Examining the Service Recovery Paradox and Double Deviation by Problem Type in a Large Sample Hotel Study

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Abstract

This work presents an examination into the "service recovery paradox" and the "double deviation" by problem type in a large sample hotel study. The service recovery paradox is the suggestion that a service recovery may result in a higher intent to return and/or overall satisfaction than if a problem had not been experienced. The double deviation refers to the significant negative effect on intent to return and/or overall satisfaction from a failed recovery effort. Both of these phenomena have been debated in previous research using either experimental design or a single problem type sample. This work is the first to address the phenomena using a large sample problem type approach. The results indicate that the service recovery paradox does not exist "in total" but does present itself on a specific problem type. The double deviation is shown to more severe for certain problem types than for others.

Keywords: Service recovery paradox; Double deviation; Service reliability; Service recovery; Hotel industry

Introduction

In Zeithaml et al. [1] initial work on the development of a service quality model, reliability (the ability to perform the promised service dependably and accurately) was cited as the most important dimension in each of the four industries studied. In fact, they state simply that, "the most important thing a service company can do is be reliable… do it right the first time" (p. 31). Knutson, Stevens, Wullaert, Patton & Yokoyama also found that reliability was the most important dimension in the lodging industry. As defined by Getty & Getty [2] reliability means performing the service right the first time. It is the extent to which the hotel product and employees can be depended on to perform services correctly and consistently. A failure in any aspect of reliability results in an experienced problem. It is intuitive to conclude that the experience of a problem will affect overall satisfaction and intent to return.

Service failures are inevitable even in the best run service organizations. When service failures occur, the organization enters the service recovery mode. Service recovery research has found that effective recovery is essential to maintaining a steady customer base [3-5]. Service recovery has been linked to post-failure satisfaction, purchase intent and positive word-of-mouth [6-8]. A significant amount of recovery research has focused on the theoretical framework of justice theory [5,9]. There has even been some research suggesting that satisfaction rates can be even higher with a successfully solved problem than if the customer had not experienced a problem [10]. This result is referred to as the "service recovery paradox." Subsequently, research has also identified the dramatic impact of a failed service recovery after an initial failure; this is referred to as the "double deviation."

The research identified has primarily studied the problem and recovery experience with small samples or by experimental design. While there has been research that further explores the types of problems encountered by customers, most of this work has focused on the attributes (severity, controllability, stability) of a specific failure in an experimental design rather than failure on specific problem types. There has been no research identified that provided insight as to the nature and comparative characteristics of specific problem types in the hotel industry and the effect of specific problems and recovery on intent to return. This is most likely due to the fact that, given a

sample; a longitudinal study would have to be completed tracking the behaviors of individual respondents. The effort would also require a very large sample size to ensure that adequate responses are obtained over a variety of categories relating to all of the various problem types. Second, the use of problem type "buckets" on industry surveys has been a relatively recent development. To generate the observations needed to complete this research, a guest satisfaction dataset from a hotel company will be utilized. This research will examine the reliability (problems experienced) and recovery (problem resolution) characteristics of ten different problem types in the hotel industry, and will explore the "service recovery paradox," and, "double deviation" phenomena by specific problem type.

Literature Review

Parasuraman et al. [11] identify two primary types of dimensions operating when consumers evaluate a service encounter: outcome dimensions and process dimensions. Though both dimension types occur in both the original service encounter and the service recovery, the research of Berry and Parasuraman [12] indicates that outcome is the primary driver of consumer evaluations of service during the initial service encounter, while process is the primary driver during service recovery: "A service failure is essentially a flawed outcome that reflects a breakdown in reliability" (46). Parasuraman links the outcome dimensions to more of the product, tangible experiences of an encounter and refers to a flawed outcome as a breakdown in reliability, and links the process dimensions to the organization's human, interactive response to the recovery process.

Borrowing from Herzberg et al. [13] taxonomy, reliability can be seen as a "hygiene" factor or dissatisfier. There is no real upside on

reliability. Guests don't leave the hotel raving about how their heater or television remote worked, or that their reservation was accurate. But, intuitively, there is a tremendous downside or dissatisfaction potential when that HVAC system doesn't work properly. As there is no real opportunity to WOW a guest on reliability issues, the hotel must make sure that systems exists that address reliability. Mount and Mattila [14] found that there was a slightly stronger relationship between reliability and intent to return than there was between recovery and intent to return.

There has been significant research on the relationship of recovery to satisfaction and intent to return. Excelling at recovery can have a positive impact on post-recovery satisfaction [6,8,15]. Goodwin and Ross [9] found that excelling at recovery can have a positive impact on customer perceptions of fairness and Levesque and McDougall [16] found that recovery has a positive impact on customer loyalty to the firm. Additional recovery research has further defined factors that impact customer's perception of the recovery process. For example, there is a large body of work on justice theory fairness and how companies should respond in the recovery process. [5,17,18]

It is difficult to trace the service recovery paradox to a seminal piece of work. The earliest citation of the concept appears to be the TARP (Technical Assistance Research Programs) research (1979) and Etzel and Silverman [19]. Hart et al. [20] noted the relationship by stating, "A good recovery can turn angry, frustrated customers into loyal ones. It can in fact, create more goodwill than if things had gone smoothly in the first place" (p. 148). Bolton and Drew [21], while not specifically studying the paradox, noted the (absence of the) relationship in an article focused on other satisfaction variables, stating, "the effects of satisfactorily resolving the (billing) problem does not entirely offset the impact of the problem" (p. 381). It seems that McCollough and Bharadwaj [22] may have first used the phrase, "The Recovery Paradox," in the title of their work in *Marketing Theory and Applications.*

The research on the service recovery paradox has been mixed. Much of the recent research has gone beyond validation of the paradox into why such mixed results are obtained. Maxham [7] utilized both experimental design (with students and a haircut experience) and a field study (with recent complainants of an internet service). He used a no service failure control group and had three possible recovery levels – high, moderate and low. Maxham did not distinguish between type or severity of problem in the field study, grouping all complainants together. He did not find support for the recovery paradox in either study but suggested that the paradox may exist in the long-run (cumulative satisfaction) as opposed to the short run.

Smith and Bolton [23] studied the service recovery paradox in the hotel industry. They found support for the service recovery paradox but used cumulative satisfaction as the initial variable. They found that dissatisfaction with a recovery experience (less than 5 on a 7-point scale) resulted in lowered cumulative satisfaction and repatronage intentions while a positive recovery experience (5 or greater on a 7-point scale) resulted in increased cumulative satisfaction and repatronage intentions. They concluded that the service recovery paradox can be obtained only at the very highest levels of customer recovery ratings.

McCollough et al. [24] address the cumulative satisfaction impact and specifically state that their research, "explores the recovery paradox or the question of whether customers who experience a failure followed by superior recovery might rate their satisfaction as high as or even higher than they would have had no failure occurred" (p. 121). The research studied the airline industry using experimental design with

air travelers. They found no support for the service recovery paradox citing that this was perhaps due to the severity of the problems and the inability to fully redress the problem (a 3-hour delay) in the scenario. They clearly delineate that they are not studying cumulative satisfaction but are comparing postrecovery satisfaction to if the guest had not experienced a problem. This "no failure" control group has become a standard in much of the service recovery research.

Hocutt et al. [25] utilized an empirical approach in studying restaurant customers. They found that under conditions of high redress, postrecovery satisfaction can be higher than the control condition of no-service failure. Hocutt et al. [10] used an experimental design with students and a restaurant setting. They found partial support for the service recovery paradox but only under conditions describing the "best" service recovery such as high redress, high responsiveness and high empathy/courtesy.

The research on the service recovery paradox has provided conflicting results and researchers have offered possibilities for the conflicting results. de Matos et al.[26] provided an outstanding summary of the issue in their meta-analysis. They identified and examined four potential moderators: method (survey versus experiment), design (cross-sectional versus longitudinal), subject (student versus nonstudent), and service category (hotel versus restaurant versus others). They found that the likelihood of observing a service recovery paradox was greater in longitudinal studies (thus supporting the cumulative satisfaction findings), studies using students, and in hotels (greatest likelihood) versus restaurants versus others.

Service failure severity is among the most commonly cited contributors to public complaining [27]. Severity is more likely associated with greater disconfirmation and dissatisfaction [28] and the positive relationship between severity and complaining has been noted by several studies [27,29]. Also, there is support for the notion that the service recovery paradox is more likely when service failure causes low harm, indicating that recovery strategies may be more effective when the failure is perceived by the customers as less severe [3,18,30].

Given that customers usually have a history of interactions with the firm, their cumulative satisfaction, as opposed to a transaction-specific satisfaction, is based on their evaluations of multiple experiences with the firm over time [21]. In this way, satisfactory recoveries may yield paradoxical gains only in the short run, and customers will likely infer that multiple failures are because of problems inherent to the firm [16]. The hypothesis proposed by de Matos et al. was that the service recovery paradox was less likely to be observed when there was prior failure with the firm.

Stability attributions refer to whether the customer feels that a similar failure is likely to occur in the future. Smith and Bolton [23] found that if a restaurant customer believed that a requested food item was unavailable because of a consistent error on the part of the restaurant, the customer would be less satisfied and less likely to repatronize this restaurant. The service recovery paradox is more likely to be observed when customers feel that the service failure was unstable [30].

The issue of controllability will likely affect the observation of the service recovery paradox. When customers perceive that the firm had little control over the service failure, they are more likely to comprehend and forgive the problem [31]. Also, customers who attribute failures to controllable factors will probably be more dissatisfied with the failure and less forgiving in their evaluations. Indeed, it has been found that the service recovery paradox is more likely to occur when the customer

perceives that the firm had little control over the cause of the failure [30].

de Matos et al. [26] also observed that studies using larger samples for the service recovery group were more likely to provide support for the service recovery paradox. This is in agreement with Michel and Meuter [32] argument that, since the service recovery paradox is a very rare event [33], it becomes very difficult to achieve a large sample of customers who have received a very satisfactory recovery, and this limitation may be responsible for the non-significant results presented in the literature. They found that studies with a larger number of respondents in the recovery group tend to present greater support for the service recovery paradox.

The differences noted in the various studies on the service recovery paradox do not suggest that one particular methodology is preferable over another, only that certain methodologies may be more inclined to present an observation of the service recovery paradox. Simply, from de Matos et al. [26], studies that are longitudinal, have hotels as a research site and students as a sample are more likely to observe a service recovery paradox effect. They propose that a greater likelihood of an observed service recovery paradox will be in situations where the initial service failure is less severe, unstable (won't reoccur), first-time and uncontrollable by the firm. The studies noted for de Matos et al.'s meta-analysis used specified problem scenarios in an experimental design or a grouped response on the problem experience in a field or survey study. The field studies generally used a no-failure control group in a cross-sectional study. No research has been identified that used survey data on multiple problem types from the same sample in a cross-sectional study. Many of the surveys utilized by companies, especially in the hotel industry (a favorite of service recovery paradox research), have started to create problem type categories on their surveys. Given a large enough sample, also an issue as noted by Michel and Meuter [32], the service recovery paradox can be studied not only in a large sample but by problem type as well. The methodology moderators are givens: method (survey), design (cross-sectional which allows for a no-problem control group), subject (nonstudent), and service category (hotel). Because this is a study that will use secondary data, the proposed moderators of severity, controllability, first-time experience and stability cannot be manipulated or controlled but may be factors for continued discussion or research as they relate to problem-type. The research will also provide insight for hotel operators as to the nature of the problem and the extent of recovery. This will help answer questions as to the extent to which specific types of problems can or cannot be recovered.

Research has also suggested that recovery efforts have not been strong. Susskind [34] found that 64.1% of restaurant customers reported a "low degree of correction" regarding their complaint. 41% indicated that the complaint redress negatively influenced their desire to return to the restaurant. The likelihood of customers not returning to the restaurant following a dissatisfying complaint remedy was 72%. An early study revealed that only 30-53% of customers who experienced problems with one of seven services they purchased were satisfied with the resolution [35]. In more recent research, only 50-67% of customers who experienced difficulties with one of five service companies were satisfied with the outcome [12]. Therefore, McCollough et al. [24] suggest that lodging operations are better off by avoiding service failures than by responding to service failures with superior recovery efforts. No research has been noted that suggests that different types of experienced problems may have an impact on the level of recovery and the presence of a service recovery paradox.

The service recovery process takes on an added importance considering that recovery is the second step in a failure scenario. The organization has already failed, to some degree, in creating the initial problem experience that has led to the recovery efforts. Service recovery processes may have a relatively large impact regardless of whether the recovery process has negative or positive results. Bitner et al. [36] describe this as a "double deviation" from expectations. It is possible that a negative result in recovery is magnified by virtue of it being the second time that the firm has failed (i.e. once in the original failure and now in the recovery attempt). Bitner et al. [37] concluded that in many cases it is not the initial failure to deliver the expected service that causes dissatisfaction, but rather employees' lack of an appropriate response to that failure. Positive results in recovery may diminish the effect of the original failure for several reasons: 1) Through effective recovery communications, the consumer is led to believe the service provider is fair (e.g. admits its mistakes, makes restitution, etc.) 2) The recovery effort "takes away" all the negative consequences of the service failure and; 3) The service provider influences the consumer to make attributions which cause the consumer to place blame elsewhere. Thus, in both positive and negative recovery outcomes, the recovery can take on greater importance than the original service failure.

For the "double deviation" of initial failure followed by recovery failure, Susskind found that only 28% of restaurant customers were likely to return after a dissatisfying complaint remedy. Of the cited examples, all except Susskind (2005) reported effects of recovery on satisfaction. Only Susskind [34] reported an effect of recovery on intent to return behaviors, reporting that, "(51.7%) of respondents who reported a satisfactory complaint remedy indicated that the service failure and remedy they experienced did not negatively influence their desire to return to the restaurant." This research will explore the phenomenon and magnitude of the double deviation by problem type in a hotel.

The research on the number of problems that are reported is equally scant, though the numbers are frequently tracked. We are all aware of the old adage, "96% of your customers don't complain, they just don't come back," implying that only 4% of customers complain. The United States Office of Consumer Affairs, in their extensive Technical Assistance Research Project (TARP) [38], stated that 30% of customers report experienced problems. Johnston [39] found the number to be much greater, from 50-90% of problems was reported, depending on the intensity of the problem. Goodman and Newman [40] citing several recent TARP studies concluded that brand loyalty can be retained by encouraging customers to complain. The number appears to vary greatly, quite likely affected by other factors such as intensity, severity, industry and nature of the problem.

Because of the nature of the service recovery paradox, most all studies use scenarios of a specific problem with a convenience sample or a field study. There is usually one problem scenario, i.e., a delayed flight or a rude staff person, and the focus is on the effect of the recovery on the individual's satisfaction or intent to repurchase. Hocutt et al. [10] suggest that survey research should be utilized to "triangulate" the results being found currently in studies that are generally scenario-designs. Michel and Meuter [32] state that, since the service recovery paradox is a very rare event [33], it becomes very difficult to achieve a large sample of customers who have received a very satisfactory recovery, and this limitation may be responsible for the non-significant results presented in the literature. This research will utilize survey research by examining the guest satisfaction dataset of a leading hotel company to provide for a large enough sample. A no-problem

control group will be used as suggested by McCollough et al. [24]. The research will also focus on the service recovery paradox from the service provider's perspective. By examining the ten specific problem categories in the survey, the results will provide insight into the extent of the potential recovery for ten different problems types.

This research will undertake a descriptive, comparative study among problem types in the hotel industry to determine whether, and how, experience, reporting and recovery differ by specific problem type. This will provide insight into the following research questions:

Q1 – What is the impact on intent to return of a problem experience by problem type?

Which problem types are more serious than others?

Q2 – How does the propensity to report a problem differ by problem type?

Which problem types become more "distant" in ability to discover?

Q3 – What is the recovery impact on intent to return by problem type?

Does the service recovery paradox exist for certain problem types?

What is the impact of the double deviation by problem type?

Which problem types can you "recover" from, which can you not "recover" from?

Methodology

Reliability is defined in this study as a problem-free stay. Many companies have added problem experience and problem resolution questions to guest satisfaction surveys/questionnaires to track their performance on these key issues. Three hotel companies with multiple brands supplied the data for this research by providing access to their guest satisfaction databases. One of the companies was chosen for this study because there was some variation in survey design that prevented combining the three databases. The companies have asked that they not be identified in this work so company/brand specific information cannot be provided. The brand used for this study is an upscale/luxury full-service brand. Over 19,000 individual guest records were provided that represented a ten-month period from June of 2009 to April of 2010.

For the brand used in this study, the guest contact information is provided to an independent research company each evening. The information is "cleaned and filtered" to verify that emails addresses are valid (cleaned) and that surveys do not go to predetermined groups such as corporate employee rates and distressed airline passengers (filtered). The research company then generates random surveys in amounts sufficient to meet predetermined quotas based on a historical response rate.

The hotel brand, as most brands now do, asks the problem experience question, "Did you experience any problems with the hotel during your stay?" in a yes-no format. They then ask the guest to indicate in which area the problem they experienced occurred. There are ten problem "buckets" listed: *accuracy of bill, cleanliness of guest room, everything in working order, food and beverage experience, internet service, noise, reservation accuracy, staff sincerity/rudeness, staff responsiveness,* and *other*. Respondents are then provided four response options for each problem type to indicate whether they reported the problem and, if so, how the problem was resolved. The three resolution responses include "Completely Satisfied," "Satisfied," and, "Completely Dissatisfied." The intent to return question was asked on a seven-point Likert-type

scale with 7 representing "definitely will" and 1 representing "definitely will not." Certain scale measures have been modified to maintain confidentiality of the participating company; these modifications do not impact the statistical results of this study.

Results

Research question Q1- What is the impact on intent to return of a problem experience by problem type?

To more clearly understand the problem types, respondents with multiple problems experienced were separated into a separate category. Results for research questions one and two are presented in (Table 1) showing the problem experience percentages for each problem type, and the percentage of problems reported by problem type. To properly address the question of impact of problem type on return intent, only the non-reported problem intent to returns are reported in (Table 1). To include all of the respondents would then factor in the impact of problem resolution on the intent to return. The limitation to using only non-reports is that the problems may have been considered less critical if they were non-reported resulting in a higher intent to return.

The problem types that have the greatest impact on intent to return (the lowest intent to return by problem type) are *multiple problems*, *staff responsiveness* and, *cleanliness of guest room*, all reporting intent to return means of less than 5.0 (4.65, 4.65, and 4.95 respectively). It is interesting to note that the lowest rated problem types do not all fall into a tangible/intangible or service/product distinction. *Staff responsiveness* (4.65) is clearly an intangible, service-related attribute while *cleanliness of guest room* is clearly a tangible, product-related attribute. Staff responsiveness issues are service-related reactions to guest requests or inquiries, quite possibly in relation to experienced service problems for other problem types. Many have considered cleanliness of guest room to be the single most important attribute of a guest experience. The multiple problems attribute is further reduced as shown in (Table 2).

An intent to return measure of non-reports cannot be shown for the multiple problems experienced guest because guests may have reported some of their problems so the effect of both the other problem plus the resolution precludes the calculation of a strict non-report on a multiple problem guest. The insight provided by (Table 2) is in comparing column c to column a by problem type. While the bottom five items on the table in column a remain the five least experienced

Problem type	% of guests experiencing problem type	% of guests who reported the problem	Intent to return (non-reports)
No problems experienced control group	64.7		6.40
Problems experienced	35.3	69	5.10
Multiple problems	12.2	83	4.65
Other	7.3	61	5.45
Everything in working order	3.2	69	5.81
Noise	2.8	45	5.45
Cleanliness of guest room	2.0	71	4.95
Food and Beverage experience	1.9	56	5.39
Staff responsiveness	1.6	71	4.65
Staff sincerity/rudeness	1.3	46	5.00
Accuracy of bill	1.2	93	5.50
Reservation accuracy	1.1	93	5.29
Internet service	.7	74	5.39

Table 1: Problem experience and problem reporting by problem type.

problems overall as shown in column c, they are each more than twice as likely (column c more than double column a) to be included in a multiple problem experience. That is in contrast to the *other* problem type where only 2.2% of guests include other as a multiple problem type compared to the 7.3% that report other as the only problem type experienced.

The relationship among problem types within the multiple problems type provides further insight. The average number of problems cited among all guests experiencing a problem is 1.5 problems per guest. Within the multiple problems type, that ratio, as expected, climbs to 2.6 problems per guest. The problem types of *staff responsiveness, staff sincerity/rudeness, accuracy of bill* and *reservation accuracy* all average around three problems experienced per guest (3.0, 3.0, 3.1 and 2.9 respectively). The service responsiveness and sincerity/rudeness problems are likely to have been in association with other problems experienced that are reported to a less than positive response which then adds that problem type to the guest experience. The "halo" effect of first and last impression can be seen in the accuracy problem types. A guest arriving to a reservation accuracy problem is likely to find more problems awaiting and a guest who has experienced multiple problems is more likely to find problems in the accuracy of their bill at check-out.

Research question Q2 - How does the propensity to report a problem differ by problem type?

Overall, 69 percent of problems were reported, in line with Johnston's (1998) estimate of 50-90 percent. When combining the percentage of problems reported for single problems and multiple problem types it can be seen that there is a significant difference as to what types of problems get reported more frequently. The most obvious is that *reservation accuracy* (94% reported) and *accuracy of bill* (93% reported) are heavily reported because the interaction is usually at the front desk at check-in or check-out. The two problem types least likely to be reported are *noise* and *staff sincerity/rudeness*. Noise is a problem that generally happens at night. It may be that the guest does not complain because they don't want to deal with the problem, they don't want to be the one that "shuts the party down" or that they feel that action wouldn't be taken quickly enough. Staff sincerity/

rudeness is a rather surprising result, especially when compared to the 73% or respondents who do report a staff responsiveness problem. It is conjectured that a staff responsiveness problem is more likely to be reported because the issue or problem may still be "open," it has yet to be resolved and the guest is still waiting on the initial problem response. A staff sincerity/rudeness problem may be the "closure" of the incident. A staff member was rude or insincere initially or after a problem was reported. It may be that some guests feel that there are no further steps to take or there are no further steps that they wish to take. Frequency of reporting can be considered a "distance" factor, both physical distance (noise in the middle of the night) and emotional distance (sincerity/rudeness).

Research question Q3 - What is the recovery impact on intent to return by problem type?

The Service recovery paradox: Each problem type had three recovery responses. The recovery responses were "Completely Satisfied" – staff went above and beyond, "Satisfied" – issue/problem resolved, and "Completely Dissatisfied" – issue/problem not resolved. The multiple problem type category is treated as one category as the intent to return cannot be assigned to each of the multiple problems experienced. For the multiple problem type, recovery scores were averaged for all of the problem types and the respondent was then grouped into one of the three response categories based on the average recovery response. For example, if a guest experienced three problems, and indicated that two of the problems were resolved with a "Completely Satisfied" response and one was resolved with a "Satisfied" response, the guest was considered a "Completely Satisfied" respondent. Results are presented in (Table 3).

The intent to return of all guests with problems that were resolved at a level of "Completely Satisfied" is 6.33 so the service recovery paradox, in total, is not supported. The intent to return of guests with only one problem at a level of "Completely Satisfied" is 6.45. This is statistically significant at $p<.05$ and supports the service recovery paradox in total, when only one problem is experienced. When examining (Table 3), further insight can be gained about the service recovery paradox by problem type. While the service recovery paradox

Problem type	% of guests experiencing problem type (a)	% of multiple problem guests reporting this problem type (b)	% of guests experiencing problem type included in multiple problem type guest (c)	Total % of guests experiencing problem type (a) + (c)	% of multiple problem guests who reported the problem
No problems experienced	64.7				
Problems experienced	35.3				69
Multiple problems	12.2				83
Other	7.3	17.9	2.2	9.5	59
Everything in working order	3.2	37.3	4.6	7.8	66
Noise	2.8	32.2	3.9	6.7	40
Cleanliness of guest room	2.0	29.1	3.6	5.6	57
Food and Beverage exp.	1.9	26.3	3.2	5.1	56
Staff responsiveness	1.6	28.7	3.5	5.1	77
Staff sincerity/rudeness	1.3	23.0	2.8	4.1	51
Accuracy of bill	1.2	27.1	3.3	4.5	95
Reservation accuracy	1.1	19.3	2.4	3.5	94
Internet service	.7	14.8	1.8	2.5	58

Table 2: Detail of multiple problem type.

for a single problem experience, in total, can be supported, it is clearly evident that problem type plays a factor in the paradox. The only statistically significant support for the paradox by problem type is for *everything in working order*. Guests that marked a resolution response of "Completely Satisfied" had a greater intent to return than the no-problem control group. The *everything in working order* problem type is a tangible, product-oriented problem type. The suggested moderators of severity and stability may factor in to this finding. The *everything in working order* problems may be problems that the guest feel are less severe (TV remote not working) and that are unstable (not likely to be a common occurrence). It is quite likely that the reason

Problem type	Recovery response	% of responses	Intent to return
No problem experienced			6.40
Multiple problems			
	Completely Satisfied	7.0	**5.94**
	Satisfied	53.5	4.67
	Completely Dissatisfied	39.5	3.28
Other			
	Completely Satisfied	21.6	6.46
	Satisfied	42.0	6.14
	Completely Dissatisfied	36.4	5.04
Everything in working order			
	Completely Satisfied	27.9	**6.62**
	Satisfied	45.5	5.83
	Completely Dissatisfied	26.6	5.26
Noise			
	Completely Satisfied	14.6	6.35
	Satisfied	35.2	5.67
	Completely Dissatisfied	50.2	4.74
Cleanliness of guest room			
	Completely Satisfied	13.2	**6.09**
	Satisfied	57.0	5.23
	Completely Dissatisfied	29.8	3.60
Food and Beverage experience			
	Completely Satisfied	9.5	6.58
	Satisfied	38.7	6.14
	Completely Dissatisfied	51.8	4.75
Staff responsiveness			
	Completely Satisfied	5.2	**5.91**
	Satisfied	35.7	5.38
	Completely Dissatisfied	59.2	4.35
Staff sincerity/rudeness			
	Completely Satisfied	8.0	6.33
	Satisfied	24.1	5.19
	Completely Dissatisfied	67.9	3.75
Accuracy of bill			
	Completely Satisfied	25.5	6.47
	Satisfied	57.0	5.47
	Completely Dissatisfied	17.5	4.43
Reservation accuracy			
	Completely Satisfied	20.4	6.40
	Satisfied	44.9	5.60
	Completely Dissatisfied	34.7	4.22
Internet service			
	Completely Satisfied	12.1	6.55
	Satisfied	36.3	6.03
	Completely Dissatisfied	51.6	5.34

Table 3: Intent to return by problem type and resolution response.

for the problem can be easily, quickly, and fully fixed resulting in a positive problem experience. There are other problem types where the "Completely Satisfied" resolution response on intent to return was greater than the no-problems experienced intent to return but were not considered statistically significant. These included *other, food and beverage experience, accuracy of bill*, and *internet service*. Again, it may be proposed that the problems experienced, generally, are less severe and unstable. Severity and controllability may be a factor in *internet service*. The problem may be less severe and easily fixed (need an access code) or, if the internet service is out, the guest may properly attribute the failure to an outside provider. Without knowing the specifics of the original problem, *internet service* and *accuracy of bill* are again, tangible aspects of the stay. Inaccurate bills can be fully resolved at check-out. While many are not, those that are resolved to a completely satisfied level are considered less severe and result in an intent to return that is higher than the no-problem experienced intent to return. *Internet service* could similarly be easily fixed by providing solutions (connection instructions, passwords, technology advice) to the problem. *Food and beverage experience* and *other* are more difficult to analyze because of the uncertainty regarding the initial problem but both problem types display the recovery characteristics of tangible, product-related problems.

These results clearly show the evidence of a service recovery paradox, but only for specific problems that are resolved in a manner where the recovery has gone "above and beyond" expectations. This is in support of others who have posited this finding. While Hocutt et al. [10] state that the recovery does not have to be, "knock your socks off service," it should be properly managed, prompt and courteous to gain this post-recovery edge. McCollough et al. [24], and Smith and Bolton [23] reported similar conclusions. The ambiguity in this statement is the lack of definition for, "knock your socks off service." The service recovery paradox supported in this study is at resolution levels that are "above and beyond expectations." Intent to return for guests that indicated resolution efforts that resulted in a "Satisfied – problem/issue is resolved," response do not support the paradox. Clearly, a distinctive effort must be made (a "knock your socks off" effort?) to resolve a problem in a manner that is above and beyond expectations to bring a guest back to a non-problem experienced intent to return. Resolving a problem in a manner that results in a "Satisfied" rating is good, it improves intent to return compared to if the guest had been left to walk out the door or if there had been a "Completely Dissatisfied" response, but outstanding results are an outcome of distinctive effort.

It is interesting to consider the problem types where even a "Completely Satisfied" response does not result in a "full" recovery, resulting in intent to return scores that do not return to a no-problem experience level. These are considered problem types that you cannot fully recover from. While all problems should be avoided, these may be more critical to avoid in the first place. While *multiple problems* certainly falls into this category with a "Completely Satisfied" intent to return of 5.94, the other two statistically significant problem types are *cleanliness of guest room* and *staff responsiveness*. Cleanliness of guestroom is a tangible, product-oriented response that displays the importance of cleanliness. This item is considered more severe and is also considered to be controllable by the hotel. Even if a cleanliness issue is completely resolved, above and beyond expectations, the fact that the cleanliness problem/issue existed in the first place cannot be undone in the mind of the guest. If there was hair in the bathtub and housekeeping was called to promptly and fully resolve the problem, the fact that the problem existed cannot be undone in the mind of the guest. The staff responsiveness problem type is an intangible,

service-oriented problem type. While the issue may or may not be severe, poor responsiveness is considered controllable by the hotel. The lower "Completely Satisfied" intent to return also suggests that responsiveness problems, even when fully satisfied in a recovery effort, cannot be undone in the mind of the guest either. While the hotel may have responded fully on a second request, the initial failure on a lack of responsiveness cannot be undone. It is also highly likely, as noted, that the initial responsiveness failure may have been in response to a previous problem failure.

Double deviation: While the presence of a double deviation is intuitive and clearly displayed in all problem types in (Table 3), insight is provided when considering the problem types and when comparing the deviation from a base level. First, the intent to return drops to the lowest levels for the problem types of *multiple problems*, *cleanliness of guest room* and *staff sincerity/rudeness* (3.28, 3.60 and 3.75 respectively). The problem types of *multiple problems* and *cleanliness of guest room* were noted as problem types that cannot be fully recovered, and as indicated here, result in the greatest loss when there is a second failure. It is interesting to note that *service responsiveness* was noted earlier as a problem type that cannot be fully recovered but that its' service related counterpart, *staff sincerity/rudeness* provides a greater "double deviation" drop in intent to return. The conjecture would be that a failure in resolving a sincerity/rudeness problem quite likely resulted in a subsequent sincerity/rudeness problem which appears to be a problem type that can be somewhat forgiven once, but not twice. And, as noted earlier, the sincerity/rudeness problem may be more of a "closure," end of the experience type problem.

Second, the comparison to a base measure provides insight as to the problem type which results in the greatest double deviation failure. When compared to a "problem not reported" intent to return, that is, if the guest had chosen to not report the problem before departure, the same problem types appear as the ones that have the greatest impact on intent to return. *Multiple problems* (non-report intent to return = 4.65, Completely Dissatisfied intent to return = 3.28), *cleanliness of guest room* (non-report intent to return = 4.95, Completely Dissatisfied intent to return = 3.60), and *staff sincerity/rudeness* (non-report intent to return = 5.00, Completely Dissatisfied intent to return = 3.75) and have 25% or greater drops in their intent to return, and those drops are from already lowered intent to return for non-report.

Discussion

It is intuitive that certain problem types have different impacts on intent to return. That may be best proven by the fact that the hotel industry has been adding problem types/buckets to their guest satisfaction feedback systems. This work presents the first research that explores the existing service theory concepts of the service recovery paradox and the double deviation by problem type.

When considering both single and multiple problem respondents, the most experienced problem types were *other* (9.5% of all guests), *everything in working order* (7.8% of all guests) and *noise* (6.7% of all guests). The only comment on the other category is that the hotel should review any open-ended comments to see if there is justification for any other specific problem type needs. The hotel company could add problem types or replace less cited, less serious problem types. *Everything in working order* is at the heart of the concept of reliability. Although failure here is not as serious as other problem types, the frequency of the problem experience suggests that the company must continue to review the systems that affect reliability such as preventive

maintenance and housekeeping procedures and inspections. One out of every sixteen guests at all hotels in this company experiences a *noise* problem. The issue with noise is that less than half of those incidents are reported (43%) and half of those reports (50.2%) have indicated that they are completely dissatisfied with the recovery effort. Noise, ironically, may be the silent problem that does not receive enough attention in problem prevention.

The three problem types that have the greatest impact on intent to return, whether they are reported or not, are *multiple problems, cleanliness of guest room* and *staff responsiveness*. Even if resolved an "above and beyond" manner, once a problem is experienced in these categories, the hotel cannot fully recover on intent to return. These are the problems that must be avoided in the first place. *Cleanliness of the guest room* relies again on tangible issues such as housekeeping training and supervision policies and procedures. *Staff responsiveness* is not so clearly a tangible, procedure-driven action but it is can certainly be addressed in a tangible way. Responsiveness, most of all, will be driven by the service culture in the hotel/company. When it is made apparent by the leadership of the unit that responsiveness is important, the culture for responsiveness improves. Tangible action can also be applied. Processes that document the recording and follow-up to guest requests/complaints must be in place. While the use of the term "empowerment" may be overused, the concept of "owning the problem" is not. One of Ritz-Carlton's tenets over the years is that an employee owns a problem, the employee may need to talk to several different people, the guest should not. Time guidelines should be in place for follow-up to guests regarding service requests.

There is support for the service recovery paradox by problem type. Only one problem type, *everything in working order*, supported the paradox at a statistically significant level, but four other problem types, (other, food and beverage experience, accuracy of bill and internet) had intent to return means for "Completely Satisfied" that were greater than the no problem experienced intent to return mean. These problem types suggest less severe, easier-to-fix problems. Severity does play a role. When combining the "Satisfied" and "Completely Satisfied" responses for a problem type, *cleanliness of guest room* had the third highest total of 70.2% (less than accuracy of bill - 82.5% and everything in working order - 73.4%) but the severity of a cleanliness problem is shown by the fact that the intent to return measures for those "Satisfied" and "Completely Satisfied" respondents remains low.

The double deviation is evident for every problem type but is more pronounced for *multiple problems, cleanliness of guest room* and *staff sincerity/rudeness*. When not considering *multiple problems*, *staff sincerity/rudeness* had the greatest variation on intent to return between "Completely Satisfied" and "Completely Dissatisfied." This shows the criticality of the problem type. *Staff sincerity/rudeness* had only a 32.1 percent "recovery rate", over two-thirds (67.9%) of respondents marked that they were "Completely Dissatisfied" on a sincerity/rudeness problem resolution and those two-thirds had an intent to return of 3.75, slightly above the mid-point on a seven-point scale. Problems with sincerity and rudeness are obviously not a path that a hotel (or a guest) wants to travel. Sincerity/rudeness has all the intangibles of service responsiveness, driven by the service culture of the unit, but does not have the tangible aspects of service responsiveness to help manage the problem. Sincerity/rudeness is just "out there", you can't monitor this attribute in a real-time tangible way, you can tell employees that they must stay "thank you," but an insincere thank you renders the direction meaningless.

The addition of problem types/buckets on guest satisfaction surveys has allowed for problem type analysis which provides further insight for hotel operations on problem experience, severity and resolution to allow for a more targeted response in operations. This has also provided the opportunity for researchers to explore further theoretical concepts or those proven in a limited setting such as the service recovery paradox and double deviation as suggested by previous research. This research, while providing new insight on problem types, relationship of problem type to intent to return, the service recovery paradox and double deviation, is limited by the fact that it is used on data from only one company. Because moderators could not be manipulated, generalizations were made regarding the moderator characteristics of the problem types. Problem type analysis such as this could be completed for other companies but results would be similarly limited, many of the problem types are similar but many are different.

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