Leveraging User-Generated Content for Product Promotion:

The Effects of Firm-highlighted Reviews

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Abstract

User-generated content (UGC) is increasingly used in marketing communication mix for promoting products. This research investigates how firms can actively manage consumer-generated reviews in the form of *highlighting* authentic reviews at firms' discretion. While highlighting a positive review is expected to lead to positive product evaluations, this practice may elicit consumers' skepticism if consumers are explicitly informed of the promotional intent of the firm. In three studies, we examine the effect of presenting a firm-highlighted review on consumers' consumption intention and behavior. Our findings confirm that highlighting a positive consumer review can effectively attract consumers' attention to this review. However, the heightened attention does not always lead to higher consumption likelihood. In particular, the extremity of a highlighted review will interact with the variance of the review context as well as the reputation of the firm being reviewed to determine the effect of the firm-highlighting practice on consumers' consumption behavior. When other reviews convey mixed opinions or when the firm has not established a strong reputation, highlighting a positive but less extreme review may effectively improve the likelihood of consumption, but highlighting a review that is extremely positive will not.

Keywords: User-generated content (UGC), firm-highlighted review, salience effect, skepticism, review variance, rating extremity, firm reputation

Introduction

The practice of incorporating user-generated content (UGC) such as blogs, reviews, and videos in marketing communications mix is rapidly gaining popularity (e.g., Boerman et al. 2017; Lawrence et al. 2013; Thompson and Malaviya 2013). Such a practice is likely to aid marketers in promoting their products and inducing customers to make evaluations favorable to firms because UGC is often considered more trustworthy than marketer-initiated information (eMarketer 2010; Lawrence et al. 2013; Lee and Koo 2012). Hence, it is of great interest and importance for firms to understand how to actively and effectively monitor, respond to, and utilize user-generated product information for marketing purposes.

Product reviews, a type of most commonly seen UGC, are usually deemed as key and reliable information references for consumers (Jabr and Zheng 2014). Recent studies show that more than 90% of online customers read reviews before making purchase decisions (eMarketer 2017). Correspondingly, researchers in information systems (IS) and marketing have devoted increasing attention to online word-of-mouth (WOM) and consumer reviews. However, with only a few exceptions (e.g., Godes and Mayzlin 2009), the majority of empirical studies thus far have focused on the aggregated effects of organic consumer reviews on product evaluation (e.g., Duan et al. 2008; Gu et al. 2012; Ho-Dac et al. 2013; Zhu and Zhang 2010), or on firms' marketing strategies in response to reviews (e.g., Chen and Xie 2008; Dellarocas 2006). Studies on how firms could *actively* leverage existing reviews on third-party e-commerce or review platforms, such as Yelp and Tripadvisor, to promote products have been scarce. One important reason is that firms are often unable to manipulate the review contents on those third-party platforms, which need to maintain an objective stance by keeping all organic reviews intact.

Nonetheless, attempts to direct consumers' attention to some reviews favorable to the business being reviewed are not uncommon on various review websites. For example, Tripadvisor allows hotels to select their "favorite" consumer reviews and feature them among the top-placed reviews (labeled as the "Hotel's Favorite"). Yelp uses sponsored links to direct users to business' review webpages where favorable reviews are displayed on top. ABC.com[1], one of the largest business rating and review platforms in the food and beverage (F&B) industry in China, has approached the authors for consultation on a sponsorship strategy which allows a business to select an authentic user review and highlight it as the business' sponsored review on top of other reviews on the business' information page. By explicitly disclosing that the top-placed review is selected by the business being reviewed, this sponsorship strategy represents a form of overt marketing using authentic product reviews, as consumers are clearly informed of the business' intention and the marketing nature of the highlighted review[2].

In this study, we use *firm-highlighted reviews* or *firm's highlights* to refer to those consumer reviews that firms choose and pay to highlight on review platforms for marketing purposes. On one hand, firm-highlighted reviews are similar to Google's sponsored ads because they are placed saliently at top; on the other hand, firms' highlights are different from sponsored ads in that the highlighted reviews are not firm-designed promotional information, but supposedly reliable user-generated content. Prior research suggests that salient information is often attended to first, processed at a deep level, and rehearsed often (Krosnick and Alwin 1987; Murdock 1962). More salient information is thus often more accessible in memory and

[1] We mask the real name of the company due to a non-disclosure agreement.

[2] The U.S. Federal Trade Commission (FTC) guidelines require the disclosure of "unexpected" commercial connection on social media (FTC 2013). Hence, explicitly disclosing the nature of a firm-highlighted review follows the principle of the guidelines.

has a greater effect on users' decision making (Anderson 1965; Rosnow 1966). Hence, highlighting a positive review can potentially attract more attention to the review and lead to more positive product evaluations.

However, an intentionally highlighted review that is in explicit favor of a firm would remind consumers of the fact that the highlighted review, although written by a consumer, has a marketing intent. Such a message is likely to arouse consumers' skepticism and hence may not be positively taken at its face value (Brown and Krishna 2004; Settle and Golden 1974). Hence, the intended positive salience effect of firm-highlighted reviews may not be achieved if consumer skepticism is not alleviated.

Focusing on alleviating consumer skepticism, this research aims to understand how firms can effectively leverage authentic consumer reviews for product marketing. Past research suggests that consumers' skepticism is often affected by a marketing message itself as well as the marketing context. In the context of firm-highlighted reviews, we argue that the marketing effect of highlighting a review is affected by the extremity of product attitude conveyed in the highlighted review, and is further influenced by the variance of other ordinary reviews, as well as the reputation of the firm that selects and highlights the review. Hence, this research will deepen our knowledge about how these factors will jointly influence consumers' reactions to firms' highlights. It will also enrich our theoretical understanding on how consumers' skepticism will influence their processing of other product information. Practically, our findings provide clear guidance for firms on how to select and highlight a review based on contextual factors in order to achieve desirable marketing effects. Our results suggest that firms can alleviate consumers’ skepticism by selecting a positive but less extreme review. This is particularly important when other reviews convey mixed opinions or when the firms have not established strong reputations.

ELEVATED SKEPTICISM ABOUT A FIRM-HIGHLIGHTED REVIEW

Firms' highlighting practice allows a firm to highlight a consumer review saliently on a product webpage. Prior research suggests that salient stimuli can arouse users' attention automatically and thereby affect their information acquisition behavior (Boehler et al. 2011; Jarvenpaa 1990). Accordingly, a highlighted review is likely to attract greater attention from consumers than other reviews. However, by explicitly labeling a review as one sponsored by a firm and highlighting it in a prominent position, a firm’s highlighting practice informs consumers of the firm’s marketing intention. Hence, consumers’ skepticism about the highlighted review may be triggered as they notice the firm’s persuasive motive.

Studies have shown that consumers often rely on their general knowledge about marketers' persuasion intention and tactics to process and cope with an advertising or sales message (Friestad and Wright 1994; Hibbert et al. 2007). In particular, once consumers sense that a message has a marketing intent, they will no longer consider it as an impartial message. In such a case, they will critically evaluate the appropriateness and fairness of this message and develop a feeling of skepticism, that is, their disbelief in the message claims or mistrust in the marketers' motives (Boush et al. 1994; Campbell and Kirmani 2000; Friestad and Wright 1994). The heightened skepticism will prompt consumers to defend themselves against the marketers' tactics and may result in consumers' disconfirming the message claims rather than accepting the claims at face value.

In the current context, if consumers can easily identify an explicit firm-serving marketing intent of a firm-highlighted review, they are likely to question the objectivity and credibility of the review comments since people generally tend to resist a marketing message (Friestad and Wright 1994; Main et al. 2007; Xu and Wyer 2010). For example, Boerman et al. (2017) finds that a sponsorship disclosure of a post on Facebook instigates a process in which consumers first recognize the post as advertising and then develop distrusting beliefs about the fairness of the message. Hence, we argue that when consumers' skepticism about a firm-highlighted review is aroused, they may discount the positive information conveyed in the review (Awad and Ragowsky 2008; Brown and Krishna 2004). Moreover, a consumer with heightened skepticism may become defensive and cautious when processing subsequent related product information (Kramer 1998; Nickerson 1998). As a result, information opposing to the highlighted review could even be processed in greater depth by the consumer to confirm her skepticism.

In summary, while we expect that the marketing practice of highlighting a positive review may lead to greater attention to this review, the elevated consumer skepticism about the firm-highlighted review may offset the intended positive effect of the salient placement of the review. In contrast, if a positive highlighted review does not arouse consumers' skepticism (e.g., when it is just a normal review without any noticeable persuasive intent), consumers may accept it at its positive face value. This initial positive evaluation will further color subsequent information acquisition and product judgment (e.g., Nickerson 1998; Klayman and Ha 1987). In this case, the positive effect of highlighting a review (compared to not highlighting the review) will be particularly evident. Therefore, we hypothesize,

H1a*: A review will attract more attention when it is highlighted than when it is not.*

***H1b**: A positive review will lead to higher consumption likelihood when it is highlighted without an explicit marketing intent than (i) when the review is not highlighted and (ii) when it is highlighted with an explicit marketing intent.*

Study 1 was first conducted to test the above hypotheses.

STUDY 1: THE SALIENCE EFFECT AND CONSUMERS' SKEPTICISM ABOUT A FIRM-HIGHLIGHTED REVIEW

Experiment Design and Procedure

We conducted a lab experiment to test the hypothesis using reviews of a restaurant sourced from a major review website. In order to disentangle the positive salience effect and the negative effect of consumers' skepticism about firms' highlighting practice, we designed three conditions, i.e., a firm-highlighted review condition, a plain highlighted review condition, and a baseline condition. For all the three conditions, an experimental webpage of a restaurant was created, which contained information regarding the name[3], overall star rating (3.5-star on a 1-5 rating scale), address (in the same city where the experiment was conducted), telephone, names and pictures of some featured dishes of the restaurant, plus thirteen consumer reviews with mixed positive and negative ratings. Each review contains information about its reviewer, date, and time. All the reviews were posted within two months prior to the experiment and they were listed in a descending order of the posting date. The key differences among the three conditions were the presentation and labeling of a 5-star review, which was displayed as the first review on the webpage. This review mentioned some positive attributes of the restaurant such as tasty dishes, convenient location and value for money (see Online Appendix A for review content). In the firm-

[3] A fictitious restaurant name was used to avoid any potential confounding effect.

highlighted review condition, this 5-star review was highlighted with a bright yellow background and was labeled with an explanatory note "the restaurant paid to highlight this review on top", which clearly depicted this review's relationship with the marketer that selected it (see Online Appendix B.1). This design attempted to make users clearly aware of the nature of sponsorship of the review. The plain highlighted review condition was identical to the firm-highlighted review condition except that the same highlighted 5-star review was simply labeled as “top-placed review” (see Online Appendix B.2). Without indicating an explicit marketing intent, this positive review was likely deemed as an ordinary review and unlikely to arouse consumers’ skepticism. Lastly, in the baseline condition, the same 5-star review was placed on top but not highlighted or labeled (see Online Appendix B.3). The order of all reviews was the same across the three conditions. Overall, the comparison between the plain highlighted review and the baseline condition should reveal the salience effect, while the comparison between the plain highlighted review and the firm-highlighted review condition should demonstrate the effect of consumer skepticism.

We then conducted an experiment using a Tobii X60 eye tracker to capture participants’ attention to the information on the webpage. Seventy-two participants (average age = 21.8; 60% female) from a public university in China were recruited and they were randomly assigned to one of the three conditions (i.e., each with 23-25 participants). The participants were asked to imagine that they were planning a friend gathering in the coming weekend and wanted to decide on a restaurant for dinner. They went through a short period of calibration, and were then asked to browse the review webpage of a local restaurant. In all conditions, the participants’ eye movements on the restaurant webpage were tracked.

After the participants had browsed the webpage, they were asked to close the browser and rate their intention to dine at the restaurant[4] as well as their skepticism about the first review on the webpage[5]. In addition, to ensure that the nature of the first review was correctly understood, the participants were asked whether or not the business selected the first review and paid the review platform to highlight the review on top. Two participants in the firm-highlighted review condition did not answer this question correctly and their data were excluded. Upon completing the short survey, the participants were thanked and reimbursed with cash equivalent to around US$6 for their participation.

Results

Results on Consumer Skepticism about the First Review

A one-way ANOVA test on consumer skepticism about the first review showed a significant difference among the three conditions ($F(2, 67) = 11.82$, $p < .001$). Planned comparisons revealed that the participants showed stronger skepticism about the firm-highlighted review ($M_{\text{firm-highlighted}} = 4.88$, $SD = .94$) than both the plain highlighted review ($M_{\text{highlighted}} = 3.55$, $SD = 1.16$, $F(1, 67) = 19.30$, $p < .001$) and the normal first review in the baseline condition ($M_{\text{baseline}} = 3.65$, $SD = .99$, $F(1, 67) = 16.16$, $p < .001$).

Results from Eye-tracking Data

The eye-tracker captured participants' eye movements and attention focused on the different areas of the experimental webpage. Specifically, we defined each individual review as an *area of interest (AOI)*, and

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[4] Participants were asked to rate to what extent they agreed with three statements: (1) be likely to dine at the restaurant, (2) look forward to trying, and (3) try the restaurant the next time when dining out (on a 7-point Likert scale; adapted from Jiang and Benbasat 2007; Cronbach's $\alpha = .93$).

[5] Participants were asked about how they perceived the first review as (1) suspicious, (2) truthful (reverse coding), (3) biased towards the restaurant, and (4) conveying an unfair view of the restaurant, independent of other reviews (on a 7-point Likert scale, Boerman et al. 2012, 2017; Ohanian 1990; Cronbach's $\alpha = .82$).

retrieved the length of time the participants fixed their eyes on each AOI, i.e., their *fixation duration* on each review (measured in seconds). To ensure the validity of the eye-tracking data, we only included the participants whose eye-tracking accuracy score was above 80% in the final analysis[6]. In the end, there were 20 subjects in each condition with valid eye-tracking data.

Analysis of the participants' fixation metrics showed that across the three conditions, the first review generally attracted greater attention than an average subsequent review (adjusted for the length of the review[7], $M_{first\_adjusted}$ =.05, SD = .03; $M_{average\_others\_adjusted}$ = .03, SD =.02; $p < .001$). More importantly, we found that users' attention to the same target 5-star review differed significantly across conditions ($F(2, 57) = 6.08$, $p < .01$). When this 5-star review was a firm-highlighted review ($M_{firm\text{-}highlighted}$ = 14.15, SD = 7.26) or a plain highlighted review ($M_{highlighted}$ = 12.75; SD = 6.16), it attracted longer fixation duration than when it was in the baseline condition ($M_{baseline}$ = 7.77, SD = 4.50; $F(1, 57) = 11$, $p < .01$ and $F(1, 57) = 6.71$, $p < .05$, respectively). Hence, H1a is supported. Users' attention to the firm-highlighted review did not differ from their attention to the plain highlighted review ($F(1, 57) = .53$, $p > .40$).

Results on Consumption Intention

A one-way ANOVA test on consumption intention showed a significant difference among the three conditions ($F(2, 67) = 4.25$, $p < .05$). Specifically, the plain highlighted review condition ($M_{highlighted}$ = 4.67, SD = 1.10) led to higher consumption intention than the baseline ($M_{baseline}$ = 3.78, SD = 1.35; $F(1, 67) = 5.91$, $p < .05$) as well as the firm-highlighted review condition ($M_{firm\text{-}highlighted}$ = 3.72, SD = 1.28; F(1,

[6] Accuracy scores indicate the validity of the eye-tracking data. A score below 80% is often considered low in the amount of valid data produced (Morgante et al. 2012).

[7] This was computed by dividing the fixation duration on a review (measured in seconds) by the review length (measured as the number of words in the review).

67) = 6.71, $p < .05$). Hence, H1b is supported. The consumption intention in the firm-highlighted review condition did not outperform that in the baseline condition ($F(1, 67) = .03$, $p > .80$).

Discussion

Overall, Study 1 confirmed the two opposing effects of firm-highlighted reviews. First, unlike sponsored advertising, which users might tend to ignore due to its explicit promotional nature, a salient firm-highlighted review could effectively attract attention, plausibly because it was still a genuine review. Second, this heightened attention to a firm's highlight did not lead to higher consumption intention as compared to the baseline case without any highlighted review, whereas the plain highlighted review condition led to significantly enhanced consumption intention than both the firm-highlighted review and the baseline conditions. This is because users were more skeptical of the firm-highlighted review than the plain highlighted review, and this heightened skepticism largely offset the intended positive effect induced by the salient placement of the review (e.g., Awad and Ragowsky 2008).

In summary, our findings suggest that when consumers' skepticism is alleviated, presenting a firm's highlight may exert a positive effect on consumers' likelihood of consumption. In the following section, we will focus on how firms can appropriately select reviews to alleviate consumer skepticism and enhance consumption likelihood, and how such effect may vary depending on contextual factors.

ALLEVIATING CONSUMERS' SKEPTICISM ABOUT FIRM-HIGHLIGHTED REVIEWS IN A UGC CONTEXT

The Effect of Review Extremity

Prior research has suggested that consumers' skepticism about a promotional message can be influenced by the extremity of the message, that is, the strength of the product attitude conveyed (e.g., DeCarlo 2005;

Tesser et al. 1995; Weitz et al. 2001). An extremely positive promotional message (traditional "hard sell"), which conveys unreserved positive attitudes, often results in consumers' doubts in the fairness of the message and their suspicious attributions of the marketer's motives. This is because consumers tend to mentally associate an extremely positive message with pushy marketing attempts. In contrast, a positive yet less extreme marketing message, which is relatively conservative, is found to effectively alleviate consumers' skepticism about the message and marketer's ulterior motives (e.g., Kirmani and Campbell 2004; Sujan et al., 1986).

In the current context, a salient clue about attitude extremity conveyed in a firm-highlighted review is its star rating. The numeric rating of a review, typically ranging from one star (very negative) to five stars (very positive), often serves as a succinct and straightforward product evaluation. Ceteris paribus, a review with an extremely positive rating (e.g., 5-star) represents an unreserved positive recommendation as compared to a review with a moderately positive rating (e.g., 4-star), which is deemed relatively conservative (Mudambi and Schuff 2010; Pavlou and Dimoka 2006). We argue that consumers' skepticism about a firm-highlighted review is affected by the rating extremity of the review. A firm-highlighted review with an extremely positive rating may intensify consumers' skepticism as it is cognitively congruent with the stereotypical pushy sales tactic, whereas highlighting a review with a moderately positive rating may make consumers less skeptical and more inclined to take it at its face value (e.g., Sujan et al., 1986).

Other than the message content, prior research has also identified that the consistency of the message with other relevant information and the credibility of message source will heavily influence consumers' acceptance of the message (Chaiken and Maheswaran 1994; Kelley 1973). In the current context, a highlighted review is presented in a rich information environment where discrepant views may co-exist, hence users' judgments can also be influenced by other reviews that may or may not agree with the highlighted review. In addition, the characteristics of the message source, that is, the firm that selects and highlights the review, may significantly influence users' processing of the highlighted review. Hence, we further expect that consumers' acceptance of a firm-highlighted review and their final judgment will be affected not only by the highlighted review itself, but also the consistency of reviews in the context and the credibility of the sponsoring firm. The following sections thus focus on the effect of firms' highlighting practice as moderated by three factors, review extremity, variance of the review context and reputation of the highlighting firm (see Figure 1 for the overall conceptual model).

The Moderating Effects of Review Extremity and Variance of Review Context

Consumers often want to read multiple reviews before making decisions. As individual reviewers have heterogeneous preferences, reviews of the same product can vary considerably. The degree of discrepancy in review opinions is often reflected by the variance in reviews (i.e., the dispersion of review ratings), which has attracted substantial research attention (e.g., Clemons et al. 2006; Sun 2012; Yin et al. 2016). In the current study, we mainly focus on firms with an overall moderately positive rating (such as an average of 3.5-star out of 5), which are commonly seen on review platforms[8]. In such a context, high variance implies the co-presence of highly positive and highly negative reviews. On the contrary, low variance implies that all the reviews are moderate or moderately positive (e.g., 3- or 4-star out of 5).

[8] We will investigate more positive and negative valence cases in a supplementary experiment of Study 2.

We argue that consumers' skepticism induced by a firm-highlighted review and the variance of review context will interact to determine the marketing effect of firms' highlighting practice. Specifically, when a firm-highlighted review arouses skepticism upfront, consumers will doubt the truthfulness of the review and may engage in searching for information that is against the review claims. That is, consumers may anchor on their initial distrusting belief and develop persistent negative biases in their subsequent information processing (Alba et al. 1994; Darke and Ritchie 2007; Kramer 1998). They will devote greater attention to subsequent contradicting views that help them confirm their skepticism about the highlighted review and "correct" for any potential unwanted influence of this review (Kramer 1998; Main et al. 2007; Nickerson 1998).

In summary, in the context of firm-highlighted reviews, *skeptical consumers will be especially sensitive to subsequent negative reviews than positive reviews* (e.g., Main et al. 2007; Nickerson 1998). As a result, the processing of subsequent negative reviews will have a more influential impact on consumers' product judgment.

In an overall moderately positive review context, a high variance in reviews implies the presence of a considerable portion of negative reviews. In this case, when a firm-highlighted review elicits especially strong skepticism upfront (i.e., an extremely positive review), users will be more likely to engage in search of negative reviews to confirm their skepticism. As they can easily recognize subsequent negative reviews, their overall product judgment will be negatively influenced (Nickerson 1998; Klayman and Ha 1987). In contrast, highlighting a review that can alleviate consumers' skepticism (i.e., a positive but less extreme review) will reduce users' tendency to question the highlighted claims and search for counter evidence. Users are thus more likely to form an initial positive evaluation and the influence of subsequent negative reviews is weakened. Hence, the effect of highlighting such a review (compared to not highlighting the review) on improving users' overall product judgment will be more evident.

However, in an overall moderately positive context with low variance, the likelihood of encountering negative reviews will be low. Hence, any skepticism about a firm-highlighted review is less likely to be fully confirmed and the influence of negative reviews on users' judgment will be generally weaker. Attenuating users' skepticism thus becomes less of an issue for achieving the intended marketing effect in the low variance case. The difference between the effect of highlighting a positive but less extreme review on enhancing consumers' product judgment (compared to not highlighting such a review) and the effect of highlighting an extremely positive review (compared to not highlighting such a review) will be much smaller.

Hence, we hypothesize that in an overall moderately positive review context,

H2*: When the variance of the review ratings is high, the effect of using a positive but less extreme firm-highlighted review on increasing consumers' consumption likelihood is stronger than the effect of using an extremely positive firm-highlighted review; such a pattern will be weakened when the variance of the review ratings is low.*

The Moderating Effects of Review Extremity and Firm's Reputation

Extensive research has demonstrated that consumers' skepticism about a marketing message is not only influenced by the message content, but also by the source of the message (e.g., Chaiken and Maheswaran 1994; Maddux and Rogers 1980). As mentioned earlier, attenuating users' skepticism about a firm-highlighted review is critical to achieving the intended marketing effect in an overall moderately positive information context with high variance. We further argue that in such a context, the effect of firms' highlighting practice on consumption behavior will be moderated by both review extremity and the *reputation* of the firm (i.e., the source that selects and pays to highlight the review).

A reputable firm enjoys the public impression of strong competence and willingness to continuously deliver what has been promised, and hence is often associated with a high degree of reliability and credibility (e.g., Erdem and Swait 2004; Herbig and Milewicz 1995). Prior research shows that the same marketing action may provoke less skepticism if it is delivered by a more reputable brand or source (e.g., Goldberg and Hartwick 1990). Hence, for a highly reputable firm, a highlighted positive review may largely reinforce consumers' existing beliefs in the firm, and is thus likely to be processed fluently and accepted readily. In other words, a positive review highlighted by a firm with a good reputation is generally unlikely to elicit strong skepticism regardless of its review extremity. Highlighting a positive review is thus expected to achieve a positive effect on consumers' product judgment (compared to not highlighting the review) in general. For a firm with a lower reputation, on the contrary, consumers are more likely to be skeptical about a highly positive review as the claims are clearly not congruent with the firm's public reputation. Hence, in this case, highlighting a positive but less extreme review may help reduce consumers' skepticism and lead to more favorable product judgment as compared to not highlighting the review. Highlighting an extremely positive review, however, is less likely to have such a positive effect because it may heighten consumers' skepticism, which leads consumers to discount the review and even evaluate the product unfavorably (Brown and Krishna 2004; Forehand and Grier 2003). Therefore, we hypothesize that in a moderately positive review context with mixed reviews,

H3*: For firms with mediocre reputations, the effect of using a positive but less extreme firm-highlighted review on increasing consumers' consumption likelihood is stronger than the effect of using an extremely positive firm-highlighted review; such a pattern will be weakened for firms with good reputations.*

Study 2 and 3 were carried out to investigate the effects of firms' highlighting practice as moderated by review extremity and variance of information context (H2), and by review extremity and firm's reputation (H3), respectively. The two studies vary in terms of research methods (i.e., laboratory experiment and online experiment) and dependent variables (e.g., consumption intention and behavior).

STUDY 2: REVIEW EXTREMITY AND VARIANCE OF REVIEW CONTEXT

Study 2 investigates the moderating effects of review extremity and the variance of the information context on the relationship between firms' highlighting practice and users' consumption intention (H2). It is hypothesized that in an overall moderately positive information context (e.g., an average 3.5-star rating out of 5), presenting a positive but less extreme firm-highlighted review will be more effective when the variance of reviews is high, but the effect of review extremity will be weakened in the low variance case.

Experiment Design

Study 2 adopted a 2 (firm-highlighted review vs. baseline condition) × 2 (extremity of the treatment review: 4-star rating vs. 5-star rating) × 2 (variance of review context: low vs. high) between-subjects design. As Study 1 did not yield direct evidence that the firm-highlighted review condition could outperform the baseline condition, Study 2 continued to compare the presence of a firm-highlighted review to a baseline condition to clearly reveal the effectiveness of the firm-highlighting practice.

The focal product of this study was the same restaurant used in Study 1. The restaurant had a 3.5-star overall rating (on a 1-5 rating scale) with a total of thirteen reviews listed on the webpage. The variance of the review ratings was 0.24 (SD = .49) in the low variance condition and 3.10 (SD = 1.76) in the high variance condition. In the former case, all the reviews consistently conveyed moderate or favorable product opinions (e.g., 3-star or 4-star ratings), while in the latter case, there was a considerable portion of 5-star reviews as well as 1-star or 2-star reviews.

In the firm-highlighted review conditions, either a 5-star (i.e., extremely positive) or 4-star (i.e., positive but less extreme) review was highlighted, followed by other reviews. The content of the firm's highlight was the same regardless of its star rating (see Online Appendix A). In the baseline conditions, the same list of reviews, including the treatment review highlighted in the firm-highlighted review condition and the other reviews, were displayed without any highlight. The reviews were ordered in the same sequence across all conditions.

Experiment Procedure and Results

The experiment was conducted with a total of 163 student participants (average age of 23.5; 58% female) recruited from a major university in China. The general experimental procedure was similar to that in Study 1. The participants were instructed to browse the webpage of a local restaurant and decide whether to dine there for a friend gathering in the coming weekend. After the participants had browsed the webpage, they were asked to close the browser and answer questions about their intention to dine at the restaurant (Cronbach's $\alpha = .80$) as well as their skepticism about the first review (Cronbach's $\alpha = .85$). The same manipulation check on the participants' understanding of the nature of the first review was conducted. Twelve participants who failed this test were excluded from the analyses, leaving 18-20 participants in each condition.

Review Extremity and Consumer Skepticism

We tested users' perceived extremity of the first review on the webpage[9]. A one-way ANOVA test showed that the 5-star treatment review was generally perceived as conveying a more extreme attitude than the 4-star review ($M_{5\text{-star}} = 6.26$, SD = 1.10; $M_{4\text{-star}} = 5.56$, SD = .98; $F(1, 149) = 17.78$, $p < .001$). Moreover, a one-way ANOVA test on consumer skepticism about the firm-highlighted review showed a significant effect of review ratings ($F(1, 75) = 9.81$, $p < .01$). Users were more skeptical of the 5-star firm-highlighted review ($M_{5\text{-star}} = 4.70$, SD = 1.40) than the 4-star review ($M_{4\text{-star}} = 3.73$, SD = 1.30).

Results on Consumption Intention

The results on consumption intention revealed the main effects of the presence of a firm-highlighted review ($F(1, 143) = 4.19$, $p < .05$) and the variance of the review context ($F(1, 143) = 9.19$, $p < .01$). That is, presenting a firm-highlighted review generally led to higher consumption intention than the baseline conditions. In addition, a low variance context generally led to higher consumption intention than a high variance context, suggesting that a high variance context might increase users' uncertainty on the overall positive assessment, which negatively affected their consumption intention (e.g., Clemons et al.

[9] The participants were asked about how they perceived the first review as (1) conveying an extremely positive attitude toward the business, (2) indicating that the reviewer liked the business very much, and (3) conveying an unreserved positive evaluation of the business (7-point Likert scale, Cronbach's $\alpha = .83$).

2006). More important, there was a significant three-way interaction effect among the presence of a firm-highlighted review, review extremity, and variance ($F(1, 143) = 3.77$, $p = .05$). In particular, when the variance was high, there was a significant two-way interaction between review extremity and the presence of a firm-highlighted review ($F(1, 143) = 6.08$, $p < .05$; Figure 2). Presenting a positive but less extreme 4-star firm-highlighted review would lead to higher consumption intention than the corresponding baseline condition ($M_{\text{firm-highlighted}} = 4.04$, $SD = .91$; $M_{\text{baseline}} = 3.24$, $SD = .92$; $F(1, 143) = 4.07$, $p < .05$), but such an effect was not evident when the firm-highlighted review was 5-star ($M_{\text{firm-highlighted}} = 3.02$, $SD = 1.20$; $M_{\text{baseline}} = 3.59$, $SD= 1.45$; $F(1, 143) = 2.15$, $p > .10$). When the variance was low, there was a main effect of the presence of a firm-highlighted review ($F(1, 143) = 6.38$, $p < .05$) and there was no interaction effect. In this case, presenting a firm-highlighted review would generally lead to higher consumption intention compared to the baseline conditions ($M_{\text{firm-highlighted}} = 4.41$, $SD = 1.13$; $M_{\text{baseline}} = 3.72$, $SD = 1.32$)[10]. Hence, H2 was supported.

Discussion

As predicted, in a moderately positive review context with high variance, using a less extreme, 4-star firm-highlighted review was more effective in inducing higher consumption intention (as compared to not highlighting the review) than using a 5-star firm-highlighted review. In fact, highlighting a 5-star review in a high variance context failed to achieve the expected marketing effect due to heightened skepticism.

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[10] Analysis from a different perspective showed that when the variance was high, presenting a less extreme 4-star firm-highlighted review would lead to higher consumption intention than presenting an extremely positive 5-star firm-highlighted review ($F(1, 143) = 6.67$, $p < .05$), but there was no difference between the two baseline conditions ($F(1, 143) = .82$, $p < .30$). When the variance was low, however, there was no significant difference in consumption intention between the 4-star and 5-star firm-highlighted conditions ($F(1, 143) = .56$, $p > .40$) or between the two baseline conditions ($F(1, 143) = .13$, $p > .70$).

This result is similar to the finding of Study 1. However, when the reviews tended to be homogenously benign, using a 4-star or 5-star firm-highlighted review were both effective and the difference in terms of their marketing effect was no longer significant.

While Study 2 has shown the interaction between review extremity and review variance in an overall moderately positive review context, such an interaction effect may be further moderated by the overall valence of the review context. Prior research has shown that the valence of the review context has a great influence on consumers' purchase decisions, especially when the valence is negative (e.g., Basuroy et al. 2003; Chevalier and Mayzlin 2006). Hence, we expect that while in a positive review environment (e.g., where the average rating is over 4-star), the interaction pattern between review extremity and variance exhibited in Study 2 will still hold, the interaction effect will largely disappear in a highly negative environment (e.g., where the average rating is around 2-star). Specifically, in a highly negative review environment, an obvious inconsistency between a positive firm-highlighted review and the negative average rating should render the ulterior motive underlying the firm's highlight particularly strong. This strong perception of firm-serving motive could largely eliminate the effect of review extremity regardless of the variance of the context. We hence conducted a supplementary experiment to further examine the possible moderating effect of the overall valence of the review context.

A Supplementary Experiment: The Moderating Effect of Valence of Review Context

We conducted the supplementary experiment using reviews of a hotel sourced from a major review site. This study adopted a 2 (extremity of the firm-highlighted review: 5-star rating vs. 4-star rating) × 2 (valence of review context: positive vs. negative) × 2 (variance of review context: high vs. low) between-subjects design. The average rating of all the reviews was 4-star in the positive valence condition and 2.4-star in the negative valence condition. For each level of valence, we created a high variance condition (variance = 2.60) as well as a low variance condition (variance = .20).

A total of 138 students (average age of 22) from a public university in Southeast Asia participated in the experiment, with each condition 16-18 participants. The participants were asked to plan a trip to Bali, Indonesia, and to evaluate a hotel as their potential accommodation choice. They were then directed to the experimental webpage, which presented some basic information about a hotel and a list of thirteen reviews (in English). After browsing the webpage, the participants reported their intention to stay in the hotel (i.e., be likely to stay, look forward to staying, and try it next time; Cronbach's $\alpha = .94$).

The ANOVA test revealed a significant three-way interaction effect among the review extremity, overall valence, and variance on consumption intention ($F(1, 130) = 3.74$, $p = .05$). As expected, if the average rating was positive, using a less extreme 4-star firm-highlighted review would lead to higher consumption intention than using an extremely positive 5-star firm-highlighted review when the variance of the reviews was high ($M_{5\text{-star}} = 3.80$, $SD = .91$; $M_{4\text{-star}} = 4.74$, $SD = .92$; $F(1, 130) = 9.11$, $p < .01$), but not when the variance was low ($M_{5\text{-star}} = 4.92$, $SD = .68$; $M_{4\text{-star}} = 4.47$, $SD = 1.19$; $F(1, 130) = 2.15$, $p > .10$). In contrast, if the average rating was negative, review extremity did not affect consumption intention regardless of the context variance ($M_{5\text{-star}} = 2.03$, $SD = .79$; $M_{4\text{-star}} = 2.29$, $SD = .98$; $F(1, 130) = 1.29$, $p > .20$). Overall, Study 2 and its supplementary experiment demonstrated that the review context would interact with the extremity of a firm-highlighted review to determine its effectiveness.

STUDY 3: REVIEW EXTREMITY AND FIRM'S REPUTATION

Study 2 suggests that the marketing effect of firms' highlighting practice can be enhanced by employing a positive yet less extreme review and that this effect is evident in a positive review context with dispersed ratings. Study 3 continues to examine the effect of firms' highlighting practice in a moderately positive information environment with varied reviews. As aforementioned, skepticism about a firm-highlighted review is influenced by the characteristics of both the review and the firm. Specifically, Study 3 further considers the reputation of the firm. We expect that firms with lower reputations will benefit from highlighting a less extreme review, whereas for highly reputable firms, the difference incurred by review extremity will be less evident as these firms are in a better position to get consumers to believe in their marketing claims in general (i.e., H3). In Study 3, in order to increase the generalizability of our findings, we conducted an online experiment in which real-world potential consumers were recruited. Further evidence on users' processing of the reviews following the top-placed review was also provided.

Experiment Platform, Design, and Procedure

Study 3 adopted a 2 (firm-highlighted review vs. baseline condition) × 2 (extremity of the treatment review: 5-star rating vs. 4-star rating) × 2 (firm reputation: good vs. mediocre) between-subjects design. This study was conducted on an online marketing research platform. The participants were all working adults in a large city in China recruited by the research platform. They were all compensated with virtual points which could be used to redeem prizes such as mobile top-up cards (worth around US$15), as well as a chance to participate in a lottery draw (Top Prize: iPhone).

The focal business of this study was a company which provided English language training for adults. At the beginning of the experiment, the participants were instructed to read a short introduction of the company. There were two versions of the introduction, serving as the manipulation of the firm's reputation (adapted from Goldberg and Hartwick 1990). In the version of mediocre reputation, the company was described as relatively new and with a modest market share, whereas in the version of good reputation, the firm was portrayed as a leading company in the industry with a vision of contributing to the language education industry and to the society (see Online Appendix C). The two versions of the descriptions were approximately of equal length (around 210 Chinese characters) and objectivity.

After reading the introduction, the participants were randomly assigned to one of the experimental websites. The website contained the company's fictitious name, average star rating (3.5-star on a 1-5 rating scale), address, and a list of ten mixed reviews about its language training programs. In the firm-highlighted review conditions, either a 5-star (i.e., extremely positive) or 4-star (i.e., positive but less extreme) review was highlighted on top. The content of the firm-highlighted reviews was the same regardless of the rating. The review was labeled as "sponsored review" and a textbox next to the label explained that the firm selected the review and paid to highlight the review on the webpage. To increase the realism of the setting and the generalizability of the findings, the other reviews were displayed in a random order[11]. In the baseline conditions, the same list of reviews, including the highlighted review in the firm-highlighted conditions and the other reviews, were presented and randomly ordered without any highlight. We did not fix the treatment review as the first review in the baseline conditions to increase the realism of the study because, in reality, a particular positive review would not always appear on top if no highlighting practice was adopted. All the reviews were sourced from a major commercial review site.

[11] That is, the order of the reviews was randomly determined upon every refresh of the webpage.

The participants were asked to evaluate the English language training program offered by the company based on the information presented. They were then invited to register for a short-term free trial program offered by the company. Whether or not the participants registered for the trial program manifest their interest in the program and was an approximate indicator of the likelihood of their future subscription. However, it is also possible that all participants want to get a free trial account even if they do not really like the program. To avoid such a situation, we stipulated that the participants must provide their real personal information, including their names, gender, age, profession, and mobile phone numbers (they were told that the provided information would be verified through a phone call after the experiment) in order to register successfully. The compulsory provision of the personal private information served as a barrier to filter out those who were not truly persuaded by the review information.

Demographics of Participants

In all, 358 responses were received. Among them, 36 submissions were rejected due to failed manipulation check on the nature of the first review, leaving 40-41 participants in each condition. The usable sample consisted of 62% females, with ages ranging from 21 to 63 (average = 30.1). On average, the participants had five years of working experience. The average monthly income was around 6000-7000RMB (around US$900-1100). There was no systematic difference in these demographical features across the experimental conditions.

Results

Manipulation Check

We checked the participants' perceived reputation of the firm (on a 7-point Likert scale; adapted from Lafferty and Goldsmith 1999; Cronbach's $\alpha = .87$) in a pretest. The results showed that the participants who read the good reputation descriptions (Mean = 5.02) perceived the firm as more reputable than those who read the mediocre reputation descriptions (Mean = 4.34, $F(1,55) = 3.76$, $p = .05$).

Two additional tests were conducted to check users' perception of the first review. One test revealed that the 5-star review (Mean = 6.08) was perceived as conveying more extreme positive product attitude than the 4-star review (Mean = 5.23, $F(1,44) = 6.12$, $p < .05$). The other test compared consumers' skepticism about different firm-highlighted reviews given their knowledge about the firm reputation. The results showed that when the firm had a higher reputation, rating extremity did not affect consumers' skepticism about the review ($M_{4\text{-star}} = 3.74$, SD = 1.64; $M_{5\text{-star}} = 3.42$, SD = 1.51; $F(1, 140) = .87$, $p > .30$); but in the case of lower reputation, the 4-star highlighted review led to lower skepticism than the 5-star highlighted review ($M_{4\text{-star}} = 3.33$, SD = 1.24; $M_{5\text{-star}} = 4.11$, SD = 1.39; $F(1, 140) = 5.14$, $p < .05$).

Trial Behavior

Trial behavior was coded as "1" when a participant chose to register for the trial program and "0" otherwise. Logistic regression was performed with participants' English proficiency and interest in learning English modeled as covariates. The results revealed a positive main effect of presenting a firm-highlighted review, that is, presenting a firm-highlighted review generally led to a greater number of registrations for the trial sessions than the baseline conditions ($p < .05$). Moreover, as we predicted, there was a significant three-way interaction ($p < .01$, Figure 3). Specifically, when the firm was perceived as less reputable, there was a significant two-way interaction effect between review extremity and the presence of the firm-highlighted review ($p < .05$). A less extreme (i.e., 4-star) firm-highlighted review led to a greater number of registrations for the trial program than those in the baseline condition ($M_{firm\text{-}highlighted} = .33$, $SD = .47$; $M_{baseline} = .15$, $SD = .36$; $p < .05$) while the effect of an extremely positive (i.e., 5-star) firm-highlighted review was not evident ($M_{firm\text{-}highlighted} = .08$, $SD = .27$; $M_{baseline} = .18$, $SD = .39$; $p > .30$). When the firm was perceived as more reputable, however, the interaction between review extremity and the presence of the firm-highlighted review was only marginally significant ($p = .07$). Further comparisons showed that a 5-star firm-highlighted review led to more registrations than the baseline condition ($M_{firm\text{-}highlighted} = .33$, $SD = .47$; $M_{baseline} = .15$, $SD = .36$; $p < .05$), but a 4-star firm-highlighted review did not differ from the baseline condition ($M_{firm\text{-}highlighted} = .10$, $SD = .30$; $M_{baseline} = .15$, $SD = .36$; $p > .50$)[12]. Hence, H3 was moderately supported.

Discussion

Study 3 showed that the effect of a firm-highlighted review would be moderated by the firm's reputation. For a firm with a mediocre reputation, highlighting a less extreme 4-star review induced more consumptions than the baseline condition, but highlighting a 5-star review did not. That is, when consumers did not fully trust a company, highlighting a more credible review would achieve the positive marketing effect. For a company with a higher reputation, however, highlighting an extremely positive

[12] Analysis from a different perspective showed that when the firm was perceived as less reputable, a less extreme (i.e., 4-star) firm-highlighted review led to a greater number of registrations for the trial sessions than an extremely positive 5-star firm-highlighted review ($p < .05$), while there was no difference between the two baseline conditions. When the firm was perceived as more reputable, however, a 5-star firm-highlighted review led to more trial registrations than a 4-star firm-highlighted review ($p < .05$), while the two baseline conditions did not differ.

review (5-star) would be more effective. In other words, when consumers generally trusted a company, the extremity of the salient review could positively affect their evaluation.

As mentioned earlier, users' final evaluation is based on their processing of both the firm-highlighted review and other ordinary reviews. Highlighting a credible positive review shapes users' initial good impression of the business and may lead users to search for subsequent information that can be assimilated towards the initial anchor. On the contrary, skepticism about a firm-highlighted review may prompt users to be more sensitive to other opposing views to confirm their skepticism (Darke and Ritchie 2007; Kramer 1998). To provide further support to our arguments, we also asked the participants to do an attribute recognition task in the questionnaire. Specifically, the participants were presented with a list of positive and negative attributes of the training program, and were asked to identify the attributes mentioned in the reviews they had read. To account for the biasing effects of initial skepticism on subsequent processing, we calculated a recognition index by dividing the number of negative attributes that were recognized by the total number of attributes recognized, which reflected users' sensitivity to other review comments opposing to the firm's highlight.

ANOVA tests on the recognition index revealed a significant three-way interaction among firm reputation, review extremity, and the presence of firm-highlighted reviews ($F(1, 314) = 11.53$, $p < .01$). Further analysis showed that when the firm was perceived as less reputable, presenting a less extreme 4-star firm-highlighted review reduced the percentage of negative attribute recognition as compared to the corresponding baseline condition ($M_{\text{firm-highlighted}} = .27$, $SD = .20$; $M_{\text{baseline}} = .34$, $SD = .14$; $p < .05$), but highlighting an extremely positive 5-star review led to a higher negative recognition rate than the baseline condition ($M_{firm\text{-}highlighted}$ = .34, SD = .20; $M_{baseline}$ = .26, SD = .11; $p < .05$). In the high-reputation condition, both the 4-star ($M_{firm\text{-}highlighted}$ = .27, SD = .14; $M_{baseline}$ = .38, SD = .18; $p < .01$) and 5-star ($M_{firm\text{-}highlighted}$ = .17, SD = .08; $M_{baseline}$ = .36, SD = .16; $p < .001$) firm-highlighted reviews led to a lower negative attribute recognition rate than in the corresponding baseline conditions.

These results thus provided evidence that when consumers' skepticism about the highlighted review was alleviated (i.e., when the firm reputation was high or when a less reputable firm highlighted a less extreme review), the positive anchoring effect prevailed, leading to increased consumption. However, when users were skeptical of the highlighted review (i.e., when a less reputable firm highlighted an extremely positive review), they tended to devote more attention to subsequent negative reviews, leading to confirmed skepticism and reduced positive effect of firms' highlighting practice on consumption.

GENERAL DISCUSSION

Summary of Findings and Implications

This research examined the impact of highlighting a firm-preferred consumer review on consumers' consumption likelihood. Study 1 revealed the positive effect of a firm's highlight on consumers' attention to this review, but not on their consumption intention due to their skepticism about the firm's highlight. Study 2 and Study 3 investigated the effect of firms' highlighting practice on consumers' consumption likelihood, moderated by review extremity and two contextual factors, variance of the review context and firm reputation, respectively. Specifically, Study 2 showed that in a moderately positive context, when other reviews varied greatly, a less extreme 4-star firm-highlighted review would be effective in enhancing consumption intention whereas an extremely positive 5-star review would not. Study 3 showed that given an information environment with varied reviews, the effect of review extremity will be further moderated by the reputation of the firm. Firms with a relatively lower reputation would benefit from highlighting a less extreme 4-star review, while for firms with a high reputation, an extremely positive firm-highlighted review could potentially exert stronger effect on consumption behavior.

This study represents one of the pioneering efforts to investigate firms' proactive use of consumer reviews for marketing purpose in the context of third-party e-commerce or review platforms. In recent years, firms have been trying various ways of incorporating UGC to promote products on social media platforms, such as sponsoring positive blog posts, retweeting positive reviews on Twitter, and sponsoring positive posts on Facebook (e.g., Boerman et al. 2017; Hwang and Jeong 2016; Lu et al. 2014). Research generally suggests that marketing messages written by consumers benefit from enhanced trustworthiness and have a performance advantage over traditional advertising (e.g., Hastak and Mazis 2004; Lawrence et al. 2013; Shimp et al. 2007). However, few studies have examined the effects of UGC with an explicitly disclosed commercial nature (e.g., Campbell et al. 2013). Our study focuses on firms' review highlighting practice and shows that while consumer reviews are generally perceived honest and unbiased, a review explicitly labeled as "sponsored" and highlighted in a prominent position may no longer be perceived as an impartial consumer review. Hence, alleviating consumer skepticism via selecting appropriate consumer reviews is important for firms to achieve the expected marketing effect of such a highlighting practice. Our study further shows that firms may adopt different review selection strategies based on the ratings of other ordinary reviews that co-exist on the review platform as well as firms' own reputations.

This research contributes to the literature on persuasion by deepening our understanding on how a piece of salient marketing information (i.e., a firm-highlighted review) would affect consumers' judgment and processing of other information (i.e., other ordinary reviews). In particular, this study shows that a top-placed highlighted review without arousing consumers' skepticism will achieve a positive anchoring effect, whereas consumers' skepticism elicited by a firm-highlighted review will prompt a negatively biased processing of subsequent reviews, thus largely offsetting the intended positive marketing effect. Hence, this research demonstrates that a salient marketing message will interact with the information context to determine consumers' consumption decisions. Attenuating consumers' skepticism about a salient marketing message is critical to achieving the intended positive effect in an overall positive information context when other opinions are mixed.

In addition, while prior UGC studies have documented the impacts of various aspects of UGC on consumers' evaluation of products, our understanding of the interplay between the characteristics of UGC and firm's reputation is still limited. This research reveals that when a firm intends to promote itself via highlighting positive consumer reviews, its existing reputation should be an important consideration factor. A highly reputable firm may direct consumers' attention to highly positive reviews without arousing much skepticism, whereas a less reputable firm should be more cautious when selecting reviews to highlight as consumers may be skeptical of extremely positive reviews.

This research employs both laboratory experiments and an online experiment to test the hypotheses. One of the experiments incorporates eye-tracking technique to provide objective attention data. These experiments are conducted in different countries and include various product categories (e.g., restaurants, hotels, training services). Hence, the generalizability of the findings is significantly enhanced.

Our work provides some practical guidance to marketing managers about how to benefit from actively highlighting favorable consumer reviews on review platforms. Our results show that while the credibility of a review can be questioned once its relationship with the marketer is made explicit, consumers may not directly “shut out” an explicit firm-highlighted review. Instead, they may pay attention to this review and anchor on it to process other reviews. Such an anchoring effect may not be favorable when consumers’ skepticism about the highlighted review is not alleviated. In particular, when a business has highly varied ratings in an overall positive review context, or when a business has not established a strong reputation, it is useful for the business to alleviate consumers’ skepticism about a highlighted review by highlighting a positive yet conservative review (e.g., a 4-star review). However, when all the reviews converge towards a positive or moderately positive assessment or when the business has already established a good reputation, highlighting an extremely positive review may be an even more effective marketing strategy.

Limitations and Suggestions for Future Research

This research investigates the effect of highlighting a firm-selected consumer review on consumers' consumption likelihood. In particular, we focus on the effect of one important characteristic of a highlighted review, i.e., rating extremity. Future studies can investigate other aspects of review contents which could also affect the success of the highlighting practice.

Furthermore, this research has only investigated one way of highlighting reviews. In particular, in our experiments, the explanation of firm-highlighted reviews was clearly presented. This practice follows the U.S. FTC’s guidelines which require marketers to explicitly disclose the nature of commercial messages on social media. It also allows us to test the marketing effect of a firm-highlighted review when it is very clear to consumers that the review is sponsored. Nonetheless, in reality, there might be different ways to present highlighted reviews and the results may differ if the nature of sponsorship is not directly communicated or is vaguely presented.

Future studies can also examine other highlighting strategies. For example, a firm-highlighted review may be placed among the first few reviews but not necessarily the first one. It is also feasible for firms to highlight more than one review to present a more complete view of the business. We believe that this study serves as an important stepping stone to investigate the effect of firms' review highlighting practice, and it is certainly interesting to further examine how users will react to other forms of firm-highlighted reviews.

Conclusions

Despite the increasing popularity of incorporating UGC in marketing communications mix, significant research progress on the marketing impacts of social media and UGC is yet to be made. This study represents one of the first attempts to investigate how firms can proactively use consumer reviews for marketing purpose in the context of third-party review platforms. Our results reveal that the marketing impact of highlighting a positive consumer review is influenced by the content of the highlighted review and contextual factors such as variance of the review context and firm's reputation. The findings of this study serve as a basis for future theoretical development on consumer persuasion using UGC and shed important light on firms' proactive management of user reviews.

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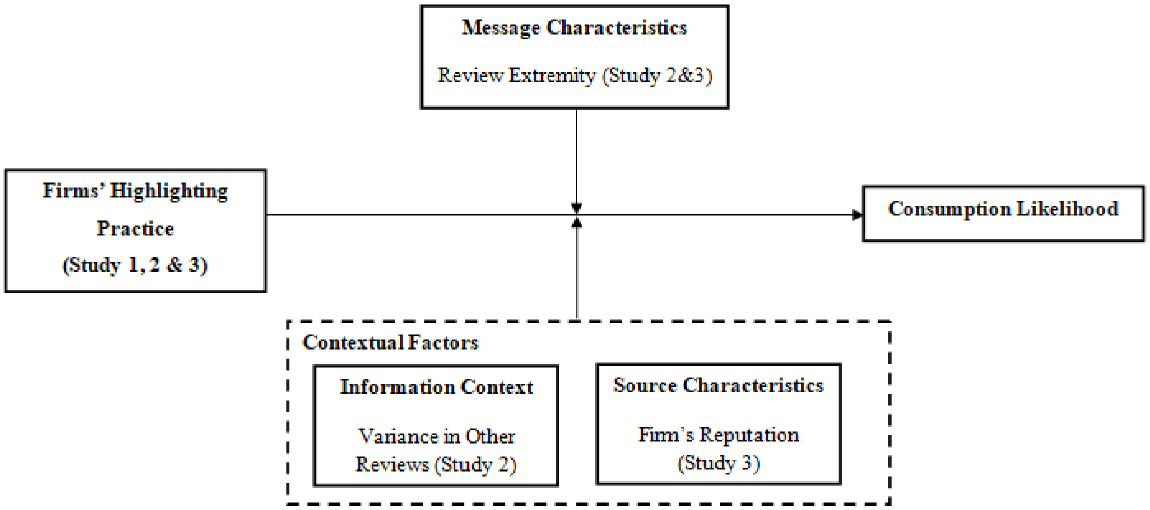


FIGURE 1 The Overall Conceptual Model of the Effects of Firms' Highlighting Practice

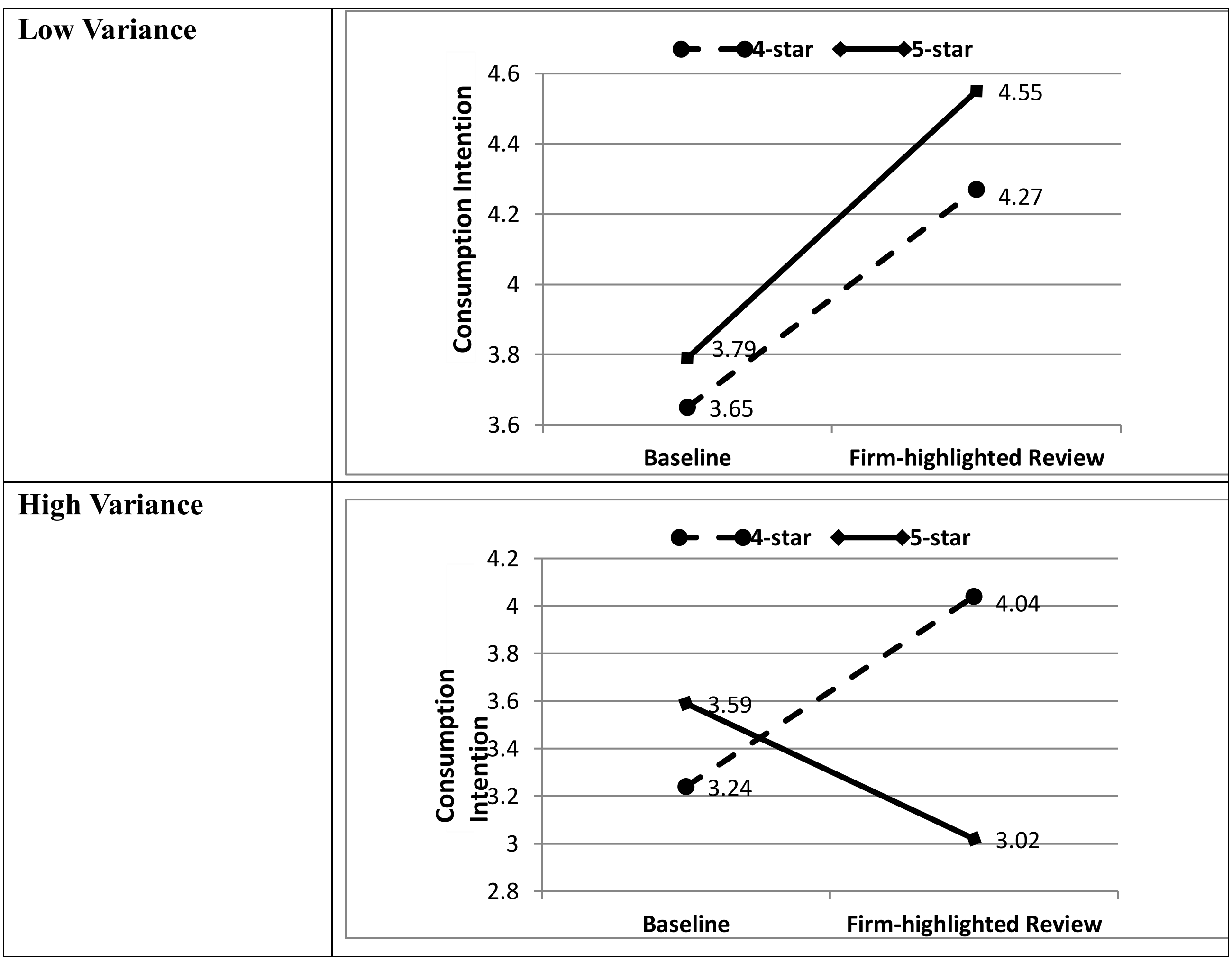
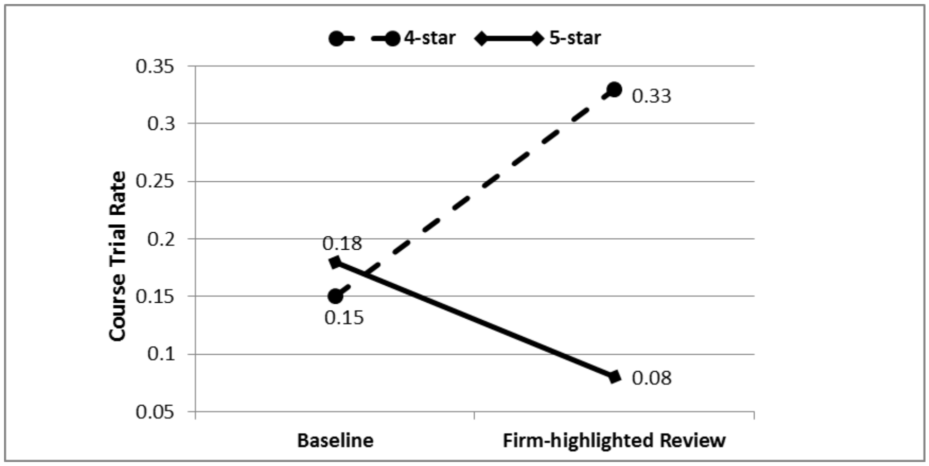


FIGURE 2 Effects of Firms' Highlighting Practice, Review Variance, and Review Extremity in Study 2

Lower Reputation



Higher Reputation

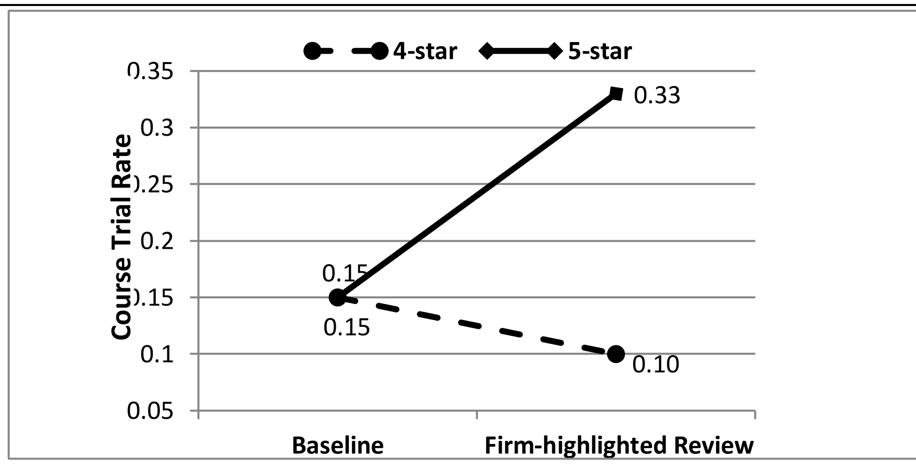


FIGURE 3 Effects of Firms' Highlighting Practice, Firm Reputation, and Review Extremity in Study 3