4-1-2019

Understanding Consumers' Decision Making: Effect of Anecdotal Comments Integrated with Public Reports

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Recommended Citation
Agnisarman, Sruthy; Ponathil, Amal; Lopes, Snehal; and Madathil, Kapil Chalil, "Understanding Consumers' Decision Making: Effect of Anecdotal Comments Integrated with Public Reports" (2019). Graduate Research and Discovery Symposium (GRADS), 290. https://tigerprints.clemson.edu/grads_symposium/290

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INTRODUCTION

- Public reporting is the provision of information about the performance and quality of hospitals and healthcare professionals to the consumers to facilitate their decision making.
- The primary reason for making the information available to the public in the USA is to help consumers make informed decisions about their healthcare choices (Davies & Marshall, 1999) and motivates healthcare providers to improve the quality (Berwick, James, & Coye, 2003).
- However, only limited evidence has been recorded in terms of their use by the consumers to significantly change their healthcare choices (Faber et al., 2009).
- Use of patient reported measures or anecdotal comments is one way of increasing the use of publicly available information on hospital facilities. However, the major drawback of relying on such user generated comments is the risk of being misled (Eysenbach, Powell, Kuss, & Sa, 2002).

RESEARCH QUESTIONS AND HYPOTHESES

<table>
<thead>
<tr>
<th>Research Questions</th>
<th>Hypothesis Statements</th>
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</thead>
<tbody>
<tr>
<td>RQ1: Does the nature of anecdotal information (positive or negative) have any effect on consumers’ choice of healthcare facility?</td>
<td>H1: The probability of looking for other facilities increases when the nature of anecdotal comments change from positive to negative.</td>
</tr>
<tr>
<td>RQ2: How does public report on the performance of healthcare facility influence consumers’ choice of the healthcare facility?</td>
<td>H2: The probability of looking for other facilities increases when the nature of anecdotal comments change from positive to negative.</td>
</tr>
<tr>
<td>RQ3: What is the most influential piece of information that helps consumers’ decision making?</td>
<td>H3: Participants will have higher reliance on the public report while making healthcare choices.</td>
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METHODOLOGY

- **Participants**: Recruited 374 participants through a nation-wide panel. 12 responses were excluded from the analysis. Age ranged from 18-88.

- **Procedure**: Participants were randomly assigned to one of the 6 conditions and completed the demographic survey. Participants were then presented with the scenario where they were looking for an orthopedic surgical facility. The participants were then presented with the performance metrics information of an above average, average or below average healthcare facility (Hospital A) and then with positive or negative anecdotal comments about the same facility. This report was followed by the performance metrics report and anecdotal information for two more facilities, Hospital B and C. Participants were asked to complete a post-test questionnaire that asked them their choice (one of the three hospitals (A, B, C) introduced or look for other facilities). Then they were presented with positive or negative anecdotal comments for other facilities (Hospital B and C). The participants were then presented with the performance metrics information of Hospital B and C and looking for an orthopedic surgical facility. Then they indicated the most influencing factor (public report or anecdotal information) helped in decision making.

-**Hospital Information Provided**

**Administration**: Used a scenario in which the participant is looking for a hospital facility to undergo knee surgery. Administered using Qualtrics research suite. Responses were collected through Amazon Mechanical Turk.

**Participants**

- Recruited 374 participants through a nation-wide panel. 12 responses were excluded from the analysis. Age ranged from 18-88.

**Procedure**

- Participants were randomly assigned to one of the 6 conditions.
- Completed the demographic survey.
- Participants were then presented with the scenario where they were looking for an orthopedic surgical facility.
- The participants were then presented with the performance metrics information of an above average, average or below average healthcare facility (Hospital A) and then with positive or negative anecdotal comments about the same facility.
- This report was followed by the performance metrics report and anecdotal information for two more facilities, Hospital B and C.
- Participants were asked to complete a post-test questionnaire that asked them their choice (one of the three hospitals (A, B, C) introduced or look for other facilities).
- Then they indicated the most influencing factor (public report or anecdotal information) helped in decision making.

**Independent Variables**

<table>
<thead>
<tr>
<th>Independent Variables</th>
<th>Level</th>
<th>Nature of anecdotal comments</th>
<th>Performance based on public reports</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nature of anecdotal comments</td>
<td>Positive and Negative</td>
<td>Performance above average, average, below average</td>
<td></td>
</tr>
</tbody>
</table>

**Dependent Variables**

<table>
<thead>
<tr>
<th>Dependent Variables</th>
<th>Category</th>
<th>Participants’ choice</th>
</tr>
</thead>
<tbody>
<tr>
<td>Most influential information</td>
<td>0 for choosing the best facility presented and 1 for choosing other facilities not listed in the scenario.</td>
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</tbody>
</table>

ANALYSIS

- **IBM SPSS 22.0** was used to analyze the data.
- Standardized Deviance residuals and Cook’s Distance were used to identify outliers.
- Binary logistic regression model was used to analyze the data.

RESULTS

- **Participants’ choice**
  - The omnibus test of full model with the two predictors and the interaction term was significant ($\chi^2 (5, N = 362) = 140.868, p < 0.001$) (Figure 2)
  - Observed a main effect between positive and negative anecdotal information ($\chi^2 = 56.371, p < .001$) (Figure 3)
  - Observed an interaction effect of performance metrics based on public reports ($\chi^2 = 78.605, p < .001$) (Figure 3)
  - Observed an interaction between the nature of anecdotal comments and performance metrics ($\chi^2 = 7.284, p = 0.026$) (Figure 4)

- **Most influential information**
  - The omnibus test of full model with the two predictors and the interaction term was significant ($\chi^2 (5, N = 362) = 49.289, p < 0.001$) (Figure 5)
  - Observed a main effect of performance metrics based on public reports ($\chi^2 = 30.949, p < .001$) (Figure 6)
  - The interaction effect was not significant ($\chi^2 = 19.334, p < .001$) (Figure 6)
  - The omnibus test of full model with the two predictors and the interaction term was significant ($\chi^2 (5, N = 362) = 49.289, p < 0.001$) (Figure 5)
  - Observed an interaction effect of performance metrics based on public reports ($\chi^2 = 30.949, p < .001$) (Figure 6)
  - The interaction effect was not significant ($\chi^2 = 19.334, p < .001$) (Figure 5)

DISCUSSION

- Higher probability of choosing other facilitates was observed when the anecdotal information on the hospitals listed was negative or the quality of the hospitals according to public reports was below average.
- When anecdotal information was positive and public reports was above average, participants chose one of the hospitals listed in the scenario.
- When the anecdotal information contradicted public reports, their choice was influenced by negative information (poor hospital quality based on public reports or anecdotal comments criticizing the facility).
- Negative anecdotal information reduced the probability of choosing above average quality hospitals.
- Participants primarily based their decisions on the performance metrics information based on public reports.
- The reliance of anecdotal information was the lowest when the quality of facility according to the public reports was below average. In such a scenario, participants based their decision primarily on public reports.

Conclusions and Future Directions

- This study examined consumers’ decision when they were provided with performance metrics according to the public report and user-generated anecdotal comments.
- Negative anecdotal information influenced consumers’ decision making when integrated with above average public reports.
- This underlines the importance of providing anecdotal information that is trustworthy.
- There is a need to develop a new set of decision aids to facilitate consumers’ healthcare decision making.

**Reference**