Online Reputation Management:
Estimating the Impact of Management Responses on Consumer Reviews
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Computer Science	Marketing

Abstract

Failure to meet a consumer’s expectations can result in a negative review, which can have a lasting, damaging impact on a firm’s reputation, and its ability to attract new customers. To mitigate the reputational harm of negative reviews many firms now publicly respond to them. How effective is this reputation management strategy in improving a firm’s reputation? We empirically answer this question by exploiting a difference in managerial practice across two hotel review platforms, TripAdvisor and Expedia: while hotels regularly respond to their TripAdvisor reviews, they almost never do so on Expedia. Based on this observation, we use difference-in-differences to identify the causal impact of management responses on consumer ratings by comparing changes in the TripAdvisor ratings of a hotel following its decision to begin responding against a baseline of changes in the same hotel’s Expedia ratings. We find that responding hotels, which account for 56% of hotels in our data, see an average increase of 0.12 stars in the TripAdvisor ratings they receive after they start responding. Moreover, we show that this increase in ratings does not arise from hotel quality investments. Instead, we find that the increase is consistent with a shift in reviewer selection: consumers with a poor experience become less likely to leave a negative review when hotels begin responding.

Data

Complete Texas Hotels review history from TripAdvisor & Expedia

<table>
<thead>
<tr>
<th>Hotels</th>
<th>Reviews</th>
<th>Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>5,356</td>
<td>314,776</td>
<td>99,178</td>
</tr>
<tr>
<td>3,845</td>
<td>519,962</td>
<td>11,781</td>
</tr>
</tbody>
</table>

Empirical Strategy

We use difference-in-differences to identify the causal impact of management responses on consumer ratings by comparing changes in the TripAdvisor ratings of a hotel following its decision to begin responding against a baseline of changes in the same hotel’s Expedia ratings.

Discussion of the findings

Our findings have managerial implications for hotels, consumers, and review platforms:

- **Hotels:** management responses are an effective reputation management strategy. Further, this strategy is sanctioned by review platforms, and it can directly impact the financial performance of firms that use it.

- **Review platforms:** provide new channel of communication between first and customers, but generate bias in the reviews.

- **Users:** are unlikely to know that negative reviews are underreported and therefore their final choice can be bias.

Mechanisms

1. Responses as a service recovery mechanism

2. Responses as reciprocal reviews

Note: The dependent variable is the reviewer type $\theta_i$ associated with the consumer $i$ who reviewed hotel $j$ at time $t$. Cluster-robust t-statistics (at the individual hotel level) are shown in parentheses. All specifications include hotel fixed effects. Significance levels: *$p<0.1$, **$p<0.05$, ***$p<0.01$. 

\[
\begin{align*}
(1) & \quad BW = \pm 6 \text{ months} & (2) & \quad BW = \pm 12 \text{ months} \\
\text{After} & \quad 0.094^{***} & 0.090^{***} \\
(8.65) & \quad (10.05) \\
N & \quad 42990 & 77599 \\
R^2 \text{ within} & \quad 0.0027 & 0.0022
\end{align*}
\]