The Impact of Other Consumers' Visual Information in Online Reviews on Consumers' Attitude and Purchase Intention

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The Impact of Other Consumers' Visual Information in Online Reviews on Consumers' Attitude and Purchase Intention

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Abstract: Drawing from previous research on visual information on consumers, cognitive dissonance theory and cue consistency theory, this article focus on the effect of visual information in online reviews on consumers' product attitudes and purchase intention, and the moderating role of image categories and appearance self-esteem. Three studies will be conducted to test the framework and relevant hypotheses, all the studies will use the method of experimental design. The findings are expected to contribute to the visual information in online reviews and self-esteem.

Keywords: visual information, online reviews, electric commerce, appearance self-esteem

1. INTRODUCTION

With the rapid development of internet technology and electric commerce, increasingly more consumers choose to shop online and share their feelings about products and service experiences through posting online reviews[1]. Such online reviews usually have a significant influence on consumers' product attitudes and purchase intentions[2,3]. Although considerable literature and research examines the influence of online reviews on product sales and attitudes[4-6], few researchers have conducted research from on visual information in online reviews[7].

While visual information is mentioned in existing research on media formats of World Wide Web pages[8], web structure[9], atmospheric qualities of online retailing[10] and virtual store layout[11], it is not the focus of research. Prior research on visual information focuses mainly on the comparison between visual and verbal information[7,12,13], and proves only that image-contained online reviews have a greater influence on consumers' purchase intentions than that text online reviews[7].

The effective product pictures available online can attract more attention from consumers and increase consumers' purchase intention[14]. The more the pictures conform to the aesthetic requirements, the more significant the influence[15,16]. Therefore, many sellers employ professional photographers to take pictures and then have the pictures edited to produce good visual information. Since consumers do not have the same motivation as sellers, they do not need to spend as much on professionals or equipment, and their pictures are not as attractive as those of the sellers. In such circumstances, does visual information in online reviews stimulate or raise consumers' purchase intention?

People always prefer consistent information[17]. When individuals face inconsistent information, they will produce cognitive dissonance, and arouse evaluation change about the information, so they can reduce conflict from the inconsistency[18]. Previous research on product quality has examined that the information inconsistency can change consumers' product attitude[19], and influence consumers' purchase intention[20]. In this paper, we introduce cognitive dissonance theory and cue consistency theory to analyze the effect of visual information in online reviews on consumers' product attitudes and purchase intention. We also hypothesize and test a moderating effect played by image categories and appearance self-esteem. The purpose of this study is to investigate the following three research questions: (i) Can the inconsistency between visual information and

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verbal information in online reviews influence consumers' attitudes and decisions, and if so, how? (ii) Do different types of visual information have different effects on consumers? (iii) Do consumers with different appearance self-esteem have different reactions to unattractive visual information?

By answering these questions, our study makes several noticeable contributions to the extant literature. First, it significantly contributes to the literature streams on visual information communication. The existing attention of visual information in online reviews doesn't match its increasingly important role and status. Second, it provides ever first evidence on the moderating role of image categories (product image vs. consummatory image) in online reviews. Third, it contributes an application of cognitive dissonance theory, and extends the factors influencing pre-purchase cognitive dissonance in the context of electronic commerce. Forth, it contributes an application of cue consistency theory, and expands the use in the field of consumer behavior research. Finally, what we focused in this paper is on appearance self-esteem, and deeply explores the effect of image categories on consumers at different appearance self-esteem levels.

2. THEORETICAL BACKGROUND

2.1 Visual information communication

The basic forms of presenting information are visual and verbal, which can be used either separately or together. Most online stores present information in a combination of visual and verbal forms. This research will focus on visual information. Visual information refers to the use of images to present information (e.g., pictures, photos, videos) [13].

Prior research demonstrates that the use of visual information in marketing materials has a significant influence on consumers[21]. First, visual information has an influence on memory. Related research shows that compared with verbal information, visual information has a greater impact on recall and recognition. Kisielius and Sternthal (1984) found that information presented in a visual form can promote elaborate recognition processing and help develop the storage space and path in consumers' memories[22]. When compared with a pure text print advertisement, consumers are more likely to remember the print advertisement that contains images[23,24].

Visual information affects consumers' attitudinal responses. Related research shows that visual information influences consumers' attitudes toward advertising and branding[25] and that visually oriented advertisements are more effective than text oriented advertisements in both influencing consumers to have a positive brand attitude and showing products' characteristic attributes[12]. If retailers provide more visual information about their products on display, consumers' purchase intention increases[26]. Therefore, visual information has a positive effect on consumers' attitudes toward products and brands. Prior research nevertheless mainly focuses on visual information in traditional media and online stores[12,13,22,26-28] and seldom pays attention to the effect of visual information in online reviews[7].

Online reviews generally refer to positive or negative reviews about products or services made by potential or actual consumers on online shopping and third-party review websites[29]. Using internet technology, consumers can share their shopping and user experiences online and freely create reviews about price, product, advantages and disadvantages[1]. Consumers want advice (such as product reviews) from others when shopping online[30]. Jupiter Research shows that more than 75% of consumers will refer to online product reviews before shopping online; further, more than 90% of large enterprises believe that users' recommendations and reviews are deciding factors that influence consumers' purchase decisions. Presently, the correlation between online reviews and consumers' purchase decision is a hot topic for theoretical research in the marketing academic field.

Much of the research shows that online reviews can be classified into two types, i.e., verbal and visual

information. In the past, online reviews were mainly presented in text; today, consumers can present verbal and visual information in online reviews. However, past research focuses mainly on verbal information; thus, few people know how visual information in online reviews influences consumers' product attitudes and purchase intention[7]. The current research on visual information in online reviews shows that consumers believe that compared with pure-text blogs, visual-information-containing blogs are more helpful, convincing, and of greater use in influencing consumers' purchase intention[7].

2.2 Consistency between visual and verbal information in online reviews

People always prefer to consistent information[17]. Cognitive dissonance is the theory that a person will adjust his/her original attitude to maintain internal consistency after receiving new information[18]. The theoretical core is that if an individual receives two different kinds of information on the same subject, he/she experiences cognitive dissonance and acts in accordance with their ideas, values and perceptions to maintain consistency. Festinger (1962) also argued that people can recover inner balance by either changing attitudes or actions or adding new cognitive elements[18]. The theory of cognitive dissonance has been widely used in many fields, especially in the field of consumer behavior research[31]. In the context of electronic commerce, if the information offered by sellers and online reviews is inconsistent with consumers' cognition, consumers will experience cognitive dissonance at the pre-purchase stage[32]. In the case of information inconsistency, consumers feel unhappy and adjust their internal attitudes to regain cognitive consistency[17]. Based on prior research, we suggest that if online reviews contain visual information, consumers' product attitude and purchase intention formed from verbal information changes if the visual information is inconsistent with the verbal information.

Cue consistency theory also proposes that compared to inconsistent information, consistent information has more reference value, and persuasive effect will be enhanced[33]. Jiménez and Mendoza (2013) find that information consistency will influence purchase intention[20]. The multiple information are more useful if the information is corroborative than if it is disparate[19]. When extrinsic cues are contradictory, consumers will pay more attention to the negative cue. That is, when two cues are consistent both receive similar attention, but when they are inconsistent, the negative information becomes to be more salience[19].

Only those who truly like a product will purchase and review it, so the verbal information in their online reviews is more likely to have a positive bias; consequently, it does not reflect the actual product quality[34]. Moreover, since visual information is more obvious and convincing than verbal information[7] and conveys more accurate information which influences product reviews[35], attractive images in online reviews significantly affect consumers' product attitudes and purchase intention because it enhances a confidence level with the verbal information in online reviews; if images are unattractive and unappealing enough, they will have a negative influence on consumers' product attitudes and purchase intention. Therefore, if the verbal and visual information in online reviews is inconsistent—namely, when a good review is presented with unattractive photo—consumers will believe the unattractive photo over the good review. Thus, consumers will have a negative product attitude and lower purchase intention. To sum up, we propose the following hypotheses:

H1a: When compared with a good review with an attractive photo, a good review with an unattractive photo has a negative influence on consumers' product attitude.

H1b: When compared with a good review with an attractive photo, a good review with an unattractive photo decreases consumers' purchase intention.

2.3 The moderating role of image categories on online reviews

While most photos uploaded by consumers in online reviews have a positive influence on other consumers'

purchase intention[7], because they lack the tools and technical capabilities, not all consumers are capable of uploading pictures of the same quality as those posted by sellers. So, do all customer photos, especially ones that differ significantly from those posted by sellers, have a positive influence on the purchase intention of other consumers? To determine the answer, we first need to classify visual information in online reviews. Poor, Duhachek and Krishnan (2013) classified the image categories of visual information into two categories: product image and consummatory image[21]. A product image is defined as a picture that focus solely on the product content, while a consummatory image shows the product being consumed by a person. For example, a picture of a model with product is a consummatory image. Visual information in online reviews can be classified similarly. Some photos from consumers show only the product, while others show the product being consumed by a person. Since a consummatory image is more convincing than a product image for on consumers' consumption decisions[21], the influence of a product image on consumers is less than that of a consummatory image. To sum up, we propose the following hypotheses:

H2: Image categories moderate the influence of visual information in online reviews on consumers' product attitude and purchase intention.

H2a: The influence of unattractive consummatory images on consumers' product attitude and purchase intention is more negative than that of unattractive product images.

H2b: The influence of attractive consummatory images on consumers' product attitude and purchase intention is more positive than that of attractive product images.

2.4   The moderating role of appearance self-esteem

Self-esteem is defined as "an individual's self-evaluation (approval or disapproval) and the extent to which the person believes himself worthwhile"[30]. Prior research has identified the difference between "general self-esteem" and "specific self-esteem". General self-esteem refers to a trait-like definition in which an individual's self-esteem levels are relatively stable, will not change over time, and have to do with mental health[36,37]. Specific self-esteem is more relevant to behavior, and it measures situation- and domain-specific self-evaluations[38]. This research mainly focuses on appearance self-esteem, which is defined as "feelings of self-worth in terms of physical appearance and attractiveness" [39].

Research on the cognitive behavior of individuals with differing self-esteem levels show that individuals with high self-esteem tend to positively process information, are optimistic and confident, and long for success, while low self-esteem individuals experience negative emotions and actions, such as feeling anxious and depressed[40,41]. Dandeneau and Baldwin's research (2004) shows that the difference in behaviors between high self-esteem and low self-esteem individuals is caused by differences in their cognitive processing preferences[42]. Specifically, since low self-esteem individuals prefer negative social reviews and feedback, they are more sensitive to, and tend to focus on, negative information in the social environment; in contrast, high self-esteem individuals are often recognized and praised, so they tend to focus on positive information in the social environment[43,44]. Low appearance self-esteem consumers prefer reviews about advertisements that contain only product pictures, while high appearance self-esteem consumers prefer pictures that contain both the model and products in the advertisement[37]. Thus, we believe that since high appearance self-esteem consumers are more optimistic and confident and long for success, they will not deny themselves based on an unattractive consummatory image. In contrast, low appearance self-esteem consumers are more likely to be negatively influenced by consummatory images. Thus, the influence of consummatory images on these customers is more negative than that of product image. Therefore, we propose the following hypotheses:

H3: Appearance self-esteem will moderate the influence of image categories on consumers' product attitude and purchase intention.

H3a: The influence of unattractive consummatory images in online reviews on low appearance self-esteem consumers is more negative than that on high appearance self-esteem consumers with respect to product attitude and purchase intention.

H3b: The influence of unattractive product images in online reviews on high appearance self-esteem consumers is more negative than that on low appearance self-esteem consumers with respect to product attitude and purchase intention.

3. METHODOLOGY AND CONCLUSION

Next, we have designed three experiments to verify these hypotheses. Study 1examinesthe influence of inconsistent visual verbal information in online reviews on consumers' product attitude and purchase intention, which we use to verify Hypothesis 1. Study 2verifies Hypothesis 2, related to the regulating effect of image categories in the process of visual information in online reviews that influence consumers' product attitude and purchase intention. Finally, study 3 verifies Hypothesis 3, related to the regulating effect of appearance self-esteem in the process of image categories that influence consumers' product attitude and purchase intention.

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