Service Recovery via Twitter: An Exploration of Responses to Consumer Complaints[*]

Doga Istanbulluoglu, Ph.D. [†]

Seda Oz, Ph.D. [‡]

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Abstract

The online response to customer complaints (i.e., service recovery) is a central feature of modern organizations' customer-focused performance management systems. Motivated by the lack of descriptive information related to complaint handling that can be used in assessing managerial performance, we collect organizations' responses to consumer complaints via Twitter and apply Zemke and Schaaf's (1990) traditional service recovery model to explore these. We collected 10,305 tweets that describe the use of Twitter for service recovery by organizations across four industries: airlines, casual dining chain restaurants, hotels, and fast-food restaurants. The findings show that in our sample, the traditional service recovery model with five service recovery elements (apology, urgent reinstatement, empathy, symbolic atonement, and follow-up) is implemented to various degrees. Further, we identify three additional service recovery elements not previously discussed by prior research: channel transfer, feedback acknowledgement, and information request. Our findings have research implications and highlight the importance of incorporating online customer complaints into the managerial performance systems.

Keywords: Service recovery; social media; Twitter; managerial performance systems

JEL Classification: M1; M31; M41; Z33

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[†] Doga Istanbulluoglu, Ph.D. (d.istanbulluoglu@bham.ac.uk). Birmingham Business School, University of Birmingham, Edgbaston, Birmingham, B15 2TT, United Kingdom. Phone: +44 (0)121 414 8592.

[‡] Seda Oz, Ph.D. (soz@uwaterloo.ca). University of Waterloo, School of Accounting and Finance, 200 University Avenue West, Waterloo, ON, Canada N2L 3G1. Phone: +1 (519) 888-4567.

INTRODUCTION

Proponents of the balanced scorecard argue that improvement in areas such as customer satisfaction, quality, employee satisfaction, innovation, or growth represent investments in firm-specific assets that are not fully captured in current accounting measures. They suggest that nonfinancial measures should supplement financial measures in internal accounting systems (Kaplan & Norton, 1996). Accounting policymakers have long supported the argument that nonfinancial performance information may increase decision-makers' ability to evaluate and predict financial and managerial performance (Maines et al., 2002). Nonfinancial performance measures may lead to a more efficient allocation of resources for managers, investors, and creditors as their decisions are based on the expectations of future rewards.

Several accounting researchers have examined the predictive ability and value relevance of nonfinancial performance measures such as customer satisfaction on firms' future performance (Banker, Potter, & Srinivasan, 2000; Ittner & Larcker, 1998; Riley Jr, Pearson, & Trompeter, 2003). Few studies in accounting, however, have linked customer complaints to managerial performance. The challenge in establishing a link between customer complaints and managerial performance lies in recognizing the variety of failure situations that may arise as well as the specific, effective response to each of these on various platforms (e.g., social media, phone, face-to-face).

The specific purposes of this paper are twofold: (1) to collect and study the responses to customer complaints that are encountered in common service environments (i.e., the tourism and hospitality industry), and (2) to gain some insight into the treatment offered. More broadly, the current study is motivated by the lack of descriptive information relative to complaints handling that can be used in assessing managerial performance.

Successful complaint-handling can transform previously unsatisfied consumers into satisfied and loyal consumers (Barlow & Møller, 1996; Ogbeide, Böser, Harrinton, & Ottenbacher, 2017), and can lead to an increase in consumer retention rates by restoring consumer satisfaction (Smith, Bolton, & Wagner, 1999) and increasing loyalty (Blodgett, Hill, & Tax, 1997). Service recovery is the set of actions that are used to address consumer complaints regarding a service failure (Gronroos, 1990). To formulate a successful service recovery, Zemke and Schaaf (1990) identified five elements [1] of service recovery: apology, urgent reinstatement, empathy, symbolic atonement and follow-up.

Since the development of Zemke and Schaaf's (1990) model in the early 1990s, new communication channels between companies and consumers, such as social media, have been introduced (Crittenden, Peterson, & Albaum, 2010; Inversini & Masiero, 2014). This has led to an increase in the number of consumers preferring social media as a channel for their complaints (Levy, Duan, & Boo, 2013; Xiang & Gretzel, 2010), putting online complaint-handling at the forefront of service recovery. Given the increased use of social media by consumers in cases of service failure, we focus on the use of service recovery on social media and identify the recovery elements used on this channel.

We explore the service recovery responses in handling consumer complaints on a social media channel, Twitter. Twitter offers ample written data suitable for research, due to its ability to facilitate written communications conveniently. This is useful for investigating the content of company responses, as there are various ways of dealing with consumer complaints on social media, such as replying publicly or via a private channel, broadcasting standard responses from a fixed set of replies, or designing specific responses to each case (Lui, Bartosiak, Piccoli, & Sadhya, 2018). Although recently there has been a focus on service recovery on social media (Armstrong, Kulczynski, & Brennan, 2021; Honora, Chih,

[1] Service recovery elements are the techniques that intend to correct or replace a failure of service. Similar terms, such as strategies, practices, and techniques have also been commonly used in prior research.

& Wang, 2022; Istanbulluoglu & Sakman, 2022), the literature still has gaps in terms of explaining how companies use social media for service recovery, despite its prevalent use. Thus, there is a need to revise and extend earlier models of service recovery and provide a breakdown of current service recovery practices.

To sufficiently explore this issue, the degree of customer contact must be inherent in the service. Our study focuses on the tourism and hospitality industry because there is a high level of customer contact in this industry and consumers of this industry perceive that it is easy to switch service providers when they are unsatisfied (Bowen, 1990). This, in turn, signals that the consumer relationship and handling of consumer complaints are central to these companies' success.

We use a qualitative thematic analysis following the coding procedures by DeCuir-Gunby, Marshall, and McCulloch (2011), and analyse 10,305 tweets posted by 20 companies: airlines, casual dining chain restaurants, hotels, and fast-food restaurants. Characteristics of the recovery elements may affect the perception of failure and performance. Our analysis of the dataset shows that while companies in our sample followed Zemke and Schaaf's (1990) service recovery model (apology, urgent reinstatement, empathy, symbolic atonement and follow-up) to various degrees, no single dominant strategy was used by all of these companies. We find that there is some variation in the dominant strategy used by each industry. Apology is the most common in most of the selected industries, except for airlines and fast-food restaurants and follow-up and urgent reinstatement are the two strategies identified in the dataset as having lower frequencies. In addition to the service recovery practices listed by Zemke and Schaaf's (1990) model, we have also identified three additional service recovery practices: channel transfer, feedback acknowledgement, and information request. Channel transfers are sets of mechanisms that companies use to change the current service recovery channel (e.g., Twitter) to other communication channels across different

communication tools of the company (e.g., phone lines), as well as within Twitter via its various features (e.g., public tweets vs. private direct messages). Feedback acknowledgement is the act of recognizing the consumer's negative feedback regarding the service failure. Lastly, information request is the procedure for gathering and utilizing information about the consumers affected by the service failure.

Our paper is not the first to suggest the importance of balanced scorecard in the tourism and hospitality industry. An early study by Brown and McDonnell (1995) highlighted the prospect of the hospitality sector utilizing balanced scorecard and developed a preliminary system. Researchers examining the prevalent performance metrics being used in the hospitality and tourism industry discuss all four traditional perspectives of balanced scorecards (e.g., Atkinson and Brown, 2001; Huang, Chu and Wang, 2007; McPhail, Herington and Guilding, 2008; Phillips and Louvieris, 2005). Huang (2008) and Chen, Hsu and Tzeng (2011) have developed balanced scorecards for travel agencies and hot spring hotels, respectively. Elbanna, Eid and Kamel (2015) have developed and tested a balanced scorecard for the tourism and hospitality industry. These papers suggest an existing proliferation of the balanced scorecard in the tourism and hospitality industry.

Researchers continue to call for the use of a comprehensive performance measurement systems in labour-intensive industries, such as hospitality and tourism (Fatima and Elbanna, 2020). Our research answers this call by expanding our knowledge of service recovery use in the new social media era. Specifically, it focuses on the use of Twitter in handling consumer complaints. Our findings have implications for the management accounting literature. Nonfinancial measures of customer relationships might supplement conventional financial measures (e.g., Riley Jr et al., 2003). Prior studies support the notion that customer satisfaction is a useful supplement to financial performance measures because it captures elements of value not reflected in historical accounting-based measures (Maines et al., 2002).

As a result of enhanced customer satisfaction, service recovery practices may be used as nonfinancial performance measures.

We seek to provide empirical research to operationalize the use of social media (i.e., Twitter) by firms in service recovery. We make three contributions to the literature. No prior published study has applied the service recovery framework of Zemke and Schaaf (1990) to Twitter. This paper contributes to this gap, by deploying the Zemke and Schaaf's (1990) model to examine customer complaints in Twitter. We also contribute to the literature by expanding their model and identifying new service recovery elements. Second, after more than two decades of balanced scorecard academic research, evidence about how to incorporate social media into performance measures remains sparse. This paper highlights the usefulness of the balanced scorecards and explores how handling consumer complaints on Twitter can be used as performance indicators. Although the results presented here are definitive, the research study is a formative, early step in the systematic development of service recovery centric performance measures for firms. Our findings may help researchers and practitioners devise performance measure methods based on nonfinancial inputs, such as handling consumer complaints on Twitter. Third, this paper seeks to provide accounting scholars with a differentiated service recovery framework that could be explored as a predictor of financial performance. We discuss the research implications of our findings for managerial performance literature in Section 5.2.

This paper is organized as follows: Section 2 elaborates our study's motivation. Section 3 describes the research methods. Section 4 presents the findings. Section 5 discusses the findings and elaborates on the research implications of our findings. Finally, Section 6 offers our concluding remarks.

MOTIVATION

In an economy dominated by tangible assets, financial measurements are adequate to record investments on companies' balance sheets. Income statements could also capture the expenses associated with the use of these tangible assets to produce revenues and profits. However, financial measurements are not always adequate in accounting for a company's intangible assets. These intangible assets include customer relationships, the skills and knowledge of the workforce, the information technology that supports the workforce, and links between a firm and its stakeholders. The main concern about these intangible assets is the lack of measurement, which leads to obstacles in implementing new strategies (Kaplan & Norton, 2001).

Balanced scorecards aim to elevate the role of nonfinancial measures and offer a connection between the measurement system and strategy implementation (Kaplan & Norton, 1996). The scorecards describe how intangible assets are mobilized and create differentiating customer-value propositions and superior financial outcomes. The balanced scorecard literature builds on the foundation that nonfinancial measures such as product quality, customer satisfaction, and market share play an important role in evaluating and rewarding managerial performance (Ittner, Larcker, & Rajan, 1997; Kaplan & Norton, 2001).

The customer perspective of the balanced scorecard highlights the importance of customer intimacy and stresses the quality of a company's relationships with its customers, including exceptional service, and the completeness and suitability of the solutions it offers individual customers (Kaplan & Norton, 2001). The existing literature uses customer ratings as a proxy of the customer perspective in performance systems. Banker, Potter and Srinivasan (2000) report that customer ratings of hotels are positively associated with future performance. Ittner and Larcker (1998) show that customer satisfaction measures are associated with growth in the number of customers and revenue growth.

While the use of customer ratings addresses some layers of customer perspective, these ratings do not fully describe customer relationships. Customer ratings may vary according to specific circumstances, with customers being influenced by the unstable and temporary conditions that they happen to be in at the time they complete the assessment (Wilson, 2002). There is no standardized process to collect the data, i.e., the format and the data collection of questions vary. Despite the lack of standardization, most measurement procedures tend to share one common characteristic. Virtually all customer ratings possess a distribution in which the majority of the responses indicate that customers are satisfied (Peterson & Wilson, 1992). This may suggest a weakness in customer ratings measurement or may simply reflect the Hawthorne effect (i.e., a type of reactivity in which individuals modify an aspect of their behaviour in response to their awareness of being observed). Bateson and Hoffman (1999) suggest that attempting to increase customer ratings is not always the right strategy. They emphasize the importance of analysing the concerns of those customers who are dissatisfied (i.e., complaint-handling), and how the results compare against their peers.

Complaint-handling falls under the domain of service recovery. Service recovery involves those actions designed to resolve problems, alter negative attitudes of dissatisfied consumers, and ultimately retain these customers. Service providers should make every effort to provide the customer with a positive experience the first time. However, in an environment where factors such as varying customer expectations and high levels of human involvement complicate the service delivery process, mistakes and failures can be unavoidable. Service recoveries provide the opportunity to recover from the failures and offer a second chance to provide a positive service experience. This, in turn, makes service recovery an important metric of a company's relationship with its customers.

The popularity of social media has changed the process of service recovery. Consumers who want to voice their complaints directly to the company can now use social media

platforms with less effort compared to traditional complaining methods such as phoning consumer service lines or face-to-face complaining (Sparks & Browning, 2010). Since online complaints are often publicly available, other consumers looking for information about a company can also access and read these (Bacile, Krallman, Wolter, & Beachum, 2020). Such public information usually provides a rich set of data from various reviewers and can cover a wide range of aspects. This information can be crucial for consumers who are making decisions regarding the tourism and hospitality industry (Ladhari & Michaud, 2015).

Not all companies in the hospitality industry provide the same level of communication on social media. While some frequently answer their consumers on social media, others prefer not to do so (Park & Allen, 2013). When companies do not respond to online complaints, this may lead to loss of future business (Chan & Guillet, 2011; Istanbulluoglu and Sakman, 2022). Consumers prefer when the companies provide public replies and this increases the perceived usefulness of the response (Zhang, Gao, & Zheng, 2020). Moreover, replies specifically tailored for each customer have been found to have more positive effects on customers' perceptions of the brand than generic replies (Wei, Miao, & Huang, 2013). Given the increasing importance of online service recovery processes, it is crucial to understand which recovery elements are being used and how they are used. Researchers, practitioners, and managers cannot incorporate these customer relationships into managerial performance systems if they cannot assess and categorize them. Our primary objective is to offer descriptive analysis of companies' handling of complaints in an era of social media.

Zemke and Schaaf (1990) developed a service recovery model that identifies five critical service recovery elements, referred to as the ingredients of effective service recovery. These are apology, urgent reinstatement, empathy, symbolic atonement, and follow-up. "[A]s many as five ingredients are involved in an effective recovery," and all five are required if the

consumer considers it a severe service failure (Zemke & Schaaf, 1990: 23). Below, we discuss these elements in detail.

Apology is an admission of error by the company's representatives and is commonly used in tourism and hospitality (Ogbeide et al., 2017). Apologies after service failures can help to improve the relationship between the consumer and the company, and there is a positive relationship between apology and repurchase intentions (Kelley, Hoffman, & Davis, 1993). Similarly, online apologies help to improve the relationship between the consumer and the company (Tripp & Grégoire, 2011), even though they do not involve face-to-face interaction.

Urgent reinstatement signifies the perceived pace of the recovery effort. One way to convey the message that the company cares about its consumers and their comments is to provide a speedy response (Li, Cui, & Peng, 2017). The actual response time and perceived recovery speed are central components of a successful service recovery (Davidow, 2003; Matzler, Pechlaner, Abfalter, & Wolf, 2005). Especially in online complaint-handling situations, the recovery speed is critical (Mattila & Mount, 2003). Since these channels are dynamic and fast-paced, consumers who complain using these methods expect faster recovery than those who use offline complaints (Istanbulluoglu, 2017).

Empathy is an expression of compassion to show that the company understands the misfortunes of the consumer. It is a way for the company to make sure the "consumer feels heard, affirmed, cared about" (Zemke & Schaaf, 1990: 24). The main difference between apology and empathy is that the apology shows that the company admits the breakdown and their fault in this, while empathy emphasizes that it is acknowledged that the consumer has been hurt (Zemke & Schaaf, 1990). When employees recognize that the consumer has experienced harm due to the company's actions, the consumer deems service recovery to be effective (Bitner, Booms, & Tetreault, 1990). When employees express empathy, satisfaction increases (Simon, 2013).

Symbolic atonement is the practice of making amends to the consumer by providing atonement. This is defined as redress, which could be a full or partial refund, replacement, repair, gift, or compensation (Day & Landon, 1977). While some consumers complain solely with the objective of being listened to or venting, others complain specifically to obtain some form of redress (Istanbulluoglu, Leek, & Szmigin, 2017). Regardless, providing redress positively impacts consumer satisfaction and increases repurchase intentions (Clark, Kaminski, & Rink, 1992; Mount & Mattila, 2000).

Follow-up, as the last part of the service recovery, provides a sense of closure and an affirmation of the authenticity of the service recovery (Zemke & Schaaf, 1990). Follow-up ensures that the consumer and the company agree that the complaint is now resolved. It also provides an opportunity for the consumer to voice their thoughts about the process. Before the advancement of online communication channels, follow-ups were limited to those consumers whose contact details were recorded by the company. This meant that follow-up as part of service recovery was sometimes overlooked. However, social media makes it possible to easily reach complaining consumers and provide updates.

This study analyses to what extent companies use conventional service recovery elements (i.e., apology, urgent reinstatement, empathy, symbolic atonement and follow-up) and identifies whether new elements of service recovery emerge as a result of social media platforms.

METHODS

We adopted an interpretive paradigm to study service recovery on social media. An interpretivist approach explores meanings and experiences by considering multiple realities and different perceptions (Carson, Gilmore, Perry, & Gronhaug, 2001). It focuses on the understanding of meanings in their given context (Hirschman, 1986). This allows researchers

to understand and interpret each concept based on its own particular contextual meaning (Carson et al., 2001).

Sampling and Piloting

Early observations on social media and industry statistics showed airlines, hotels, casual dining chain restaurants (henceforth chain restaurants), and fast-food restaurants use Twitter regularly to interact with their consumers and engage in service recovery (Brandwatch, 2016; TrackMaven, 2016). We define fast-food restaurants as restaurants that emphasize speed with no table service, and chain restaurants as those that provide table service and offer a full bar. First, we identified companies in these industries that are active on social media to ensure that the selected companies use social media regularly. For this identification, we used *The Social Index* report prepared by a social media consultancy company, Brandwatch (2016). This report lists brands that use social media successfully based on their online activity and social media applications in four categories: social visibility, sentiment, reach growth, and social engagement content (Brandwatch, 2016). We included the top five companies from the Social Index (Brandwatch, 2016) for each industry in our sample (see Appendix 1). Some of the companies in the sample are subsidiaries of the same parent company: for example, Ritz-Carlton Hotels and JW Marriott Hotels have Marriott International as their parent company. [2] We initially checked whether the companies owned by the same parent company follow a similar social media strategy, but our early analysis showed that the companies exhibited different social media presences (e.g., differences in the number of daily posts, language and style). We believe this creates an interesting research opportunity, so we intentionally kept these companies in our sample.

[2] Although sharing the same Virgin branding, Virgin Atlantic and Virgin Australia are not owned by the same parent company. Olive Garden and Red Lobster had the same parent company, Darden Restaurants, until Golden Gate Capital acquired Red Lobster in 2014.

Several companies in our sample have multiple Twitter accounts that allow them regional tweeting (e.g., @Dominos_UK for UK and @DominosPizzaAC for Canada). We conducted a one-week pilot study following Pritchard and Whiting's (2012) guide for pilot studies to select the most appropriate account for the data collection. The aim of the pilot study was twofold. First, during this period, we familiarized ourselves with the social media activities of selected companies to understand their usage of social media. Second, through these observations, we were able to select accounts that met the following criteria:

(1) Selected accounts must be active accounts with at least one post during the period of the pilot study.

(2) Selected accounts must be used to reply to consumers' posts.

If more than one account satisfied the above criteria, we selected the account with the highest number of tweets. However, if a company had a dedicated customer service account on Twitter, we always selected that account (e.g., @TK_HelpDesk is Turkish Airlines' customer service account). The complete list of companies and corresponding Twitter accounts are presented in Appendix 1.

Data Collection

We used CrowdTangle software to systematically retrieve tweets posted by the selected accounts over a one-month period (21 January 2017 to 21 February 2017, inclusive). CrowdTangle is content discovery software that monitors and retrieves data from public social media accounts, and it has been used in academic research previously (Geelan & Hodder, 2017; Jernigan & Rushman, 2014). Its ability to extract social media data in a structured way is more reliable than observing and collecting content manually because it ensures the automated collection of all tweets from the selected accounts in the selected time period.

In total, 54,196 posts were retrieved from the selected accounts. We removed promotional tweets, company news, and product announcements, then used a stratified random sampling procedure to select the tweets for our analysis. Due to the volume of the tweets we had available for an analysis, a stratified sample was obtained by taking samples from each stratum of a population. When we sample a population with several strata, we require that the proportion of each stratum in the sample should be the same as in the population. [3] Accordingly, we considered each industry as a stratum. For each stratum, the total number of tweets included in the analysis equals the average number of tweets posted by the five companies in that industry. Our final sample included a random sample of 5,452 tweets for airlines, 1,003 tweets for chain restaurants, 1,026 tweets for hotels and 2,824 tweets for fast-food restaurants. Panel A of Table 1 summarises information on the dataset, while Panel B details the number of tweets included from each company.

<Insert Table 1 about here>

Data Analysis

Initial observations of the dataset [4] showed that service recovery on social media can be interpreted differently due to the varied uses of language (e.g., sarcasm, jokes, emoticons). Since analytical software tools cannot always clearly identify the meaning of the words, it was decided to code the tweets manually. Manual coding helps develop knowledge of the data and preserve the richness and format of the tweets (Latzko-Toth, Bonneau, & Millette, 2017). We followed DeCuir-Gunby et al.'s (2011) guidelines for qualitative analysis. Two types of codes were used: theory-driven codes and data-driven codes. Theory-driven codes

[3] Stratified sampling is generally used when the population is heterogeneous, or dissimilar, where certain homogeneous, or similar, sub-populations can be isolated (strata). Within each stratum, sub-populations have similar probability of becoming a sample. Simple random sampling is most appropriate when the entire population from which the sample is taken is homogeneous.

[4] Institutional research ethics approval was obtained before data collection started. All the accounts used to retrieve data are company accounts and are publicly accessible by all Internet users.

are tags or labels that are developed a priori from an existing theory, and data-driven codes are those that emerge from the data itself (DeCuir-Gunby et al., 2011).

We formulated theory-driven codes based on Zemke and Schaaf's (1990) service recovery model. These are apology, urgent reinstatement, empathy, symbolic atonement and follow-up. First, both authors reviewed and revised the theory-driven codes independently, working on an identical list of tweets based on their appropriateness and definitions while revisiting the theory. The authors regularly met to compare, discuss the content and codes, and resolve any coding discrepancies to improve reliability and validity. This means that we worked back and forth between the data and existing literature, discussing the explanations and application of the codes to the data. Next, we identified multiple interpretations of the data and searched for any inconsistencies in the coding protocol. When we identified such a case, we offered explanations and justifications to each other and explored examples until we reached a consensus (DeCuir-Gunby et al., 2011).

We developed data-driven codes by analysing each tweet and identifying themes that were not captured by the theory-driven codes. We focused on meanings at the sentence level and searched for new information in the raw data. This was followed by identifying themes based on what we observed in the dataset. We then looked for these new themes across the whole dataset and questioned whether the theme was consistent across other tweets. As the next step, we re-examined the theory-driven codes to decide whether we need to create a new data-driven code for the new theme or whether we simply need to expand the current theory-driven codes to encompass the new theme. Finally, to address the potential inconsistencies between coders, we followed the same procedures, used for theory-driven codes and discussed our explanations and justifications until we reached a consensus (DeCuir-Gunby et al., 2011).

FINDINGS

Theory-Driven Codes: Traditional Service Recovery Elements

Among traditional service recovery elements, symbolic atonement was the most used in our dataset, followed by apology, follow-up, empathy, and urgent reinstatement. Symbolic atonement was the most used by airlines, but apology was the most used by the other three industries. The second most common among airlines was follow-up, followed by empathy, apology, and urgent reinstatement. Symbolic atonement was the second most common service recovery element for the remaining three industries. The order of most common service recovery responses for chain restaurants and fast-food restaurants was the same, with apology and symbolic atonement followed by empathy, follow-up, and urgent instatement, respectively. The third most common element for hotels was follow-up, followed by urgent reinstatement and empathy. Panel A of Table 2 presents the frequency of the elements for each industry in our sample while Panel B lists the percentage distribution of each element within each industry.

<Insert Table 2 about here>

Apology. Of the total tweets in the dataset, 26.43% included apology. Apologies usually included an admission of the error and recognition of failure. Apology tweets also usually provided an explanation regarding the cause of the problem.

> *"We do sincerely apologize. The original delay was due to Air Traffic Control, and then the maintenance issue was later identified."* (WestJet, 12/02/17)

In the majority of the tweets in this category did not solely include apologies, but also exhibited other service recovery elements. In these cases, apology was used as the opening statement of the tweet, and the rest had other elements of service recovery.

"Hi Robert, Sorry to hear that. Please DM [Direct message] *us the location you are visiting and your room #, or your preferred contact details."* (Four Seasons, 23/01/17)

In other cases, apology was also used when the company could not offer a solution to the problem. Some of these tweets also included empathy, albeit not always.

"*We feel terrible about this and we're sorry. Please know that you can still call-in your order."* (Olive Garden, 14/02/17)

Empathy. Empathy tweets comprised 15.98% of the dataset. These usually included a narrative highlighting that the company, or the person operating the account, understood the inconvenience.

"I'm sorry, I understand how frustrating that can be. Is there anything we can assist with? ^HM" (Hyatt Regency, 31/01/17)

Most of the posts in this category exhibited semi-formal or informal communication methods instead of tweets that use only formal and managerial language. Examples include exclamations, use of first names and use of smileys.

"Oh no, Will. Which store gave you this?" (Taco Bell, 21/02/17)

Symbolic Atonement. Symbolic atonement was observed in 37.79% of the dataset. These offered or initiated an effort to offer redress or provided an attempt at real-time problem-solving.

"Can you provide us with your reservation code in a direct message and you should receive an email regarding compensation." (WestJet, 19/02/17)

"Oh my, looks like you could use some more room on that table. I'm happy to contact the hotel for you. Which restaurant? ^PT" (Hyatt Regency, 21/02/17)

In some of these cases, the symbolic attornment process had already been initiated, and the consumer was informed of this.

> *"Again I apologize. I did inform them of your dissatisfaction and they will be contacting you for a resolution. ^CCG"* (Hyatt Regency, 19/02/2017)

When financial redress was involved (e.g., offering refunds), tweets usually include instructions on obtaining the said compensation.

> *"Sorry to hear this. Please follow this link to request a refund- http://bit.ly/DPcontactForm"* (Dominos, 02/02/17)

Follow-up. Follow-ups were sent out after the issue was solved and were observed in 16.98% of the dataset. Most of these were used to ask if there were anything else that the company could do and advised consumers to get in touch should there be any other issues.

> *"Thanks and if there's anything else we can do, pls let us know."* (Four Seasons, 10/02/17)

Other follow-up tweets include answers to consumers who had thanked them for the service recovery. These did not provide additional information or include any action and merely acted as nice gestures.

> *"Cheers, friend. Happy flying. ^AH"* (United, 21/02/2017)

Urgent Reinstatement. The messages detailing evidence of speedy response fall into the urgent reinstatement category. A smaller percentage of the dataset were in this category (3.69%). Investigating the content of tweets is not the best way of exploring urgent reinstatement because the content of the posts rarely mentions the time and speed of the response. However, exceptions occurred when the reply was delayed, and the tweet included an explanation for this delay. In these cases, tweets were responses to consumers who had complained that the company was very slow in handling consumer complaints.

"Hi Sue, I'm sorry for the delayed response. Our customer relations team are quite backlogged at the moment, ^SR" (Virgin Atlantic, 29/01/17)

If a response was delayed, it usually also explained the reasons for the delay. Some of these reasons could cover company policies or procedures.

"A reply can take up to 5 days however is usually much quicker than this." (Dominos, 01/02/2017)

Data-Driven Codes: Additional Service Recovery Elements

We identified three additional service recovery elements that were not part of Zemke and Schaaf's (1990) model. These three elements are (i) channel transfer, (ii) feedback acknowledgement, and (iii) information request. Airlines, chain restaurants, and fast-food restaurants demonstrated channel transfers the most often, while hotels used information requests at the highest frequency. Feedback acknowledgement was the least-used service recovery element for all four industries. Panel A of Table 3 presents the frequency of the additional service recovery elements for each industry in our sample while Panel B lists the percentage distribution of each element within each industry.

<Insert Table 3 about here>

Channel Transfer. 25.31% of the dataset aimed to redirect the consumers to other company communication channels. These posts provided contact information such as phone numbers or links to access other company channels. These tweets were usually made up of boilerplate text that could be used to respond to multiple consumers.

"Sorry to hear this! Can you help us improve by providing some more info in this link https://www.mcdonalds.com/us/en-us/contact-us/restaurant-feedback.html/twitter? Thank you!" (McDonalds, 20/02/17)

Another purpose of tweets in this category was to refer consumers to channels relevant to the complaint. Transferring consumers to specific service recovery channels may ensure that the issue is dealt more effectively and possibly more quickly.

> *"Our apologies that you were disconnected. Please reach out to our Reservations team at 1-800-UNITED1 for phone assistance. ^EB"* (United, 11/02/17)

Feedback acknowledgement. Another service recovery element was the appreciation of the complaint as feedback (7.96%). In these posts, the company usually thanked the consumer for their messages and advised that they would consider this feedback to improve their services.

> *"Sure thing, David. We value your feedback on this. We will forward this on to our team. ^FS"* (United, 11/02/17)

Sometimes, the consumer did not have a personal request but provided information or feedback that could be used to improve the service overall. These tweets were answered with a promise of transferring this information to the relevant department for further consideration.

> *"We'll pass your suggestion along to our R&D team here at HQ!"* (Subway, 09/02/17)

Information request. Finally, service recovery tweets sometimes included a request for more information (19.86%). In these cases, service recovery could not be initiated due to lack of information, and the company's reply aimed to start conversations, essentially asking for more details on the issue. These were commonly used in two situations. The first was when the consumer complained about a specific experience but did not provide the necessary details.

> *"We would like to get in touch so we can learn more. Please DM us your email so we can personally reach out."* (Olive Garden, 05/02/17)

The second was when the consumer used the tweet to vent their feelings but did not complain about a specific service failure. These were also addressed with an information request as the company needed to understand what led the consumer to send such tweets.

> *"HI! Is there anything we can assist with? Please DM us your booking number, full name, email and details. Thanks – ABJ"* (Hilton, 20/02/2017)

In addition to the verbatim quotes provided above, Table 4 presents a definition and an additional example for each code.

<Insert Table 4 about here>

Lastly, we note that tweets analysed in this study may carry multiple service recovery elements. Table 5 summarizes the frequency of multiple service recovery elements observed in a single tweet for each industry in our sample. 74% and 48% of tweets posted by airlines and fast-food restaurants carry one service recovery element, respectively. On the other hand, chain restaurants and hotels frequently use at least two service recovery elements in their tweets. For instance, 58% of tweets posted by hotels carry two service recovery elements, and 13% of all their tweets carry three service recovery elements. We do not find any tweets carrying more than four service elements.

<Insert Table 5 about here>

DISCUSSION

Discussion of the Findings

In this study, we employed a manual data analysis method, which allowed us to preserve the richness of the tweets in our sample. Our analysis of the dataset shows that service companies in our sample followed Zemke and Schaaf's (1990) service recovery model (apology, urgent reinstatement, empathy, symbolic atonement and follow-up) to various degrees, implementing some of these (e.g., apology) more than others (e.g., follow-up). Identifying three additional service recovery elements (i.e., channel transfer, feedback

acknowledgement, information request) that were not part of the traditional model also shows that companies are updating their existing practices and adapting to the modern era of communication.

The results of this study confirm and further extend the literature on service recovery on social media (e.g., Fan & Niu, 2016; Levy et al., 2013). The findings in Tables 2 and 3 showed that apology was the most common service recovery element in chain restaurants and hotels in the given period and it was the second most common element in the fast-food restaurants. Symbolic atonement was the most common service recovery element of airlines of the sample. For instance, airlines posted a total of 5,452 tweets and 39.1% of those tweets carried elements of symbolic atonement (see Panel B of Table 2). Symbolic atonement was the second most common in the chain restaurants and hotels. While symbolic atonement is a traditionally common strategy in service recovery (Ogbeide et al., 2017), it has been known to be significantly more difficult in online settings. One plausible reason could be the distant nature of Twitter as a platform as opposed to traditional face-to-face settings. As online communications continue to improve, this trend change as companies can easily implement various redress methods, such as direct refunds to debit/credit cards, discount codes, and vouchers, on social media. Moreover, while empathy was evident in the dataset, it was not as common as apologies and symbolic atonement. Perhaps, this is not surprising as most service recovery tweets with empathy also carried other service recovery elements, such as apologies. Urgent reinstatement tweets in the dataset were the least common in all the industries in the given period. They were only observed when the consumer complained about the slowness of the service. Companies in the sample did not feel the need to comment on their response time otherwise. This does not mean that they did not implement this in their service recovery practices.

Follow-ups were the second most common service recovery element for the airlines but second least common for chain restaurants and fast-food restaurants. They are used on social media when companies contact consumers once the service recovery is completed. These typically aim to thank the consumer or to confirm the issue is finalized. Although our dataset showed companies sometimes engaging in follow-ups publicly, it is important to note that follow-ups may also occur via private online conversation channels. This could be one reason why we observe follow-ups in varying frequencies across industries. Our study does not capture private service recovery conversations between the company and consumers. Thus, it is important to note that while we show that public follow-ups are less frequently used compared to other practices in service recovery, they may take place via private online conversations.

Feedback acknowledgement is the act of recognizing the consumer's negative feedback regarding the service failure. When consumers complain, they provide information on what they think does not work, and companies can then use this information to improve their services. Acknowledging this publicly and informing the consumers that their feedback has been taken on board is the first step before acting on this feedback. This allows companies to build an image of caring about their consumers' opinions and being willing to form relationships with them, even if the feedback is negative. Feedback acknowledgement is also beneficial in circumstances that are out of companies' control (Levy et al., 2013). In these situations, acknowledging the feedback can help to explain why the issue is happening and how it is out of the company's control, but it can also indicate if there is any chance of this situation improving in the future.

Channel transfers are sets of mechanisms that companies use to exchange the existing service recovery channel with a different one. When consumers choose social media to voice their complaints, there is an implicit assumption that the resolution will be achieved in the

same channel. However, companies may want to continue the conversation in a different channel depending on the nature of the failure or the expertise needed to resolve the issue. The main benefit of redirecting the communication to a private channel is that it limits the audience of the conversation to the parties directly involved in the service recovery. However, standard boilerplate answers, which are commonly used in these situations, simply advise the consumer to use a different channel. Such answers are interpreted as shunting by consumers and can cause dissatisfaction (Einwiller & Steilen, 2015; Ogbeide et al., 2017).

The information request is the procedure for gathering and utilizing information about the consumers affected by the service failure. For companies, it is necessary to collect reliable information to evaluate the service failure and design the recovery. In the dataset, we notably observed information requests in two distinct situations. One was when the consumer complaint did not include enough information for the company to understand the nature of the service failure. Responses to complaints in this category aimed to get more information on the source of the dissatisfaction, to understand the problem before engaging in a recovery action. The second was when consumers did not clearly indicate a particular problem but still expressed, or vented, negative feelings towards the company. Even when they do not refer to specific service failures, these tweets still create negative content about a company. A common strategy to handle such negative content is to engage in conversation by requesting more information on the matter. This should not be confused with tweets asking for information such as flight numbers or restaurant locations to provide symbolic atonement. These indicate an attempt to provide redress or include an assurance to resolve the problem. On the other hand, tweets in the information request category aim to understand the service failure itself, as not enough information has been provided on the case. While our findings may be generalized to a broader sample, we acknowledge that our sample is limited, and our findings may only be attributed to the sample examined in this study.

Research Implications

This study argues that recovery responses may have a role in managerial performance systems and build on the importance of the customer perspective suggested by the balanced scorecard literature. To incorporate recovery responses into a performance system, we must be able to document how recovery responses vary, especially with the increasing importance of the social media era. This study has made clear that the role of service recovery in social media era is a significant one.

Although marketing scholars have been studying service recovery for a long while, the accounting literature has been mostly silent on service recovery-related questions. It is important for accounting scholars to take a look at the implications and meaningfulness of service recovery elements in the managerial performance context. Just as the work of Ittner and Larcker (2001), and Kaplan and Norton (2001) propelled research in accounting into the arena of nonfinancial measures with performance concerns, it is hoped that this study will encourage other researchers to explore the role of key service recovery elements in performance systems.

Our study identifies a wide array of recovery elements (i.e., apology, urgent reinstatement, empathy, symbolic atonement, follow-up, channel transfer, feedback acknowledgement, and information request) used on Twitter. Accounting studies which enumerate the impact of employing different recovery elements (e.g., apology versus feedback acknowledgement) on performance strategies would be useful to both researchers and practitioners. For example, companies that exhibit the apology recovery element more than others may require the most attention to improve future performance.

The recovery elements identified in this paper could be split into different classes based on their common characteristics. Apology and symbolic atonement relate to the unfairness of

how rewards and costs are distributed among customers. Empathy, follow-up, and feedback acknowledgement are elements focusing on the interpersonal treatment consumers receive during the enactment of procedures. Urgent reinstatement, channel transfer, and information request relate to the policies, procedures, and criteria used by decision-makers in arriving at the outcome of a dispute or negotiation. These common characteristics may lend themselves to building performance measures and help companies to deliver purpose-specific solutions to customer complaints.

In our sample, the number of tweets posted by companies is not symmetrical. We note that some companies tweet significantly more than others (see Panel B of Table 1). This reflects the actuality of customer engagement on Twitter. Companies engaging with their customers less than their industry peers poses an interesting question. On the one hand, there may be less complaints for them to address, on the other hand, they may be ignoring some complaints and cherry picking those that they can handle. We believe that the frequency of tweets within the same sub-industry may offer unique opportunities to examine future performance. For instance, if the reason to post tweets at a lower frequency is related to high quality service, we would expect to observe a negative association between the number of tweets and future performance. To our knowledge, there have been no studies considering the mediating role of Twitter in the relationship between customer engagement and financial performance. We hope that future research will explore this avenue.

Our paper also shows that some sub-industries use multiple service recovery elements in a single tweet (see Table 5). Our paper does not address the issue of whether it is cost-beneficial to employ these activities and which of these recovery elements may increase customer retention. Future studies that focus on the costs and benefits associated with recovery elements would be desirable.

As we establish the service recovery elements in this study, what is up for debate is what constitutes an effective recovery-centric performance measure. As the uncertainty surrounding businesses increases, service recovery becomes more of a norm. Managers and scholars may formulate service recovery goals relative to the past performance. Designing such measures mandates, at the very least a reliable service recovery data. We hope that our findings build a motivation for scholar to explore model(s) where managerial performance is a function of service recovery elements. Such models will enhance our understanding of service recovery elements from a performance perspective.

Finally, our findings may have implications for the responsibility accounting literature. Controllability, integral component of responsibility accounting, refers to managers' ability to control the results for which they are held accountable (Jevtić, Jovanović and Krivokapić, 2018; Su, Baird and Nuhu, 2021). The components of our service recovery model can enhance the controllability aspect of existing financial measures. Traditional financial measures tend to be too narrow in focus, too aggregated and historical in nature, among other problems. Su et al. (2021) point out the importance of managers' perception of fairness in the association between controllability of financial measures and managerial performance. One avenue for this stream of research is to explore whether service recovery related performance measures could accompany traditional financial performance measures. Future research could examine whether the inclusion of service recovery measures increase controllability of performance measures and managers' perception of managerial performance systems.

LIMITATIONS

Our study has some limitations, which may offer opportunities for researchers. This study contributes to the literature by investigating service recovery on Twitter. Other social media platforms, such as TripAdvisor or Yelp, could be investigated to understand the effects of the interface and the platform's culture and test whether different service recovery strategies are

employed on these platforms. While our study does not consider the type of complaint, future studies may be interested in analysing the type of complaint and the response to explore the usefulness of service recovery responses in various situations. Further, our study focuses on a limited number of companies for a brief amount of time. While our results offer some insights, we acknowledge that generalization of our findings may be limited. Despite the costly data collection process, we hope that future research will build on these findings. Lastly, a study that provides an overlook of service recovery during and after the COVID-19 pandemic will be valuable to expand the understanding of current trends of online service recovery on social media.

Finally, limitations arise from the selection of the dataset. A number of individual tweets were selected using stratified random sampling. If the service recovery included more than one tweet, they could not be observed as a group. Instead, the procedure treated every tweet as a separate observation. Although this limits the understanding of the conversations that developed between the consumer and the company, this paper focuses on varieties of the service recovery elements, not the content of the conversations. Future studies that focus on consumers' responses to service recovery on Twitter can explore their conversational nature. These can be used to analyse which service recovery elements lead to consumer satisfaction and offer guidance on what could help companies to improve customer satisfaction with service recovery. Finally, since conversations that are initially open to the public on Twitter can later be transferred to private communication routes in the same channel, we cannot rule out the possibility that companies engage in private conversations with their customers and offer service recovery as part of these conversations.

CONCLUSION

In this paper, we demonstrate specific service recovery techniques used on Twitter. The focus has been on tourism and hospitality companies' responses to customer complaints on

this platform. Prior research examines the role of nonfinancial measures, such as customer ratings in future performance (e.g., Banker, Potter and Srinivasan, 2000). However, customer ratings are imperfect measures of customer perspective because they tend to show bias in favour of companies (Peterson & Wilson, 1992). Our study focuses on service recovery elements and analyses companies' handling of complaints on social media. Our findings show that customers rely on social media to get their concerns resolved and highlight the role of service recovery in the customer perspective. Our paper is one of the few demonstrating descriptive evidence related to service recovery elements by companies. We hope that our evidence would help managers, practitioners, and researchers to implement these recovery elements in performance systems.

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APPENDIX 1
List of companies in the sample and corresponding Twitter handles

Airlines	**Twitter Handle**	**Chain restaurants**	**Twitter Handle**
WestJet	@WestJet	Olive Garden	@olivegarden
Virgin Australia	@VirginAustralia	Texas Roadhouse	@texasroadhouse
Virgin Atlantic	@VirginAtlantic	Red Lobster	@redlobster
United Airlines	@united	Chili's Grill and Bar	@Chilis
Turkish Airlines	@TK_HelpDesk	Cheesecake Factory	@Cheesecake
Hotels	**Twitter Handle**	**Fast-food restaurants**	**Twitter Handle**
Four Seasons	@FourSeasons	McDonalds	@Reachout_mcd
Ritz-Carlton Hotels	@RitzCarlton	Taco Bell	@TacoBellTeam
JW Marriott Hotels	@JWMarriott	Dominos	@Dominos_UK
Hilton	@HiltonHelp	Wendys	@Wendys
Hyatt Regency	@HyattConcierge	Subway	@SubwayListens

TABLE 1
Summary of dataset

Panel A.

Number of strata (industries)	4 (airlines, chain restaurants, hotels, and fast-food restaurants)
Number of companies in each stratum (industry)	5
Number of Twitter accounts investigated	20
Total number of tweets retrieved (N)	54,196
Total number of service recovery tweets	51,520
Total number of service recovery tweets per industry	Airlines: 27,259 Chain Restaurants: 5,013 Hotels: 5,128 Fast-food Restaurants: 14,120
Average number of service recovery tweets per industry	Airlines: 5,451.8 (~5,452) Chain Restaurants: 1,002.6 (~1,003) Hotels: 1,025.6 (~1,026) Fast-food Restaurants: 2,824
Total number of tweets in the dataset (n)	10,305

Notes:
Panel A summarizes the sample selection. Panel B indicates the number of tweets for each company included in this study's sample.

TABLE 1
Summary of dataset

Panel B.

Airlines	**Number of Tweets**	**Chain restaurants**	**Number of Tweets**
WestJet	554	Olive Garden	611
Virgin Australia	204	Texas Roadhouse	21
Virgin Atlantic	683	Red Lobster	139
United Airlines	3,965	Chili's Grill and Bar	145
Turkish Airlines	46	Cheesecake Factory	87
Total	5,452		1,003
Hotels	**Number of Tweets**	**Fast-food restaurants**	**Number of Tweets**
Four Seasons	23	McDonalds	421
Ritz-Carlton Hotels	54	Taco Bell	480
JW Marriott Hotels	49	Dominos	1,217
Hilton	392	Wendys	424
Hyatt Regency	508	Subway	282
Total	1,026		2,824

TABLE 2
Frequency of the theory-driven codes

Panel A.

Service Recovery Elements	Airlines	Chain Restaurants	Hotels	Fast-food Restaurants	Total*
Symbolic Atonement	2,131	377	640	746	3,894
Apology	657	518	644	905	2,724
Follow-up	1320	89	57	284	1,750
Empathy	810	322	38	477	1,647
Urgent Reinstatement	193	31	41	115	380
* When tweets included more than one service recovery element, they were coded multiple times. Hence, the final number of codes can be more than the total number of tweets in the dataset (10,305).					

Panel B.

Service Recovery Elements	Airlines (n = 5,452)	Chain Restaurants (n = 1,003)	Hotels (n = 1,026)	Fast-food Restaurants (n = 2,824)
Symbolic Atonement	39.09%	37.59%	62.38%	26.42%
Apology	12.05%	51.65%	62.77%	32.05%
Follow-up	24.21%	8.87%	5.56%	10.06%
Empathy	14.86%	32.10%	3.70%	16.89%
Urgent Reinstatement	3.54%	3.09%	4.00%	4.07%

Notes:
Panel A (B) summarizes the frequency (percentages) of theory-driven service recovery elements for each industry.

TABLE 3
Frequency of the data-driven codes

Panel A.

Service Recovery Elements	Airlines	Chain Restaurants	Hotels	Fast-food Restaurants	Total*
Channel Transfer	807	306	152	1343	2,608
Information Request	698	240	222	887	2,047
Feedback Acknowledgement	368	120	106	226	820
* When tweets included more than one element, we coded these with multiple codes.					

Panel B.

Service Recovery Elements	Airlines (n = 5,452)	Chain Restaurants (n = 1,003)	Hotels (n = 1,026)	Fast-food Restaurants (n = 2,824)
Channel Transfer	14.80%	30.51%	14.81%	47.56%
Information Request	12.80%	23.93%	21.64%	31.41%
Feedback Acknowledgement	6.75%	11.96%	10.33%	8.00%

Notes:
Panel A (B) summarizes the frequency (percentages) of data-driven service recovery elements for each industry.

TABLE 4.
Definitions and Examples of Theory-driven and Data-driven Codes

Code	Definition	Examples of Posts
Apology	Statement of acknowledgement of the issue and recognition of failure	*We apologize for any frustration but this is the hotel's policy. Thank you – ABJ* - Hilton, 17/02/2017
Empathy	Statement of expression of compassion to show that the company understands the extent of the consumer's disappointment	*We understand how frustrating this must be, Barbara. Please let us know if you need our assistance. ^AH* - United Airlines, 21/02/2017
Symbolic atonement	Statement that includes an indication of planned amendments to compensate consumers' dissatisfaction	*We hope you were able to place your order and apologize for any inconvenience. DM us so we can send a gift your way!* [Tweet includes photo of a bowl of spaghetti] - Olive Garden, 17/02/2017
Follow-up	Statement of closure and request of affirmation of the authenticity of the service recovery	*You are welcome. Feel free to reach out to us with any questions.^MG* - Hyatt Regency, 21/02/2017
Urgent reinstatement	Remark regarding the pace of the service recovery	*Hi Oliver, our CR team aim to respond within 28 days but they're a little backlogged at the moment. ^SR* - Virgin Atlantic, 08/02/17
Channel transfer	Statement that aims to redirect consumers to other channels of communication	*sorry to hear this Jennifer. Mind giving our guest relations team a call at 1-800-TEX-ROAD so we can speak with you?* - Texas Roadhouse, 13/02/2017
Feedback acknowledgement	Statement of acknowledgement that shows appreciation of consumer complaining	*Thanks for your feedback. We'll check in with the teams in charge of the locations in that area.* - Taco Bell, 14/02/2017
Information request	Question that aims to obtain further information on the matter	*Sorry for disappointing you Gary. How can we help? ^S* - Virgin Atlantic, 27/01/2017

TABLE 5
Frequency of multiple service recovery elements

Service Recovery Elements	Airlines	Chain Restaurants	Hotels	Fast-food Restaurants
1 element	4,050	210	289	1,341
2 elements	1,275	649	578	829
3 elements	124	150	133	633
4 elements	3	17	3	21
More than 4 elements	0	0	0	0
N	5,452	1,026	1,003	2,824

Notes:
This table reports the frequency of capturing multiple service recovery elements. It is reported for each industry included in the study.