

INVESTIGATION OF THE HOTEL CUSTOMERS PERCEPTIONS: A STUDY BASED ON USER-GENERATED CONTENT OF ONLINE BOOKING PLATFORMS

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ABSTRACT

User Generated Content (UGC) and especially customer-generated reviews are becoming a prominent information source for travelers making hotel purchase decisions. In this study, the dimensions of the well-known SERVQUAL construct were combined with the general and important dimension of convenience in order to address perceived service quality. As prior studies have revealed that room price influences hotel customers' decisions, customer-generated reviews were used to measure differences between cheap and expensive hotels regarding the perceived service quality dimensions. The empirical findings show that hotels' price level has a significant effect on several dimensions of customers' perceived service quality. Specifically, our results indicate that customers' positive reviews are significantly differentiated between cheap and expensive hotels regarding the tangibility and empathy dimensions of SERVQUAL. Moreover, our research reveals that customers' negative perceptions are significantly differentiated between cheap and expensive hotels regarding, apart from tangibility and empathy dimensions, the responsiveness and reliability dimensions of SERVQUAL. Based on the empirical results of this study, implications for researchers and practitioners (hotels, online booking operators) are discussed.

Key Words: User Generated Content, Online Hotel Booking, Price, SERVQUAL, Convenience.

INTRODUCTION

Hotel customers can easily find most of the information they need online (e.g., price, location, facilities) to compare hotel attributes and choose the most suitable. However, it is hard for customers to trust information appearing on the hotel or tourist sites. Recently, a more reliable source of information about hotel service quality has appeared and involves past visitors' reviews (Bajari and Hortacsu 2004; Ye et al., 2009) provided through online booking systems. Such information is called user-generated content (UGC) and is ever increasing, due to the rapid growth of web 2.0 applications (Sigala, 2009ab), in both quantity and importance in the online hotel market (Ye et al., 2011).

Previous research has identified the important relationship existing between hotel room prices and past visitors' reviews (Carvell and Quan, 2006; Yacouel and Fleischer, 2012). However, the role of price on identifying the prime determinants of visitors' perceived service quality remains under-researched. We claim that hotel customers who have paid expensive rooms (with many facilities), in many cases have more negative (and less positive) perceptions about their hotel than customers who have paid cheap rooms (with no great facilities). An empirical study was conducted to bridge this research gap, using data extracted from one of the world's leading online hotel reservation agencies. The data, which consisted of customer-generated reviews, were retrieved from booking.com (Priceline, NASDAQ: PCLN). In this study, the SERVQUAL (Parasuraman et al., 1985) dimensions were combined with the dimension of convenience (Akbaba, 2006), in order to measure customers' perceptions of service quality and investigate the effect of price on such perceptions. Findings are expected to shed light on marketing strategies in order to promote cheap and expensive hotels effectively.

ISBN: 978-960-287-139-3

The paper is structured as follows. In the next section, the theories underlying the key variables studied in the paper are discussed and our research hypotheses are presented. Section 3 presents the methodology as well as the procedures adopted for collecting and coding data from customer reviews. Section 4 presents empirical results, while the last section of the paper raises the key theoretical and practical implications of this research and discusses several ideas on further research in the area.

LITERATURE REVIEW AND RESEARCH HYPOTHESES

Service quality is considered as an important determinant of hotel customers' satisfaction and acceptance (Christou, 2006). However, it is difficult to measure service quality as opposed to the quality of goods due to the multi-dimensional and subjective nature of services. Nevertheless, one of the most popular and successful assessment tools of service quality is SERVQUAL, originally proposed by Parasuraman et al. (1985). While the SERVQUAL construct was originally measured along ten dimensions of service quality, later Parasuraman et al. (1988) collapsed it into five dimensions; namely Tangibility (TANG), Reliability (REL), Responsiveness (RES), Assurance (ASS), and Empathy (EMP). Appearance of physical facilities, equipment, personnel, printed and visual materials include aspects of the tangibility dimension. Reliability refers to the ability to perform the promised service dependably and accurately, whereas responsiveness concerns the staff or employees' initiative and willingness to help customers and to provide prompt service. Knowledge and courtesy of employees and their ability to inspire trust and confidence among customers concern aspects of the assurance dimension. The last dimension, empathy, deals with the caring, customization and individual attention given by a firm to their customers; in other words, how much a firm appreciates its customers.

In addition, the dimension of convenience was incorporated in the SERVQUAL construct because of its importance and validation in earlier studies (Akbaba, 2006; Kumar et al, 2010). Convenience has emerged as one of the most important dimensions, emphasizing on hotel location and easy access to adequate services. Convenience is especially important to busy customers who have a long agenda in a limited time period.

This study measures perceived service quality using dimensions adopted from previous studies (Chang, 2009; Fernández et al., 2005; Juwaheer, 2004; Voss, 2003). Service quality depends on the nature of the discrepancy between expected service (ES) and perceived service (PS) (Parasuraman et al., 1985). Most of the times expensive hotels offer high-quality services; as such customers have high expectations that can be difficultly covered, leading customers' service quality in low levels.

Hence, the following research hypotheses are formulated:

H1: Price affects hotel customers' positive reviews regarding the following service quality dimensions (a) responsiveness, (b) assurance, (c) convenience, (d) tangibility, (e) empathy and (f) reliability.

H2: Price affects hotel customers' negative reviews regarding the following service quality dimensions (a) responsiveness, (b) assurance, (c) convenience, (d) tangibility, (e) empathy and (f) reliability.

METHODOLOGY

Data Collection

The data used in this study were retrieved from booking.com (Priceline, NASDAQ: PCLN), comprising one of the world's leading online hotel reservations agencies. Ten large cities and famous holiday destinations were randomly selected and then ten customer reviews (5 positive and 5 negative) of ten hotels (5 cheap and 5 expensive based on booking.com price ranks) of each city were retrieved. The text corpus covers 120 pages. Approximately, half of the corpus represents expensive hotels and the rest concerns cheap hotels. In addition, the corpus almost equally represents positive and negative comments. As such, from the total of 120 pages, 4 categories (Positive-Cheap, Positive-Expensive, Negative-Cheap and Negative-Expensive) with almost the same length (30 pages) were identified.

Coding procedures and protocol

Two researchers who have experience on qualitative analysis and SERVQUAL protocol coded the data independently. The software *MaxQDA* (www.maxqda.com) was employed for all coding work and analysis. In order to facilitate the work of the two researchers we developed the following coding protocol (Table 1).

Table 1
Coding Protocol

| Dimensions | Definition | Example |
|----------------------|---|--|
| Responsiveness (RES) | The willingness to help customers and provide prompt service. | The customers are offered alternative accommodation at a nearby hotel. Reservation cards are ready to sign upon arrival. |
| Assurance (ASS) | The knowledge and courtesy of employees and their ability to convey trust and confidence. | The staff can handle effectively complaints and problems from the guests. |
| Convenience (CONV) | Convenience involves comfort, accessibility and easiness to the customers. | Hotel locates in the great area (near center, train station, bus station, airport, etc.) |
| Tangibility (TANG) | The appearance of physical facilities, equipment, personnel and communication materials. | The front office staff is well dressed. |
| Empathy (EMP) | The provision of caring, individualized attention the firm provides its customers. | The staff acknowledges customers at the reception with a verbal greeting. |
| Reliability (REL) | The ability to perform the promised services dependably and accurately. | The staff performs tasks that have been promised to guests and resolves any problem encountered. |

RESEARCH FINDINGS

After the coding procedures, 3693 codes were identified. A Cohen kappa test was conducted to examine the inter-reliability of the coding. The number of codes and the index of reliability at each category are presented in Table 2.

Table 2
Index Reliability

| Review Category | Price Category | Codes | Cohen kappa |
|-----------------|----------------|-------|-------------|
| Positive | Cheap | 1083 | 0.82 |
| Positive | Expensive | 1028 | 0.78 |
| Negative | Cheap | 723 | 0.70 |
| Negative | Expensive | 859 | 0.74 |

Every category exceeded the recommended guideline (Cohen kappa = 0.70) (Lombard et al., 2010), thus indicating high inter-coder reliability.

Table 3 exhibits the exact results of the coding.

Table 3
Coding Results

| | | Rater A | | | | | | | | | | | | |
|---------|-----------|----------|-----|------|------|-----|-----|----------|-----|------|------|-----|-----|-----|
| | | Positive | | | | | | Negative | | | | | | |
| | | RES | ASS | CONV | TANG | EMP | REL | RES | ASS | CONV | TANG | EMP | REL | |
| Rater B | Cheap | RES | 61 | 11 | 2 | 5 | 4 | 6 | 23 | 8 | 5 | 6 | 2 | 3 |
| | | ASS | 8 | 121 | 7 | 4 | 2 | 3 | 7 | 31 | 2 | 5 | 4 | 5 |
| | | CONV | 1 | 9 | 232 | 6 | 2 | 0 | 2 | 9 | 59 | 9 | 3 | 0 |
| | | TANG | 7 | 0 | 8 | 241 | 8 | 5 | 0 | 4 | 3 | 265 | 15 | 8 |
| | | EMP | 5 | 8 | 2 | 9 | 171 | 4 | 4 | 7 | 0 | 13 | 112 | 6 |
| | | REL | 7 | 5 | 7 | 3 | 9 | 100 | 8 | 2 | 5 | 11 | 8 | 69 |
| | Expensive | RES | 67 | 9 | 0 | 5 | 2 | 4 | 47 | 6 | 3 | 7 | 0 | 4 |
| | | ASS | 4 | 102 | 13 | 4 | 7 | 5 | 7 | 42 | 8 | 3 | 5 | 7 |
| | | CONV | 8 | 12 | 178 | 8 | 4 | 1 | 9 | 11 | 51 | 12 | 14 | 1 |
| | | TANG | 6 | 9 | 11 | 269 | 16 | 3 | 5 | 0 | 6 | 244 | 9 | 5 |
| | | EMP | 2 | 6 | 8 | 7 | 121 | 5 | 3 | 8 | 9 | 5 | 179 | 3 |
| | | REL | 4 | 8 | 3 | 1 | 9 | 107 | 3 | 1 | 7 | 3 | 10 | 122 |

RES: Responsiveness; ASS: Assurance; CONV: Convenience; TANG: Tangibility; EMP: Empathy; REL: Reliability

From the total of 3693 codes we have an agreement on 3014 codes. The descriptive statistics of Table 4 present the coding frequency of each dimension. To examine the differences in each quality dimension among cheap and expensive hotel reviews, a Fisher's exact test was conducted. The results of Fisher's exact tests are summarized in the following table (Table 4).

Table 4.
Descriptive statistics and Fisher's exact test results between cheap and expensive hotels

| Factors | Positive | | Sign. | Negative | | Sign. |
|-----------------------|--------------|--------------|---------------|--------------|--------------|----------------|
| | Codes (%) | | | Codes (%) | | |
| | Cheap | Expensive | Cheap | Expensive | | |
| Responsiveness | 61 (6.59%) | 67 (7.94%) | 0.315 | 23 (4.11%) | 47 (6.86%) | 0.048* |
| Assurance | 121 (13.07%) | 102 (12.09%) | 0.619 | 31 (5.55%) | 42 (6.13%) | 0.718 |
| Convenience | 232 (25.05%) | 178 (21.09%) | 0.124 | 59 (10.55%) | 51 (7.45%) | 0.090 |
| Tangibility | 241 (26.03%) | 269 (31.87%) | 0.044* | 265 (47.41%) | 244 (35.62%) | 0.007** |
| Empathy | 171 (18.47%) | 121 (14.34%) | 0.049* | 112 (20.04%) | 179 (26.13%) | 0.049* |
| Reliability | 100 (10.80%) | 107 (12.68%) | 0.303 | 69 (12.34%) | 122 (17.81%) | 0.023* |
| Total | 926 (100%) | 844 (100%) | | 559 (100%) | 685 (100%) | |

Significance Level, **p< .01; *p< .05

As Table 4 shows, in the case of positive reviews, price exhibits significant impact on the tangibility and empathy dimensions. Observing the number of codes, customers have significantly more positive comments regarding the tangibility dimension of expensive hotels. On the other hand, customers have significantly less positive comments regarding the empathy dimension of expensive hotels. For the case of negative reviews, price exhibits significant impact on the responsiveness, tangibility, empathy and reliability dimensions. Observing the number of codes, customers have significantly more negative comments regarding the responsiveness, empathy and reliability dimensions of expensive hotels. On the other hand, customers have significantly more negative comments regarding the tangibility dimension of cheap hotels.

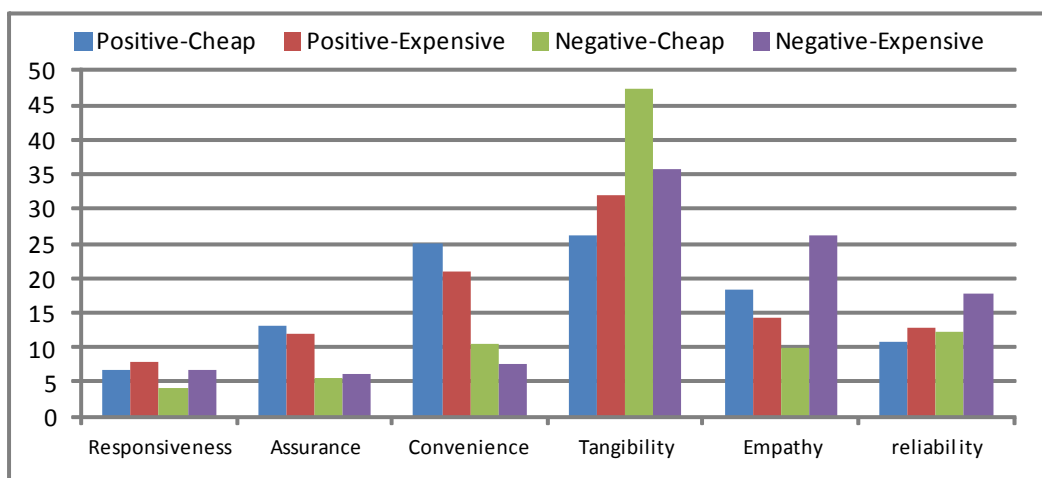
DISCUSSION AND CONCLUSIONS

In this empirical study, customers' reviews were coded and analyzed. This research has demonstrated that the coding of the dimensions of the theoretical model SERVQUAL and the dimension of convenience exhibit a high degree of reliability. Following, the twelve research hypotheses (H1(a-f) and H2(a-f)) were presented and analyzed. The findings revealed that several dimensions of customers' service quality indicate significant difference on reviews among cheap and expensive hotels. In particular, the dimensions of responsiveness, tangibility, empathy and reliability are influenced by the hotel price.

As the majority of the reviews address it, tangibility is the most important dimension from the customers' perspective (Figure 1). With the analysis of this dimension the findings revealed an "expected" result; positive reviews are more in expensive hotels and negatives are less, as such H1d and H2d are rejected. However, this may be possibly based on the fact that expensive hotels have more facilities. Afterwards, convenience and empathy are coming next having many reviews. They are considered as important dimensions due to the numerous reviews. For the cases of assurance and convenience there is no significant difference between the reviews (both positive and negative) number of cheap and expensive hotels (H1b,c and H2b,c are rejected.). In addition, observing figure 1 we can infer that customers' perceived convenience and assurance are important "extra" services of the hotel (due to the many positive reviews) and not important requirements (due to the few negative reviews). For the case of empathy, there is significant difference between the reviews (both positive and negative) number of cheap and expensive hotels (H1e and H2e are accepted). These results verify that for the empathy dimension, customers ask for more from the expensive hotels, in order to achieve the same level of service quality. The dimension of reliability has great similarity in the number of reviews in each category (figure 1). Regarding the positive reviews, there is no significant difference between cheap and expensive hotels (H1f is rejected). On the other hand for the negative reviews there is a significant difference because in expensive hotels we have much more negative comments. Therefore, the H2f is accepted and verifies the different attitude of customers on expensive hotels regarding the reliability dimension. As for the assurance dimension, there is no significant difference between the reviews (both positive and negative) number of cheap and expensive hotels (H1b and H2b are rejected). Responsiveness accounts the prompt and proactively response towards customers' needs. The results on this dimension indicate an insignificant difference on the number of

positive reviews (H1a rejected) and significant difference on the number of negative reviews (H2a accepted); as such in expensive hotels we have more negative reviews. As a result responsiveness is considered as not an extra and rewardable service (due to H1a rejection) but as prerequisite (due to H2a acceptance).

Figure 1
Frequency of the reviews on every dimension and category



The main theoretical implication of this research relates to filling in the knowledge gap of the influence of price on the prime determinants of visitors' perceived service quality based on online user-generated reviews. The results of this study measured the six key quality dimensions and provide meaningful results for each price and review category. In addition, the research findings revealed differences in many quality service dimensions between cheap and expensive hotels. Marketing strategies must be differentiated and focused on the appropriate quality dimension, as some dimensions appeared to be very important (a lot of reviews) for hotel customers. Thus, owners of cheap hotels should focus on increasing their empathy-related services, while owners of expensive hotels should focus their efforts in increasing responsiveness, tangibility and reliability of their services.

While this study has used rigorous qualitative data collection and analysis procedures, it has limitations as it refers to only one company in the hotel reservations agencies industry (booking.com). In addition, the chosen methodology (qualitative) presents issues such as representativeness and generalisability; the ability to conduct subsequent replication and empirical assessment can overcome this. Therefore, future research could enhance our understanding as to the significance of these contemporary issues by conducting quantitative survey to canvas the opinions and weighting of these issues. Moreover, future research, such as the refinement of the evaluation model including price, is needed to improve the generalization of research findings in this area.

REFERENCES

- Akbaba, A. (2006). Measuring service quality in the hotel industry: a study in a business hotel in Turkey. *Hospitality Management*, 25(2): 170-192.
- Bajari, P., and Hortacsu. A. (2004). Economic Insights from Internet Auctions: A Survey. *Journal of Economics Literature*, 42(2): 457-86.
- Chang, J. (2009). Taiwanese tourists' perceptions of service quality on outbound guided package tours: A qualitative examination of the SERVQUAL dimensions. *Journal of Vacation Marketing*, 15(2): 165-178.
- Carvell, S.A. & Quan, D.C (2008). Exotic reservations—Low-price guarantees. *International Journal of Hospitality Management*, 27(2): 162-169.
- Christou, E. (2006). A qualitative analysis of consumer attitudes on adoption of online travel services. *Tourism: An International Interdisciplinary Journal*, 54(4): 323-331.
- Fernández, M.C.L. & Bedia, A.M.S. (2005). Applying SERVQUAL to Diagnose Hotel Sector in a Tourist Destination. *Journal of Quality Assurance in Hospitality & Tourism*, 6(1): 9-24.
- Juwaheer, T.D. (2004). Exploring international tourists' perceptions of hotel operations by using a modified SERVQUAL approach - a case study of Mauritius. *Managing Service Quality*, 14(5): 350-364.
- Sigala, M. (2009a). WEB 2.0, Social Marketing Strategies and Distribution Channels for City Destinations: Enhancing the Participatory Role of Travelers and Exploiting their Collective Intelligence. In M. Gascó-Hernandez, & T. Torres-Coronas (Eds.), *Information Communication*

- Technologies and City Marketing: Digital Opportunities for Cities Around the World* (pp. 221-245).
- Sigala, M. (2009b). E-service quality and Web 2.0: expanding quality models to include customer participation and inter-customer support. *The Service Industries Journal*, 29(10): 1341–1358.
- Voss, C.A. (2003). Rethinking paradigms of service: service in a virtual environment. *International Journal of Operations & Production Management*, 23(1): 88-105.
- Yacouel, N. & Fleischer, A. (2012). The Role of Cybermediaries in Reputation Building and Price Premiums in the Online Hotel Market. *Journal of Travel Research*, 51(2): 219-226
- Ye, Q., Law, R., & Gu, B. (2009). The impact of online user reviews on hotel room sales. *International Journal of Hospitality Management*, 28(1): 180–182.
- Ye, Q., Law, R., Gu, B., & Chen, W. (2011). The influence of user-generated content on traveler behavior: An empirical investigation on the effects of e-word-of-mouth to hotel online bookings. *Computers in Human Behavior*, 27(2): 634-639.
- Lombard, M., Snyder-Duch, J., & Campanella Bracken, C. 2010. Practical Resources for Assessing and Reporting Inter-coder Reliability in Content Analysis Research Projects.
[Http://astro.temple.edu/~lombard/reliability/](http://astro.temple.edu/~lombard/reliability/). [Accessed the 25th of December 2011, 17:00]
- Parasuraman, A., Zeithaml, V.A. & Berry, L. (1985). A conceptual model of service quality and its implication for future research. *Journal of Marketing*, 49(4): 41-50.
- Parasuraman, A., Zeithaml, V.A. & Berry, L. (1988). SERVQUAL: a multiple-item scale for measuring consumer perceptions of service quality. *Journal of Retailing*, 64(1): 12-40.
- Kumar, M., Kee, F.T. & Charles, V. (2010). Comparative evaluation of critical factors in delivering service quality of banks. *International Journal of Quality & Reliability Management*, 27(3): 351-377.