Online review helpfulness: Impact of reviewer profile image

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ARTICLE INFO

ABSTRACT

Despite the growing number of studies on online reviews, the impact of visual cues on consumer's evaluation of review helpfulness has remained underexplored. It is not yet known whether and how images influence the way online reviews are perceived. This paper introduces and empirically examines the potential effects of reviewer profile image, a photo/image displayed next to the reviewer name, on review helpfulness by drawing on the decorative and information functions of images. With a sample of 2178 reviews from mobile gaming applications, we report that reviewer profile image can significantly enhance consumer's evaluation of review helpfulness; whereas there is no differential effect among image types (i.e. self, family, or random images). Interestingly, the effect of reviewer profile image on review helpfulness is moderated by review length, but not review valence and equivocality. Results suggest that reviewer profile image enhances the perception of review helpfulness by serving mainly as a visual decoration that creates affective responses rather than identity information.

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1. Introduction

Consumers' dependence on the opinions of others when making purchase decisions [29,65] has led to proliferation of online review platforms. Online reviews have turned into a valuable information source that affects consumer choices. Their influence on consumer purchase intention [39], product choice [22], and sales [6,8,11,13,61,65] has been well documented in the literature. However, online reviews are not equal in their value to consumers. Consumers look for reviews that can assist them in their decision making. Whether a review contributes to product evaluation and purchase decision, in other words its utility or diagnosticity, is commonly measured by the review "helpfulness" [14,24,31,34,37,42,63]. Consumers are more receptive to and influenced by reviews that are perceived to be more helpful [66]. Websites that identify and indicate helpful reviews achieve higher consumer attention and stickiness [63]. Businesses search for practices that facilitate generation of helpful reviews on their e-commerce or review site in order to enhance its value to users [28]. Therefore, understanding attributes and indicators of helpful reviews and promoting such reviews are essential.

Existing research has identified several review and reviewer attributes that influence review helpfulness [23,28,37,40,63]. Common review attributes examined include review length, rating valence, and review equivocality/extremity [3,16,34,37,43]. Reviewer attributes studied in the literature include reviewer innovativeness [37], reviewer identity disclosure [16,43], reviewer expertise and reputation [43]. While the IS literature has long recognized the importance of images

in online environment [9,10], studies of online review helpfulness have largely overlooked the role of reviewer profile images. No research has systematically examined the impact of this potentially influential visual component.

Reviewer profile image is a photo displayed next to the user name on review platforms. With its effect unproven, there are diverse practices in displaying the reviewer profile image. Some websites, such as amazon.com, do not display reviewer profile images. A number of websites, such as Google Play, allow users to upload an image of their choice if they wish so, and show a standard profile image when users do not provide a personal one. Others, such as tripadvisor.com not only allow users to upload their own images, but also force into place a randomly selected image when users do not upload any. Despite the efforts invested in facilitating increase of helpful reviews [28], there is no evidence that suggests one practice is more advantageous over the others. The impact of reviewer profile image on online review helpfulness has remained largely underexplored [28].

This study takes the literature forward by examining whether and how reviewer profile images influence consumer perception of review helpfulness. It considers two functions for reviewer profile image that affect perceived review helpfulness, using visual appeal and source identity disclosure concepts. As an important, and in most cases the only visual component embedded in online reviews, reviewer profile image has a visual appeal that adds to the value of review content by drawing readers' attention and creating affective responses [10,50,51]. Thus, availability of a reviewer profile image may enhance the perceived helpfulness of a review. This effect pertains to all types of images. In addition, a specific type of image, reviewer self-image (their real photo) provides identity information about them that can further increase

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review helpfulness [16,43]. For example, two studies [16,43] consider reviewer self-image as a part of identity information that is revealed to readers. However, the overall impact of reviewer profile image and its multifaceted functions affecting review helpfulness have not been systematically examined. The narrow focus on one type of images (self-image) as reviewer identity information has limited our understanding of the impact of reviewer profile image. Reviewer profile images serve other functions beyond revealing identity information. Additionally, a large portion of images uploaded by users is not self-images. By considering both decorative and information functions of reviewer profile image, we examine its impact in a boarder context and explore the difference among various types of images.

A sample of 2178 online reviews from nine gaming apps is collected. The effect of reviewer profile image on review helpfulness is explored along with previously established review attributes (i.e. review length, rating valence, and equivocality). This research adds to the empirical studies on review helpfulness [14] and offers several distinct contributions. We introduce and validate a new attribute, reviewer profile image, as an important determinant of review helpfulness. We show that the effect of reviewer profile image is moderated by review length, but not review valence and equivocality. Drawing on information systems, marketing and individual learning literatures, we conceptualize two main functions for reviewer profile image (i.e. information function and decorative function) in order to explain the nature of its impact on review helpfulness. Contradictory to extant research that considers self-image as a reviewer identity information, our results suggest that reviewer profile image enhances the perception of review helpfulness mainly through its decorative function. In light of our results, review sites that do not allow users to upload an image could re-consider and re-design their features to enhance user experience.

This study also diverges from previous research by using a different data source, Google Play. Earlier studies are predominantly based on reviews published on amazon.com. Mobile gaming applications are a fast growing market with estimated value above US$50 billion in 2013 [19]. We draw research attention towards this important market as it is highly influenced by online reviews and electronic word-of-mouth (e-WOM). In addition, using a different data source is essential to validate and generalize previous findings on review attributes such as review depth, valence and equivocality.

The structure of the paper is as follows. Section 2 discusses the literature on online review helpfulness, introduces two functions of reviewer profile image and presents our research framework. Section 3 explains the research method and sampling strategy. It is followed by data analysis in Section 4, which presents the results of hypothesis testing and discusses the findings. It is followed by a conclusion, theoretical and managerial implications, and discussion of limitations and further research in Section 5.

2. Theoretical framework

Review helpfulness defines the perceived value of a review to its readers and measures consumer's evaluation of a review [34]. It illustrates the degree to which a review contributes to a purchase decision by determining the level of its adoption by potential customers [5,43]. An increasing number of studies have explored factors that influence online review helpfulness. These factors include a relatively standard set of review attributes, such as review length, rating valence and review equivocality/extremity, and a diverse range of reviewer attributes, such as reviewer identity disclosure, reviewer expertise and reputation, reviewer innovativeness, reviewer online attractiveness and impact. Table 1 summarizes the key empirical studies and shows a comparison between them and this research.

The WOM and information adoption literature emphasizes the importance of both message and message source characteristics in evaluation of message helpfulness [7,33]. Similarly understanding the impact of both review (message) and reviewer (message source) attributes

on the perception of review helpfulness is crucial. Consumers are influenced by both types of attributes when deciding which reviews to consider and which to reject [28]. While considering both, this research focuses mainly on a reviewer attribute; more specifically, it examines the effect of reviewer profile image on review helpfulness.

In an online review platform, a reviewer profile image may be displayed next to the review content. Presence of a reviewer profile image may have a profound impact on consumers' interpretation and comprehension of review content, thus influencing their perception of review helpfulness. For example, images can draw readers' attention and create affective responses [10,30,50,51]. A particular type of reviewer profile image, self-image, also provides reviewer identity information [16]. The way that reviewer profile images influence readers and different functions that these visual components serve when presented next to the review text have not been previously explored. This research examines the effect of reviewer profile image and image type on review helpfulness. The potential interaction between review attributes and reviewer profile image is also examined. Fig. 1 presents our research framework.

2.1. Reviewer profile image as a reviewer attribute

It is long known that combining texts and images has a positive impact on readers' comprehension of the content [30]. When an image is presented besides the text, readers integrate pictorial and textual information by distributing their attention between them [44]. It is therefore important to understand how images and textual information affect and interact with each other [55].

Psychology and individual learning literature suggests that images serve two main functions when accompanied with a text: providing information (i.e. the information function) and generating affective responses through aesthetic appeal (i.e. the decorative function) [30,53]. Applying this concept to the online review context, we consider the potential effect of reviewer profile image from two perspectives: 1) its decorative function that may attract readers' attention and create emotional and affective interests towards certain reviews, and 2) its information function that can provide reviewer identity information. The first function applies to all types of images and the second is associated with the presence of reviewer self-images.

2.1.1. The decorative function of reviewer profile image

Reviewers' images are the main visual elements embedded within the text-intensive review platforms. While being irrelevant to the content of the review, the reviewer profile image can create aesthetic appeal and a general impression in readers [55]. This is referred to as the decorative function of an image when images are barely aesthetically appealing. The decorative function of reviewer profile image may affect readers by drawing their attention and creating emotional and affective interests towards certain reviews [30,48].

When an image is displayed in a textual environment, readers tend to glimpse at the image before reading the content [55,56]. Research on visual information seeking suggests that images direct the attention to certain places and change the perception of what is worth looking at [51,57]. One's attention is not equally directed to different sections of the environment, but it is affected by the salience of sections. Salience can be generated through contrast with local surrounding and using visual features such as colors [36] and images. In the text-intensive online review environment, the presence of reviewer profile image can add to the salience of a review, drawing readers' attention and signaling what is important to read.

In addition to directing reader's attention, decorative images influence readers by creating emotional and affective responses in them. Affective responses in readers can influence their perception of review helpfulness by enhancing ease of reading and comprehension of review content [30] and signaling social presence of the reviewer [9,18]. Presence of a decorative image can generate a better mood, alertness and