Exploratory Study on the Stability of Consumer Rationality in Judging Online Reviews

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ABSTRACT

Consumers are often asked to evaluate the quality of online reviews. However, they often misjudge the true value of reviews because their thoughts on reviews are not well formed with criteria. This exploratory study conducted stylized survey-based experiments using 217 consumers. Consumers typically underestimate the value of reviews because they do not always use valuation criteria when reading reviews. The extent of such underestimations ranges from 12% to 15% for goods with objective attributes like electronic products. In addition, nearly half of the consumers revised their review valuations upon taking a second look at the same review for these goods. Close to one-third of the consumers changed their review valuations for subjective goods like music albums. Such valuation changes are specific to consumer profiles. Their predominant emotional sentiment also has a varying effect on subjective and non-subjective goods.

KEYWORDS

Consumer Profiles, Consumer-Learning Theories, Online Consumer Reviews, Sentiment Analysis, Valuation Contingency

INTRODUCTION

Online consumer reviews (hereafter “consumer reviews” or simply “reviews”) are an important knowledge source for potential consumers, with close to 90% of them conducting online research before purchasing products and/or services (Deloitte, 2012). Popular products such as the Kindle e-reader model have well over 10,000 reviews posted on Amazon.com, but such continuous inflow of reviews can present information overload to consumers (Baek, Ahn, & Choi, 2012). To counter that, online shopping websites allow consumers to vote YES or NO if a review is helpful or not. This vote count is regarded as the de facto (and only available) indicator of review quality, and used to rank reviews. As exemplified by Amazon.com, reviews with the highest votes are often shown in prominent areas on the review pages. Thus, review valuations for votes play a critical role in how reviews are displayed and how frequently they are read by consumers.

Review helpfulness is based on the perceived diagnosticity or ability of a review to help consumers understand relevant product information and evaluate the quality and performance of a product (Mudambi & Schuff, 2010). However, despite their importance, review valuations are not necessarily consistent (Baek et al., 2012). First, consumers do not always have well-defined preferences in relation to product attributes, but rather such preferences are formed (Bettman, Luce, & Payne, 1998) as they search and learn. Consumers are willing to learn from other consumers because they believe that such knowledge leads to better decision making (Yang & Allenby, 2003). Second, previous research places emphasis on consumer rationality at varying degrees, ranging from choice...
modeling studies over brand, product, and price (Danaher, Roberts, Roberts, & Simpson, 2011; Ratchford, Lee, & Talukdar, 2003) to impulse buying studies (Parboteeah, Valacich, & Wells, 2009; Shen & Khalifa, 2012). That is, an individual’s judgment of the helpfulness of a review may not always be given a well-developed thought. In the context of purchase decisions, valuation criteria are judgment standards “by which purchase alternatives are evaluated [and they] represent an important dimension of the purchase decision” (Williams & Slama, 1995, p. 4). Criteria obviously play a critical role in consumer decision making (Olshavsky & Granbois, 1979; Shocker, Ben-Akiva, Boccara, & Nedungadi, 1991). For review helpfulness decisions, this paper regards valuation criteria (hereafter ‘criteria’) as standards by which consumers decide the outcome (Yes or No) in relation to important dimensions of the eventual purchase decision. However, consumers can focus on different aspects of reviews and may even evaluate them frivolously without using the same criteria from one review to another. Therefore, valuation criteria plays an important role in judging reviews and eventually leads to buying decisions. Third, reviews are the subjective, often partially formed opinions of other consumers about certain products. Incomplete opinions present obscure review contents, giving the targets of valuation criteria indistinct.

Therefore, the research questions of this paper are as follows: How does the use of criteria affect review helpfulness decisions? If it does, what factors influence the extent of helpfulness decision outcomes? This study posits that the users and non-users of criteria judge reviews differently. In addition, it postulates that such differences depend on the characteristics of goods and the profile of consumers. The emotional sentiment of consumers is also hypothesized as a factor.

In the next section, the theoretical background of the study is presented. After the hypotheses and their rationale are discussed, the paper outlines the methods and results, followed by implications and finally the conclusion.

THEORETICAL BACKGROUND

A number of studies have emerged on consumer reviews in recent years. We survey past studies from two specific perspectives: the review-centric perspective and the decision-maker-centric perspective. The interaction between these two perspectives leads us to the realization that review valuation is not necessarily stable given that consumers are dynamically learning.

Online Consumer Reviews and their VALUATIONS.

Online consumer reviews are based on consumers’ firsthand experiences with the product purchased. Unlike expert or third-party reviews that tend to focus on product attributes, consumer reviews can be regarded as a form of word-of-mouth and thus they are likely to focus on how a product matches their own preferences and usages (Chen & Xie, 2008). Reviews are often written by unidentified consumers and have the characteristics of “rumors” in which claims are made without clear evidence (Dubois, Rucker, & Tormala, 2011). In addition, consumers are aware that a pool of reviews may be biased positively because these reviews are likely to have been written by those consumers with some positive biases towards the product (Chevalier & Mayzlin, 2006). At the same time, the existence of negative biases is also noted (Weinberg & Davis, 2005). As such, most consumers are likely to be aware that reviews are inherently imperfect and subjective.

Extant studies examine what constitutes the helpfulness of reviews. Mudambi and Schuff (2010) conceptualize review helpfulness as the extent to which the review aids one or more stages of the consumer decision-making process. The equivalent way to define it is “the sufficiency of a piece of information for someone to arrive at a solution for a judgment task (e.g., judgment and categorization)” (Qiu, Pang, & Lim, 2012). Previous studies regard consumer votes as prima facie evidence of diagnostic value judgments, using their dependent variable as either YES vote counts or helpfulness ratios defined by YES votes relative to total votes. The degree to which consumers perceive a review to be helpful depends on a number of factors (Table 1), the most basic of which
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