

Online Customer Reviews of Hotels: As Participation Increases, Better Evaluation Is Obtained

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Abstract

Customer reviews posted on the web and through social media (electronic word of mouth [eWOM]) have grown in importance for tourism businesses, but most studies have examined the effects of the content of reviews, particularly negative reviews (i.e., their valence). This study considers both the valence and the volume of eWOM using a broad and varied sample of 16,680 hotels in 249 tourist areas. The study found a relationship between valence and volume, in the sense that early reviews of a business tend to be disproportionately negative. As the number of reviews increases, the valence becomes more balanced, and the negative effect is mitigated. Moreover, the study agrees with other findings that positive comments are more common than negative reviews. Whether or not hotels actively respond to negative reviews, one implication of this study is that hoteliers should try to increase the number of reviews they receive to balance the positive and negative representations of their property (in addition to investigating and correcting the causes of negative comments). Those promoting tourist destinations should follow a similar strategy of facilitating access to customer review sites to obtain a balance of negative and favorable ratings.

Keywords

eWOM; online reviews; TripAdvisor; social media; hotels; customer management

The opinions that customers express in online review sites represent an important type of word of mouth (WOM), which has come to be called “electronic word of mouth” (eWOM; Litvin, Goldsmith, and Pan 2008). As research shows that evaluations posted on the web and social media sites are important to consumer decisions (Ba and Pavlou 2002), businesses must pay attention to those opinions. This especially holds true in the tourism industry, given that many potential guests check posted opinions before making their booking decisions. In particular, tourism businesses would like to avoid negative reviews and have positive ones posted.

Studies on eWOM have so far focused more on the valence of reviews (i.e., positive vs. negative) than on the number of reviews (i.e., volume). We have seen little research that deals with the effects of the number of reviews posted about a particular tourism business, but we believe that this is an important aspect for understanding how eWOM influences consumer purchase decisions. In this work, we test the hypothesis that the lower the number of reviews a business receives, the more negative the tenor of these reviews as a whole will be. To verify this hypothesis, we determine whether the quantity of customer reviews

affects the nature of the reviews. This test is intended to verify whether, as the number of reviews a hotel receives increases, the valence of these reviews changes significantly.

eWOM

eWOM is WOM behavior developed using the possibilities the internet offers (Dellarocas 2003; Hennig-Thurau et al. 2004). Thus, its definition must refer to WOM that consists of customer communications with members of a person’s social and professional networks (Anderson 1998). A key difference between eWOM and more traditional WOM is that a large volume of eWOM is posted publicly for all to see (Hennig-Thurau et al. 2004; Litvin, Goldsmith, and Pan 2008; Pantelidis 2010). Thus, in comparison with WOM, eWOM is an information source that is quickly and easily

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available to anyone, and that remains accessible over time—whether the participants are acquainted with each other or not. Thus, “eWOM can create virtual relationships and communities, with influence far beyond the readers and producers of WOM” (Litvin, Goldsmith, and Pan 2008, 462).

The importance that eWOM (and traditional WOM) has for companies is reflected in the many studies that conclude that positive eWOM generates positive attitudes and increases the possibility of purchase, whereas negative eWOM has the opposite effect (Ba and Pavlou 2002; Bickart and Schindler 2001; Hong 2006; Karakaya and Barnes 2010; Lee, Park, and Han 2008; Park, Lee, and Han 2007; Steffes and Burgee 2009). These effects are particularly notable in the restaurant (Pantelidis 2010; Susskind 2002) and accommodation businesses (Vermeulen and Seegers 2009; Ye, Law, and Gu 2009). Of considerable interest to hospitality firms is the finding of several studies that eWOM is more effective than communication generated from marketing carried out by companies (Allsop, Bassett, and Hoskins 2007; Bickart and Schindler 2001; Karakaya and Barnes 2010). For this reason, many hotels have taken the position of never responding to online comments, although others are careful to acknowledge posted reviews (Park and Allen 2013).

Two of the most important WOM attributes that have been examined are volume and valence. Volume measures the total amount of WOM interactions, while valence captures whether a particular comment is positive or negative. Many studies have examined valence (Pantelidis 2010; Sparks and Browning 2011; Thorson and Rodgers 2006; Vermeulen and Seegers 2009; Ye, Law, and Gu 2009), but few have considered volume and valence simultaneously (Liu 2006).

Most researchers have concluded that the motivation for eWOM occurs when a guest has an extremely good or extremely bad experience. This is similar to conventional WOM (Andreassen and Streukens 2009; Gruen, Osmonbekov, and Czaplewski 2006; Hennig-Thurau et al. 2004; Litvin, Goldsmith, and Pan 2008). Thus, research paints a picture of an inverted U-shaped relationship between customer satisfaction and quantity of both WOM and eWOM. The most satisfied and most unsatisfied customers will be the ones who will generate more commentary, while customers who are neither extremely satisfied nor unsatisfied will share less WOM comments, particularly electronic reviews (Bansal and Voyer 2000; Gremler 1994; Litvin, Goldsmith, and Pan 2008; Murray 1991). Not surprisingly, negative eWOM has received considerable attention in the literature given its detrimental impact on businesses (Cheng, Lam, and Hsu 2006), especially as numerous studies have confirmed that most consumers do not complain to the person providing the service or product, but instead switch suppliers and share negative WOM

(Anderson 1998; Andreason 1985; Davidow and Leigh 1998; Hart, Heskett, and Sasser 1990; Keng, Richmond, and Han 1995; Kotler 1991; Richins 1983; Susskind 2002; Tax, Brown, and Chandrashekaren 1998). One thing we noticed in those studies, though, is the lack of agreement about which type of WOM and eWOM stands out—positive or negative. We discuss this matter in detail in connection with our hypotheses.

Regarding the tourism sector, studies seem to focus primarily on the reasons that eWOM occurs, its valence and consequences, its uses, and whether it is possible to influence it. Ekiz and Arasli (2007) studied how hotels’ attempts to remedy service shortcomings affect negative eWOM. They concluded that the commitment of the directors to the management of complaints as well as the interpersonal skills of the personnel and their satisfaction within the workplace are important factors to meeting the demands of customers. Ye, Law, and Gu (2009) investigated the impact of eWOM on the sale of hotel rooms, by tallying the number of reviews received on a travel website, which they consider to be a proxy of room sales. Ye and colleagues found that an increase of the variance in the ratings given by customers diminishes hotel room sales. Gretzel and Yoo (2008) studied the way consumers use eWOM on TripAdvisor, finding that the comments are mainly used when making decisions for accommodation purposes rather than for planning trips. Vermeulen and Seegers (2009), using an experimental design based on hotels, found that negative eWOM generates negative attitudes and concluded that although isolated cases do not cause much prejudice, repetition can be highly damaging. Pantelidis (2010) found that positive comments outweighed negative electronic reviews for London restaurants. Failure to deliver good value was a major cause for negative eWOM in that study, and Pantelidis suggests that negative comments can be an opportunity for improvement if they are managed properly. Sparks and Browning (2011) analyzed the impact of a number of features of eWOM on the confidence perceived by consumers and on their decisions. The authors found that the impact on customers is higher when the negative information is recent, especially when all of the eWOM are negative.

A particular concern for WOM is the finding of studies from various industries that people pay greater attention to criticisms or negative reviews than to positive reviews (Lee, Park, and Han 2008; Smith, Bolton, and Wagner 1999), an effect that has been confirmed in the tourism sector (Papathanassis and Knolle 2011; Sparks and Browning 2011). This is particularly an issue for eWOM, which is anonymous on travel review sites, as we discuss next in greater detail. At least one study has suggested that anonymity could favor negative opinions (Schindler and Bickart 2005). Consequently, the objective of our study is

to verify whether negative eWOM behavior is more representative when hotels have few reviews compared with when they have many.

Online Review Sites

The internet is continually creating new eWOM channels. Review websites, as well as e-mail, blogs, and virtual communities, have been joined by such channels as Twitter and Pinterest, as methods for guests to communicate with each other. For this study, websites that permit anonymous posting constitute one of the most important channels for eWOM (Hennig-Thurau et al. 2004; Vermeulen and Seegers 2009). We also note that guest comments, even those of strangers, are more trusted than communications coming from companies (Chen 2008; Gretzel and Yoo 2008; Li and Bernoff 2008; Vermeulen and Seegers 2009; Xiang and Gretzel 2010).

TripAdvisor stands out among the websites that consist exclusively of customer reviews of hospitality services, including lodging, transportation, and dining. According to the statistics it provided, TripAdvisor represents the largest travel community in the world, with more than 35 million visitors per month (comScore Media Metrix 2010), and contains more than 45 million reviews and opinions on more than 1.3 million hotels, restaurants, and attractions (TripAdvisor 2011).

Reviews are also found on the virtual travel agency sites, such as Expedia.com, Booking.com, and Venere.com. The reach of these virtual agencies is also quite large. Venere lists 60,000 lodging places and reports more than two million customers (Venere 2011), Booking offers more than 135,000 hotels and is consulted by more than thirty million different visitors each month (<http://Booking.com> 2011), and Expedia claims to offer more than 130,000 hotels (Expedia 2011).

To confirm the importance of online reviews in consumer decisions, Park, Lee, and Han (2007) found that buying intentions increase as the quality and quantity of online reviews increase. According to Gretzel and Yoo (2008), three-quarters of travelers have considered online consumer reviews as an information source when planning their trips. In the hotel sector, it has also been found that online opinions of other consumers are one of the most important variables in lodging choice (Ye et al. 2011).

All of these studies point to the relevance of websites that convey customer opinions and the importance for businesses to receive positive reviews and limit the number of negative ones. In this sense, Chen and Xie (2008) and Pantelidis (2010) highlighted that online customer reviews require both monitoring and strategic responses by the firms. One strategic use for reviews is that the businesses can use reviews to learn about their customers' experiences

and reactions. In Spain, for example, the majority of hotels (71.7%) check the opinions of customers on these websites (Red.es 2007).

Hypothesis Development

As we indicated above, several studies have discussed the issue of whether WOM is more frequent among satisfied or dissatisfied customers. Those who found that negative experiences generate more WOM than positive ones cite a "negativity bias" that occurs due to an asymmetrical response to positive and negative events (Anderson 1998; Davidow and Leigh 1998; Tax, Brown, and Chandrashekaren 1998; Taylor 1991). According to Taylor (1991), negative emotions like regret, disappointment, anger, frustration, and the desire to help others cause people to take action. Some studies have measured the size of this asymmetry, including Hart, Heskett, and Sasser (1990), who placed it at an 11:6 ratio; Kotler (1991), who proposed an 11:3 ratio; and Carvell and Furth (1995), who reported a 20:8 ratio.

The studies that take the opposite approach suggest that positive experiences predispose us more favorably to WOM (Charlett, Garland, and Marr 1995; Holmes and Lett 1977; Johnston 1995). Among the explanations for this finding (Söderlund 1998), positive experiences are processed more accurately (Fornell and Westbrook 1984), it is more pleasant to communicate positive experiences, we unconsciously minimize negative aspects of experiences or even forget negative experiences altogether (Taylor 1991), and that we fear what others might think if we report receiving bad service—that perhaps it was due to our incapacity to make a good choice or that we do not deserve anything better. Thus, according to these studies, we engage in WOM behaviors more frequently when it is positive.

After an extensive review, Söderlund (1998) proposed that these two arguments are not necessarily contradictory. What causes WOM behavior is a surprise, or a significant difference from our expectations. If we receive much worse service than expected, we will engage in WOM. If we receive much better service, we will also engage in WOM. This logic supports the perception that the valence of WOM takes the form of an inverted U.

Most of the arguments relating to conventional WOM also relate to eWOM, and specifically to review websites. The reasons for the negativity bias remain: we generate negative eWOM as a desire to warn others and as a way to release our negative emotions and exercise our consumer rights (Bronner and de Hoog 2011).

We believe that the foundations for positive bias are slightly modified for eWOM. Unlike conventional WOM, which occurs sometime after the event, first, eWOM is frequently sent out as the service is taking place or shortly thereafter. With such a short time lag, there is little time for

selective memory to gloss over negative feelings. Second, the anonymity afforded by eWOM review sites allows a greater degree of freedom and, consequently, a greater prevalence of negative eWOM (Schindler and Bickart 2005). Finally, the absence of one-to-one communication between customers might encourage negative comments. Nevertheless, even if these three foundations of positive WOM are mitigated in the case of eWOM, some of the positive bias will remain.

Considering all these factors, the hypothesis for this study is based on the proposition that negative eWOM predominates among hotels with few reviews, but that its importance diminishes as the number of reviews increases. In keeping with the idea that dissatisfied customers have a stronger motivation toward WOM behavior (Anderson 1998; Andreason 1985; Cheng, Lam, and Hsu 2006; Davidow and Leigh 1998; Hart, Heskett, and Sasser 1990; Keng, Richmond, and Han 1995; Kotler 1991; Richins 1983; Susskind 2002; Tax, Brown, and Chandrashekaren 1998), negative comments predominate when the number of reviews is small, especially given the comparatively weak incentives for positive eWOM. As the number of reviews increases and time passes, however, the “surprise” effect highlighted by Söderlund (1998) fades, because guests have been able to read about the possible flaws of a particular service before experiencing it. As a consequence, hotels see fewer negative reviews and guests have less motivation to practice eWOM. Thus, the proportion of negative eWOM will decrease as compared with the proportion of positive eWOM. Over time, the average of the reviews trends toward the positive.

Hypothesis: The average rating that hotels receive on the internet depends positively on the number of customers who submit reviews.

$$\bar{X}_i = f(n_i); \quad \frac{\partial \bar{X}_i}{\partial n_i} > 0$$

We make that hypothesis operational in two ways: a continuous version and an interval-based version. In the continuous version, the null hypothesis is that the average rating score of a given hotel is uncorrelated with the number of reviews. In the interval-based version, hotels are categorized by the number of reviews, and the null hypothesis is that the average rating is equal for all the groups.

Should Hypothesis 1 hold (i.e., the null hypotheses are rejected), one could doubt whether hotels with few reviews, but a negative rating, are indeed worse than those with a favorable rating and many reviews. To shed light on this issue, and as an extension of the above hypothesis, we also examined the evolution of reviews over time to determine whether a hotel’s early reviewers tend to be systematically more dissatisfied than later reviewers.

The corresponding operational statistical null hypothesis, which addresses that question, is that the average rating of the first n reviews of a given hotel is equal to the average rating of the subsequent $n + 10$ reviews (when $n = 20, 30, 40, \text{ or } 50$).

Our hypothesis also seeks to test the connection between tourists’ ratings of hotels in a particular destination and their view of the destination as a whole. As the average rating that a tourist zone or destination receives depends on the ratings of the hotels in that zone, we also check whether the rating of the zone is significantly higher as viewed through the lens of hotels with numerous reviews, as compared with a criterion of hotels with few reviews. That is, if only hotels that have received more than fifty reviews are included, for instance, the average rating of the destination should be higher than if the threshold for reviews is hotels with as few as ten reviews. Specifically, we test the null hypothesis that the average rating of the zones is the same regardless of the review sample size threshold we use for including hotels.

Method

To draw a sufficiently large sample for representative and robust results, we turned to TripAdvisor due to its immense library of reviews.

In May 2010, we downloaded online reviews of hotels in the 200 best-rated tourist destinations of Europe, as rated on TripAdvisor. The list of European destinations compiled by TripAdvisor takes into consideration the destination’s hotels and other factors such as cultural offerings, shopping, dining, nature, and the like. These 200 destinations provided 26,439 hotel reviews, which we considered a large enough database to perform the desired calculations. Moreover, as we moved down the TripAdvisor list from the top 200 destinations, we found that the small locations would not comply with our cutoff points of a minimum of 10 hotels in the destination and at least 10 reviews per hotel. With both smaller numbers of hotels and hotels with relatively few reviews, these destinations could not belong to the final sample.

Certain destinations comprised numerous zones. Most of the beach destinations on TripAdvisor appear to be subdivided into zones centered on a beach or tourist resort. So, for instance, Gran Canaria in Spain includes Maspalomas and Playa del Inglés among other zones; and Sicily includes Palermo, Catania, Syracuse, Taormina, and Messina, among others. In contrast, this does not occur with urban destinations (e.g., London). Therefore, our initial data set had 200 tourist destinations in which there were 830 zones. After we excluded zones where hotels did not have more than ten reviews (which removed nearly 10,000 hotels), our final sample was 624 tourist zones, comprising 16,680 hotels.

Exhibit 1: Information on the Sample.

Source	TripAdvisor
Month of data collection	May 2010
Data collection	Automated
Tourist destinations (initial)	200
Tourist destinations (after hotel selection)	199
Tourist zones (initial)	830
Tourist zones (after hotel selection)	624
Total hotels considered (initial)	26,439
Total hotels considered (with more than 10 reviews)	16,680
Hotels with 101 to 200 reviews	2,593
Average number of reviews per hotel	77.3
% of "terrible" reviews (1)	6.8
% of "poor" reviews (2)	8.5
% of "average" reviews (3)	14.3
% of "very good" reviews (4)	34.8
% of "excellent" reviews (5)	35.6

Customers summarize their reviews in TripAdvisor in an overall rating in five possible categories: excellent (5), very good (4), average (3), poor (2), and terrible (1). These scores represent eWOM in a straightforward manner.

To test the chronological evolution of reviews, we needed not just the number of reviews and their categories but also the date on which they were introduced to compare whether later reviews were better than earlier ones. Because of this, we made a random sample of 423 hotels among the 2,593 hotels that had between 101 and 200 reviews. Data on the sample are summarized in Exhibit 1.

To test the continuous hypothesis, we did a regression of the hotel's average score against the number of reviews and tested the significance of the correlation. For the interval-based hypothesis, we grouped hotels in intervals according to the number of reviews received (i.e., those with 11-20 reviews, 21-30 reviews, etc.), and we tested the null hypothesis with an analysis of variance (ANOVA) and Bonferroni's multiple comparison test.

For the contrast between earlier and later hotel ratings, we used the random sample of 423 properties from 2,593 hotels that had between 101 and 200 reviews. We took this sample rather than the full panel set, because the longitudinal approach for this part of the study would otherwise involve 1.2 million comments and require hard computing work for downloading and analyzing the time sequences of ratings of every individual hotel. The sample size was calculated to detect a difference in average ratings of 0.09 with a confidence interval of 95 percent. We sorted the hotel reviews by date and calculated the rating average of the n first reviews ($n = 20, 30, 40, 50, 100$). We used the t -test for mean comparisons.

Last, to determine whether the average rating of a tourist zone depended on the inclusion of hotels with a higher or

lower minimum number of reviews, we progressively increased the number of reviews required for a hotel to be included in the zone stepwise, with the critical values of 10, 20, 30, 40, and 50 reviews. In each of the cases, only zones with more than 10 hotels were considered—that is, at each level, we considered fewer hotels in calculating the average ranking of a hotel destination, which also meant considering fewer zones. We started with 15,566 hotels in 249 zones and ended with 6,913 hotels in 135 zones. The t -test was also used for these calculations. Calculations were made with Stata v11, with a significance level of 5 percent.

Results

The determination coefficient of the simple regression of hotel rating against the number of reviews (0.03) is significant at $p < .001$. The null hypothesis is therefore rejected. Exhibit 2 shows a comparative analysis of the scores received by the hotels according to the number of reviews received. The average score improves with the number of reviews received, from 3.52 for the 3,461 hotels with 11 to 20 reviews to 3.90 for the 3,983 hotels with more than 100 reviews.

Exhibit 2 also shows that the percentage of "terrible" ratings declines as the number of reviews increases, from 11.8 to 5.6 percent. Similarly, the percentage of those dissatisfied (Scores 1 and 2) drops from 22.5 to 13.3 percent. Conversely, the percentage of the score of "excellent" increases from 26.2 to 39.2 percent, and the number of those satisfied (Scores 4 and 5) increases from 60.1 to 73.7 percent. According to Bonferroni's test (Exhibit 3), there are significant differences between all of the groups, except between those with 41 to 50 and 51 to 100 reviews (F statistic = 171.39, $p < .001$).

Reviews Compared Over Time

Exhibit 4 shows comparisons between the average rating of the first twenty reviews received by the 423 hotels analyzed and the average ratings when the number of reviews accumulates. Except for the comparison of the mean of the first twenty and the first thirty reviews ($p = .065$), the rest of the comparisons demonstrate with statistical significance that as hotels receive more reviews, their average ratings improve and the standard deviation declines, which means there is a greater agreement in ratings.

Tourist Zones Compared

Exhibit 5 shows the evolution of the average score of the different tourist zones as a function of whether we consider only hotels that received more than ten reviews, only hotels that received more than twenty reviews, more than thirty, more than forty, and more than fifty, with the additional consider-

Exhibit 2:
Ratings of Hotels by Number of Reviews.

Number of Reviews	Hotels	Average	Dissatisfied			Satisfied	
			Terrible (1) (%)	Poor (2) (%)	Average (3) (%)	Very Good (4) (%)	Excellent (5) (%)
11-20	3,461	3.515	11.8	10.7	17.4	33.9	26.2
21-30	2,351	3.572	10.4	10.6	17.3	34.5	27.2
31-40	1,699	3.640	9.4	10.2	16.6	34.4	29.4
41-50	1,333	3.707	8.1	9.7	16.1	35.7	30.4
51-100	3,853	3.725	7.9	9.4	15.7	35.7	31.2
101+	3,983	3.900	5.6	7.7	13.0	34.5	39.2
Total	16,680	3.691	6.8	8.5	14.3	34.8	35.6

Exhibit 3:
Bonferroni's Multiple Comparison Test: ANOVA Post Hoc Comparisons among Groups.

Number of Reviews	11-20	21-30	31-40	41-50	51-100
21-30	0.057 (.007)				
31-40	0.125 (.000)	0.067 (.009)			
41-50	0.192 (.000)	0.134 (.000)	0.067 (.000)		
51-100	0.210 (.000)	0.152 (.000)	0.085 (.000)	0.018 (1.000)	
101+	0.385 (.000)	0.327 (.000)	0.260 (.000)	0.193 (.000)	0.175 (.000)

Note: ANOVA = analysis of variance. The *p* values are shown in parentheses.

Exhibit 4:
Evolution of Average Ratings of Reviews as Number of Reviews Increases.

Reviews Considered	<i>M</i>	<i>SD</i>	Comparisons
First 20	3.743	0.722	20-30, <i>p</i> = .065
First 30	3.756	0.665	30-40, <i>p</i> = .007
First 40	3.772	0.628	40-50, <i>p</i> = .041
First 50	3.780	0.608	50-100, <i>p</i> = .000
First 100	3.817	0.550	20-100, <i>p</i> = .000

Exhibit 5:
Average Ratings of Hotels by Tourist Zone and Number of Reviews.

Criterion	Hotels	Zones	<i>M</i> ^a	<i>SD</i>
>10 reviews	15,566	249	3.688	0.631
>20 reviews	12,158	215	3.734	0.600
>30 reviews	9,918	186	3.770	0.582
>40 reviews	8,304	166	3.795	0.567
>50 reviews	6,913	135	3.808	0.563

a. For all comparisons of means, *p* < .001.

ation that we only included zones with more than ten hotels in each of the five groups. Note that the average score increases, although the growth is small, as the number of reviews we request from the hotels in the zone increases, with all the differences statistically significant. As with the comparison of reviews over time, the standard deviation declines.

Exhibit 6 shows 135 zones with more than ten hotels that have more than fifty reviews (the most strict of the criteria used in Exhibit 5)—the average ratings of the zones when calculated with all the hotels considered (symbol ▲) and when calculated with the sample of hotels with more than fifty reviews (symbol -). The vertical black lines indicate the distance between the minimum and maximum levels of the subsamples for each zone. The destinations are arranged in order of their mean basal rating (calculated with the hotels with at least ten reviews).

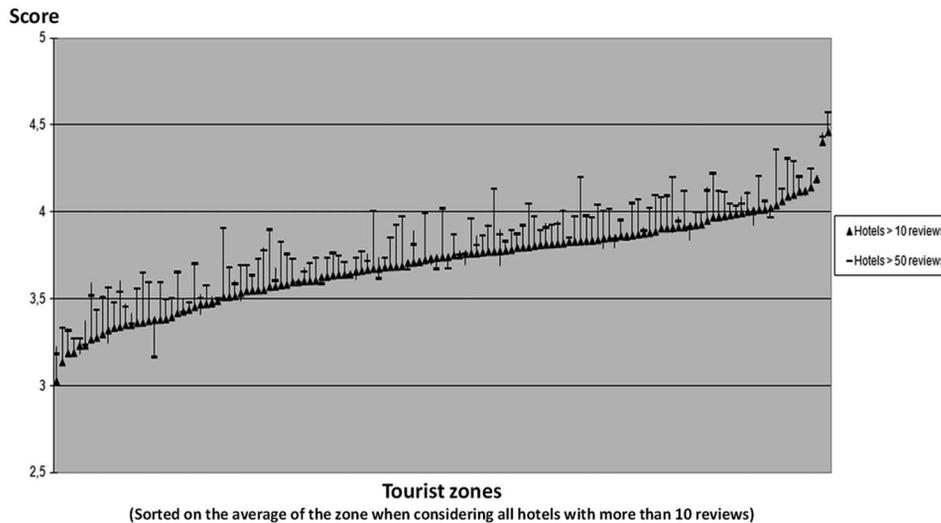
Except for a few zones, the ratings are higher when they are based on hotels with more than fifty reviews than when based on all the hotels with as few as ten reviews. In some zones, the rating improves substantially, as indicated by the length of the corresponding line.

Discussion and Conclusion

The results confirm our expectation that as the number of reviews of a hotel increases, the ratings in these reviews are more positive. Not only are online ratings more negative when fewer customers evaluate the hotels but also the first reviews that hotels receive are systematically worse. These findings support the hypothesis that, at least initially, unsatisfied guests tend to engage in WOM more than satisfied ones. What this means is that it is not the case that bad

Exhibit 6:

Differences in the Ratings of Zones According to the Number of Reviews Received by the Hotels Included in the Zones.



hotels only receive bad reviews, while good hotels receive both good and bad reviews. Instead, for hotels with a large number of reviews (more than 100), the first ones are systematically worse than the later ones.

Our study also clarifies for eWOM the Söderlund (1998) argument that a chief driver of WOM is finding a significant difference from the expectations, which gives rise to the inverted U relationship of comments. With regard to eWOM, our results show that at least in the hospitality industry, positive eWOM is more prominent than negative eWOM. We based this conclusion on our examination of more than 1.28 million reviews, of which more than 70 percent were positive (Values 4 or 5 on TripAdvisor's 1-5 scale), while just 15 percent were negative (Values 1 or 2). A future study should assess this finding against an independent measurement of customer satisfaction to determine whether positive or negative eWOM is overrepresented.

This study highlights a difference between eWOM and WOM due to the specific profile we found for eWOM. Initial reviews tend to be fairly negative, but the ratio of positive reviews rises over time. Our results cannot tell us whether this is due to mitigation of the surprise effect described by Söderlund (1998), or whether hotels are improving their service in response to the early reviews' criticisms, thus reducing the ratio of negative reviews.

By obtaining more reviews from the customer, as this article shows, hotels will offset the demonstrably damaging effects of negative reviews, and more quickly approach their real average score, as the unjustified excessive weight of negative reviews will be diluted. We do not mean to

dismiss the importance of negative reviews, which are a good source of information about areas that need improvement. Instead, we argue that an increase in the number of online reviews will better reflect the customers as a whole, reducing the bias produced by an overrepresentation of malcontents or those who had an atypically bad experience. For this reason, as we discuss next, companies should encourage all customers to post reviews, and also try to generate "exogenous WOM," which results from a company's actions (Godes and Mayzlin 2009).

While our study does not explicitly cover ways to encourage customers to participate in review websites, several studies have addressed this matter. Lovelock and Wright (1999) proposed the same kind of follow-up with customers that is used in human resource management—that is, training customers with the requisite skills if necessary and motivating them to offer a review. A chief motivation for posting reviews is the benefit people feel they obtain by doing so (Parra-López et al. 2011). Although extrinsic efforts to increase reviews would probably be viewed as heavy-handed, some studies have shown how to encourage reviews through intrinsic approaches (Beenen et al. 2004; Parra-López et al. 2011). They suggest taking advantage at the time of checkout to indicate to the guest the importance of his or her particular opinion on given websites and even having computers handy, indicating in a printed message on the invoice or receipt the importance of reviewing, sending a link to the review website in an e-mail that emphasizes the importance of customer participation within a given time frame, or providing free wi-fi so guests can fill out a review using their own computers. While the

hotel manager can direct guests to a particular site when encouraging customers to review the hotel, that remains a matter of the guests' discretion.

Although most researchers emphasize the importance of monitoring online reviews (Goldsmith and Horowitz 2006; Litvin, Goldsmith, and Pan 2008; Pantelidis 2010; Park and Allen 2013), studies are split on how hospitality firms should react. All researchers and many managers agree that negative eWOM cases are a source of free and valuable information on how to improve services. Where they differ is on whether to respond publicly. With regard to restaurants in London, Pantelidis (2010) showed how certain reactions on behalf of the company can redirect negative situations. He described several examples where an intervention from the company moderated and improved negative reviews from its customers. So keeping track of customer feedback and reacting to unfavorable reviews with an apology or offering some type of compensation can lead to "follow-up commentaries [that] are priceless" (Pantelidis 2010, 489).

Destination managers can follow similar advice, given that the mean ratings of these zones depend significantly on the number of ratings of the hotels they include. Destination officers should explain to the hotel directors how negative eWOM functions, give some kind of recognition to the hotels that obtain a high number of reviews, and facilitate the means for obtaining reviews if necessary. Options could include free wi-fi zones in the destination and airports.

Limitations and Directions for Further Research

This study's limitations point to the need for further research. First, this study is quantitative. We have taken the number of reviews, the value given to the hotels in those reviews, and the date on which they were entered as our basic information. However, each review normally has an associated description that likely includes valuable information that can present further explanations of the reason for a particular rating, even low-rated reviews (Levy, Duan, and Boo 2013). A deeper analysis would also allow us to find out why some hotels have more customer reviews than others.

Finally, in this study, we have used only reviews on TripAdvisor. It would be interesting to compare the reviews a particular hotel receives on different websites, especially because different nationalities likely tend to use different services, as happens with nearly every service on the internet.

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