

PEER IN THE PICTURE: AN EXPLORATIVE STUDY OF ONLINE PICTORIAL REVIEWS

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Abstract

The experiential and body-involving nature of apparel makes consumers' product evaluation in the virtual shopping environment a lasting problem. With the newly emerging online pictorial reviews, consumers are more informed about the product. However, how pictorial reviews would influence consumers' psychological evaluation process and their purchase intention remains unclear. Drawing on the Self-Congruity Theory, we hypothesized that the attractiveness of peer consumer within a pictorial review will positively affect consumers' perceived peer-self image congruity (i.e., a positive "beauty" effect), and this effect will be moderated by the orientation of textual reviews (i.e., value-expressive oriented vs. utilitarian oriented) alongside. Moreover, consumers' perceived peer-self image congruity will positively influence consumers' purchase intention, and this effect will be moderated by consumers' public self-consciousness. The results of a lab experiment supported most of the hypotheses. This study contributes to the emerging literature of pictorial review by highlighting the importance of peer-self image congruity in determining consumers' purchase intention. It also contributes to the general literature of customer review by unraveling the contingent effect of pictorial reviews depending on textual reviews. These results provide important managerial implications for online retailers.

Keywords: Online pictorial reviews, peer-self image congruity, peer attractiveness, orientation of textual review.

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1 INTRODUCTION

The online apparel business is growing rapidly worldwide, and has recently been among the leading categories for e-sale in US, EU, and Asian market (Research and Market, 2013). Despite the increasing online sales of apparel, a large number of customers are still reluctant to purchase apparel online, and the return rate of apparel sold online keeps quite higher (30%) than other product categories (5%-10%) (Mulpuru 2008). As apparel is such a kind of sensory, body-involving experience product which may not be sufficiently evaluated by customers before touched or tried on, compared to search products (e.g., camera, books), the nature of online environment further exacerbates such concerns of consumers (De et al. 2013; Rosa et al. 2006).

To alleviate this problem, online apparel retailers have come up with different ways to facilitate customers' evaluation. For instance, some have adopted innovative technologies to better demonstrate apparel to customers, such as using 3D product presentation, virtual avatar, and e-fitting rooms (Kartsounis et al. 2003; Smith et al. 2011). Nevertheless, these innovative technologies are so expensive that can be only afforded by a very few big online retailers, and their effectiveness is still in doubt.

Lately, some pioneering online apparel retailers have started to look for feasible and affordable ways to better inform and woo customers. Since "a picture is worth a thousand words", pictorial review by consumers has recently emerged as a new IT-enabled phenomenon. In pictorial reviews, previous consumers can upload to the product website their own photos with themselves wearing the piece of product (i.e., apparel) they bought from online retailers, so as to share more details (e.g., colour, cut) of the product with later buyers in a pictorial way.

With pictorial reviews, later buyers can see how a piece of apparel looks on previous consumers. This kind of information was not available in the traditional online product advertisements in which professional models were presenting the product in an ideal and attractive way. Compared to professional models, peer consumers who are from the consumer group could make the presentation more trustworthy, relevant, and informative, just as customers' textual reviews compared to retailers' recommendations (Li and Hitt 2008; Mudambi and Schuff 2010).

Pictorial reviews are different from textual reviews in two major ways. First, compared to textual reviews which only include plain texts about a product, pictorial reviews enable consumers to evaluate the product in a more direct and vivid way (Taylor and Thompson 1982). Second, by showing peers wearing a piece of apparel in photos, pictorial reviews can inform later consumers more about the previous buyers (e.g., their fitness and looks), which is not available in textual reviews (Forman et al. 2008). Customers can see the image of a previous consumer who bought the same product rather than just a fictitious user name displayed. As such, they have a clearer picture of who are the shopping reference group out there. We believe that information provided by pictorial review would have salient influence on consumers' information process and subsequent purchase intention.

Such an important phenomenon, however, has not yet received sufficient attention in the prior literature. Acknowledging this theoretical gap, we investigate how pictorial reviews would influence consumers' purchase intention, and under what circumstances such effect would be attenuated.

To address these questions, we draw on the Self-Congruity Theory (Grubb and Grathwohl 1967; Johar and Sirgy 1991; Sirgy 1982; Sirgy et al. 1997) as our theoretical lens. As Self-Congruity Theory has been successful in explaining how consumers evaluate a product that is highly image-related, it can shed light on the effect of pictorial reviews in the online apparel shopping environment. According to this theory, consumers would be more likely to purchase a product when the product image is congruent with their own self image, either actual or ideal self image. The congruity between product image and customers' self image is defined as product-self image congruity.

In the context of online apparel selling, as pictorial reviews highlight the image of previous customers in a vivid and concrete way, later buyers can know about the previous customers who bought this spe-

cific piece of apparel. Given that apparel may signal social status and identity, later buyers may care more about who are the previous customers than the piece of apparel itself. Following this logic, we examine the effect of congruity between a peer customer's image and a focal customer's self image (i.e., peer-self image congruity), rather than the general product-self image congruity. Here peer consumer refers to the person within a pictorial review. Based on Self-Congruity Theory, we posit that peer-self image congruity would play an important role in determining consumers' purchase intention. Moreover, because customers with different levels of public self-consciousness may have different levels of public image concerns, we posit that public self-consciousness would moderate the effect of peer-self image congruity on consumers' purchase intention.

As for the determinant of peer-self image congruity, we focus on peer consumers' physical attractiveness, because physical attractiveness is a salient dimension of one's image in a static pictorial way, especially when other identity information (e.g., income, personality) is unavailable (Chaiken 1979; Dion et al. 1972). Moreover, as textual reviews have already become indispensable information sources of online consumers, we examine how different types of textual reviews (i.e., value-expressive oriented vs. utilitarian oriented) would intertwine with peer pictorial reviews to affect consumers' peer-self image congruity.

This study advances the existing literature in at least three ways. First, it highlights an interesting new IT artifact, pictorial review, in online apparel shopping context, which has not been investigated before. Secondly, by focusing on online pictorial reviews of apparel, it extends the theoretical body on online consumer review to a new context where new variables (e.g., peer-self image congruity) emerge and become important. Third, by revealing the interaction between peer consumer's physical attractiveness and the orientation of textual review on peer-self image congruity, it builds a contingency model and provides a more nuanced perspective on the effect of pictorial reviews. We also suggest that with different peer consumers presenting the product, online retailers can assign different types of reviews alongside the pictorial reviews, so as to benefit more from online pictorial reviews. In this way, we provide important managerial implications for online retailers.

2 THEORETICAL FOUNDATION AND HYPOTHESIS DEVELOPMENT

2.1 Self-Congruity Theory

In the marketing literature, during the 1950s, there was substantial discussion concerning the symbolic aspects of product (Gardner and Levy 1955; Grubb and Grathwohl 1967; Levy 1959). The relationship between possessions and sense of self is believed to be of great importance to understand consumer behavior (Belk 1988). Self-concept refers to an individual's subjective perceptions and thoughts about himself or herself (Mehta 1999).

According to Levy (1955), people buy certain products not only for what they can do, but also for what they mean. Tuan (1980) also argues that we are what we have and possess. At the end of 80s, Belk (1988) comprehensively analyzed the above relationship and demonstrated that possessions are extended self. Ever since then, this idea has been widely accepted in the marketing literature. Here, a purchased product (e.g., collections, gifts) forms an important dimension of possessions (Mick 1986; Solomon 1983). As Belk (1988) suggests, people's possessions (e.g., car, perfume) reflect their personal identities to a large extent, especially when the product is publicly consumed or socially visible (e.g., cars and suits as opposed to mattresses) (Richins 1994). In this way, products consumed by an individual serve as a symbolic means of communication between the individual and his or her audience. Thus, in part, people engage in consumption to construct their self identity or self concept (Banister and Hogg 2004; Escalas and Bettman 2005).

Self-Congruity Theory (Banister and Hogg 2004; Escalas and Bettman 2005) provides an integrative framework for understanding the relationship between product and consumer self concept in symbolic consumption. It suggests that each product creates a “stereotypic” image of targeted users, and argues that the congruity between product image and consumers’ self image, i.e., product-self image congruity, is a very important factor influencing consumers’ product attitude and purchase intention (Sirgy et al. 1997). Individuals tend to prefer a specific product or brand that carries a product image congruent with their self image (actual or ideal) because such a product can fulfil the need for self-consistency and self-esteem.

In many occasions, product image is quite vague to consumers. Generally, retailers rely on advertisements practices (e.g., promotional slogan, celebrity endorser) to build up their product image and target the right consumer group (Biswas et al. 2006; Caballero et al. 1989; McCracken 1989). For different products, retailers can set the stereotypic image of targeted users as stylish, masculine, sexy, old, athletic, or whatever personal adjectives they think fit the product image. Through this way, consumers can have a clearer idea of the product image and make their calculation. If a consumer perceives that a product image is more congruent with his or her own self image (actual or ideal), he or she tends to have a more positive attitude towards the product; and vice versa. For instance, if consumers see themselves as masculine or they prefer to be masculine, they will perceive higher congruity with a product if its image is masculinity promoted, and thus they will be more likely to buy it.

Self-Congruity Theory further implies that, in the case of a publicly consumed product, not only the product itself, but also who consumes the product matters to potential customers. In the context of this study, apparel can be categorized into two types: publicly consumed (e.g., suits, evening dresses) and privately consumed (e.g., pyjamas) (Solomon and Schopler 1982). We focus on publicly consumed apparel that is worn outdoors and refer to it as apparel for the sake of brevity. It is a socially visible product that is highly relevant to people’s self image. It reflects one’s identity and also affects the way other people perceive the person. Through the process of appearance management, individuals use apparel to express who they are and who they are not (Kaiser 1990). As apparel is such a kind of self-presentation and communication tool, Self-Congruity Theory can be well applied to understand consumers’ apparel purchase intention (Sirgy et al. 1997).

2.2 Peer-Self Image Congruity

As aforementioned, later buyers often view previous customers as reference group. Since apparel signals social identity and status, later buyers not only care about the piece of apparel itself, but also care about who are the previous customers. Drawing on Self-Congruity Theory, we focus on the congruity between a peer customer’s image and a focal customer’s self image (i.e., peer-self image congruity), rather than the general product-self image congruity, and examine its role in determining consumers’ purchase intention.

Peer-self image congruity is a new variable that is specific and meaningful in the context of pictorial reviews for online apparel selling. In the offline apparel shopping context, or in prior online apparel shopping context with only textual reviews, people have little information about who has purchased the product. With the emergence of online pictorial reviews, consumers can now see clearly who bought the product and whether the piece of apparel looks good on them. Since peer consumers who provide the pictorial reviews are normal people from the consumer group, they share more similar levels of attractiveness and body size with later buyers, compared to those professional models that are highly attractive. Hence, pictorial reviews render more reliable information and can help consumers better evaluate a product. Consumers would be more heavily influenced by the pictorial review information in product evaluation and decision making process.

As pictorial reviews from peer consumers can represent the product image of apparel to a large extent, we argue that the image congruity between self and peer consumers (i.e., peer-self image congruity) becomes a critical factor in determining consumers’ purchase intention. According to Self-Congruity Theory, each peer customer creates a stereotypic image of targeted users. When the image created by a

peer customer is more congruent with later customers' self image, the apparel is more likely to fulfil their need for self-consistency and self-esteem. They would consider the piece of product worn on the peer consumer as a better representation of their public image and are more comfortable to be associated with the product consuming group (Sirgy, M.J. 1982). As such, their purchase intention will be increased. Thus, we hypothesize:

H1: A consumer's perceived peer-self image congruity will positively affect his/her purchase intention.

2.3 Peer Attractiveness

An image of a peer consumer, in the context of online apparel pictorial review, is often manifested in one's physical appearance, since there is little other information shared by a peer consumer about his or her identity (e.g., age, profession, location). Physical appearance of a peer consumer is particularly pertinent to his/her image, as apparel in daily life is largely designed to improve, or at least maintain, an individual's image, in addition to fulfilling functional needs (e.g., keeping warm). As suggested by prior studies (Langlois et al. 2000), physical attractiveness constitutes one's image to a large extent. In this regard, in the context of online apparel pictorial review, physical attractiveness of a peer consumer (i.e., peer attractiveness) also constitutes the peer consumer's image.

We further posit that peer attractiveness would largely influence a later buyer's peer-self image congruity. Previous studies have found that people are more likely to get association with attractive others and perceive higher similarity with them, especially when other information is unavailable (e.g., personality, profession) (Chaiken 1979; Dion et al. 1972; Marks et al. 1981). As apparel is an image-enhancing product, people are more likely to be associated with the peer consumers who are more attractive and perceive higher peer-self image congruity with them. Thus, we hypothesize:

H2: Peer attractiveness will positively affect a consumer's perceived peer-self image congruity.

2.4 Orientation of Textual Review: Value-Expressive Versus Utilitarian

Beyond the main effect of peer attractiveness, a textual review written by a peer customer may moderate this effect on peer-self image congruity. In the online shopping environment, textual review is an important and indispensable information persuasion source for consumers' product evaluation (Chen and Xie 2008). Online consumers have been used to consider the textual reviews before making their purchase decision. Different textual reviews may arouse distinct feelings of consumers, and thus change the effect of the pictorial reviews. In particular, we focus on the orientation of textual review as it speaks to message persuasion largely (Bearden et al. 1989).

The prior literature on consumer research has identified two kinds of message orientation: value-expressive (image) vs. utilitarian (functional) (Johar and Sirgy 1991; Shavitt 1992). Value-expressive persuasion focuses on the image side of a product involving building a "personality" for the product or creating an image of the targeted user; while utilitarian persuasion focuses on informing consumers of the functional features of the product. Textual reviews can also be categorized into these two types. Some reviews talk more about the image the product creates for a consumer, while others focus more on the functional or performance-related attributes of the product. Regarding apparel product, some consumers discuss whether a piece of apparel looks good on them and help them present a good self image to others (i.e., value-expressive oriented), while others discuss about the quality (e.g., textile, breathability) of a piece of apparel (i.e., utilitarian oriented).

A large number of previous studies suggest that the fitness between message orientation and consumers' mindset enhances the persuasiveness of a message (Reber et al. 2004; Zhao and Xie 2011). When the information conveyed by a message is consistent with people's mental construal state, people are more likely to experience a feeling of process fluency and ease of comprehension (Kim et al. 2009; Reber et al. 2004). This feeling of fluency will lead to a sense of "feeling right" (or feeling correct) about the focal event, so as to enhance positive evaluation towards the target event. This is because

people misattribute their “feeling right” experience to higher quality of the targeted events, either be it a persuasive message or a consumption experience (Higgins et al. 2003). For instance, research has shown that when the frame of a message was compatible with their regulatory focus, participants experienced greater process fluency and found the message more persuasive (Lee and Aaker 2004).

Similarly, when people evaluate a piece of apparel with a peer consumer’s pictorial review, they are experiencing a mind-set of image attractiveness calculation. If the orientation of textual reviews alongside a pictorial review is value-expressive oriented, it fits consumers’ current mind-set. Consumers would have a better feeling of process fluency and an easier comprehension, which would strengthen the effect of peer attractiveness on peer-self image congruity. In contrast, if the orientation of textual reviews is utilitarian oriented, it does not fit consumers’ current mind-set, which would dampen the effect of peer attractiveness on peer-self image congruity. In this way, the orientation of textual review moderates the effect of peer attractiveness on peer-self image congruity. Thus, we hypothesize:

H3: The positive effect of peer attractiveness on peer-self image congruity will be stronger when value-expressive oriented reviews are presented alongside a pictorial review, compared to when utilitarian oriented reviews are presented alongside a pictorial review.

2.5 Public Self-Consciousness

Apparel is a communication tool that is serving for public self (Banister and Hogg 2004). In essence, peer-self image congruity reflects people’s concern of public image (Sirgy et al. 1997). People aim to maintain or improve their self public image through selecting products or brands, as well as selecting the right consumer group which match their believed self concept.

Public self-consciousness is defined as the tendency to be aware of oneself as a social object (Fenigstein et al. 1975). It reflects people’s concern about the impression they make on others. People with high public self-consciousness care more about their physical appearance and public image (Bushman 1993; Solomon and Schopler 1982), are more likely to gain social approval through strategically presenting themselves (Doherty and Schlenker 1991), and tend to distance themselves from negative reference groups (Carver and Scheier 1981).

As image is key to publicly self-conscious people, we believe that people with high public self-consciousness are more likely to be influenced by perceived peer-self image congruity, compared to those with low public self-consciousness. As people’s public self-consciousness increases, they care more about self image related information, and thus become more susceptible to changes in peer-self image congruity. In contrast, as people’s public self-consciousness decreases, they have a higher resilience to the changes in peer-self image congruity. Thus, public self-consciousness may moderate the effect of peer-self congruity on purchase intention. We hypothesize the following:

H4: The positive effect of a consumer’s perceived peer-self image congruity on his/her purchase intention will be stronger as his/her public self-consciousness increases.

The proposed research model is shown in Figure 1.

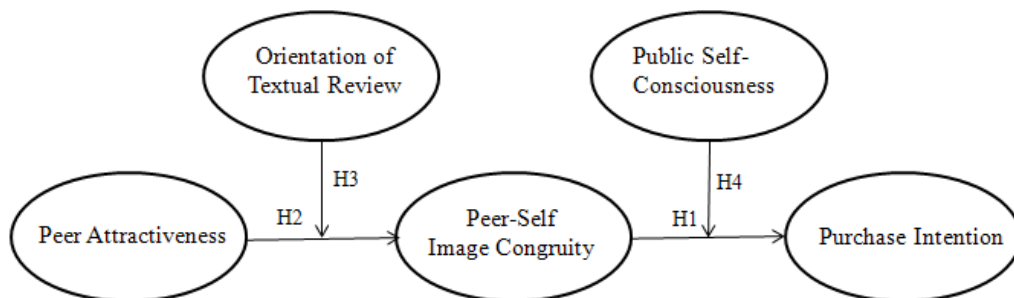


Figure 1. Research Model

3 RESEARCH METHODS

The hypotheses developed above were tested by a lab experiment with 2 (peer attractiveness: high vs. low) \times 2 (textual review type: value-expressive oriented vs. utilitarian oriented) between-subjects experiment design. We designed a particular piece of pictorial review (i.e., one peer consumer presenting) for each treatment condition. To keep our experiment neat, except the pictorial reviews and the textual reviews, everything else (e.g., review rate, product price) was kept constant across each treatment condition.

Participants were recruited from a large university in China. China was chosen because pictorial reviews are becoming more and more popular there. For example, several big online apparel retailers (e.g., VANCL) or platforms (e.g., Taobao.com) encourage and support pictorial reviews. University students constitute an ideal sample for this study because they are the major consumer group of those online apparel retailers.

Subjects were randomly assigned to each treatment condition. They were asked to look through a fictitious online product webpage with no brand provided. On the product webpage, they saw the apparel product (e.g., product image, product descriptions), a piece of pictorial review showing a peer consumer wearing the product, and five pieces of textual reviews placed below the pictorial review. After browsing through the website, they were asked to make their decision regarding how likely they would purchase the product.

3.1 Pretest

Product Stimulus: To generalize our study results, we selected a black polo shirt from the website of the largest online apparel retailer as the stimulant product. In most online apparel shopping cases, females generally buy female apparel while males buy male apparel. Therefore, we selected a female polo shirt for females and a male polo shirt for males. To rule out other potential noises, the female and male polo shirts shared the same design and functional features.

Peer Consumer Stimulus: For each gender, two peer customers (i.e., one with high attractiveness and one with low attractiveness) who had uploaded their pictorial review on the real polo shirt product webpage were selected from the website of the largest online apparel retailer. The four peer customers were both in their 20s as the majority of the consumers of online apparel retailers are young people. To evaluate the attractiveness of peer consumers of each gender, we recruited 40 student participants (20 female, 10 participants for one peer) who were also in their 20s. Peer attractiveness was evaluated along 4 dimensions: (a) beautiful, (b) classy, (c) attractive, (d) elegant (Ohanian 1990). All items were on a 7-scale anchored by 1 (not at all) and 7 (extremely) and they were highly reliable (Cronbach's $\alpha=.94$). The results showed that in the female group, the average of these four items confirmed that one woman was more attractive than the other one ($M_{\text{high}}=4.26$, $SD=.72$ vs. $M_{\text{low}}=3.02$, $SD=1.10$); $t(18) < .001$). In the male group, the manipulation of peer attractiveness was also successful ($M_{\text{high}}=4.94$, $SD=.72$ vs. $M_{\text{low}}=3.60$, $SD=.90$); $t(18) < .001$).

Textual Review Type Design: Out of all reviews for the polo shirt on the real website, we selected five reviews that were value-expressive oriented, as well as five utilitarian oriented reviews. Following Shavitt (1992)'s study, the five value-expressive oriented reviews were about how the product expresses personal identity, image or value (e.g., "this polo shirt fits my daily image well"; "my friends think it fits my image"), while the five utilitarian oriented reviews were about product functionality (e.g., "the quality of the shirt is ok"; "it is made of cotten, so quite breathable"). We recruited another 34 participants (17 for each type) to rate review orientation of the two types respectively using two questions (Sirgy et al. 1997): 1) The reviews are about product and personal image; 2) The reviews are about the product quality and functionality. The results showed that for the value-expressive oriented reviews, they got higher score than utilitarian oriented reviews on the first item ($M_{\text{value}}=4.82$, vs. $M_{\text{utili}}=2.96$, $F(1, 28)=61.28$, $p < .001$) and lower score than utilitarian

oriented reviews on the second item ($M_{\text{value}}=3.58$, vs. $M_{\text{utili}}=4.40$, $F(1, 28)=5.00$, $p<.05$). Besides, we also asked the participants to rate the positiveness of the two types of reviews, F test results showed no significant difference. Thus, we believe the two types of textual reviews were qualified manipulations.

3.2 Lab Experiment

In the main lab experiment, we recruited 93 undergraduate students who were in their 20s from a large university in China. Subjects participated the experiment for course credit and they were provided with a lucky draw worth \$50. They were randomly assigned to one of the four conditions within their gender. They were asked to visit the designed online product webpage independently and then to answer an online questionnaire. All items were adapted from the literature.

The items of perceived peer-self image congruity were adapted from Sirgy et al. (1997), as shown below, based on a seven-point Likert scale:

- The peer consumer from the pictorial review is similar to me.
- I identify with the consumer group that the peer consumer from the pictorial reviews belongs to.
- The overall image of the peer consumer from the pictorial review is consistent with my own image.

The items of public self-consciousness were adopted from Fenigstein et al. (1975), as shown below, based on a seven-point Liker Scale:

- I'm concerned about my style of doing things.
- I'm concerned about the way I present myself.
- I'm self-conscious about the way I look.
- I usually worry about making a good impression.
- One of the last things I do before I leave my house is look in the mirror.
- I care a lot about how people think of me.
- I'm usually aware of my appearance.

For consumers' purchase intention, the items were adopted from Sia et al. (2010), as shown below, based on a seven-point Likert Scale:

- I'm considering purchasing the product now.
- I would seriously contemplate buying this product.
- It is likely that I am going to buy this product.

In the questionnaire, we also collected consumers' demographic information (e.g., age, online shopping experiences) and other relevant variables including consumers' self-attractiveness, product familiarity, product likeliness, and trust towards the online store. We measured consumers' self-attractiveness by using one item based on seven Likert scale (1= not attractive at all; 7=extremely attractive). For product familiarity, it was measured by three items adopted from Kim et al. (2008): 1) How familiar are you with the product; 2) How knowledgeable are you with the product; 3) How often do you buy the product. Product likeliness was measured by one item based on seven Likert scale (1=not at all; 7=very much). And trust was measured by three items adopted from Sia et al (2009): 1) I feel that this online retailer is trustworthy; 2) I feel that this online retailer is honest; 3) I feel that this online retailer keeps consumers' best interest in mind. All items originally in English were translated into Chinese with back-translation to check their face validity.

4 DATA ANALYSIS

Descriptive Demographics. After cleaning missing data, we got a final data set of 80 participants. Among them, 38 (47.5%) were female and the average age was 21. Of the participants, 89 percent had online apparel shopping experience in the last year. Within the last year, the average online apparel shopping times was 6.08 and the average online apparel expense was USD 193.80 (see Table 1). F test

revealed that subjects within each treatment group did not differ in their age, on shopping experience, online shopping spent, or self-attractiveness level.

| | Mean | Standard Deviation |
|--|-------------|--------------------|
| Age | 21.00 years | 2.94 years |
| Gender | Female | 38 |
| | Male | 42 |
| Times of online purchase last year | 17.69 | 16.03 |
| Amount of money spent on online purchase last year | \$497.76 | \$658.37 |
| Times of online apparel purchase last year | 6.08 | 6.60 |
| Amount of money spent on online apparel purchase last year | \$193.80 | \$262.14 |

Table 1. Participants' Characteristics

Manipulation Checks. To check the manipulation of peer consumer's attractiveness level and the assigned textual review type in each condition, we also did manipulation checks in the main experiments as did in pretests. For the physical attractiveness, participants were asked to rate the peer consumer's attractiveness using the same items in the pretest for attractiveness evaluation (Ohanian, 1990). The results showed that for both gender, participants perceived the expected more attractiveness peer consumer as significantly more attractive than the other one ($M_{f-high}=4.36$, $M_{f-low}=2.82$, $F(1, 36)=15.63$, $p<.001$; $M_{m-high}=3.36$, $M_{m-low}=2.18$, $F(1,40)=7.92$, $p<.01$). Thus, the manipulation for peer consumer's physical attractiveness was successful.

For the orientation of textual review, we asked the participants to rate the textual reviews appeared in their group by the two items used in pretests. The results showed that for value-expressive oriented group, the reviews were indeed perceived as more value-expressive oriented ($M_{value}=4.82$, $M_{utili}=3.60$, $F(1, 78)=17.59$, $p<.001$) and less utilitarian-oriented ($M_{value}=3.87$, $M_{utili}=4.57$, $F(1,78)=5.63$, $p<.05$), compared to utilitarian-oriented group. Thus, the manipulation for the orientation of textual review was also successful.

Results. The three latent constructs were first analyzed with a principle components factor analysis to examine the reliability and validity of the scales. The items generally loaded highly on their respective constructs, with loading above 0.70, thus and demonstrating adequate reliability, as shown in Table 2.

| | Perceived Peer-Self Image Congruity | Public Self-Consciousness | Purchase Intention |
|---------------------|-------------------------------------|---------------------------|--------------------|
| Congruity1 | 0.82 | 0.10 | 0.27 |
| Congruity2 | 0.82 | 0.18 | 0.10 |
| Congruity3 | 0.86 | 0.04 | 0.16 |
| Self-Consciousness1 | 0.01 | 0.74 | -0.06 |
| Self-Consciousness2 | 0.07 | 0.87 | -0.03 |
| Self-Consciousness3 | 0.01 | 0.80 | 0.13 |
| Self-Consciousness4 | 0.13 | 0.75 | -0.22 |
| Self-Consciousness5 | 0.16 | 0.71 | 0.11 |
| Self-Consciousness6 | 0.10 | 0.83 | -0.01 |
| Self-Consciousness7 | 0.10 | 0.87 | -0.01 |
| Purchase Intention1 | 0.24 | -0.01 | 0.85 |
| Purchase Intention2 | 0.24 | -0.04 | 0.82 |
| Purchase Intention3 | 0.06 | 0.01 | 0.88 |

Table 2. Loading and Cross-Loadings of Measures

All composite reliabilities were well above 0.70, the generally acceptable level for adequate internal consistency (Barley et al. 1995). All AVE values exceeded 0.5, the generally acceptable criterion (Hu et al. 2004). Table 3 shows the descriptive statistics and composite reliability of the constructs. The diagonal elements in Table 3 represent the square roots of average variance extracted (AVE) of the latent variables, while the off-diagonal elements are the correlations between latent variables. The

square root of AVE was greater than the correlation between the latent variable and other variables, which satisfy the discriminant validity requirement (Barley et al. 1995).

| Construct | Composite Reliability | Cronbach's Alpha | AVE | Perceived peer-self congruity | Public self-consciousness | Purchase intention |
|-------------------------------------|-----------------------|------------------|------|-------------------------------|---------------------------|--------------------|
| Perceived peer-self image congruity | 0.88 | 0.80 | 0.72 | (0.84)* | | |
| Public self-consciousness | 0.82 | 0.83 | 0.50 | 0.09 | (0.71) | |
| Purchase intention | 0.92 | 0.76 | 0.79 | 0.34 | 0.30 | (0.89) |

Notes: * The number in parentheses is the square root of AVE. For adequate discriminant validity, the number in parentheses should be greater than the corresponding off-diagonal elements.

Table 3. Internal consistency and Discriminant Validity of Constructs

ANOVA and PLS were used to test the proposed model. The result of ANOVA showed that across two genders, the attractiveness of peer consumer positively affects consumers' perceived peer-self image congruity ($M_{high}=3.53$, $M_{low}=2.30$, $F(1, 78)=26.27$, $p<.001$ $\Delta R=.35$). The results show that, generally, when the peer consumer within the pictorial review is more attractive, consumers perceive a higher level of peer-self image congruity. Thus, H2 is supported.

The interaction effect between peer attractiveness and orientation of textual review on peer-self image congruity is significant ($F(3, 76)=5.40$, $p<.05$) (see Figure 2). When value-expressive oriented reviews are placed near the pictorial review, the effect of peer attractiveness on purchase intention is steeper, compared to when utilitarian oriented reviews are placed near the pictorial review. Thus, H3 is also supported.

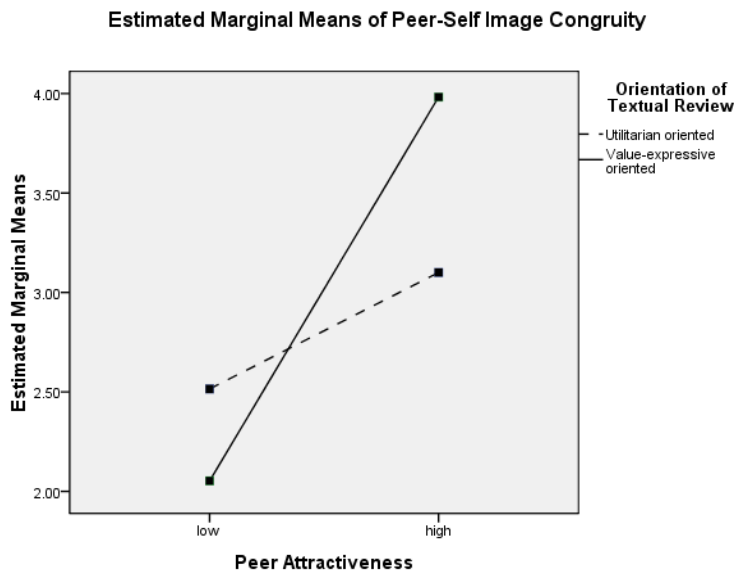


Figure 2. Results on Peer-Self Image Congruity

The results of PLS (see Figure 3) show that peer-self image congruity is positively related to purchase intention ($\beta=.26$, $t=3.15$, $p<.05$, $\Delta R=.27$). When consumers perceive higher peer-self image congruity, they are more intended to conduct purchase. Hence, H1 is supported. However, a median split characterized participants as high or low in their public self-consciousness did not support that public self-consciousness moderates the relationship between peer-self image congruity and purchase intention

($t=.55$, $p>.05$). A continuous public self-consciousness measure revealed similar results. It seems that no matter how the consumer cares his or her public image, the magnitude of the positive relationship between perceived peer-self image congruity and purchase intention keeps constant. Thus, H4 is not supported.

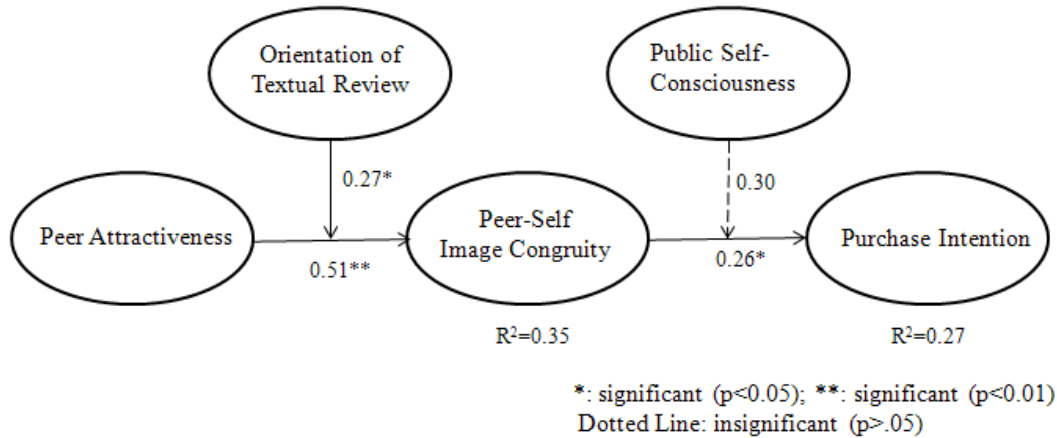


Figure 3. Results of PLS Analysis

We included other control variables (e.g., product likability, product familiarity, online shopping experiences, and online apparel shopping experiences) to test the above relationships and the results did not change. Based on the results, the supported model is depicted in Figure 3.

5 DISCUSSIONS AND CONCLUSION

5.1 Findings

In this study, we have investigated the newly emerging online pictorial review and aim to reveal its effect on consumers' purchase intention. To the best of our knowledge, this is the first paper that investigates into the phenomenon of pictorial review. The results showed that the peer consumer within the pictorial reviews plays a very important role. As the image of the product user group becomes clear and concrete, which is not available in prior days, later buyers will use the peer consumer appearing in the pictorial review as the representation of the user group. The positive effect of peer attractiveness on peer-self image congruity is moderated by the orientation of textual reviews. Moreover, peer-self image congruity increases customers' purchase intention.

However, public self-consciousness has not been found to interact with peer-self image congruity in influencing consumers' purchase intention. In a post-hoc analysis, we found there was little variation of this variable in our sample. The lack of variation might explain the insignificance of this variable. Future studies may try to use prime method to prime people into different levels of public self-consciousness and increase its variance.

5.2 Theoretical Contributions

This study has made several important theoretical contributions. First, drawing on the Self-Congruity Theory, we have shown that under the general concept of product-user congruity, the image congruity between the specific peer consumer and later buyers will directly influence later buyers' purchase intention. No matter how the retailers promote their product user image (e.g., sexy, young), the peer consumer from the pictorial review will immediately determine the product user image and work as the user representation. When later buyers perceive higher peer-self image congruity, they are more

likely to make purchase. Thus, peer-self image congruity becomes an important construct that provides important theoretical implications in online shopping environment. As such, this study contributes to the Self-Congruity Theory (Grubb and Grathwohl 1967; Johar and Sirgy 1991; Sirgy 1982) by identifying peer-self image congruity as an important concept in the context of pictorial reviews, similar as product-self image congruity in the offline shopping context.

Second, by focusing on online pictorial reviews of apparel, this study has extended the theoretical body on online consumer review to a new context where new variables (e.g., peer attractiveness, peer-self image congruity) emerge and become important. The results have indicated that in the context of online pictorial reviews, peer attractiveness becomes the most important factor that determines peer consumer's image, so as to play a significant role in influencing later buyers' perceived peer-self image congruity. In accordance with prior literature which shows that people are more likely to be associated with attractive others and perceive higher similarity with them (Langlois et al. 2000), we have demonstrated that when the peer consumer is physically more attractive, consumers will perceive higher peer-self image congruity, which in turn increases their purchase intention. Thus, peer consumers' physical attractiveness is found to be an important antecedent of consumers' perceived peer-self image congruity. It has provided theoretical bases for future studies following this query.

Third, by revealing the interaction effect between peer consumer's physical attractiveness and the orientation of textual review on peer-self image congruity, this study has built a contingency model of peer-self image congruity. Based on the "fit" literature (Lee and Aaker 2004; Reber et al. 2004; Zhao and Xie 2011), we have found that when peer consumer is more attractive, the value-expressive oriented reviews which discuss about product and self image will lead to higher peer-user congruity. This contingency model has developed a more nuanced perspective on the effect of pictorial reviews.

5.3 Practical Implications

This study has also provided important managerial implications for online retailers. First, we inform the online retailers that in online pictorial review context, consumers are seeking peer-self image congruity and the physical attractiveness level of peer consumers determines the perceived peer-self image congruity to a large extent. Therefore, they should not just focus on the number of pictorial reviews, but also pay attention to the content of pictorial reviews, or in other words, the peer customer within the pictorial review.

Secondly, so far, online retailers encourage all consumers to participate in the pictorial reviews by providing incentives (e.g., discount, coupon). It means that consumers can freely upload their photos wearing the product, regardless of their own attractiveness. Retailers have minimal control over the attractiveness level of the peer consumers or do not selectively present those pictorial reviews, especially when the number of pictorial reviews are quite limited (e.g., one or two per product). Besides, they are unable to manipulate the pictorial reviews (e.g., delete, use professional model to pretend), as it will be easily found out in the real market. In this way, it puts online retailers into a dangerous condition. However, according to our study results, textual reviews could be a useful resource for online retailers to better leverage pictorial reviews.

When the peer consumer from the pictorial review is quite attractive, online retailers can place value-expressive oriented reviews alongside the pictorial review to enhance this kind of "beauty" effect. Though based on the result, we could not assert that it would be better for online retailers to place utilitarian oriented reviews alongside the pictorial review when the peer consumer is unattractive; we consider it still would be wise for online retailers to distract consumers from focusing on the image dimension to functional features of the product, so as to mitigate the unfavorable effect of decreased peer-self image congruity. To summarize, online retailers should strategically place different types of reviews alongside different pictorial reviews, so as to leverage the pictorial review effects to the best.

5.4 Future Work

In our study, we have designed the experiment with one peer consumer appearing in the pictorial review (i.e., one piece of pictorial review from one person), which is aimed to keep the experiment neat and reflect the current phenomenon. Nevertheless, we could expect that as pictorial review becomes more and more popular among buyers, there would be several pieces of pictorial reviews from several different buyers for a same product. Thus, the effect of pictorial reviews will be more complicated. However, we believe that no matter how many pieces of different pictorial reviews there, peer-self congruity still works as a vital factor that determines consumers' purchase decision. And the average physical attractiveness of peer consumers will still positively influence consumers' perceived peer-self image congruity.

As we have discussed about the importance of peer image in pictorial views and the interaction effect between textual reviews and pictorial reviews, we believe that more work could be done to better examine the effect of pictorial reviews from other interesting perspectives. For instance, with one piece of pictorial review and one piece of textual review, which all indicate a purchase, may have different effects on consumers' product uniqueness perception. And towards different categories of product (e.g., luxury, necessity), consumers' need for peer-self image congruity might be different. Future studies may want to explore these research opportunities and identify some interesting pattern about consumers' purchase behavior within online pictorial review context.

In this study, we use the apparel that is publicly consumed (e.g., polo shirt) as our focal product. We believe that other factors, such a product type (publicly consumed vs. privately consumed), might also moderate the positive relationship between peer-self congruity and purchase intention. Last but not the least, it would be interesting and valuable to conduct a field study to retest our model. Longitudinal data could also be used to investigate the effect of pictorial reviews on online apparel retailers' real sales.

5.5 Conclusion

To summarize, this study has investigated into the new emerging IT-enabled phenomenon, online pictorial reviews, and has identified interesting consumers' psychological mechanism towards it. It contributes to the emerging literature of pictorial review by highlighting the importance of peer-self image congruity in determining consumers' purchase intention. It also contributes to the general literature of customer review by unraveling the contingent effect of pictorial reviews depending on textual reviews, which provides important managerial implications for online retailers. We believe that online pictorial reviews will become a more and more popular way through which consumers share their product experiences and participate in the social shopping era and our current study provides important theoretical bases for future relevant work.

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