The Effect of Reviews on Hotel Conversion Rates and Pricing

By Margaret Ady, TrustYou and Donna Quadri-Felitti, Ph.D., at New York University, Preston Robert Tisch Center for Hospitality and Tourism

Executive Summary

Reviews and online user generated content are increasingly important for travelers during the research process and when choosing a hotel. This research was designed to better understand the relationship between review scores, conversion rates and pricing at the point of purchase. Data about online consumer purchase behaviors was collected by presenting an online panel of travelers with booking engine simulations. 513 respondents were served four fictional booking engines, each displaying three fictional hotels with high/medium/low prices, ranging from $100 per night to $120 per night, as well as varying average review scores ranging from 80-100, on a 1-100 point scale. In each example, respondents were asked to choose one hotel based on price and average review score. This study is the first of its kind using simulated booking engines and heat mapping technology to determine consumers’ hotel choices. Findings show that: 1. Given equal prices, travelers are 3.9 times more likely to choose a hotel with higher review scores; 2. Under scenarios with adjusted prices for hotels with higher review scores, travelers will still pay more for the hotel with the highest review score; 3. When explicitly asked if they will pay more for a hotel with higher reviews, 76% say that they would pay more for a hotel with higher average review scores (on average, travelers will pay 5-9% more for a hotel with a 5% higher review score).
Method
To examine consumer behavior in hotel choices, an experimental research design was employed via an electronic survey using heat mapping techniques developed by online reputation management firm, TrustYou. The research investigated the relationship between hotel reviews and price, as well as on how these factors effect travelers’ booking decisions in an online shopping environment.

The sample was drawn from a nationally representative US panel of Internet users from Qualtrics during August and September of 2014. The sample consisted of 513 adults over the age of 18. To participate in the study, all respondents must have traveled within the past 12 months, either for business, leisure or both.

Respondents participated in an online questionnaire about their hotel booking habits. The research instrument included four graphics, each containing three hypothetical hotel choices in a simulated booking engine. Each of the hypothetical booking engines contained three hotel choices, each with varying average review scores and prices, as follows:

**Scenario 1:**
Three hotels, each with equal nightly rates ($100/night) and three different average review scores (80, 85, 90, on a 1-100 point scale)

**Scenario 2:**
Three hotels, with the following nightly rates/review scores: $100/night and a score of 80; $105/night and a score of 85; $110/night and a score of 90.

**Scenario 3:**
Three hotels, with the following nightly rates/review scores: $100/night and a score of 80; $110/night and a score of 85; $115/night and a score of 90.

**Scenario 4:**
Three hotels, with the following nightly rates/review scores: $100/night and a score of 80; $115/night and a score of 85; $120/night and a score of 90.

The responses to these simulated consumer choices were analyzed. A summary of the results is below:

<table>
<thead>
<tr>
<th>Scenario 1</th>
<th>Hotel</th>
<th>Nightly Rate</th>
<th>Avg. Review Score</th>
<th>Percent of Clicks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Position 1</td>
<td>100</td>
<td>80</td>
<td></td>
<td>19%</td>
</tr>
<tr>
<td>Position 2</td>
<td>100</td>
<td>85</td>
<td></td>
<td>12%</td>
</tr>
<tr>
<td>Position 3</td>
<td>100</td>
<td>90</td>
<td></td>
<td>60%</td>
</tr>
<tr>
<td>Other</td>
<td>--</td>
<td>--</td>
<td></td>
<td>9%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Scenario 2</th>
<th>Hotel</th>
<th>Nightly Rate</th>
<th>Avg. Review Score</th>
<th>Percent of Clicks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Position 1</td>
<td>100</td>
<td>80</td>
<td></td>
<td>28%</td>
</tr>
<tr>
<td>Position 2</td>
<td>105</td>
<td>85</td>
<td></td>
<td>19%</td>
</tr>
<tr>
<td>Position 3</td>
<td>110</td>
<td>90</td>
<td></td>
<td>47%</td>
</tr>
<tr>
<td>Other</td>
<td>--</td>
<td>--</td>
<td></td>
<td>6%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Scenario 3</th>
<th>Hotel</th>
<th>Nightly Rate</th>
<th>Avg. Review Score</th>
<th>Percent of Clicks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Position 1</td>
<td>100</td>
<td>80</td>
<td></td>
<td>36%</td>
</tr>
<tr>
<td>Position 2</td>
<td>110</td>
<td>85</td>
<td></td>
<td>19%</td>
</tr>
<tr>
<td>Position 3</td>
<td>115</td>
<td>90</td>
<td></td>
<td>41%</td>
</tr>
<tr>
<td>Other</td>
<td>--</td>
<td>--</td>
<td></td>
<td>4%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Scenario 4</th>
<th>Hotel</th>
<th>Nightly Rate</th>
<th>Avg. Review Score</th>
<th>Percent of Clicks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Position 1</td>
<td>100</td>
<td>80</td>
<td></td>
<td>42%</td>
</tr>
<tr>
<td>Position 2</td>
<td>115</td>
<td>85</td>
<td></td>
<td>20%</td>
</tr>
<tr>
<td>Position 3</td>
<td>120</td>
<td>90</td>
<td></td>
<td>34%</td>
</tr>
<tr>
<td>Other</td>
<td>--</td>
<td>--</td>
<td></td>
<td>3%</td>
</tr>
</tbody>
</table>
Further details and analysis from the study follow below.

**Today’s Travelers**

About the sample, nearly all respondents have traveled at least once in the past 12 months for leisure. Among these leisure travelers, the majority (65%) took between one and three holiday trips in the past 12 months, and another twenty-six percent reported taking between four and six leisure trips in the past 12 months.

Forty-five percent of respondents reported also having traveled 1-3 times in the past 12 months for business.

**Accommodation Type & Booking Source**

For both business and leisure travel, respondents reported that they are far more likely to book a hotel/resort over any other accommodation (B&B/inn, hostel, apartment, home-sharing, etc.).

**Gender**

Travelers were evenly split between men and women: 48% were male, 52% were female. Male travelers accounted for slightly more of the business travelers, although this difference is not statistically significant.

**Household Income**

The median annual household income for this sample was around $63,500. Respondents who traveled at least once in the past 12 months for business averaged higher annual household incomes ($72,200).

**Factors that Impact Travel Decision Making**

Prior to booking accommodations, consumers sought advice and recommendations from many sources. According to Nielsen’s 2013 Global Trust In Advertising and Brand Messages Report, consumers place the most trust in word-of-mouth recommendations like recommendations from friends/family and online reviews and user-generated content (UGC).\(^1\) This research confirms the findings from Nielsen’s study.

Travelers in this study reported that reviews and online consumer opinions rank as the most important factor in making booking decisions: 69% of leisure travelers and 72% of business travelers rated reviews and consumer opinions posted online as extremely important/very important in their booking decision when choosing a hotel, more so than recommendations from friends/family, advertisements, editorial content, email newsletters and books/travel guides.

---

\(^1\) The Nielsen Company, "Global Trust In Advertising and Brand Messages," September 2013.
Reviews and recommendations were ranked most important in determining booking decisions for both men and women; however, women placed slightly more importance on word-of-mouth recommendations than men when booking accommodations for both business and leisure travel.

**How Reviews and Price Impact Booking Decisions/Conversion Rates**

To better understand how consumers evaluate hotels and reach their booking decision, the study presented travelers with three comparable hotels, with nightly room rates and average hotel review scores within a simulated online booking environment.

**Simulated Booking Engines**

In Scenario 1, the first booking engine displayed three hotels, all with the same nightly room rates ($100/night), but different average review scores (80, 85, 90, on a 1-100 point scale).

72% of respondents chose hotels with higher average review scores, and 60% of travelers chose the hotel with the highest average review scores. 9% of respondents clicked elsewhere on the page. Respondents were therefore 3.9 times more likely to choose one of the hotels with a higher score (excluding respondents who did not click on any hotel).

Next, in Scenario 2 respondents were presented with the same three hotels, only with adjusted prices – hotels with higher scores were assigned higher prices, as outlined below:

- **Hotel 1**: $100/night, average review score of 80
- **Hotel 2**: $105/night, average review score of 85
- **Hotel 3**: $110/night, average review score of 90

In this example, 66% of respondents chose hotels with higher review scores, and 47% chose the hotel with the highest average review scores even though it had the highest nightly rate.
In Scenario 3, respondents were then shown another mock booking engine, again with the same three hotels, only with further adjusted prices for hotels with higher average review scores, as outlined below:

Hotel 1: $100/night, average review score of 80  
Hotel 2: $110/night, average review score of 85  
Hotel 3: $115/night, average review score of 90

In this example, 60% of respondents still chose one of the hotels with higher average review scores, and 40% chose the hotel with the highest average review scores even though it had the highest nightly rate.

In Scenario 4, respondents were presented one final simulated booking engine, again with the same three hotels, only with even further adjusted prices for the hotels with higher average review scores, as outlined below:

Hotel 1: $100/night, average review score of 80  
Hotel 2: $115/night, average review score of 85  
Hotel 3: $120/night, average review score of 90

In this example, 54% of respondents chose hotels with higher scores, while 42% chose the hotel with the lowest average score/lowest average nightly rate.

Limitations and Nuances
One factor that likely effected the results was the physical position in which each hotel was displayed. The first hotel in each scenario was consistently the hotel with the lowest average review scores. This order was served to mitigate panelists seeing only hotels with the highest review scores in the first position on the page.

Because of the position in which each hotel was listed in these scenarios, the results may be biased downward, with respondents choosing the first hotel with
the lowest average review scores more frequently. Previous research shows that for each position that a hotel drops in page ranking, the odds of the hotel being selected falls by 11.5%.²

Another interesting finding consistent across each scenario: the hotel listed in the second position (middle score, middle price) was least likely to be selected. These findings are consistent with the phenomenon of relative choice, which is a popular subject in behavioral economics and has been outlined in many bestselling books, including Predictably Irrational, by Dan Ariely.

Despite these limitations, findings show that review scores played an important role in traveler booking decisions and the price-value perception of potential consumers.

**Under Which Scenarios Do Travelers Pay More?**

To better understand in which scenarios travelers were more likely to pay higher rates, further analysis was performed using the data from scenarios two, three and four, in which prices had been adjusted for hotels with higher review scores.

The hotel with the highest average review score and highest prices averaged the most clicks across the three simulations.

To determine if this finding was significant, a one-way Analysis of Variance (ANOVA) test was performed. The test determined that at a 95% confidence interval, there is a statistically significant difference in average number of clicks for each hotel (p-level: 0.0098, F-stat: 11.012).

These findings show that the differences in frequency of clicks on each hotel in scenarios two, three and four are not due to chance. In other words, travelers are indeed willing to pay more for hotels with higher review scores.

**How Review Scores Impact The Average Price That Travelers Will Pay**

Respondents in this study were then explicitly asked if they would be willing to pay more for hotels with higher review scores. More than three-fourths (76%) of respondents said that they would pay more for a hotel with better reviews.

A breakdown of how much more respondents indicated they would spend is shown below:

---

Conclusion
As the volume of reviews continues to rise, this user-generated-content becomes increasingly important in travelers’ booking decisions. This research explores the importance of reviews on hotel conversion rates and pricing. It indicates that review scores have a strong effect on both conversion rates and pricing. When holding prices constant, travelers were nearly four times more likely to book a hotel with higher reviews. When presented scenarios in which hotels with higher review scores also had higher prices, travelers still indicated that they are more likely to book the hotels with the higher review scores. Furthermore, when explicitly asked about an increase in pricing, 76% of travelers reported that they would be willing to pay more for a hotel with a higher review score.

Based on these findings, hoteliers that focus on online reviews may have an opportunity to increase revenue. As review scores improve, hoteliers are likely to see increased conversion rates as well as opportunities to optimize pricing.
About TrustYou

TrustYou is a Champion for the Traveler
TrustYou’s mission is to positively influence travelers’ decisions. We understand the untold challenges everyone faces in their quest to make good choices, especially when it comes to leveraging lots of opinions. Digesting these opinions, however, is now beyond any one person’s capacity. And the volume grows faster than the marketplace’s ability to adapt.

How It Works
TrustYou searches, analyzes and distills hundreds of millions of opinions scattered across a vast, fragmented market. Our software as a service (SaaS) technology is sophisticated; our products are simple. TrustYou’s unique semantic engine analyzes this treasure trove of disorganized content. Our algorithms automatically detect, collect, understand, score and rank. The output is incredibly compact and amazingly useful. Unique insights and visualizations enable travelers to improve their trip planning and industry players to improve their offerings. Data becomes intelligence.

Products and Markets
TrustYou’s products are extensively used by suppliers – hotels, accommodations, restaurants – for an array of reputation management purposes and by intermediaries – OTAs, meta-search, destination marketers – to help travelers purchase wisely. TrustYou improves travelers’ search-shop-buy experiences by providing intermediaries with structured data like Meta-Reviews (easy to digest, independent summaries of all verified reviews across the web). TrustYou enables hotels and destinations to provide travelers with better services and enhanced offerings by monitoring, surveying and acting on trusted feedback of their guests.

Most Important
TrustYou enables travelers with the most important thing: better travel experiences. And our passion to improve travel, tourism and hospitality experiences strengthens by the day. Finally, everyone can find meaning in the millions.


Learn More About TrustYou >>
About the Authors

**Margaret Ady**
Margaret Ady is based in Munich, Germany where she serves as Vice President of Marketing at [TrustYou](www.trustyou.com). She graduated from the University of Southern California with degrees in Economics and Psychology, and where she was awarded the Annenberg Communications Pathway Grant in 2004 for her research in new technology and its impact on health and healthcare decision-making. Margaret has extensive experience in research, marketing and branding strategy, having served in leadership positions at The Walt Disney Company (where she was appointed to the company's Peer Advisory Board), and The Oprah Winfrey Network. She has also provided research and strategic consulting services to 20th Television (Fox), Nielsen and many other companies in FMCG/Entertainment/IT industries.

**Donna Quadri-Felitti**
Donna Quadri-Felitti is Academic Chair and Clinical Associate Professor of Hospitality and Tourism Management at New York University, [Preston Robert Tisch Center for Hospitality and Tourism](http://www.tisch.nyu.edu/) in New York City. Donna completed her Ph.D. at Iowa State University in Hospitality Management where she received a USDA-funded Sustainable Community Development grant for her research in wine tourism destination marketing and the experience economy. She was named one of the [Top 25 Extraordinary Minds in Hospitality and Tourism Sales and Marketing by Hospitality Sales and Marketing Association International](http://www.hospitalitysalesandmarketing.com/) for the year 2012. Donna has earned certifications as a Hospitality Educator from [American Hotel & Lodging Association](http://www.ahla.com/), a Hospitality Digital Marketer from [Hospitality Sales and Marketing Association International](http://www.hospitalitysalesandmarketing.com/), and wine captain from the Sommelier Society of America.