery and customer satisfaction as the outcome variable (i.e. to study how much is needed for the paradox to appear) and, in particular, to find an interval or threshold value where SRP occurs. Rather than measuring the frequency of the phenomenon (i.e. whether it happens often or rarely), studying this relationship would help us to fashion tools to increase the frequency and likelihood of the paradox occurring (cf. [Grégoire and Mattila, 2020](#)).

The current paper investigates SRP from a novel angle regarding scenario presentation design based on a set of two studies in which participants were presented with a service failure scenario. After the service failure, the *customers* in the first study (Study 1) were asked to decide how much they would require (monetarily) in compensation to become a more satisfied customer, compared to if they had received an error-free service. To the best of our knowledge, this approach has not been used in earlier SRP studies but does significantly aid the identification of a service recovery threshold value (or an interval) where the SRP emerges. Based on the results obtained in the first study, the second (Study 2) then moved on to test the effects of different compensation levels in a real experiment with an independent sample. To preview the study results, Study 1 found that participants required a compensation amount of about 80% ($\approx 1,200$ SEK) of the original amount paid for the service (1,500 SEK) to become more satisfied in comparison to an error-free service. Study 2 participants confirmed, in turn, that 80% was an accurate estimate of the SRP threshold value, with 116% ($\approx 1,745$ SEK) being unnecessary overcompensation and 42% (≈ 635 SEK) insufficient for SRP to emerge.

2. Study 1

As noted above, the purpose of Study 1 was to identify the monetary compensation amount required, in a specific failure scenario, for customers to state that they would end up more satisfied than if the service experience had been error-free. Study 1 hence constitutes the first step toward estimating a threshold value of service recovery strong enough to cause the SRP.

Following recommendations of past research ([Khamitov et al., 2020](#); [Lewis and McCann, 2004](#); [Magnimi et al., 2007](#); [Ok et al., 2007](#)), a scenario-based approach involving role-playing was used. The use of role-playing scenarios as a method increases the internal validity of a study by increasing control over manipulated variables and decreasing external, unpredicted elements ([Ok et al., 2007](#)). It is also a time-effective method in that it enables the researcher to summarize events that might otherwise unfold over days or weeks and allows resource-intensive manipulations to be more easily operationalized ([McCollough et al., 2000](#)). There is also an ethical advantage to the method, since the parties involved in actual service failures are left out of the investigation ([McCollough et al., 2000](#)). Inflicting fabricated service failures on customers is undesirable for both managers and customers. A scenario approach avoids this ([Cheng et al., 2015](#)).

Because service failures are frequent in the industry (Lewis and McCann, 2004), a hotel scenario comprising a mini-vacation served as the context of the current study. The hotel scenario arguably also presents a situation recognizable to the participants. Hotels are characterized by round-the-clock operation and highly fluctuating demand relative to constant rates of supply, making service failures more likely than in other service industries (Lewis and McCann, 2004).

2.1 Methods

2.1.1 Participants. A total of 40 persons (22–64 years) participated in Study 1. All were native Swedish speakers and were recruited via social media.

2.1.2 Procedure and failure scenario. Data were collected by distributing a digital questionnaire where participants were presented with the following failure scenario:

It is time for you and your partner to get away on a long-awaited mini-vacation consisting of one overnight stay. You have booked a double room and paid SEK 1500 for the stay. When you arrive at the hotel lobby to check in, the double room you booked is occupied. There are no other double rooms available and no larger rooms either. You are therefore offered a smaller single room and the staff arranges for an extra separate single bed to be brought into the room.

This service failure scenario was selected because double bookings are quite frequent (<https://partner.booking.com/en-gb/help/reservations/manage/all-you-need-know-about-double-bookings>) and their effect on customer satisfaction is one of the most severe (Lewis and McCann, 2004; McCollough *et al.*, 2000; Wilson *et al.*, 2016). After reading about the scenario, the respondents were asked to rate their customer satisfaction on a scale from -10 to $+10$ (where negative values represented dissatisfaction, zero represented satisfaction equivalent to an error-free service and positive values represented higher satisfaction).

In the second phase of the questionnaire, respondents were asked to estimate the monetary compensation (in Swedish krona, SEK) needed for their satisfaction to reach 0 or higher on the customer satisfaction scale (i.e. meeting error-free service satisfaction, hence causing the service recovery paradox to emerge). The respondents were also asked to state their age. The entire questionnaire took about five minutes to complete.

2.2 Results and discussion

All participants ($N = 40$) rated their post-service failure satisfaction as negative ($M = -7.18$, $SD = 2.21$). This confirms that the service failure scenario indeed had a detrimental effect on customer satisfaction, a prerequisite for it to be meaningful to ask the participants to state the monetary amount required to raise their customer satisfaction above 0. The mean amount of monetary compensation required for customer satisfaction to reach above 0 (i.e. for the service recovery paradox to appear) was 1,203.75 SEK ($SD = 570.47$ SEK).

The 95% confidence interval for the mean 1,204 SEK (the approximate estimated amount needed to produce SRP and thereby satisfied customers) is 1,021–1,386 SEK, leading to the conclusion that the true threshold value of the SRP is within this interval. These findings thus suggest that monetary compensation needed for the service recovery paradox to emerge is, on average, about 80% of the price initially paid for the service by the customer, that is, 80% of the amount of money the participants originally paid for the hotel room (1,500 SEK) according to the scenario.

3. Study 2

Study 1 was explorative, with the aim of estimating the magnitude of service recovery needed to produce the SRP. Based on the data from Study 1, two hypotheses were formulated for

Study 2. First, it was hypothesized that a compensation of 1,204 SEK would generate a customer satisfaction of 0 (Hypothesis 1), since this should correspond to the theoretical intersection point where customer satisfaction surpasses that of error-free service (see Figure 1). Second, it was hypothesized that customer satisfaction should be a function of the size of the compensation. The shape of this function is difficult to predict beforehand, but if 1,204 SEK corresponds to the SRP threshold, then 633 SEK (i.e. 1 SD below the mean of the results in Study 1) should generate a customer satisfaction below 0 and 1774 SEK (i.e. 1 SD above the mean) should generate a customer satisfaction above 0 (Hypothesis 2).

In Study 2, participants were introduced to the same scenario as those in Study 1. Instead of being asked to state a compensation themselves, however, a preset monetary compensation was given. Study 2 hypothesized that participants who received 1,204 SEK in compensation would report a customer satisfaction just above 0, that is just above the customer satisfaction of error-free service, the value required for the paradox to occur.

3.1 Methods

3.1.1 Participants. A total of 150 individuals (50 + 50 + 50) participated in Study 2. All were native Swedish speakers (ranging in age between 25 and 70 years) and, as in Study 1, recruited via social media. None of the participants in Study 2 took part in Study 1.

3.1.2 Procedure and design. As in Study 1, the data for Study 2 were collected with a digital questionnaire, with the first phase identical to that of Study 1. That is, the service failure was identical, and the respondents were asked to rate their satisfaction on the customer satisfaction scale (−10 to +10) after the service failure scenario was presented.

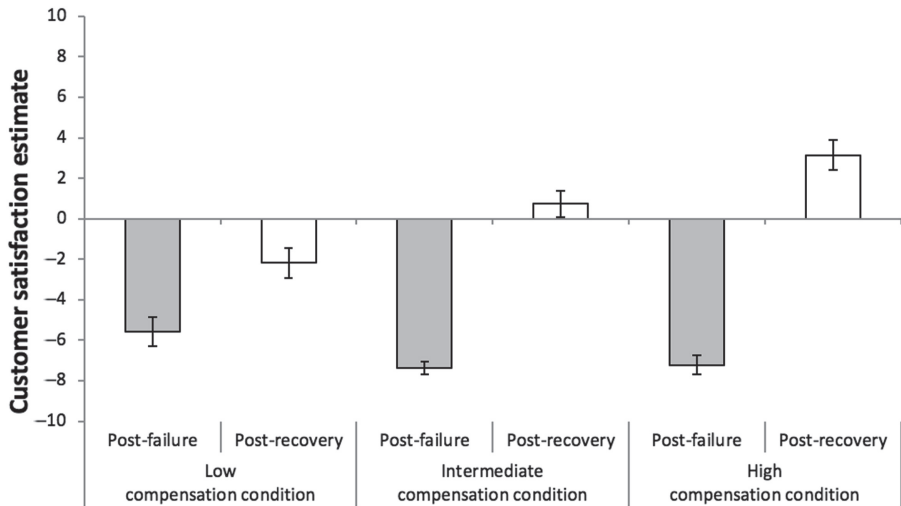
In the second phase of the questionnaire, however, Study 2 participants were presented with one of three predetermined monetary compensation amounts (the independent variable): 633 SEK, 1,204 SEK or 1,774 SEK. A total of 50 participants (25–70 years, 54% woman and 46% men) were randomly allocated to the low compensation group (633 SEK), 50 (25–75 years, 48% woman and 52% men) the intermediate compensation group (1,204 SEK) and 50 (age 22–79 years, 52% woman and 48% men) the high compensation group (1,774 SEK). At the end of the second phase, the respondents were asked to rate their customer satisfaction again *after* the compensation was paid by the hotel.

3.2 Results and discussion

The results of Study 2 are shown in Figure 2, which illustrates the shift in customer satisfaction pre-recovery and post-recovery for each compensation level. The gray bars (post-service failure) show that customer satisfaction dropped below 0 in all three groups after the initial service failure. The white bars (post-service recovery) show that customer satisfaction increased in all three groups when participants received monetary compensation for the service failure.

The results also suggest that the dose-response curve is linear, where higher compensation results in higher customer satisfaction. Most interestingly, the results support the assumption that the threshold value, that is, the point at which SRP emerges, was found and more or less corresponds to the magnitude of the intermediate level of compensation – 1,204 SEK. Compensation at the lower amount had a positive effect on customer satisfaction but did not reach above that of an error-free service, whereas the higher amount had a substantial effect on customer satisfaction, pushing it well above an error-free service.

A series of one-sample *t*-tests supported these conclusions. The customer satisfaction mean at post-recovery was statistically significant from and below 0 for the low compensation condition, $t(49) = -2.98, p = 0.005, \mathbf{d} = 0.42$ and statistically significant from and above 0 in the high compensation condition, $t(49) = 4.26, p < 0.001, \mathbf{d} = 0.60$. For the intermediate compensation condition, the customer satisfaction mean at post-recovery did not differ significantly from 0, $t(49) = 1.14, p = 0.260, \mathbf{d} = 0.16$.



Note(s): The figure shows how customer satisfaction changes as an effect of a service failure (mean customer satisfaction post-service failure) and as an effect of service recovery (mean customer satisfaction post-service recovery) at three different compensatory magnitudes – low compensation (633 SEK), intermediate compensation (1,204 SEK), and high compensation (1,774 SEK). Customer satisfaction of 0 corresponds to the value of error-free service. Error bars represent the standard error of the means

Figure 2.
Results from Study 2

An analysis of variance with compensation condition as the independent variable and customer satisfaction at post-recovery as the dependent variable was conducted to test the difference between the means. The analysis revealed a significant effect of condition, $F = 14.18, p < 0.001$. Follow-up independent samples t -tests with customer satisfaction at post-recovery as the dependent variable showed that low compensation was statistically different from intermediate compensation, $t(98) = 2.99, p = 0.004, d = 1.32$, and that intermediate compensation was statistically different from high compensation, $t(98) = 2.44, p = 0.016, d = 1.09$.

4. General discussion

Managers should not try to achieve higher customer satisfaction by deliberately causing failures and then compensating for them, as this would be a very risky strategy (Zeithaml *et al.*, 2017). When the failure is outside the organization's control, such as when the weather makes it necessary to cancel a flight or when governmental restrictions due to a pandemic constrain airlines' capability of flying, the best managerial strategy is probably to not make use of service recovery. However, when faced with a service failure that the organization is indeed responsible for, managers may benefit from recovery strategies. Service managers need concrete guidance in creating recovery strategies (Krishna *et al.*, 2014), and hotel managers, in particular, should develop concrete monetary compensation guidelines as well as reacting expediently and effectively to various service failure situations (Kim *et al.*, 2009). One aim of monetary compensation is to reinstate customer satisfaction and, in the process, also avoid unnecessary overcompensation. Hence, knowing the point of SRP emergence is relevant for managers. Estimating the SRP emergence point, or at least an interval within which SRP is likely, can thus help to recover customer satisfaction without

overcompensation. Past research has been unable to inform this discussion as it has generally not described failures and recovery efforts quantitatively, if at all (Cheng *et al.*, 2015; Fayos-Gardó *et al.*, 2017; Garg, 2013; Magnini *et al.*, 2007; Norvell *et al.*, 2018; Ok *et al.*, 2007).

The purpose of the set of studies reported here was to estimate the threshold point where a service recovery is substantial enough to trigger the SRP. Study 1 used a novel approach where participants were presented with a failure scenario and, after the service failure, were asked how much they would need to feel more satisfied with their hotel experience compared to if their stay had been error-free. Study 2 then tested the effects of this specific level of compensation on an independent sample. Taken together, the results suggest that the tipping point for SRP is quite high. Specifically, in a situation where hotel guests had paid 1,500 SEK (about \$180) for a double room but received a lesser room, the study showed that the mean compensation needed for the participants' satisfaction to surpass that of error-free service was about 1,200 SEK (or 80%). The true threshold appears to lie within a confidence interval of 68–92%, above which leads to unnecessary overcompensation.

The primary contribution of this paper is the conceptual and methodological approach that comprises the attempt to identify a specific service-recovery threshold value, by asking participants how much they would need to reach the level of satisfaction where SRP emerges, and then testing whether the stated amount indeed corresponds to the threshold value by measuring the dose-response curve between compensation size and customer satisfaction in a second set of participants. In contrast, prior SRP research has presented fixed recovery scenarios and then measured customer satisfaction post-recovery to see whether the fixed recovery actions generated the SRP or not. Comparisons of levels of satisfaction are rare. For instance, Ok *et al.* (2007) encountered problems when analyzing collected data and suggested that analysis should be separated into more categories than just satisfactory/unsatisfactory recovery based on customers' evaluations.

The results reported here are consistent with previous research, which suggests that, in order to cause the service recovery paradox, recovery efforts must be quite substantial (Garg, 2013; Ok *et al.*, 2007), although there are notable individual differences in service recovery demand. While the average compensation required in Study 1 was relatively high, some individuals would settle for considerably less, whereas others needed considerably more to feel more satisfied than with an error-free service. This variance in compensation demand is consistent with the view that it is difficult to satisfy all customers with a single level of compensation (Chen, 2018; Roschk and Gelbrich, 2014). Customer satisfaction arguably remains a function of the magnitude of the service recovery. If, for example, the compensation paid in Study 2 had been 7,500 SEK (500% of the price initially paid for the hotel room), most respondents would likely have given their post-recovery satisfaction the highest possible rating. However, hotel managers (just like managers in other service industries) do not benefit by providing customers with compensations of such magnitude. It is, however, of practical value for them to have a better idea of where the SRP tipping point lies so that compensations can be appropriately balanced. For managers, the aim is not only to win back customer satisfaction but also to avoid overcompensation. This is an argument that has been missing in prior SRP research, but which the current study has attempted to address.

From an applied viewpoint, it is interesting to note that the nature of SRP could, in theory, counteract reliability in SRP research over time. The occurrence of SRP is dependent on an increase in customer satisfaction, which, in most cases, is attainable by surpassing a customer's expectations of recovery. SRP occurs when the value created by service recovery goes beyond what is viewed as the firm's responsibility (Gohary *et al.*, 2016). However, it is difficult to attain expected and excellent service recovery every time (Krishna *et al.*, 2014). If hotel managers were to apply the findings from this paper to reach the SRP, over time, a new threshold point may emerge, since the initial SRP point would become the recovery level expected by hotel guests. Customer expectations regarding recovery might therefore rise in

the long term. Thus, in the future, these increased recovery expectations would not generate the same results as earlier SRP studies, like the current paper. With higher customer expectations, recovery efforts would also have to increase in order for SRP to occur. Over time, customer expectations would increase again, and increased recovery levels would again be necessary for the managers to reach the SRP. Recovery efforts can only increase for as long as the associated economic costs are justifiable. A limit will be reached where recovery efforts can no longer surpass customer expectations. Hence, SRP could become an even rarer phenomenon in future research and, theoretically, could even cease to exist.

4.1 Managerial implications

The main applied contribution of the current study is the conclusion regarding how to find a balance between customer satisfaction maintenance and overcompensation avoidance, in the service and hotel businesses in particular. The findings indicate that 80% of the initial price paid for a double room is right above the intersection point between post-recovery customer satisfaction and error-free customer satisfaction, that is, the point where the service recovery paradox emerges. According to [Kim et al. \(2009\)](#), hotel managers should develop specific monetary compensation guidelines in response to various service failure situations quickly and effectively. The findings reported here may hence assist hotel managers to establish more effective and precise recovery actions. At the very least, the methods used in the current studies can be used as a step toward identifying the interval that specific failure and recovery scenarios should target when investigating SRP in order to guide managers, as the findings indicate that, in a failure scenario like the one investigated, it is possible for hotel managers to restore customer satisfaction post-service failure and reach the SRP. The findings also show monetary compensation to be a valid tool in the process, and that it is possible for managers to reach the SRP without wasting resources, that is, overcompensating.

4.2 Limitations and suggestions for future research

As with most research, there are limitations to the current studies that could be addressed in future research. Though established, the failure-scenario-based method ([Khamitov et al., 2020](#); [Lewis and McCann, 2004](#); [Magnini et al., 2007](#); [Ok et al., 2007](#)) has limited ecological validity. The findings reported here therefore constitute a starting point for informing real-world manager decisions rather than absolute recommendations.

The generalizability of the results to other contexts and settings is also an important point to address in future research (cf. [Magnini et al., 2007](#)), since service industries and sectors clearly differ in how they view customers as strategic assets and manage the customer experience, and how complaint management should be undertaken ([Morgeson et al., 2020](#)). The context of the current studies was the hotel industry, and the generalization boundaries of the conclusions remain to be addressed in future research. Furthermore, while this paper investigated an outcome failure scenario, service providers need to look at their key types of service failures, for example, process failures versus outcome failures ([Nguyen and McColl-Kennedy, 2003](#)). Another aspect of generalizability that should be looked at more closely is how individual differences and cultural differences modulate the SRP threshold value (cf. [Fayos-Gardó et al., 2015](#); [Ok et al., 2007](#); [Van Vaerenbergh et al., 2019](#)).

Finding a threshold value where as many of a firm's customers as possible are satisfied at a reasonable cost for the firm is dependent on the service context and consumer personality. The effects of offering personal versus impersonal compensation ([Roschk and Gelbrich, 2014](#)) and/or how variations in individuals' self-efficacy influence these effects ([Chen, 2018](#)) could therefore offer interesting insights as well as help to identify a general recovery threshold value. Emotions are also important precursors to post-purchase intentions and satisfaction, so distributive measures must therefore be complemented with interactional measures that address emotional

aspects (Harrison-Walker, 2019; Schoefer, 2008; Schoefer and Diamantopoulos, 2008). Monetary compensation is a basic customer expectation (Vázquez-Casielles *et al.*, 2012) and therefore difficult to avoid in terms of solely addressing emotional measures. While frustration may be the common denominator, behavioral outcomes in terms of anger, regret and frustration are context-dependent and dependent on individual differences (Harrison-Walker, 2019). An individual's self-efficacy has also been found to influence consumers' perceptions of a service failure (Chen, 2018). As a whole, what is perceived as fair compensation appears to be individual and dependent on the service context and the personality of the consumer. Thus, in future studies, distributive fairness may prove to be foundational in guiding interactive and emotional measures that will lead to successful recovery experiences.

In closing, we offer an outline for future studies with direct practical implications for managers. Anchoring values have strong and very reliable effects on human decision-making (Furnham and Boo, 2011). It could therefore be possible to use anchoring values to reduce the amount of compensation, while still attaining a desirable level of customer satisfaction. Assume, for instance, a hotel manager knows that compensation of 80% is what is needed for SRP to emerge in a normal case. Instead of immediately offering compensation of 80% following a service failure, the manager could instead offer a much lower value (e.g. 20%) and ask the customer how much more the customer would require to be more satisfied than with an error-free service. Hypothetically, the customer would opt for a value (e.g. 40%) lower than the typical threshold value (80%), due to the anchoring effect. With this method, managers could both save resources and maintain customer satisfaction. The results reported here serve as a step toward narrowing down the threshold value of regular cases, a necessary piece of information for finding ways for managers to control resource use at the same time as maintaining a desirable level of customer satisfaction.

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