

Nudging in Judging- Differences in Online Rating Behavior for Utilitarian and Hedonic Service Aspects

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Abstract. Online reviews play a considerable role in reducing the information asymmetry between sellers and potential consumers. Despite the rich body of literature on online reviews, little is known about how a reviewer's choice of which aspects to emphasize in their textual review influences their (own) rating behavior. As reviewers can choose to evaluate different characteristics of the products or services consumed, we investigate whether the valence of online ratings varies with the ease or difficulty with which the chosen characteristic can be evaluated. As an operationalization for the ease of evaluation we use the categories *utilitarian* (rather easy to evaluate) and *hedonic* (rather difficult to evaluate). We plan to test whether the degree of evaluation difficulty influences online ratings by running an online experiment. In this paper we present the results of a pre-study and our planned approach towards designing the experiment.

Keywords: *Online Reviews, Review Content, Hedonic, Utilitarian, Experimental Study.*

1 Introduction

As part of selecting goods or services online, people are engaging in an increasing number of interactions [1, 2]. Online reviews, for example, have become one very popular source of information which helps reduce the information asymmetry between sellers and potential consumers [3]. To compare products, consumers usually rely on reviewers giving an overall rating on all the features of a product or service, alongside a textual component (i.e., review text). In review texts, however, reviewers often focus on individual product or service characteristics in their review texts, i.e. they self-select a certain review content. This self-selection might be influenced by e.g. the textual content of the existing reviews. For instance, reviewers may predominantly choose to write about long waiting times in a restaurant but neglect food quality in their review texts. Thus, this self-selection might lead to systematic differences in review content across different restaurants. Consequently, comparing restaurant experiences based on review texts becomes more difficult. This problem of a lower comparability would be amplified if reviewers' overall ratings were further determined by their choice of review

content. Similar to other self-selection biases documented in the literature [4, 5], the self-selection of a certain review content might therefore drive online ratings and potentially affect the effectiveness of reviews. For these reasons, both academia and industry have developed a keen interest in understanding the reasons for potential drivers behind the self-selection of review content, as well as analyzing their impact on ratings and knowing how to mitigate them [6]. Following this, we aim to analyze whether nudging reviewers towards evaluating a certain review content reveals the underlying potential bias that arises from the self-selection of such content. Hence, we pose the following research question: *How does the content of an online review influence the rating behavior?*

2 Related Literature and Hypothesis Development

This study aims to extend a number of studies exploring drivers of online review valence [5, 7] and adds to the stream of literature analyzing the factors that influence valence (e.g., rating or average rating). For instance, consumer expectations are seen to drive the magnitude of online ratings because ratings are often biased especially when expectations are not met [8]. Similarly, consumer preferences affect ratings because consumers with a strong preference for a product tend to buy it and subsequently provide a high rating [5]. The valence of prior ratings can also influence reviewing behavior. If prior ratings are positive and the reviewer plans to provide a negative rating, they tend to adjust their own rating to align with the existing ones [9]. Finally, consumers are more likely to provide reviews if their experiences are extreme, which leads to an increase in the number of very high and very low ratings [4]. A series of drivers of online review valence have been studied in the literature. However, to the best of our knowledge, no study so far has investigated the effect of how a reviewer's selection of review content might affect their reviewing behavior.

The literature has identified various motives that drive consumer satisfaction and evaluation. When making a purchase decision, buyers may assess the benefits of the product or service to be consumed from a utilitarian or a hedonic perspective [10]. A utilitarian benefit is defined as useful, practical and functional, which helps to achieve a goal, whereas a hedonic benefit is defined as something pleasant and fun, enjoyable, or appealing to the senses [10]. Both hedonic and utilitarian benefits contribute to the overall sense of satisfaction obtained from a purchase decision and are neither mutually exclusive nor evaluatively consistent [11]. Prior research further states that the consumption of something deemed hedonic increases the difficulty involved in quantifying the benefits of the good, compared with a utilitarian good [12]. This increased difficulty, however, simultaneously increases the difficulty for someone external to comprehend the evaluation. Moreover, reviewers typically want to be perceived as agreeable and likable [13, 14] and, therefore, they tend to generate more positive content, especially when addressing strangers online [13]. We argue that this tendency is amplified when the evaluation is hard to comprehend. If the reason for a negative rating can be more easily understood, the negativity is easier to justify towards

review readers. However, if quality evaluation is not so easy to comprehend, it would follow that a reviewer tends to provide a more positive evaluation.

Since hedonic benefits are more difficult to evaluate than utilitarian ones, and a negative evaluation of them is more difficult to comprehend, we formulate our hypothesis as follows:

Hypothesis: Ratings of reviews which comment predominantly on hedonic benefits of a good or service are more positive than ratings for reviews which comment more on the utilitarian benefits of a good or service.

3 Experiment

We plan to conduct an experiment in which participants will be asked to review their last restaurant visit and nudge them towards reviewing either rather hedonic or rather utilitarian service features. In preparation for this experiment we undertook a pre-study in order to identify which features of a restaurant visit consumers perceive to be rather hedonic or rather utilitarian, respectively.

3.1 Pre-Study

The service offered by a restaurant covers many benefits that can be assigned to one of three dimensions, namely, *food*, *service*, or *location/ premises* (these dimensions are derived from the multi-dimensional rating scales used by TripAdvisor). In discussion with the author team, and based on *DineServ* [15], we identified 44 different benefits of a restaurant service. Of these, 9 were related to food, 16 to the service, and 19 to location. To determine whether these benefits were either hedonic, utilitarian, or both, we implemented a pre-study on Amazon Mechanical Turk, pretending to be a restaurant chain in the US that wants to better understand how customers perceive different aspects of a restaurant visit. The goal of the pre-study was to select benefits from the three dimensions – food, service and location/premises – that are considered rather utilitarian or rather hedonic. The hedonic and utilitarian benefits will be used in the forthcoming experiment to nudge the participants into writing an online review on a rather hedonic or rather utilitarian aspect. The result of the pre-study contains 60 responses in total. Participation was restricted to US Americans and each participant received a payment of 50 cents. To avoid the data being biased by participants who merely click through the task without properly reading the pages of the experiment we applied a cutoff point of 20 seconds, which led to the exclusion of 19 responses. The cutoff time was based on having measured the time it took two students each to read these pages. The results show that a conclusive classification of benefits into either hedonic and utilitarian is not possible. However, some benefits are regarded as rather hedonic and others as rather utilitarian (see Table 1)¹.

¹ Due to space limitations, the results can only be presented in excerpts at this point.

Table 1. Examples for Top Benefits (n=41)

<i>Dimension</i>	<i>Benefit</i>	<i>Utilitarian</i>	<i>Hedonic</i>	<i>Both</i>
food	presentation food	15%	83%	2%
service	payment process	66%	17%	17%

3.2 Experimental Design

In our planned experimental design, we ask participants to help a restaurant chain in the US with improving their marketing strategy. After being asked questions regarding demographics and their last restaurant visit, participants are assigned to one of three conditions. In the control condition, they are asked to review their last restaurant visit in terms of food, service, and location. For each category they are provided with an empty text field accompanied by a star rating from 1 to 5. They are asked to write a text for each category and give it a rating. Finally, they are asked to provide an overall rating with an additional text field for further aspects they would like to mention. The second and third conditions differ from the control condition in terms of the content of the text fields, which is pre-filled with placeholders that encourage participants to consider either hedonic or utilitarian aspects when writing their review. For the hedonic treatment, the location dimension is pre-filled with an inquiry asking the participants to review the view or the architecture of the restaurant, for example (see Figure 1).

Location

Please review e. g. the view from the restaurant or the architecture of the restaurant building.

Figure 1. Hedonic Treatment for the Review of the Location of the Restaurant

4 Outlook

In this paper we present a first step towards answering our research question, which includes a pre-study and the design of an online experiment. Our next step will be to conduct the experiment according to our design and analyze whether there are systematic differences in the ratings given by the treatment and control groups, respectively. We also plan to extend the experiment with additional items to uncover whether the ease of evaluation is the underlying theoretical driver of reviewing behavior in this setting. We also aim to extend the evaluated product categories e.g. let the participants evaluate a short movie clip according to hedonic or utilitarian aspects. Furthermore, we plan to investigate data from platforms such as TripAdvisor and compare the ratings using attributes that would be classified as rather hedonic or rather utilitarian.

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