The paradox of (dis)trust in sponsorship disclosure: The characteristics and effects of sponsored online consumer reviews

Su Jung Kim[a,*], Ewa Maslowska[b], Ali Tamaddoni[c]

[a] Annenberg School for Communication and Journalism, University of Southern California, 3502 Watt Way, ASC 301F, Los Angeles, CA 90089-0281, United States of America
[b] Amsterdam School of Communication Research, University of Amsterdam, Nieuwe Achtergracht 166, 1018 WV Amsterdam, the Netherlands
[c] Department of Information Systems and Business Analytics, Deakin Business School, Deakin University, 221 Burwood Highway, Burwood, Victoria, Australia

A B S T R A C T

Online consumer reviews (OCRs) have become one of the most influential persuasive messages with respect to purchase decisions. Knowing this, marketers have started incentivizing consumers to write reviews, hoping that they can increase the volume of positive reviews. However, little research exists on the content characteristics and effects of sponsored OCRs. This paper examines the different characteristics and effects of sponsored and organic OCRs, and the mechanisms by which consumers recognize and process these two types of reviews, using mixed methods in two studies. The findings of a text mining analysis (Study 1) suggest that sponsored reviews provide more elaborate and evaluative content; however, they are perceived as less helpful than organic reviews. The findings of a randomized experiment (Study 2) suggest that sponsorship disclosure increases suspicions about the reviewer's ulterior motives and decreases consumers' attitudes and purchase intentions when a review is positive. Sponsorship disclosure does not hurt attitudes or purchase intentions when a review is negative.

1. Introduction

With the development of new communication technologies, online consumer reviews (OCRs) have become prevalent in people's everyday decision-making. OCRs constitute a particular form of electronic word of mouth (eWOM) that allows consumers to share their consumption experiences and make product recommendations. Consumers turn to the Internet to seek out other people's opinions on virtually everything, from simple decisions such as buying kitchen towels to bigger decisions such as buying a car.

According to Nielsen's latest report on "Global Trust in Advertising," approximately two-thirds of global consumers report that they trust consumer opinions posted online, making eWOM one of the top 3 forms of advertising they trust [1]. The persuasive power of traditional word of mouth (WOM) has been studied since the 1960s [2]. WOM is influential in part because it is believed to represent the unbiased opinions of consumers [3]. Also, both WOM and eWOM can save consumers' time and effort by reflecting on product quality and reducing the risks and uncertainty entrenched in purchase decisions [4,5].

Marketers have recognized this increasing role of eWOM in the era of social media and have employed diverse tactics to create positive buzz about their products or services. One of such tactics is *sponsored*

reviews—which are created by consumers who are offered a form of compensation, such as coupons, discounts, raffles, free samples, or remuneration by companies, third-party review platforms, or e-commerce sites [6,7]. On the contrary, *organic* reviews refer to those that are written by consumers who do not receive any type of incentive. Companies provide incentives to consumers in order to generate a large number of reviews with the hope that those individuals offered incentives would write positive reviews, which would ultimately increase sales [7,8]. It is not difficult to find online reviews that disclose the compensated nature of such reviews on many e-commerce websites. For example, Walgreens provides the following statement in its sponsored reviews: "This review was collected as part of promotion." Amazon, when it allowed sponsored reviews on its website, included disclosure statements such as, "I received this product at a discount in exchange for my unbiased review."

Nevertheless, sponsorship practices have increased controversy and attracted public critique to the extent that some see them as unfair, biased, and even deceptive [9]. Companies and regulators alike have carefully approached this issue to prevent consumers from being misinformed. Regulatory institutions such as the Federal Trade Commission (FTC), Australian Competition and Consumer Commission, European Commission, and industry organizations such as the Word of

Mouth Marketing Association (WOMMA) have mandated the disclosure of "material connections" and have started offering guidelines on how to disclose endorsement information [10,11]. In line with this, in October 2016, Amazon announced that they would ban sponsored reviews written by those who received free or discounted products as a result of a study that suggested sponsored reviews' average rating is higher than that of organic reviews [77].

Despite the raised concerns about the nature of sponsored reviews, online retailers (e.g. Walgreens) and review platforms (e.g. BzzAgent) are still relying on incentivization to encourage review writing. What is unknown is how sponsored reviews, in comparison to organic ones, are different in nature and influence consumers' perceptions and behaviors. To the best of authors' knowledge, little research has examined the effects of sponsored online reviews. One exception is a recent study by Petrescu et al. [7], which looks into the effect of incentivization on number of reviews, overall sales, and consumer information search. This calls for an objective investigation to look into pros and cons of sponsored reviews and to see how different they are from organic reviews and more importantly how they are perceived by consumers and how they exert an influence on consumers' attitudes and purchase decisions.

Regarding this, the purpose of this study is twofold. First, it examines how sponsored and organic reviews differ in their content characteristics. We argue that, contrary to public perception, when sponsored reviews are practiced appropriately, they can provide unbiased and elaborate content. Second, it investigates how consumers process these two different types of reviews, form attitudes, and make purchase decisions using the persuasion knowledge model.

The current research addresses the aforementioned issues in two studies. Study 1 conducts a secondary analysis of OCRs and compares differences in the linguistic styles between sponsored and organic reviews by using text mining techniques. It also examines whether consumers differentially evaluate the helpfulness of the two types of reviews. Study 2 employs a randomized online experiment to extend our understanding of how consumers recognize and process sponsored and organic reviews, and how consumers are influenced by sponsorship disclosure when they read OCRs.

Taken together, this study demonstrates the paradox of (dis)trust in that sponsored reviews provide more objective and less extreme content yet are perceived less helpful and hurt consumers' attitudes and purchase intentions. Overall, the findings of this research contribute to the literature on endorsement communications including native advertising, product placement, incented blogs, and incentivized online reviews. These two studies also provide regulators with guidelines on more effective sponsorship information disclosure. Finally, they deliver important managerial implications for marketers increasingly investing in compensated eWOM, many of whom object to disclosure, fearing negative consumer responses.[1]

2. Study 1: linguistic differences of sponsored versus organic reviews and their helpfulness

The first study focuses on the textual differences between sponsored and organic reviews, as well as the level of perceived helpfulness of the two types of reviews. To predict these differences, we start by understanding how each type of review is created, and how this review creation process influences the motivation of reviewers who are offered compensation for writing reviews, and those who voluntarily write reviews. We focus on two major differences between sponsored and organic reviewers.

---

[1] Note that fake reviews are beyond the scope of this paper. Fake reviews are written by those who have never used the product/service being reviewed. Such reviews are typically disguised as organic reviews, and thus are not investigated here.

First, those who write sponsored reviews receive free samples, discounts, or remuneration in return for their (supposedly) honest opinions. This process involves a sense of *reciprocity* [12] between the sponsored reviewers and the entity providing the compensation, whether it be the brand or the online review platform. *Second*, sponsored reviewers are aware that when their reviews are posted on an online review platform, they will contain a disclosure statement revealing the sponsored nature of the review. Most online review platforms have a formal disclosure statement placed at the end of every single sponsored review that emphasizes the "honest" and "transparent" nature of the sponsored review. The "public" display of a disclosure statement, in turn, works as a *self-fulfilling prophecy* [13,14]. This self-fulfilling prophecy leads sponsored reviewers to engage in cognitive processing of the statement; it also leads these reviewers to become committed to what the statement communicates.

These two distinctive aspects of compensated reviews—reciprocity and the public display of sponsorship disclosure—then affect the motivations of the sponsored reviewers. Previous research has identified the following motives for eWOM creation (for a review, see [15]): (1) platform assistance; (2) venting negative feelings; (3) concern for other consumers; (4) extraversion/positive self-enhancement; (5) social benefits; (6) economic incentives; (7) helping the company; and (8) advice seeking.

For those who write organic reviews, one or any combination of these motives would underlie their creation of online reviews. However, for those who write sponsored reviews, their most salient motivation would be economic incentives (Motive #6). However, in the context of reciprocity and the public display of disclosure, their message creation may also be guided by concern for other consumers (Motive #3) and their desire to help the company (Motive #7). Such motives driving the reviewer may affect the characteristics of a review, as well as how other consumers evaluate the review.

2.1. Linguistic characteristics of sponsored and organic reviews

The next question becomes how reciprocity and the self-fulfilling prophecy, two distinctive drivers of sponsored review writing, will be reflected in the characteristics of the review content. With respect to *reciprocity*, the marketing literature has demonstrated the positive impact of free sample promotions on brand sales; yet, there is a surprising dearth of empirical studies on the effect of free samples [16]. Due to the sense of reciprocation elicited by receiving a free sample, we expect that sponsored reviews will be more positive than organic ones.

According to the *norm of reciprocity* [17,18], humans have an innate tendency to give, take, and reciprocate. When people are offered a gift or favor, they have a sense of obligation to provide something in return. In the context of sponsored reviews, consumers are provided with a free sample. These free samples instill a sense of "indebtedness" in consumers [12], and therefore make consumers feel obliged to return the favor. We predict that sponsored reviewers do so by positively stating their consumption experience and by recommending the product to others. Thus, we expect the following:

H1a. Sponsored reviews are more positive than organic reviews.

H1b. Sponsored reviewers are more likely to recommend the product than organic reviewers.

In addition to a sense of reciprocity, sponsored reviewers publicly announce that they are obliged to offer an *unbiased* opinion about the product that they received for free. As stated earlier, the disclosure statement becomes a self-fulfilling prophecy for sponsored reviewers and leads them to elaborate on their experience with the product in order to provide their honest and unbiased evaluations of the given product. Hence, they will engage in deeper cognitive processing, meaning that they will think about more aspects of the product and more arguments for and against it. Such a process is likely to result in

more complex and elaborate (i.e., longer) reviews. Thus, we predict the following:

H2a. Sponsored reviews are more complex than organic reviews.

H2b. Sponsored reviews are more elaborate than organic reviews.

Previous research on OCRs has found that the distribution of star ratings of a given product exhibits a J-shape because consumers who are either very satisfied or very disappointed tend to write about their consumption experiences [19]. A study by Askalidis, Kim, and Malthouse [20] also found that self-motivated reviews are more negative than retailer-prompted reviews, which confirms the finding that some organic reviewers are motivated to write their reviews due to their disappointment with a product.

As discussed earlier, we expect that those who create sponsored reviews would be motivated to help the company or other consumers, in addition to their motive to receive economic incentives. Thus, the distribution of star ratings would be more neutral and less extreme than that of organic reviews. In addition, these consumers are expected to elaborate more on their recommendations, which may also lead to more balanced opinions. We expect that sponsored reviews would be more objective because organic reviews are often motivated by the need to share either very positive or very negative experiences, which are often posted shortly after the experience. Due to the immediacy of the experience and its vividness in the reviewer's memory, such reviews are often rather subjective. Therefore, we expect the following:

H3a. Sponsored reviews are less extreme than organic reviews, i.e., they show a lower proportion of 1-star or 5-star reviews in their star rating distribution, compared to organic reviews.

H3b. Sponsored reviews are more objective than organic reviews.

2.2. Perceived helpfulness of sponsored vs. organic reviews

Sponsored and organic reviews may also differ with respect to their persuasiveness. However, previous findings in this regard are mixed, with the majority showing negative results of sponsored reviews [21]. Sponsored reviews contain disclosures regarding the sponsored nature of the review. Disclosures in WOM have been shown to increase source credibility [22], source sincerity, and agent evaluations [23]. For example, Carl [22] demonstrated that when consumers are aware that the WOM agent is participating in corporate-incentivized WOM, they may perceive the WOM agent as being more credible, while in the context of eWOM, Colliander [24] did not observe any effect on blogger credibility. Nevertheless, overt blog marketing has shown to have a negative effect on purchasing behaviors and intentions, such as future interest in the blogger [21]. For example, according to Colliander and Erlandsson [25], participants who learned that a blogger was being paid to promote a product perceived the blog with decreased credibility and less positive attitudes. In a similar vein, Campbell, Mohr, and Verlegh [26] showed that sponsorship disclosure in a blog can decrease the recall of and attitudes toward a brand.

The mechanism behind this negative effect may be explained by the *incentive backlash effect* [27]. When consumers notice the disclaimer, it may backfire: knowing that the reviewer was compensated may undermine the reviewer's trustworthiness, which can lead the reader to discount the reviewer's opinion. Such a finding may occur due to an activated heuristic in the reader's mind that sponsored reviews cannot be trusted [10]. As a result, the reader would be likely to dismiss the information in an effort to correct the reviewer's presumed bias [27]. It can also activate persuasion knowledge [28] and resistance mechanisms. According to the *Persuasion Knowledge Model* [28], consumers have some knowledge about persuasion strategies, which they use in response to persuasion attempts. In the case of sponsored reviews, consumers may attribute the opinion expressed in a review to a persuasion goal. In line with the change of meaning principle [28],

recognizing the persuasive intent of the review will change the nature of the reader's interaction with the source of the review. This may decrease consumers' motivation to process the message and may increase the probability that they will discount the message [29]. Hence, sponsorship disclosure can inhibit persuasion by activating the aspects of persuasion knowledge [30,31] and by lowering the reviewer's perceived source sincerity and trustworthiness [32,33]. As a result, consumers may show distrust toward the review, reviewer, and product. This negative sentiment may further spill over into the website and the brand.

Such reasoning is in line with attribution theories, which attempt to explain how consumers assign causes to an actor's behavior, and specifically with Kelley's *discounting principle*, which states that "the role of a given cause in producing a given effect is discounted if other plausible causes are also present" ([34], p. 8). Following this principle, when a reviewer writes about how much s/he enjoys using a product, consumers will attribute the reviewer's behavior to the qualities of the product itself. However, when consumers learn that the reviewer was rewarded for writing the review, another possible cause (i.e., the desire to receive the incentive) is present. Consumers may therefore discount the product qualities as a cause for the positive review.

In addition, disclosure statements in sponsored reviews can induce uncertainty in the reviewer's trustworthiness, leading the reader to doubt the information in the review as less useful in attitude formation. As a result, the reader becomes less confident in the attitudes formed based on such non-credible reviews, thereby decreasing review persuasiveness [27,35]. This reasoning is supported by the self-validation effect [36]. According to the self-validation effect, uncertainty regarding the validity of an attitude can make that attitude less persuasive. Hence, sponsored reviews may be less persuasive because consumers are less confident in their attitudes based on such non-credible reviews.

In sum, based on attribution theory and the literature on source credibility, claims made by an "externally motivated" reviewer may be discounted as biased. Also, persuasion knowledge theory predicts that when consumers recognize this ulterior motive, they will be more likely to perceive the reviewer as insincere, and hence not credible, which may spill over into the information provided in the review and may diminish the review's persuasiveness (i.e., helpfulness). Hence, we can predict the following:

H4. Sponsored reviews are perceived as less helpful than organic reviews.

2.3. Method

2.3.1. Data collection

The data for Study 1 came from one of the largest pure-click retailers in the United States. The company's website offers a wide range of product categories from beauty and health products to vitamins, skin care, and hair care products. On a specific product's page, apart from its picture and description, consumers can leave reviews or read those left by other consumers. In addition, consumers can vote on the helpfulness or unhelpfulness of each review and can see the number of helpful and unhelpful votes that each review has received from previous visitors of the page. For each review, one can also see the reviewer's nickname, whether the reviewer is a "verified buyer," the review creation date, the star rating on a five-point scale, and the reviewer's recommendation intention.

Due to the methodological requirements of the sentiment measure used in the study (see Section 2.3.2), in order to address the proposed hypotheses, we restricted our analyses to one category of product. Products under the *skin care* category, with at least one sponsored or organic review, were selected. The skin care category was chosen because it is the product category with the largest number of product reviews, indicating that the consumers in this product category are

more engaged in writing and reading reviews than in any other product category on the given platform. A sponsored review was distinguished from an organic one by using a disclaimer that appears at the end of the review.[2] After excluding those records with no text, we ended up with 665 reviews written on 52 skin care products in a period from November 2011 to March 2015. From these, 71% ($n = 474$) were organic reviews, and 29% ($n = 191$) were sponsored reviews.

2.3.2. Measures

2.3.2.1. Sentiment of reviews.
Sentiment analysis can be defined as quantification of the emotional direction of a piece of text. In its simple form, sentiment analysis involves forming a binary variable (positive/negative) by counting the number of positive and negative words present in a piece of text and finding the more frequent category. However, in the case of product reviews one can argue that not all sentences in a review are related to the product under review. As Ordenes et al. [37] propose, only those sentences related to the product category under review (i.e., containing at least one noun indicative of the product category) should be used in the analysis.

With this aim, we first extracted all nouns used in our 665 reviews. Three independent researchers categorized 1624 nouns used in the reviews and found that 262 of them were related to the product category under review (i.e., skin care products). Following Ordenes et al. [37], from each review we extracted only those sentences containing at least one noun indicative of skin care products. Lastly, we calculated the overall *intensity of affective content* [38] for each review as a measure of sentiment toward the product (see Eq. (1)). We used the dictionary from the Linguistic Inquiry Word Count (LIWC) to identify positive and negative affective words [39]. The outcome was a continuous variable representing a review's sentiment. Table 2 presents the descriptive statistics of the variable.

$$AC_i = \frac{\begin{array}{l}\textit{Sum of positive affective content words}\\ -\textit{ Sum of negative affective content words}\end{array}}{\textit{Sum of all words used in a review}} \quad (1)$$

2.3.2.2. Willingness to recommend.
Willingness to recommend can be considered as a proxy for customer satisfaction. This metric is widely used in marketing research and is the basis for commonly used loyalty metrics such as the Net Promoter Score (NPS) [40]. In the current study, willingness to recommend was captured through a binary variable indicating whether a reviewer said "yes" to the question: "Would you recommend this to a friend?"

2.3.2.3. Review complexity.
We predict that sponsored reviews will be more complex than organic ones. Regarding this distinction, *readability* measures were introduced to gauge the ease of comprehension regarding the textual material [41]. According to Harris and Hodges [42], readability can be defined as "the ease of comprehension because of the style of writing." Previous studies have identified a wide range of metrics to measure the level of text readability [76,52]. For the purpose of this study, we follow the approach of Banerjee, Chua, and Kim [43] and Chua and Banerjee [44] and measure readability as an average of the *Gunning-Fog Index* [45], the *Automated Readability Index* [46], and the *Colman-Liau Index* [47] as commonly used measures of text readability [48].

In this regard, the readability of each review was calculated based on Eqs. (2)–(4). The Gunning-Fog Index (FOG) represents a measure capturing the difficulty (ease) of comprehension of a piece of text for an

individual with a high school education. Following [48], we have the following equation:

$$FOG = 0.4 \times \left(\frac{\textit{Total number of words}}{\textit{Total number of sentences}} \right.$$
$$\left. + 100 \times \left(\frac{\textit{Number of complex words}}{\textit{Total number of words}} \right) \right) \quad (2)$$

The Automated Readability Index (ARI) figure obtained for each review represents the minimum grade level of education required to understand a given review. A high score indicates a review that is more difficult to comprehend (read).

$$ARI = 4.71 \times \left(\frac{\textit{Total number of characters}}{\textit{Total number of words}} \right)$$
$$+ 0.5 \times \left(\frac{\textit{Total number of words}}{\textit{Total number of sentences}} \right) - 21.43 \quad (3)$$

The Colman-Liau Index (CLI) is a metric similar to ARI, with its second part adjusted to better capture the text characteristics.

$$CLI = 5.89 \times \left(\frac{\textit{Total number of characters}}{\textit{Total number of words}} \right)$$
$$- 0.3 \times \left(\frac{\textit{Total number of sentences}}{\textit{Total number of words}} \right) - 15.8 \quad (4)$$

Once all three measures are calculated for a review, our final readability index is calculated as the average of the FOG, ARI, and CLI. Here a lower average indicates a higher level of readability (lower complexity) of a review. Descriptive statistics of the final (average) readability index are presented in Table 2.

2.3.2.4. Review elaborateness.
Following Park and Nicolau [49], we considered the length of the reviews as a proxy for their elaborateness. This is based on the established fact that longer reviews generally include more information on product details and uses [50]. The length of the reviews was measured by counting the number of words in each review. For sponsored reviews, words appearing in the disclaimer clause were not counted in the review length. Table 2 presents the descriptive statistics of the review length variable.

2.3.2.5. Review extremity.
The extremity of reviews was measured using the distribution of the reviews' star ratings. A star rating is an overall rating of a product by a customer, which normally appears at the surface level of a review on a five-point scale [51] and reflects the extremity of customers' attitudes toward a product. While a very low rating reflects an extremely negative experience, a very high rating represents a highly positive attitude toward a product [50]. For this study, we formed an ordinal variable using the star ratings of reviews, which we analyzed as a categorical variable. Table 1 presents the frequency distribution of the star rating variable across five available levels.

2.3.2.6. Review objectivity.
Following Goes et al. [52], we measured the objectivity (versus emotionality) of a review based on the proportion of emotional words identified (both positive and negative). The LIWC package was employed to count the number of positive and negative emotional words in a review. Once completed, the objectivity of a review was computed using Eq. (5). The summary statistics of the objectivity variable are presented in Table 2.

$$\textit{Objectivity of review} = \frac{\begin{array}{l}\textit{Sum of positive affective content words}\\ +\textit{ Sum of negative affective content words}\end{array}}{\textit{Sum of all words used in a review}} \quad (5)$$

2.3.2.7. Review helpfulness.
Previous studies have examined the

---

[2] Disclaimer clause: "This reviewer is employed by (Retailer name) or its affiliate and receives a free product in exchange for providing his/her opinion on products sold on the (Retailer name). Although this reviewer maintains an endorser/advertiser relationship with (Retailer name), this review represents his/her honest opinions, findings, and/or experiences."

Table 1
Frequency distribution of the review ratings.

Review rating	Frequency
1	57 (9%)
2	37 (6%)
3	83 (12%)
4	194 (29%)
5	294 (44%)

Table 2
Descriptive statistics of textual measures.

Variables	Mean	SD
Readability index	9.02	3.32
Affective content (sentiment)	0.03	0.04
Review elaborateness (Length)	77.56	51.73
Objectivity	5.83	4.71
Total helpfulness votes (sum of help and unhelpful votes)	2.47	2.43
Degree of helpfulness (ratio of helpful votes to total votes received)	0.63	0.41

helpfulness of reviews at two levels: (1) the ability of a review to attract the "helpfulness" votes, regardless of the type of vote (helpful or unhelpful) and (2) the ability of a review to attract "positive" helpfulness votes [53]. Following this approach, we formed two measures of review helpfulness.

Total votes encompass the ability of a review to attract helpful/unhelpful votes [53]. For each review, this measure was computed as the sum of helpful and unhelpful votes received. For this purpose, all reviews written on skin care products were used in our analysis.

Degree of helpfulness is defined as the proportion of positive helpfulness votes and is calculated by dividing the number of helpful votes (versus unhelpful votes) for a review by the total number of votes received [54]. For this purpose, only those reviews on skin care products with at least one vote (helpful or unhelpful) were considered for analysis. Table 2 presents the summary statistics of the helpfulness variables.

2.4. Results of study 1

The first set of hypotheses predicted that sponsored reviews are more positive than organic reviews (H1a), and that sponsored reviewers are more likely to recommend the product than organic reviewers (H1b). Welch's *t*-test[3] [56] results suggest that, on average, sponsored reviews are more positive ($M = 0.04$, $SE = 0.003$), compared to organic reviews ($M = 0.03$, $SE = 0.002$), $t = -3.544$, $p < 0.001$, confirming our first hypothesis (H1a). A chi-square test on willingness to recommend confirms H1b, $X^2(2, N = 665) = 6.11$, $p < 0.05$. Table 3 shows that consumers who have received an incentive to write a review are more likely to recommend the product to a friend (83.8%), compared to self-motivated reviewers (77.2%). On the contrary, organic reviewers are more likely not to recommend the product to a friend, compared to sponsored reviewer (18.1% vs. 10.5%).

The next set of hypotheses predicted that sponsored reviews are more complex (H2a) and more elaborate (H2b). Welch's *t*-test results suggest that, on average, sponsored reviews are more complex (i.e., less readable) ($M = 12.1$, $SE = 0.11$), compared to organic reviews ($M = 7.78$, $SE = 0.14$), $t = -24.1$, $p < 0.001$, and are more elaborative ($M = 101.7$, $SE = 2.6$ *vs.* $M = 67.9$, $SE = 2.5$), $t = -9.4$, $p < 0.001$. Thus, both H2a and H2b are supported.

---

[3] Here Welch's *t*-test is used as an alternative for the Student's *t*-test, due to its proved robustness in dealing with unequal sample sizes (organic vs. sponsored). Keen readers can see Salkind [55] for more details.

Table 3
Cross tabulation of review type and intention to recommend.

	Review type	
Intent to recommend	Organic	Sponsored
Yes	366 (77.2%)	160 (83.8%)
No	86 (18.1%)	20 (10.5%)
NA	22 (4.6%)	11 (5.8%)

H3a predicted that sponsored reviews are less extreme and more objective (H3b) than organic reviews. Being less extreme means that the sponsored reviews show a lower proportion of 1-star or 5-star reviews, compared to organic reviews. The results of a chi-square test vouch for the significant relationship between the review type and review star ratings $X^2(4, N = 665) = 48.49$, $p < 0.001$. As Table 4 suggests, sponsored reviews have a lower percentage of extreme reviews, compared to organic reviews (2% vs. 11.2% for 1-star ratings and 33.5% vs. 48.5% for 5-star ratings). Furthermore, the analyses suggest that sponsored reviews tend to be more neutral (3-star rating) than organic ones (21.5% vs. 8.9%). In addition, a Welch's *t*-test shows that sponsored reviews are more objective ($M = 5.17\%$, $SE = 0.116$), compared to organic reviews ($M = 6.11\%$, $SE = 0.25$), $t = 3.4$, $p < 0.001$. Hence, both H3a and H3b are confirmed.

H4 predicted that sponsored reviews are perceived as less helpful than organic reviews. While the analysis involving the number of votes attracted by reviews suggests that the two types of reviews do not differ significantly in terms of attracting helpfulness votes (both helpful and unhelpful), our analysis of reviews with at least one helpfulness vote suggests that consumers find organic reviews to be more helpful ($M = 0.66$, $SE = 0.22$) than sponsored ones ($M = 0.52$, $SE = 0.41$), $t = 3.28$, $p < 0.001$. The combination of these two tests on review helpfulness enables us to confirm H4.

2.5. Summary of study 1

Motivated by the principles of reciprocity and the self-fulfilling prophecy, Study 1 examined the differences between sponsored and organic reviews. As predicted, our results show that sponsored reviewers write more positive reviews and are more likely to recommend products to others. At the same time, however, sponsored reviewers tend to write more complex and elaborative reviews than organic reviewers. Sponsored reviews are also more objective and less extreme than organic reviews. Even though these characteristics of sponsored reviews suggest that they appear to be better in quality than organic reviews, they are perceived as less helpful. We argue that this is due to the presence of a sponsorship disclaimer, which triggers beliefs about the insincere motives of sponsored reviewers. Considering this caveat, Study 2 was conducted to obtain a better understanding of the role of sponsorship disclosure in consumers' evaluations of reviews.

3. Study 2: the effect of sponsorship disclosure on attitude and purchase intention

Understanding the significance of sponsorship disclosure, the FTC and WOMMA started offering guidelines on how to disclose endorsement information. Despite the importance of information disclosure in people's perceptions and behavior, to the best of the authors' knowledge, little research has examined the effects of sponsored online reviews on consumers' attitudes and purchase intentions, compared to those of organic reviews [57]. Wang, Ghose, and Ipeirotis [58] attempted to obtain insights into consumers' differential reactions to reviews with and without disclosure among Amazon Mechanical Turk (AMT) workers and users of Amazon.com. Their study showed that AMT workers evaluated the helpfulness of both types of reviews equally, while Amazon.com users expressed generally negative

Table 4
Cross tabulation of review type and extremity.

	Review type	
Review Valence	Organic	Sponsored
1	53 (11.2%)	4 (2%)
2	30 (6.3%)	7 (3.7%)
3	42 (8.9%)	41 (21.5%)
4	119 (25.1%)	75 (39.3%)
5	230 (48.5%)	64 (33.5%)

opinions about reviews with a disclosure statement. Most existing research, however, has studied sponsored content on television, radio, print (e.g., magazines or newspapers), social media or blogs (e.g., Boerman, Willemsen, & Van Der Aa [12]), but not in the context of OCRs.

3.1. The effects of sponsorship disclosure

Previous research on the effects of disclosure has focused on sponsored content in magazines and TV programming and is built on the persuasion knowledge literature (see our discussion of H4 in Study 1). Sponsorship disclosure can either increase or decrease persuasion. On the one hand, textual disclosure has been shown to enhance systematic (elaborative) processing. When consumers are in a systematic processing mode, they scrutinize information carefully. The fact that a reviewer received an incentive can lead consumers to question the motivation behind the review as suspicious, which will activate people's persuasion knowledge and resistance strategies, which in turn will render the review less credible, thus generating negative attitudes. On the other hand, the fact that the reviewer discloses the information can lead consumers to perceive the reviewer as sincere; it can also trigger the heuristic that the company is confident about its product quality, given that it is willing to provide a free sample. This series of thoughts will promote consumers' trust and will ultimately lead to positive attitudes and purchase intentions.

We can find research that supports both types of effects. Some previous studies have found that disclosing the sponsored nature of a blog post can negatively influence attitudes toward the brand [26]. Brady and Lerigo-Jones [57] found that sponsored blog posts result in higher skepticism than organic posts. However, other researchers have shown that a disclaimer can increase credibility and can hence produce positive attitudes. For example, Hwang and Jeong [29] showed that the effect of a disclaimer on attitudes can be positive if the author stresses the honesty of the opinion. Still, the majority of the literature on sponsored content suggests a negative effect of sponsorship disclosure on consumers' attitudes and purchase intentions. Hence, we can expect that organic reviews will lead to more positive product attitudes and purchase intentions than sponsored ones.

H5a. Compared to sponsored reviews, organic reviews evoke more positive product attitudes and higher levels of purchase intention.

The negative effects of sponsorship disclosure are believed to take place because the disclosure induces "distrusting beliefs about the post" ([59], p. 82). Such reasoning is in line with the motives-based framework of receivers' responses to referrals, proposed by Verlegh, Ryu, Tuk, and Feick [60]. This framework builds on the Multiple Inference Model, which proposes that people consider alternative motives, situational factors, and prior knowledge when forming their impressions [61]; additionally, this framework is related to Kelley's discounting principle and the Persuasion Knowledge Model (see H4). According to the motives-based framework, rewarded referrals trigger ambiguity in receivers concerning the motives driving the recommendations. The ambiguity may be resolved by considering a situational factor – the reward. The presence of a reward may lead to the inference of ulterior

motives as the main driving force behind the reviewer's recommendation, which diminishes the effectiveness of the review [60]. Hence, we predict the following:

H5b. Compared to sponsored reviews, organic reviews are less likely to evoke suspicions of ulterior motives.

It is plausible, however, that these beliefs are not always triggered, or even when they are, they can be disregarded based on other considered motives, situational factors, or previous knowledge. The effect of a sponsored review on readers may depend on the content of the review. First, review valence can signal to consumers whether the reviewer is critical about the product being evaluated. Previous research on negativity bias shows that people perceive negative information as more diagnostic and credible than positive information (e.g., [78,79]). Hence, a negative review written by a sponsored reviewer may be seen as more objective than a positive review written by a sponsored reviewer.

Second, a reviewer badge indicating the experience and expertise of the reviewer can increase the review's helpfulness [62] by increasing the reviewer's credibility. The reviewer's credibility has been recognized as a critical factor in eWOM [63,64]. Therefore, consumers are more likely to trust a sponsored review written by an experienced reviewer. This may be especially the case when the review is negative. Hence, we expect that the effect of the review type on product attitude, purchase intention, and the activation of the suspicion of ulterior motives depend on the review valence and reviewer credibility (i.e., the presence of a badge). Therefore, we predict the following:

H5c. There is a two-way interaction between sponsorship disclosure and review valence, such that the negative effect of sponsorship disclosure on product attitude and purchase intention is attenuated when the review is negative.

H5d. There is a three-way interaction between sponsorship disclosure, review valence, and reviewer credibility such that the negative effect of sponsorship disclosure on product attitude and purchase intention is attenuated when the review is negative, and even more so when it is written by a credible reviewer (i.e., when a reviewer badge is present).

3.2. Method

3.2.1. Design and sample

An online experiment was conducted using Amazon Mechanical Turk. A 2 (sponsorship disclosure: yes vs. no) × 2 (reviewer badge: yes vs. no) × 2 (valence: positive vs. negative) between-subjects design was used. Participants ($N = 561$, $Mean_{age} = 37.72$; $Min_{age} = 18$, $Max_{age} = 73$, 52% female) were randomly exposed to one of the eight experimental conditions.

3.2.2. Procedure and stimuli

After providing their participation consent, participants were asked to imagine that they were looking for a new daily moisturizer. While browsing through an online store, one item attracted their attention, and they decided to read the reviews of that product, including the review they would see below. Participants were asked to read the review carefully because they would be asked questions about it later. Next, participants were randomly exposed to one of the eight conditions.

In each of the conditions, participants saw a review of the same face cream product of an existing brand, unknown to the participants (95% said that they were unfamiliar with the brand; 1.8% were neither familiar nor unfamiliar with the brand; and 3.2% were somehow or very familiar with the brand). The reviews were adapted from existing reviews investigated in Study 1. They differed with respect to the sponsorship disclosure statement, the presence of a reviewer badge, and the number of stars the reviewer assigned to the product (1 versus 5).
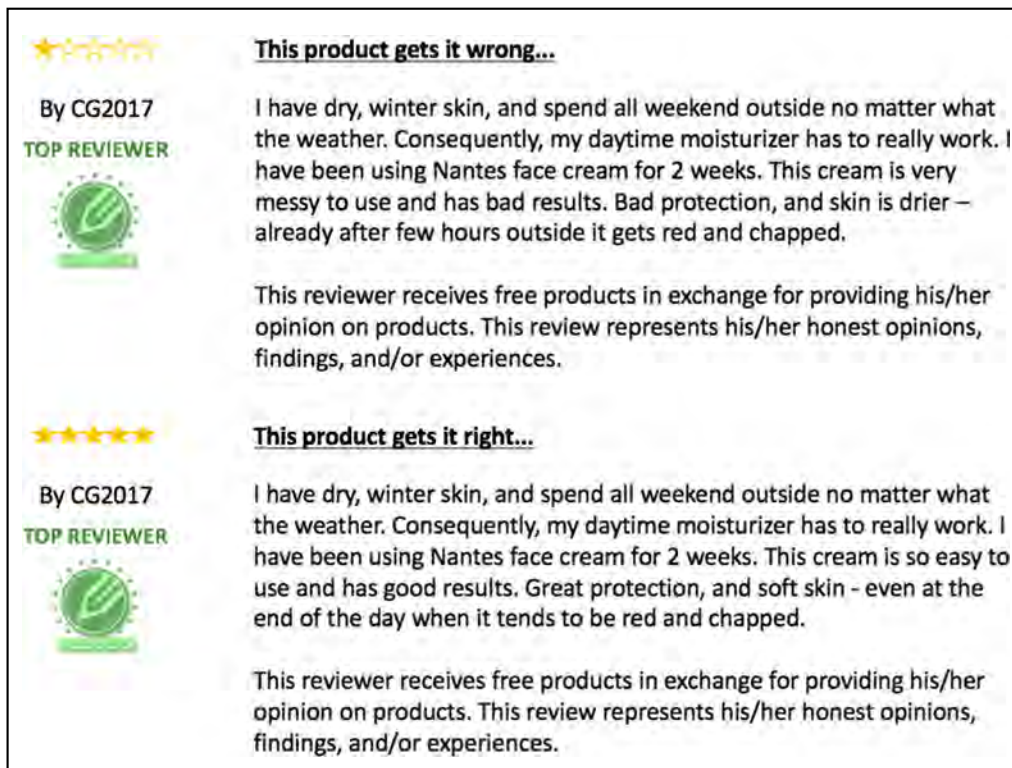
Fig. 1. Examples of stimuli used in Study 2.

However, the text was almost identical. The only difference was the adjectives used to describe the product in the positive versus negative review (see Fig. 1 for examples).

After being exposed to one of the conditions, the participants responded to several seven-point Likert-scale questions measuring attitude toward the product (bad vs. good and positive vs. negative; $\alpha = 0.99$), purchase intention: If you were going to buy a face cream, how likely would you be to try the reviewed product? [65], and Suspicion of Ulterior Motive based on DeCarlo, Laczniak, and Leigh [66]: The reviewer has an ulterior motive; The reviewer's statements are suspicious; The reviewer is motivated to exaggerate the performance of this product ($\alpha = 0.96$). Participants were also asked to respond to questions about their demographics (age, gender, ethnicity, income) and potential control variables such as experience with review platforms.

3.3. Results of study 2

The results show that reading organic reviews indeed leads to more positive product attitudes [$F(1, 553) = 3.81$, $p = .05$, $\eta^2 = 0.01$] and purchase intentions [$F(1, 553) = 10.49$, $p = .001$, $\eta^2 = 0.02$] than reading sponsored reviews, thus supporting our expectations (H5a). Further, the results show that review valence has a strong positive effect on product attitudes [$F(1, 553) = 1416.73$, $p < .001$, $\eta^2 = 0.72$] and purchase intentions [$F(1, 553) = 932.18$, $p < .001$, $\eta^2 = 0.63$]. The direct effect of a reviewer badge is nonsignificant for both attitudes [$F(1, 553) = 0.07$, $p = .798$, $\eta^2 = 0.00$] and intentions [$F(1, 553) = 0.13$, $p = .723$, $\eta^2 = 0.00$].

The effects of the disclosure statement and review valence interact for both product attitude [$F(1, 553) = 16.32$, $p < .001$, $\eta^2 = 0.03$] and intention [$F(1, 553) = 23.04$, $p < .001$, $\eta^2 = 0.04$], thus confirming H5c. However, we find neither a two-way ($p = .248$ for attitude and $p = .823$ for intention) nor a three-way interaction with the reviewer badge ($p = .279$ for attitude and $p = .525$ for intention). Fig. 2 visualizes the interaction effects and presents the means and standard deviations. Since a reviewer badge does not affect any of the relationships, we fail to support H5d.

When looking at the effects on SoUM, we find a direct effect of the disclosure statement [$F(1, 553) = 91.23$, $p < .001$, $\eta^2 = 0.14$], which supports H5b and review valence [$F(1, 553) = 95.84$, $p < .001$, $\eta^2 = 0.15$], as well as an interaction between these two conditions [$F(1, 553) = 51.73$, $p < .001$, $\eta^2 = 0.09$] (see Fig. 2). Again, we do not find any effect of a reviewer badge: the main effect [$F(1, 553) = 0.22$, $p = .642$, $\eta^2 = 0.00$], the interaction with the disclosure statement [$F(1, 553) = 1.57$, $p = .211$, $\eta^2 = 0.00$], and the three-way interaction [$F(1, 553) = 0.58$, $p = .447$, $\eta^2 = 0.00$] are all nonsignificant.

3.4. Summary of study 2

The results of Study 2 suggest that when a review is negative, both sponsored and organic reviews will have a negative impact on attitudes toward the product and purchase intentions; hence, sponsorship disclosure does not change much with our dependent variables. However, when a review is positive, sponsorship disclosure can hurt consumers' positive attitudes toward the product, as well as their purchase intentions. The results also suggest that the effect of a sponsorship disclaimer conditioned on review valence affects SoUM. Positive reviews always score higher on SoUM; this is especially the case if they are sponsored. Surprisingly, we did not find any effect of reviewer credibility (i.e., the presence of a reviewer badge).

4. Discussion and conclusion

The power of both WOM and eWOM has been recognized by marketers who are trying to motivate consumers to spread positive buzz. They often do so by offering incentives such as coupons, free products, discounts, and financial compensation, to name a few. Such sponsored reviews can be misleading for consumers who are not able to discern the difference between sponsored and organic reviews. To protect consumers, governmental regulators established guidelines on how to
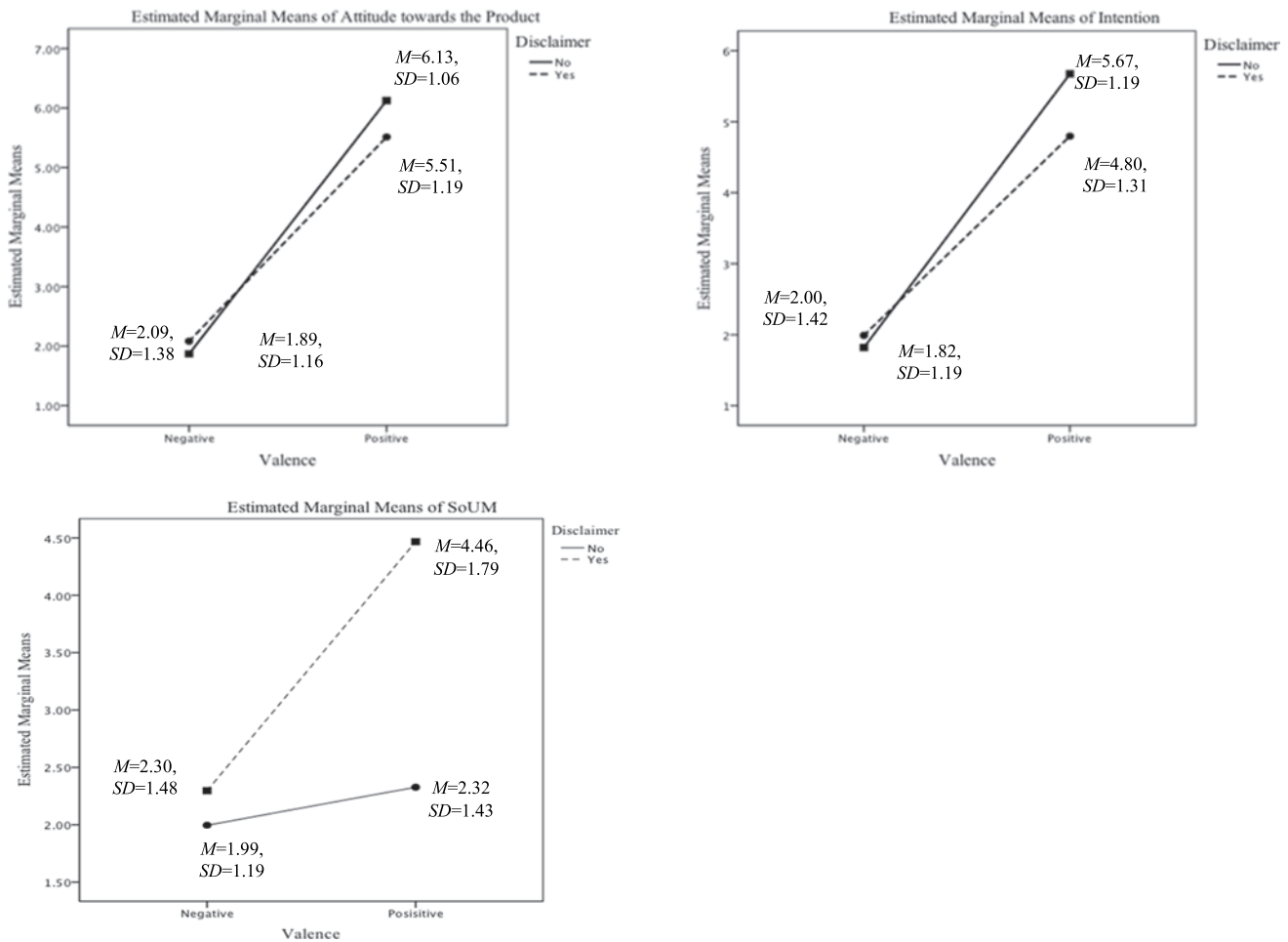
Fig. 2. The effect of sponsorship disclosure x review valence on attitude toward the product, purchase intention, and SoUM.

disclose endorsement information. Marketers believe that such sponsorship disclosures undermine the effectiveness of WOM [67].

However, research on institutionalized efforts to facilitate eWOM is limited, especially in the context of OCRs, and these scarce findings are mixed at best. This is one of the first studies that examined the different characteristics between sponsored and organic OCRs, consumers' perceptions of the reviews' respective helpfulness, and the effects of sponsorship disclosure on consumers. In doing so, we conducted two related studies—Study 1, which employed real-world OCR data from a large online retailer, and Study 2, which conducted a randomized experiment to further investigate the effects of sponsorship disclosure.

4.1. Theoretical implications

The findings from Study 1 suggest that sponsored reviews are more positive, and that sponsored reviewers are more likely to recommend the product to their friends. This is, in fact, in line with the theories on reciprocity [17,68]. According to the norm of reciprocity, humans inherently expect to reciprocate in return for receiving something. Thus, when they are provided with a gift (e.g., free sample), they feel obliged to return the favor. We confirmed this tendency in our data with the finding that (1) sponsored reviews are more positive (sentiment-wise) than organic reviews, and (2) a higher proportion of sponsored reviewers reported affirmatively to the question "Would you recommend this product to a friend?" than did organic reviewers.

We also found sponsored reviews to be more complex and elaborate (i.e., longer) than organic reviews. This finding implies that sponsored reviewers, aware that the sponsored nature of their review will be

publicly displayed, may be influenced by the self-fulfilling prophecy. As a result, they may feel more accountable, and thus elaborate on their post-consumption experience. Moreover, in line with previous research [19], we found that the organic reviews in our dataset followed a J-shaped distribution, as shown in previous research, whereas sponsored reviews maintained a more neutral tone of 3- or 4-star ratings (see Table 4). What this means is that organic reviewers are driven by either the excitement of their post-consumption experience or the anger generated from their disappointment with the product [69], which leads to review extremity at the aggregate level. Sponsored reviewers, on the other hand, are aware that they promised to provide honest opinions (i.e., self-fulfilling prophecy). This awareness can lead sponsored reviewers to go through a more objective evaluative thinking process and to exhibit a more objective stance toward the product.

Finally, we investigated consumers' reactions to sponsored and organic reviews. Building on persuasion knowledge theory [28] and attribution theory [36], we expected that consumers would evaluate sponsored reviews as less helpful than organic reviews. Our findings show that sponsored reviews are indeed perceived as less helpful than organic reviews. This finding is in line with the incentive backlash effect [27], suggesting that sponsorship disclosure activates consumers' persuasion knowledge and critical thinking, which lead them to discount such reviews as unhelpful in forming attitudes and making decisions.

The results of Study 2 further support the proposition that consumers discount sponsored reviews, but also demonstrate a more nuanced effect of sponsorship disclosure. Accordingly, when the sponsorship disclaimer is present, consumers' beliefs are activated in regard

to the reviewer's ulterior motives. This finding is in line with research conducted in other areas of sponsorship built on persuasion knowledge ([59], p. 82). It also supports the discounting principle. When consumers see a sponsorship disclaimer, they do not attribute a positive review to the reviewer's positive experience with the product, but rather to the sponsored nature of the relationship between the reviewer and the company, which leads them to discount the qualities of the product as a cause for the positive review.

Interestingly, the interaction effect between sponsorship disclosure and review valence suggests that when a review is negative, sponsorship disclosure does not matter (i.e., there is no difference in the attitude or intention between organic and sponsored reviews), suggesting that the discounting principle may not be responsible for the results; however, some other process is at play here. One explanation may lie in the weight and diagnosticity of negative information. Consumers elaborate on and trust negative reviews more. If they see that the reviewer received the product for free, they are sure that the person actually used the product and gave an honest opinion about his or her product experience.

4.2. Practical implications

Our study provides interesting implications for companies, but also for governmental regulators and consumers. From the firms' point-of-view, sponsorship disclosure may render the sponsored reviews less persuasive, since they lead consumers to perceive such reviews as "unhelpful." Moreover, they can hurt product sales, given that this effect has been shown to spill over into product evaluation [27]. Marketers may want to reconsider incentivizing practices (which is what Amazon did) or work on formulating disclosures that emphasize the honesty of the reviewer. As previous research by Hwang and Jeong [29] shows, mentioning "the reviewer's honesty" in the disclosure statement can attenuate the negative effects of disclosure on reviewer credibility and product evaluation. From the regulators' perspective, our findings suggest that sponsorship disclosures are working, indicating that consumers are aware that the review was sponsored, and that they become more critical about the review. The interesting point concerning sponsored reviews from the consumers' point-of-view is that, despite the perception that these reviews would be less helpful due to their incentivized nature, they are, in fact, more elaborate and less extreme than organic reviews. This is a paradox of distrust, in that the initial intention of including a disclosure statement, in some cases, can mislead consumers and can dampen their trust. The exception to this paradox is when a sponsored review is negative. As found in Study 2, the effects of exposure to sponsored reviews depend on the review valence. When a sponsored review is positive, consumers will attribute the review's positivity to the sponsored nature of the review (i.e., discounting principle); however, when a sponsored review is negative, consumers perceive both the reviewer and the review as credible.

With the contextual effect of sponsorship disclosure found in our study, companies and regulators must investigate the effects of different types of disclosure and placement within a review. Research on sponsorship disclosures suggests that placing a disclosure before the message increases the credibility of the source and the message itself [6,70,71]; however, placing the disclosure after the message may hurt its credibility [26]. In our data, the disclosure was placed after the message, which may have also upset the readers. They invested their time and effort in reading the review, just to find out that it was sponsored. It is possible that when the sponsored nature of the review is revealed beforehand, consumers will not become upset. However, this tactic may also backfire because such disclosure may activate the reader's persuasion knowledge and critical processing of the review, or the heuristic that the review is biased, leading the reader to stop reading the review.

4.3. Limitations

Although this study provides theoretical and practical insights, it has a number of limitations that should be viewed as starting points for further research. We only examined one particular product type (i.e., skin care products) on a single online retailer, which limits the generalizability of our findings. Future studies should consider different product types – utilitarian vs. hedonic, search vs. experiential, low-involvement vs. high-involvement products – on multiple online review platforms. Also, we did not account for the topics or arguments of the reviews.

Previous research has shown that reviews with different valences may differ with respect to the discussed topics, which influence the helpfulness of the reviews [72]. The argument quality and review valence have also been shown to interact with respect to their effect on helpfulness [73]. Hence, future studies should consider testing the effect of variables derived from a text analysis. Moreover, we included only one type of sponsorship disclosure statement; yet, we know from previous research that the wording and timing of disclosure matter (see our earlier discussion). Hence, future research should investigate different types of disclaimers in the context of online reviews, as has been done for blog posts and branded content (e.g., [26,29,74]). Not only is it important to determine how different types of disclaimers hurt reviewers' credibility, but also how long the effects last, which remains an unanswered question.

We can also ask whether it is the disclosure or the content of the review that leads readers to perceive sponsored reviews as less helpful. One may speculate that because sponsored reviews are externally motivated, they may be of worse quality, and hence are perceived as less helpful. However, as Du Plessis et al. [27] showed, in the absence of disclosure, Amazon-sponsored (i.e., Vine) reviews are perceived as more helpful than organic (i.e., non-Vine) reviews. This finding implies that it is the disclosure, rather than the review features, that is responsible for the review's helpfulness. The next step should be to investigate under which conditions consumers process sponsored reviews more deeply (i.e., comprehend their content).

4.4. Future research

This study also identifies several interesting areas for future research. Further studies should examine the different mechanisms that individuals employ in making decisions regarding the value of reviews, and which drivers and contextual variables affect the particular strategy chosen. As Verlegh et al. [60] argue, inferences regarding the recommendation are dependent on other motivating factors considered, as well as prior knowledge. Future studies should measure the different factors that readers consider when evaluating reviews.

On the other hand, our understanding of the other side of the process – the reviewers – is very limited. Wang et al. [58] found that reviewers who have used the reviewed product beforehand write more helpful reviews when the disclosure is included, compared to those who have not had experience with the product. However, what drives the higher quality of their reviews is still unknown and requires further scrutiny of the reviewing process. One can expect sponsored reviews to be written with less proximity to the experience, which can influence the reviewers' language, suggesting that future studies should investigate the role of psychological distance and construal-level theory [75] in the writing process.

In conclusion, although our study is not without limitations, it provides the first step in understanding the nature of sponsored and organic reviews, their effects, and the mechanisms by which sponsorship disclosure influences attitudes toward a product and purchase intentions.

Acknowledgement

References

[1] The Nielsen Company, Global Trust in Advertising, Retrieved from, 2015. http://www.nielsen.com/content/dam/corporate/us/en/reports-downloads/2015-reports/global-trust-in-advertising-report-sept-2015.pdf.

[2] E. Dichter, How word-of-mouth advertising works, Harvard Business Review 44 (6) (1966) 147–166.

[3] P. Chatterjee, Drivers of new product recommending and referral behaviour on social network sites, International Journal of Advertising 30 (1) (2011) 77–101.

[4] P. Hugstad, J.W. Taylor, G.D. Bruce, The effects of social class and perceived risk on consumer, The Journal of Services Marketing 1 (1) (1987) 47–52.

[5] I. Simonson, Mission (largely) accomplished: what's next for consumer bdt-jdm researchers? Journal of Marketing Behavior 1 (1) (2015) 9–35, https://doi.org/10.1561/107.00000001.

[6] L.J. Abendroth, J.E. Heyman, Honesty is the best policy: the effects of disclosure in word-of-mouth marketing, Journal of Marketing Communications 19 (4) (2013) 245–257, https://doi.org/10.1080/13527266.2011.631567.

[7] M. Petrescu, K. O'Leary, D. Goldring, S. Ben Mrad, Incentivized reviews: promising the moon for a few stars, Journal of Retailing and Consumer Services 41 (2018) 288–295, https://doi.org/10.1016/j.jretconser.2017.04.005.

[8] W. Zhou, W. Duan, An empirical study of how third-party websites influence the feedback mechanism between online word-of-mouth and retail sales, Decision Support Systems 76 (2015) 14–23, https://doi.org/10.1016/j.dss.2015.03.010.

[9] J. Kennett, S. Matthews, What's the buzz? Undercover marketing and the corruption of friendship, Journal of Applied Philosophy 25 (1) (2008) 2–18, https://doi.org/10.1111/j.1468-5930.2008.00391.x.

[10] K.K. Coker, D.S. Smith, S.A. Altobello, Buzzing with disclosure of social shopping rewards, Journal of Research in Interactive Marketing 9 (3) (2015) 170–189, https://doi.org/10.1108/jrim-06-2014-0030.

[11] WOMMA, Word of Mouth Marketing Association Guide to Best Practices for Transparency and Disclosure in Gigital, Social, & Mobile Marketing, Retrieved from, 2013. http://www.womma.org/wp-content/uploads/2015/08/WOMMA-Social-Media-Disclosure-Guidelines-2013.pdf.

[12] R.B. Cialdini, 1st Collins business essentials (Ed.), Influence: The Psychology of Persuasion, Collins, New York: New York, 2007.

[13] J. Breitsohl, M. Khammash, G. Griffiths, E-business complaint management: perceptions and perspectives of online credibility, Journal of Enterprise Information Management 23 (5) (2010) 653–660, https://doi.org/10.1108/17410391011083083.

[14] E.R. Spangenberg, J.L. Giese, An exploratory study of word-of-mouth communication in a hierarchy of effects context, Communication Research Reports 14 (1) (1997) 88–96.

[15] T. Hennig-Thurau, K.P. Gwinner, G. Walsh, D.D. Gremler, Electronic word-of-mouth via consumer-opinion platforms: what motivates consumers to articulate themselves on the internet? Journal of Interactive Marketing 18 (1) (2004) 38–52, https://doi.org/10.1002/dir.10073.

[16] K. Bawa, R. Shoemaker, The effects of free sample promotions on incremental brand sales, Marketing Science 23 (3) (2004) 345–363, https://doi.org/10.1287/mksc.1030.0052.

[17] B.P. Buunk, W.B. Schaufeli, Reciprocity in interpersonal relationships: an evolutionary perspective on its importance for health and well-being, European Review of Social Psychology 10 (1) (1999) 259–291, https://doi.org/10.1080/14792779943000080.

[18] A.W. Gouldner, The norm of reciprocity: a preliminary statement, American Sociological Review 25 (2) (1960) 161–178, https://doi.org/10.2307/2092623.

[19] N. Hu, J. Zhang, P.A. Pavlou, Overcoming the J-shaped distribution of product reviews, Communications of the ACM 52 (10) (2009) 144–147, https://doi.org/10.1145/1562764.1562800.

[20] G. Askalidis, S.J. Kim, E.C. Malthouse, Understanding and overcoming biases in online review systems, Decision Support Systems 97 (2017) 23–30, https://doi.org/10.1016/j.dss.2017.03.002.

[21] V. Liljander, J. Gummerus, M. Söderlund, Young consumers' responses to suspected covert and overt blog marketing, Internet Research 25 (4) (2015) 610–632, https://doi.org/10.1108/IntR-02-2014-0041.

[22] W.J. Carl, The role of disclosure in organized word-of-mouth marketing programs, Journal of Marketing Communications 14 (3) (2008) 225–241, https://doi.org/10.1080/13527260701833839.

[23] M.A. Tuk, P.W.J. Verlegh, A. Smidts, D.H.J. Wigboldus, Interpersonal relationships moderate the effect of faces on person judgments, European Journal of Social Psychology 39 (5) (2009) 757–767, https://doi.org/10.1002/ejsp.576.

[24] J. Colliander, Socially acceptable? Exploring consumer responses to marketing in social media, Ph.D. Stockholm School of Economics, Stockholm, Sweden, 2012.

[25] J. Colliander, S. Erlandsson, The blog and the bountiful: exploring the effects of disguised product placement on blogs that are revealed by a third party, Journal of Marketing Communications 21 (2) (2015) 110–124, https://doi.org/10.1080/13527266.2012.730543.

[26] M.C. Campbell, G.S. Mohr, P.W.J. Verlegh, Can disclosures lead consumers to resist covert persuasion? The important roles of disclosure timing and type of response, Journal of Consumer Psychology 23 (4) (2013) 483–495, https://doi.org/10.1016/j.jcps.2012.10.012.

[27] C. Du Plessis, A.T. Stephen, Y. Bart, D. Goncalves, When in Doubt, Elaborate? How Elaboration on Uncertainty Influences the Persuasiveness of Consumer-generated Product Reviews When Reviewers are Incentivized, Saïd Business School WP, 2016 Retrieved from http://ssrn.com/abstract=2821641.

[28] M. Friestad, P. Wright, The persuasion knowledge model: how people cope with persuasion attempts, Journal of Consumer Research 21 (1) (1994) 1–31, https://doi.org/10.1086/209380.

[29] Y. Hwang, S.-H. Jeong, "This is a sponsored blog post, but all opinions are my own": the effects of sponsorship disclosure on responses to sponsored blog posts, Computers in Human Behavior 62 (2016) 528–535, https://doi.org/10.1016/j.chb.2016.04.026.

[30] S.C. Boerman, E.A. van Reijmersdal, P.C. Neijens, Sponsorship disclosure: effects of duration on persuasion knowledge and brand responses, Journal of Communication 62 (6) (2012) 1047–1064, https://doi.org/10.1111/j.1460-2466.2012.01677.x.

[31] B.W. Wojdynski, N.J. Evans, Going native: effects of disclosure position and language on the recognition and evaluation of online native advertising, Journal of Advertising 45 (2) (2016) 157–168, https://doi.org/10.1080/00913367.2015.1115380.

[32] M.C. Campbell, A. Kirmani, Consumers' use of persuasion knowledge: the effects of accessibility and cognitive capacity on perceptions of an influence agent, Journal of Consumer Research 27 (1) (2000) 69–83, https://doi.org/10.1086/314309.

[33] K.J. Main, D.W. Dahl, P.R. Darke, Deliberative and automatic bases of suspicion: empirical evidence of the sinister attribution error, Journal of Consumer Psychology 17 (1) (2007) 59–69, https://doi.org/10.1207/s15327663jcp1701_9.

[34] H.H. Kelley, Causal Schemata and the Attribution Process, General Learning Press, Morristown, NJ, 1972.

[35] Z.L. Tormala, P. Briñol, R.E. Petty, When credibility attacks: the reverse impact of source credibility on persuasion, Journal of Experimental Social Psychology 42 (5) (2006) 684–691, https://doi.org/10.1016/j.jesp.2005.10.005.

[36] R.E. Petty, P. Briñol, Z.L. Tormala, Thought confidence as a determinant of persuasion: the self-validation hypothesis, Journal of Personality and Social Psychology 82 (5) (2002) 722–741, https://doi.org/10.1037/0022-3514.82.5.722.

[37] V.F. Ordenes, S. Ludwig, K. De Ruyter, D. Grewal, M. Wetzels, Unveiling what is written in the stars: analyzing explicit, implicit, and discourse patterns of sentiment in social media, Journal of Consumer Research 43 (6) (2017) 875–894.

[38] S. Ludwig, K. de Ruyter, M. Friedman, E.C. Brüggen, M. Wetzels, G. Pfann, More than words: the influence of affective content and linguistic style matches in online reviews on conversion rates, Journal of Marketing 77 (1) (2013) 87–103, https://doi.org/10.1509/jm.11.0560.

[39] J.W. Pennebaker, R.J. Booth, R.L. Boyd, M.E. Francis, Linguistic Inquiry and Word Count: LIWC2015, Pennebaker Conglomerates, Austin, TX, 2015.

[40] N.T. Bendle, P. Farris, P.E. Pfeifer, D.J. Reibstein, Marketing Metrics: The Manager's Guide to Measuring Marketing Performance, , Incorporated, 2016.

[41] N. Hu, I. Bose, N.S. Koh, L. Liu, Manipulation of online reviews: an analysis of ratings, readability, and sentiments, Decision Support Systems 52 (3) (2012) 674–684, https://doi.org/10.1016/j.dss.2011.11.002.

[42] T.L. Harris, R.E. Hodges, The Literacy Dictionary: The Vocabulary of Reading and Writing, (1995).

[43] S. Banerjee, A.Y.K. Chua, J.-J. Kim, Don't be deceived: using linguistic analysis to learn how to discern online review authenticity, Journal of the Association for Information Science and Technology 68 (6) (2017) 1525–1538, https://doi.org/10.1002/asi.23784.

[44] A.Y.K. Chua, S. Banerjee, Analyzing review efficacy on Amazon.com: does the rich grow richer? Computers in Human Behavior 75 (2017) 501–509, https://doi.org/10.1016/j.chb.2017.05.047.

[45] R. Gunning, The fog index after twenty years, Journal of Business Communication 6 (2) (1969) 3–13, https://doi.org/10.1177/002194366900600202.

[46] R. Senter, E.A. Smith, Automated Readability Index, (1967).

[47] M. Coleman, T.L. Liau, A computer readability formula designed for machine scoring, Journal of Applied Psychology 60 (2) (1975) 283–284, https://doi.org/10.1037/h0076540.

[48] N. Korfiatis, E. García-Bariocanal, S. Sánchez-Alonso, Evaluating content quality and helpfulness of online product reviews: the interplay of review helpfulness vs. review content, Electronic Commerce Research and Applications 11 (3) (2012) 205–217, https://doi.org/10.1016/j.elerap.2011.10.003.

[49] S. Park, J.L. Nicolau, Asymmetric effects of online consumer reviews, Annals of Tourism Research 50 (2015) 67–83, https://doi.org/10.1016/j.annals.2014.10.007.

[50] S.M. Mudambi, D. Schuff, What Makes a Helpful Review? (2010) (A study of customer reviews on Amazon.com.

[51] L.M. Willemsen, P.C. Neijens, F. Bronner, J.A. de Ridder, 'Highly recommended!' the content characteristics and perceived usefulness of online consumer reviews, Journal of Computer-Mediated Communication 17 (1) (2011) 19–38, https://doi.org/10.1111/j.1083-6101.2011.01551.x.

[52] P.B. Goes, M. Lin, Au Yeung, C.-M., "Popularity effect" in user-generated content: evidence from online product reviews, Information Systems Research 25 (2) (2014) 222–238.

[53] Q. Cao, W. Duan, Q. Gan, Exploring determinants of voting for the "helpfulness" of online user reviews: a text mining approach, Decision Support Systems 50 (2) (2011) 511–521, https://doi.org/10.1016/j.dss.2010.11.009.

[54] S.-M. Kim, P. Pantel, T. Chklovski, M. Pennacchiotti, Automatically assessing

review helpfulness, Paper Presented at the Proceedings of the 2006 Conference on Empirical Methods in Natural Language Processing, Sydney, Australia, 2006.

[55] N.J. Salkind, Encyclopedia of Research Design, (2010).

[56] B. Derrick, D. Toher, P. White, Why Welch's test is type I error robust, The Quantitative Methods in Psychology 12 (1) (2016) 30–38.

[57] S. Brady, M. Lerigo-Jones, An examinination into consumer attitudes towards sponsored online content from social media influencers, Journal of Research Studies in Business and Management (2017) 3.

[58] J. Wang, A. Ghose, P. Ipeirotis, Bonus, disclosure, and choice: what motivates the creation of high-quality paid reviews? Paper Presented at the International Conference on Information Systems (ICIS), 2012.

[59] S.C. Boerman, L.M. Willemsen, E.P. Van Der Aa, "This post is sponsored": effects of sponsorship disclosure on persuasion knowledge and electronic word of mouth in the context of Facebook, Journal of Interactive Marketing 38 (2017) 82–92, https:// doi.org/10.1016/j.intmar.2016.12.002.

[60] P.W.J. Verlegh, G. Ryu, M.A. Tuk, L. Feick, Receiver responses to rewarded referrals: the motive inferences framework, Journal of the Academy of Marketing Science 41 (6) (2013) 669–682, https://doi.org/10.1007/s11747-013-0327-8.

[61] G. Reeder, Mindreading: judgments about intentionality and motives in dispositional inference, Psychological Inquiry 20 (1) (2009) 1–18, https://doi.org/10.1080/10478400802615744.

[62] H. Hong, D. Xu, G.A. Wang, W. Fan, Understanding the determinants of online review helpfulness: a meta-analytic investigation, Decision Support Systems (2017), https://doi.org/10.1016/j.dss.2017.06.007.

[63] S. Banerjee, S. Bhattacharyya, I. Bose, Whose online reviews to trust? Understanding reviewer trustworthiness and its impact on business, Decision Support Systems 96 (2017) 17–26, https://doi.org/10.1016/j.dss.2017.01.006.

[64] Y.-S. Lim, B. Van Der Heide, Evaluating the wisdom of strangers: the perceived credibility of online consumer reviews on yelp, Journal of Computer-Mediated Communication 20 (1) (2015) 67–82, https://doi.org/10.1111/jcc4.12093.

[65] L. Bergkvist, J.R. Rossiter, Tailor-made single-item measures of doubly concrete constructs, International Journal of Advertising 28 (4) (2009) 607–621, https://doi.org/10.2501/S0265048709200783.

[66] T.E. Decarlo, R.N. Laczniak, T.W. Leigh, Selling financial services: the effect of consumer product knowledge and salesperson commission on consumer suspicion and intentions, Journal of the Academy of Marketing Science 41 (4) (2013) 418–435, https://doi.org/10.1007/s11747-012-0319-0.

[67] R.D. Ahuja, T.A. Michels, M.M. Walker, M. Weissbuch, Teen perceptions of disclosure in buzz marketing, Journal of Consumer Marketing 24 (3) (2007) 151–159, https://doi.org/10.1108/07363760710746157.

[68] R.B. Cialdini, Influence: How and Why People Agree to Things, 1st ed., Morrow, New York, 1984.

[69] D.S. Sundaram, K. Mitra, C. Webster, Word-of-mouth communications: a motivational analysis, Advances in Consumer Research 25 (1) (1998) 527–531.

[70] M.R. Forehand, S. Grier, When is honesty the best policy? The effect of stated company intent on consumer skepticism, Journal of Consumer Psychology 13 (3) (2003) 349–356, https://doi.org/10.1207/s15327663jcp1303_15.

[71] E. Nekmat, K.K. Gower, Effects of disclosure and message valence in online word-of-mouth (ewom) communication: implications for integrated marketing communication, International Journal of Integrated Marketing Communications 4 (1) (2012) 85–98.

[72] S.N. Ahmad, M. Laroche, Analyzing electronic word of mouth: a social commerce construct, International Journal of Information Management 37 (3) (2017) 202–213, https://doi.org/10.1016/j.ijinfomgt.2016.08.004.

[73] S.N. Ahmad, Uncovering the paths to helpful reviews using fuzzy-set qualitative comparative analysis, Journal of Marketing Analytics 5 (2) (2017) 47–56, https://doi.org/10.1057/s41270-017-0015-5.

[74] C.T. Carr, R.A. Hayes, The effect of disclosure of third-party influence on an opinion leader's credibility and electronic word of mouth in two-step flow, Journal of Interactive Advertising 14 (1) (2014) 38–50, https://doi.org/10.1080/15252019.2014.909296.

[75] Y. Trope, N. Liberman, Construal-level theory of psychological distance, Psychological Review 117 (2) (2010) 440–463, https://doi.org/10.1037/a0018963.

[76] Z. Liu, S. Park, What makes a useful online review? Implication for travel product websites, Tourism Management 47 (2015) 140–151, https://doi.org/10.1016/j.tourman.2014.09.020.

[77] S. Perez, Amazon Bans Incentized Reviews Tied to Free or Discounted Products, Retrieved from, Oct 3, 2016. https://techcrunch.com/2016/10/03/amazon-bans-incentivized-reviews-tied-to-free-or-discounted-products/.

[78] D.J. Bosman, C. Boshoff, G.-J. van Rooyen, The review credibility of electronic word-of-mouth communication on e-commerce platforms, Management Dynamics 22 (3) (2013) 29–44.

[79] P.M. Herr, F.R. Kardes, J. Kim, Effects of word-of-mouth and product-attribute information on persuasion: an accessibility-diagnosticity perspective, Journal of Consumer Research 17 (4) (1991) 454–462, https://doi.org/10.1086/208570.

Su Jung Kim is an Assistant Professor in the Annenberg School for Communication and Journalism at the University of Southern California. She received her Ph.D. degree in the Media, Technology, and Society program in the School of Communication, and was a post-doctoral research associate in the Spiegel Digital & Database Research Center at Northwestern University. Before joining USC, she was an assistant professor in the Greenlee School of Journalism and Communication at Iowa State University. Her research centers on the use of big data in communication, advertising, and marketing communications. Her research interests include cross-platform media use and its effects, social media and electronic word-of-mouth (e-WOM), and mobile customer engagement. Her current projects examine how online product reviews influence the perceptions and behaviors of consumers.

Ewa Maslowska is an Assistant Professor in the Amsterdam School of Communication Research, University of Amsterdam, where she also earned her PhD degree in persuasive communication program. She completed a post doc in the Medill IMC Spiegel Digital & Database Research Center, Northwestern University. Her research interests center around consumer behavior, advertising and digital consumer environments. She conducts experimental and data-driven research into the dynamics of consumer engagement.

Ali Tamaddoni is a Senior Lecturer (Assistant Professor) in Business Analytics at Deakin Business School. He received his Ph.D. degree from Monash University. His research interests include customer churn management, and social media analytics. Ali's work has been published in Journal of Service Research and Industrial Marketing Management, among others.