



# Fake or credible? Antecedents and consequences of perceived credibility in exaggerated online reviews

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## ABSTRACT

This research examined several antecedents (consumers' brand identification and skepticism) and consequences (brand reputation, purchase intentions and trust of the review site) of perceived credibility of exaggerated positive online consumer reviews. Results from a sample of 1,201 consumers showed that these reviews can be perceived as authentic (for consumers with strong connections with the brand) but many consumers will be more skeptical. Consumers' perceptions of the reviews' credibility affected their thoughts about the brand's reputation, their purchase intentions, and their perceptions about whether the review site itself is trustworthy. This research also evidenced that these relationships are especially challenging to navigate for search versus experience products. Finally, mediation paths demonstrated the processes of how consumer characteristics and their beliefs about the credibility of the online reviews affect the brand reputation, purchase intentions, and trust toward the review site. Implications for theory and practice are discussed.

## 1. Introduction

*"I can't say enough about how wonderful this phone is. It feels like I am holding the future in my hands!" (★★★★★)*

*"It's the hotel's super friendly, extremely efficient staff who make me want to return again and again. Thank you for making our stay so special!" (★★★★★)*

A five-star review—is it real or too good to be true? A cybersecurity team recently uncovered a database leak exposing >200,000 consumers involved in a scam where Amazon vendors asked for reviews in exchange for free products (SafetyDetectives, 2021).<sup>1</sup> Exaggerated positive online consumer reviews seem to be on the rise (BBC, 2021; Moon et al., 2019; Moon et al., 2021). Sites such as TripAdvisor, Yelp, Expedia, Orbitz and Priceline all report deceptive/fake<sup>2</sup> reviews as a growing problem (Zhang et al., 2016).

Exaggerated positive consumer reviews can grow unabated in part because the Federal Trade Commission offers no clear regulation regarding reward practices (money, gifts, free products) when soliciting positive consumer opinions (FTC, 2017). Companies are likely to

continue in this exchange because good reviews translate into higher sales and profits (Garnefeld et al., 2020). Lacking FTC policy leaves consumers on their own and while some consumers may be skeptical (Agnihotri and Bhattacharya, 2016), researchers have found that consumers are not particularly good at detecting fake reviews (Plotkina et al., 2020).

The confluence of these factors interests scholars seeking to understand the credibility and trustworthiness of potentially deceptive reviews (e.g., Baker and Kim, 2019; Harris et al., 2016; Karabas et al., 2020; Kapoor et al., 2021; Moon et al., 2019; Zhuang et al., 2018). In particular, when consumers read online reviews that seem over-the-top and exaggerated, are those reviews believable, or will skepticism arise in the consumers' cognitive processing to undermine the review's persuasiveness (e.g., per Friestad and Wright, 1994)?

In this article, we examine relationships among brand constructs and the confluence of consumers' skepticism and the nature of the online reviews to determine their impact on perceptions of brands' reputations, consumers' likelihood to purchase, and consumers' evaluation of the online review sites themselves. We examine several antecedents (consumers' brand identification and skepticism) and consequences (brand

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<sup>1</sup> <https://multichannelmerchant.com/ecommerce/fake-reviews-and-brushing-on-amazon>. Accessed 06/16/2022.

<sup>2</sup> The terms fake reviews and deceptive reviews are used interchangeably in this article.

reputation, purchase intentions and trust of the review site) of credibility of exaggerated positive online consumer reviews, from the perspective of the consumer reading the review.<sup>3</sup> The structure of the model allows us to test several mediated relationships in a way that will further an understanding of consumers and marketing with respect to exaggerated online reviews. Furthermore, we investigate the extent to which these effects are moderated when consumers are processing and evaluating information about search versus experience products. Our theoretical framework represents a moderated mediation model which explicitly differentiates direct and indirect effects on a broad set of consumer responses.

In the next sections, we provide an overview of the literature, and introduce our theoretical framework and hypotheses. We then describe our methodology and present our results from data from 1,201 consumers. Finally, implications for theory and management are discussed.

## 2. Literature review and theoretical foundations

### 2.1. Exaggerated online consumer reviews

Online consumer reviews (OCRs) are an informal type of commercial communication in which information about products, services, or firms are created by consumers, instead of the firm, and shared through different online platforms. It is implied that: (1) the review is based on a consumer's real experience with the product (Anderson and Simester, 2014; Hu et al., 2012), and (2) consumers do not make any profit from posting such a review. Within this consumer perspective, scholars have begun to study extreme or exaggerated OCRs (Baker and Kim, 2019; Harris et al., 2016; Kapoor et al., 2021). Exaggerated OCRs are those that overstate and misrepresent consumers' product experiences (Kapoor et al., 2021), and consequently constitute a type of fake review (Agnihotri and Bhattacharya, 2016; Baker and Kim, 2019; Harris et al., 2016; Moon et al., 2019).

### 2.2. Perceived credibility of online consumer reviews

Irrespective of the type of deception, or even if the review is true and exaggeratedly positive, our research focuses on consumers' perceptions about the credibility of such reviews. Scholars have shown the effects on perceived review credibility of: (1) review-based characteristics (e.g., accuracy, timeliness, consistency, quantity of reviews, rating, valence, cf., Thomas et al., 2019), (2) reviewer/source-related features (e.g., expertise, reputation, Cheng and Ho, 2015), and (3) channel/platform features (third parties or seller-owned channel, platform reputation, Hsiao et al., 2010). However, as evidenced by Zheng (2021), few studies have analyzed how variables related to the consumer determine perceptions of review credibility (Aye et al., 2013; Chakraborty, 2019; Chiou et al., 2018; Fan et al., 2013), or their impact on purchase intentions (Baker and Kim, 2019; Chakraborty, 2019; Jiménez and Mendoza, 2013; Pan and Chiou, 2011; Reimer and Benkenstein, 2016).

### 2.3. Consumers' processing of OCRs for search and experience products

Given the great volume of OCRs, individuals can experience information overload and find it difficult to engage in a systematic processing of the information (Srivastava and Kalro, 2019). Furthermore, most of OCRs are from strangers, thus consumers are unable to assess the trustworthiness of a review writer, or the credibility of their information (Xu, 2014). As a result, consumers tend to consider only a selection of reviews, making inferences to fill in the missing information, and processing them using different heuristic cues (Baek et al., 2012; Hu et al., 2014; Pyle et al., 2021).

<sup>3</sup> For the sake of brevity, we refer to "perceived credibility of exaggerated online consumer reviews" simply as "review credibility" or "credibility."

The *Elaboration Likelihood Model (ELM)* of persuasion (Petty and Cacioppo, 1986) has been widely adopted by marketing scholars to explain how the same information (such as an ad or exaggerated review) can be perceived differently by consumers (Zheng, 2021). The theory posits two modes of information processing when exposed to persuasive information: one is systematic, central processing, based on a deep analysis of the information; the other is peripheral processing based on heuristics. In assessing reviews, central, systematic processing would have consumers focus on the quality of the argument (e.g., relevance of information, objectivity, breadth and depth of analysis). In contrast, consumers processing information using heuristics might pay greater attention to overall ratings or number of reviews (Thomas et al., 2019). We draw on the ELM, and its strong theoretical and empirical support in the literature for studying persuasive communications in consumer contexts (Angst and Agarwal, 2009; Yang et al., 2006) as the main theoretical foundation of our conceptual model.

Our research will also introduce factors like the extent to which a consumer identifies with a brand and their general skepticism about reviews. These factors are significant theoretical extensions because brand perceptions are one of the most important heuristics for consumer decision making (Fournier, 1998), and skepticism of reviews serves as a heuristic to judge review credibility (Baker and Kim, 2019; Karabas et al., 2020).

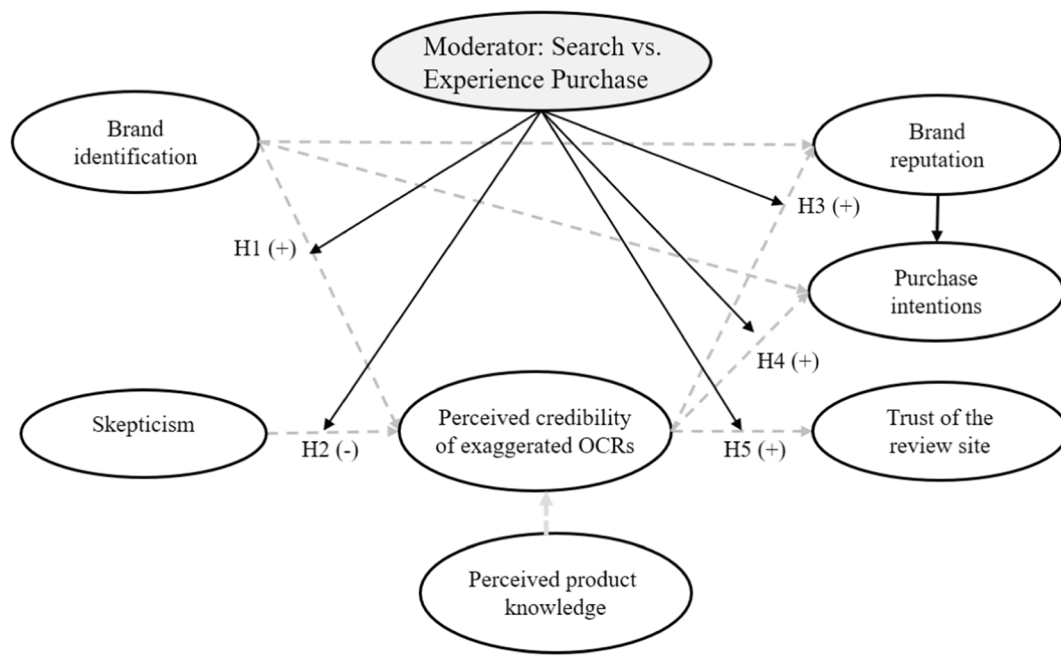
The ultimate goal of a persuasive message, as recognized by ELM and marketers, is to lead to an attitudinal and/or behavioral change. In our framework, we analyze the influence of review credibility on consumer responses directed to two different objects: first, regarding the brand, we evaluate the extent to which review credibility influences brand reputation and purchase intentions. Second, we analyze effects of review credibility on consumers' feelings of trust of the review site itself.

When processing online reviews, there is likely to be an interaction between product type (search vs experience) and extreme reviews, because there are different information needs. In particular, central cues tend to be more important for search goods and peripheral cues tend to be used more for experience purchases (Baek et al., 2012). Exaggerations in online reviews are more likely to be discounted by consumers for experience products because readers expect more variability in other consumers' opinions and experiences (Jiménez and Mendoza, 2013; Lee and Choeh, 2020; Mudambi and Schuff, 2010). For instance, two consumers going to the same restaurant, the same day and time, can still report different encounters ("I loved the place, staff was very friendly" vs "You could see their fake smiles, it was ridiculous"). In contrast, search products have more objective attributes that can be evaluated prior to purchase, so consumers' intention to exaggerate is lower (Kapoor et al., 2021), and extreme ratings may be seen as more credible or useful (Mudambi and Schuff, 2010).

## 3. Hypotheses development

Our conceptual model and hypotheses are depicted in Fig. 1. We expect brand identification (H1) and skepticism (H2) to influence review credibility, which in turn will enhance brand reputation (H3), purchase intentions (H4), and trust of the review site (H5). Several of these effects have been established in the literature, and we will provide references and refer to them as replication hypotheses. Our research contributions lay more in extending the theory, first in how the constructs are connected in a more complete model that is relevant to the research context of exaggerated online reviews (per Fig. 1), including the indirect mediated links, and the moderating effects of the search-experience qualities of products. Finally, building on these mediations and moderations together simultaneously, our conceptual model also includes moderated mediated effects of brand identification and skepticism on the outcome variables through review credibility (H6 to H8). (See Fig. 1).

Our research contributes to the literature in shedding light on several issues. First, previous research has mainly focused on the review or the



**Fig. 1.** Perceived credibility in exaggerated online consumer reviews: conceptual framework. Notes: Model paths are moderated by product type as explained in the paper. Links from brand identification to reputation and purchase intentions are consistent with the literature and serve as statistical and theoretical controls in this model. Indirect hypotheses (H6-H8) follow: H6: Brand identification → credibility → brand reputation and purchase intentions (and stronger for search versus experience products). H7: Skepticism → credibility → brand reputation, purchase intentions, and trust of the review site (and stronger for search than experience products). H8: Credibility → brand reputation → purchase intentions (stronger for search than experience products).

reviewer, which is obviously important, but our model brings in the consumer reading those reviews (through antecedents of their brand identification and skepticism). We will show that differences in consumers' characteristics can lead to different interpretations and responses. Second, we include a broader selection of responses because we wish to understand the impact of review credibility on both brand- or product-related variables (brand reputation, purchase intentions) and on the review website itself (trust of the site). Third, we provide a more differentiated perspective on review credibility by testing a more complex framework of moderated mediation model which simultaneously considers the antecedents and consequences as well as the moderating role of product type (search vs experience). To the best of our knowledge, this is the first time in the literature that this type of more inclusive moderated mediation model has been conducted in the context of online review credibility. Finally, our model is focused on exaggerated reviews, which have "been noticeably overlooked" (Kapoor et al., 2021, p.3). Next, we develop the hypotheses depicted in Fig. 1, first presenting the reasoning for the direct links and then the theorizing for the moderating effects attributable to search versus experience qualities.

### 3.1. Direct and moderated hypotheses

Consumer-brand identification refers to the psychological state of consumers feeling a connection to the brand (Lam et al., 2013, p. 129). Consumers who identify with specific brands work instinctively to the benefit of the brand, such as purchasing and generating positive word of mouth (Kuenzel and Halliday, 2008). Thus, we expect brand identification to increase consumers' perceptions that exaggerated positive OCRs are credible.

Furthermore, we expect that the positive influence of consumers' self-brand connections on perceived credibility in extreme OCRs will be stronger for products high in search qualities. For these products, consumers can more easily identify clear brand attributes (e.g., a company that takes pride in design, cf., Aaker, 1997) into their self-concepts and thus perceive extremely positive reviews as more credible, compared to experience goods where features are likely to be perceived with greater

heterogeneity (Blankson and Kalafatis, 1999). Search qualities, by definition, are more readily seen and understood prior to purchase, and by comparison, consumers put more effort into information gathering for purchasing experience products (e.g., more time spent on web pages, etc., Huang, Lurie, and Mitra, 2009). Thus, when reading extremely positive reviews of search products, confirmation bias will likely play a larger role than for experience products, with consumers processing whether the reviews match their preexisting beliefs, despite the exaggeration (Moorthy et al., 1997). While brand identification should enhance review credibility (e.g., Lam et al., 2013), our theorizing extends the relationship to also include the search versus experience moderator. Stated formally:

H1: Brand identification will enhance review credibility, especially for search products compared with experience products.

Skepticism toward online reviews reflects consumers' tendency to distrust any review (Reimer and Benkenstein, 2016; Riquelme and Román, 2014). This skepticism is related to consumer persuasion knowledge which is used to interpret, evaluate, and respond to persuasive communications (Friestad and Wright, 1994). While online reviews are typically a non-paid form of communication, the increased prevalence of questionable practices (e.g., offering rewards in exchange for positive reviews) is leading to the emergence of persuasion knowledge and skepticism in this realm (Karabas et al., 2020). Friestad and Wright (1994) theorize that consumers differ in the extent to which they are aware of persuasion attempts and the consumers' subsequent skepticism of those persuasion attempts. They define an attempt at persuasion by an agent (e.g., a company) as a "strategic behavior in presenting information designed to influence someone's beliefs, attitudes, decisions, or actions" (Friestad and Wright, 1994, p.2). Highly skeptical consumers begin to reject the message early on, not believing claims about products in ads or online reviews and do not cognitively process any further information, such as the argument quality (Obermiller and Spangenberg, 1998). Instead, highly skeptical consumers resort to heuristics (Bae, 2020; Moorman, 1996; Obermiller et al., 2005), such as counting a review's number of stars or average, rather than processing

argument quality to form attitudes (Sher and Lee, 2009). Accordingly, we expect skepticism to reduce review credibility.

Research also shows that qualities of the communications can trigger skepticism (Friestad and Wright, 1994; Hardesty et al., 2007; Isaac and Grayson, 2017; Kirmani and Zhu, 2007), including the vigorousness with which the message is proclaimed (Boerman et al. 2012; Shu and Carlson, 2014). In our research context, when consumers read non-exaggerated reviews (e.g., “The hotel staff was friendly”), the content will be processed as simply descriptive, thus not triggering persuasion knowledge or attempts to counter-argue or dismiss the review. By comparison, any over-the-top, exaggerated reviews (e.g., “The hotel was the most beautiful and the staff was perfect, the best hotel we’ve ever stayed in!”) will be cognitively processed as clearer attempts to persuade the consumer to buy the product. Hence, for exaggerated reviews, persuasion knowledge is more likely to be activated and marketers would have concerns that their messaging would be disregarded and dismissed.

In addition, we expect a stronger effect of skepticism for search products than for experience products. Extreme opinions might be perceived as less credible or useful for experience products, due to their more subjective nature. For instance, a consumer who reads an exaggeratedly positive opinion about a hotel may have trouble finding similar opinions in other reviews, because the hotel experience will differ so much across hotel guests, depending on their interactions with different employees and the services requested at the hotel (Jiménez and Mendoza, 2013). This subjectivity can provide some margin of credibility for an exaggerated opinion about an experience product (Lee and Choeh, 2020), which would lessen a negative reaction from a skeptical consumer. Whereas, for search products, opinions are primarily based on the evaluation of tangible or objectively evaluable attributes, and without the margin of possible subjectivity, we expect that positive exaggerations in search product reviews will trigger stronger negative reactions of skeptical consumers (Ford et al., 1990). Accordingly, we propose the following:

H2: Skepticism will reduce review credibility, and this effect will be *stronger* for search products than for experience products.

Next, we turn to the effects of review credibility on brand reputation (H3) which refers to the extent to which consumers perceive the brand as reputable and trustworthy (Fournier, 1998). Brand reputations are built from cumulated perceptions and images that individuals form of the brand and the company based on their performance and marketing communications. While the notion of brand reputation is well-established in advertising, the influence of OCRs on brand reputation has not been studied previously. Given that advertising and online reviews are both sources of information for consumers, marketers may expect credibility perceptions to have a similarly positive effect on brand reputation. Information from online reviews may contribute to a cognitive process in which an individual’s trust in the review is transferred to a related target (the brand), as it occurs in advertising (Darke et al., 2010). Perceiving an online review as deceptive may raise questions in the mind of the consumer reading the review, to wonder about the extent to which that observation may be generalized to more reviews posted on that review site, hence may heighten distrust of the source of the review.

In addition, search goods require less trust per se, given their more easily verifiable attributes, thus the impact of this trust transference may be stronger for search goods than experience purchases. Given the observed positive relationship between a consumer’s attitude toward the product and his/her perceptions about its brand reputation (Bhattacharya and Sen, 2003), it is reasonable to expect a similar pattern in the relationship between review credibility and brand reputation. Credibility is often stronger for search attributes than experience

attributes (Klein, 1998) thus we predict the moderated effect on the impact of skepticism on brand reputation. Thus, we anticipate per the literature (e.g., Darke et al., 2010) that enhanced credibility would contribute positively to brand reputation, and our model is extending that theorizing by incorporating and testing the possible effect of the search versus experience moderator (and mediated links described shortly). Accordingly, we propose:

H3: Review credibility will strengthen perceptions of brand reputation, and this effect will be *stronger* for search products than for experience products.

Evidence shows that credible online reviews positively influence consumers’ intentions to follow the recommendation (Filiari et al., 2015; Lee and Hong 2019). In contrast, when consumers perceive exaggerated online reviews as deceptive/fake, then the opposite effect occurs: deception decreases purchase intentions (Karabas et al., 2020). Basically, if consumers read positive reviews and the reviews seem believable, it enhances attitudes and behavioral intentions toward purchasing.

Furthermore, the effect of credibility on purchase intentions is likely to be stronger for search goods because deception may be somewhat easier to judge—if a reader gets suspicious of a review about a search product, they may become particularly annoyed and reject any suggestion to help the brand by purchasing it. Consumers who are considering whether to purchase a search good may experience some risk and uncertainty, albeit not as much as when purchasing an experience good (cf., Weathers, Sharma, and Wood, 2007), but that risk should be reduced in the presence of believable positive online reviews, in turn implying that credible reviews would have an even stronger effect in increasing purchase likelihood for search goods. Thus, we draw from the literature an expectation that credibility will enhance purchase intentions (e.g., Román et al., 2019), and we test and verify that link. In addition, we also extend and build the theorizing to also examine the possible effect of the search versus experience moderator. Accordingly, we predict and test:

H4: Review credibility will positively influence consumers’ purchase intentions, and this effect will be *stronger* for search products than for experience products.

In our research, we are also interested in the effects on trust of the review site itself—that is, a consumer’s willingness to rely on the information provided in the site in the future. For example, in the context of online reviews, findings from Baker and Kim (2019) show that several characteristics of the online review that are closely related to the credibility of the review (e.g., language complexity, emotional expression) influence trust in the review site. Similarly, extant research has shown that perceived message credibility is a precursor of users/consumers’ trust in the website/online retailer (e.g., Ginder and Byun, 2022; Lowry et al., 2014). Based on the theorizing regarding the transfer of trust, our framework also considers how perceptions about the credibility of reviews will transfer to the platform in which they are published. Filiari et al. (2015) showed a trust transfer between reviews and the website, in that consumers’ trust in the review site was positively transferred to trust in the reviews published there. To complement that research, our inquiry examines the opposite causal direction—if consumers trust reviews, does that generalize to their trusting the website? We believe this effect may hold, as it has been found that consumers’ perceptions of reviewers’ credibility influence their trust of the review site (Filiari et al., 2015; Lee and Hong, 2019). It is plausible to expect that if consumers perceive the review as credible, they are more likely to believe that the review site itself is also trustworthy, for example, perhaps in having effective mechanisms to avoid spammers posting deceptive reviews.

For our research, we wish to extend these studies, which have focused on the perceived credibility of the reviewer, to examine the consumer-reader's perception of review credibility. We expect that this trust/distrust transfer between the review and the website will also occur. In the OCRs context, information is shared among individuals who have, in most cases, no prior relationship. Within this context, there is no apparent cue that the consumer can use to develop a strong versus weak trust distinction: in most cases, the only source from which readers can draw inferences about trustworthiness is the review itself (Purnawirawan et al., 2015) and research indicates consumers assess the extent to which they trust online shopping, both for the particular purchase as well as for the overall system of the website or provider (e.g., Grabner-Krauter, 2002). Accordingly, this perceived credibility is proposed to also transfer to the review site, which is the source that allowed the reviews to be posted.

We also predict that this relationship would be stronger for search products because a trusted review will seem more factual. As a result, there is likely to be a presumption generalizing the trustworthiness to the site, whereas experience purchases, with their inherent heterogeneity of consumption and reviews, can seem less objective and more opinionated, thus should not affect the trust relationship as strongly (Weathers et al., 2015). Scholars have examined the extent to which online trust extends beyond the single purchase to the online review website itself (e.g., Lee, Kim, and Chan-Olmsted, 2010), including reasoning that the extrapolated trust to the review site will vary as a function of the product characteristics, namely search versus experience attributes (Hong and Pavlou, 2014). Thus, we predict per the literature that credibility of reviews will enhance a consumer's willingness to trust the review site itself (e.g., Baker and Kim, 2019; Purnawirawan et al., 2015), and our theorizing goes a step further in testing the search versus experience moderator. Stated formally:

H5: Review credibility will positively influence consumers' trust of the review site, and this effect will be *stronger* for search products than for experience products.

### 3.2. Statistical and theoretical controls

Our research model also includes relationships among brand-related variables—brand identification, brand reputation and purchase intentions. These linkages are supported in the literature (Bhattacharya and Sen, 2003; Veloutsou and Moutinho, 2009), but are not our primary focus. In addition, higher levels of consumers' product knowledge have been shown to be negatively related to review credibility (Chiou et al., 2018). For our purposes, these relationships are included as statistical and theoretical controls; the model would be less realistic—theoretically or managerially—without them.

### 3.3. Indirect moderated hypotheses

Next, we derive hypotheses H6-H8 which involve moderating mediation effects. We have established theoretical predictions for direct and moderated effects, and we further believe that several of these effects have tractable processes, and we wish to test those potential mediators. We begin with the indirect effect of brand identification on brand reputation and purchase intentions through credibility (at the center of Fig. 1). In H1 we stated our prediction that brand identification would increase review credibility. These credibility perceptions were hypothesized to positively influence consumers' perceived brand reputation and purchase intentions (H3 and H4). Thus, together, brand identification should enhance review credibility, which in turn should enhance brand reputation and purchase intentions. For example, if a consumer reads exaggerated positive reviews about a product, and they have strong positive prior beliefs about the product given their brand identification, then these opinions are consistent and should enhance further downstream attitudes, like purchase intentions. In short, we

anticipate that perceived credibility will mediate the positive influence of brand identification on consumers' perceived brand reputation and purchase intentions. Given that the previous hypotheses had also posited a moderating influence of product type, we will test for (and expect) these indirect positive effects of brand identification on brand outcomes to also be stronger for search products than for experience ones. Stated formally:

H6: Brand identification will have an indirect and positive influence on (a) brand reputation and (b) purchase intentions, through review credibility, and these effects will be *stronger* for search products than for experience products.

From a theoretical perspective, indirect effects of consumer skepticism on brand beliefs and attitudes have been explained in the context of advertising (Obermiller and Spangenberg, 1998). Specifically, consumer skepticism first influences responses to advertising appeals in determining how the consumer processes the ad information, and then this information processing leads to specific brand beliefs. Skepticism influences that first step, for example, consumers would be less inclined to believe ad claims, and more likely to refute them. Analogously, consumers should process exaggerated online reviews as another piece of persuasive information, not embrace it but reject it, weakening subsequent brand-related responses and intentions. Accordingly, we expect review credibility to mediate the influence of skepticism on brand outcomes as well as trust of the review site. In addition, if each of the component links are moderated by product type (as for previous hypotheses), we anticipate that these mediation effects will also be moderated by product type. Specifically:

H7: Skepticism will have an indirect influence on (a) brand reputation, (b) purchase intentions, and (c) trust of the review site, through review credibility, and these effects will be *stronger* for search products than for experience products.

Finally, our framework includes an indirect influence of review credibility on purchase intentions through consumers' perceptions of brand reputation. The indirect relationship derives from H3 and the literature-established relationships regarding brand reputation enhancing purchase intentions (per our model controls), and again positing both relationships as moderated by product type. Stated formally:

H8: Review credibility will have an indirect influence on purchase intentions through brand reputation, and this effect will be *stronger* for search than experience products.

## 4. Method

### 4.1. Sample profile

Data were collected using an online survey from an independent market research firm's online panel.<sup>4</sup> The final sample consisted of 1,201 participants<sup>5</sup> (601 evaluating reviews for the search product and 600 for the experience product) were recruited. Participants were selected to be representative of the population in terms of age and

<sup>4</sup> Data were obtained from a Netquest panel. Netquest is a tech-driven company built on a robust and engaged panel and a strict quality standard (ISO 26,362 and ISO 20252). Netquest is a member of ESOMAR, and thus is required to comply with the General Data Protection (GDPR) when processing personal data in the context of its services and operations.

<sup>5</sup> Fifteen panelists failed in their responses to the attention-check questions and therefore did not complete the whole survey and were excluded from the study. The final sample size (N=1,201) exceeds by a large margin the commonly accepted rule of having at least 10 observations per indicator/item to conduct structural equation model analysis (Kline, 2011).

**Table 1**  
Construct Measurement Summary: Results of Convergent Validity Tests.

Constructs and Items <sup>a</sup> (source)	Search product sample (n = 601) Std. loading (t-value)	Experience product sample (n = 600) Std. loading (t-value)
Brand identification (Stokburger-Sauer et al., 2012)		
I feel a strong sense of belonging to this brand	0.83 (22.59)	0.84 (19.80)
This brand has a great deal of personal meaning for me	0.88 (20.13)	0.81 (15.61)
I identify strongly with this brand	0.93 (26.24)	0.90 (21.01)
Skepticism (Reimer and Benkenstein, 2016)		
I am basically doubtful about online reviews	0.73 (14.56)	0.65 (12.28)
Online reviews are often questionable	0.66 (12.77)	0.70 (13.34)
I am generally skeptical about online reviews	0.77 (15.43)	0.72 (13.47)
Review credibility <sup>b</sup> (Reimer and Benkenstein, 2016; Xu, 2014), <i>I consider the online review to be...</i>		
Fake/Real	0.87 (26.78)	0.89 (28.96)
Not credible/Credible	0.94 (36.14)	0.94 (37.17)
Untrustworthy/Trustworthy	0.93 (31.95)	0.91 (31.71)
Deceptive/Honest	0.87 (27.55)	0.89 (28.50)
Brand reputation (Veloutsou and Moutinho, 2009), <i>After reading this online review I would say that...</i>		
This brand is reputable	0.81 (19.30)	0.71 (12.83)
This brand is trustworthy	0.89 (24.40)	0.92 (21.97)
This brand makes honest claims	0.91 (24.52)	0.90 (19.78)
Purchase intentions (Reimer and Benkenstein, 2016), <i>After reading this online review...</i>		
I would consider purchasing a BQ phone/staying at IBIS hotels in the future	0.92 (25.86)	0.70 (11.75)
It is probable that I would buy a BQ phone/stay at IBIS hotels	0.86 (24.93)	0.84 (19.85)
I would give BQ phones/IBIS hotels a try	0.87 (23.47)	0.79 (16.58)
Trust of the review site (Dimitriadis and Kyrezis, 2010), <i>After reading this online review...</i>		
I feel that I could rely on the review site	0.93 (28.29)	0.90 (24.71)
I feel that I could trust the review site	0.96 (31.24)	0.92 (25.57)
I feel that I could count on the review site	0.89 (24.01)	0.93 (27.03)

<sup>a</sup> All items, except those used for review credibility, were measured on seven-point Likert-type scales (1 = “strongly disagree” to 7 = “strongly agree”).

<sup>b</sup> Items were measured with a seven-point semantic differential scale.

gender. Two screening questions were used to recruit subjects (age > 18 years, knowledge about the products of the brand<sup>6</sup> shown in the review scenario). The sample was comprised of 49.9 % females, 69 % of the sample was between the ages of 25 and 54, and 55 % had a college degree (with no significant differences between samples).

#### 4.2. Experimental stimuli and procedures

The survey questionnaire used a scenario-based approach which has been extensively applied in related research, as it has shown to deliver realistic measures of respondent’s perceptions, attitudes and intentions (e.g., Baker and Kim, 2019; Kapoor et al., 2021; Riquelme et al., 2016; Riquelme and Román, 2021). Qualitative (with 10 consumers and 4 academics familiar with the research topic) and quantitative (with a convenience sample of 99 individuals) pretests of the questionnaire were conducted. Results provided support for the clarity and comprehension of the scale items as well as initial pretesting to establish that the reviews were perceived as exaggerated (which we confirm in the data, next). Table 1 reports all measures of the study.

The questionnaire was structured in four different sections. First, respondents were asked for their perceived level of knowledge of the products (cellphones/hotels) of the brands shown in the scenarios through an 11-point scale which ranged from (0) “I don’t know anything about the products of this brand” to (10) “I know a lot about the products of this brand.” This measurement captures what consumers believe they know about the products (Lee et al., 1999). Participants were also asked to report on a 3-item 7-point Likert scale (1 = “strongly disagree” to 7 = “strongly agree”) about their brand identification (Stokburger-Sauer et al., 2012) and skepticism (Reimer and Benkenstein, 2016). Second, subjects were then exposed to a hypothetical scenario (shown in

Appendix 1) in which they were asked to imagine a situation where they were going to: (1) purchase a new cellphone (search product) or (2) book a hotel room for a weekend (experience product). Subjects were asked to read the scenario carefully. Cellphones represent a typical example of a product dominated by search attributes while hotels represent a purchase transaction dominated by experience attributes (Jiménez and Mendoza, 2013). As shown in the Appendices, reviews were the same in both product categories.

In both scenarios, the website (E-retailer website and online booking travel website) showed the overall rating for the cellphone/hotel and the three most positive reviews. Both scenarios used existing real brands and prices to improve their authenticity and potential external validity. Respondents were randomly exposed to either the cellphone scenario or the hotel scenario in a between-subjects design. Scenarios displayed a simulated look-alike online review site which was independent from the brand. Following the procedures from prior research (Baker and Kim, 2019; Jiménez and Mendoza, 2013), exaggeration in these online reviews were constructed using both high ratings and textual informational content. First, each manipulated review showed an exaggerated positive rating as compared with the average global rating for the cellphone/hotel: the average was presented as acceptable (6.7 of 10), while the reviews that subjects were evaluating showed ratings of 9.7, 9.9 and 10. Additionally, the informational content of the reviews was exaggerated by providing only positive information using highly emotional words, phrases, capitalized letters and exclamation marks (e.g., *Everything about this phone is AWESOME! This hotel is AMAZING!*). Product descriptions were intentionally vague so as not to provide additional signals of quality. All reviews declared “nothing” in the negative comments section.

Third, after reading the scenario carefully, respondents were asked to rate the credibility of the online review through a 7-point semantic differential 4-item scale adapted from Reimer and Benkenstein (2016) and Xu (2014) (e.g., “I consider the online review to be fake/real”). Then, participants answered questions on a 7-point Likert scale related to

<sup>6</sup> Respondents needed to be aware of the existence of the brand shown in the scenario.

brand reputation (Veloutsou and Moutinho, 2009; e.g., “After reading this online review, I would say that this brand is reputable”), and their purchase intentions and their trust of the review site (Dimitriadis and Kyrezis, 2010; e.g., “After reading this online review, I feel that I could rely on the review site”). At two points during the questionnaire, respondents answered attention-check questions before the system allowed them to continue. The survey ended with demographic questions.

## 5. Results

### 5.1. Instrument validation

Psychometric properties of the measurement models were evaluated through confirmatory factor analysis using Lisrel 11 with robust estimation of parameters. Results showed excellent fits for both the phone product sample ( $\chi^2(137) = 215.21$ ,  $p < .00$ ; GFI = 0.95; AGFI = 0.93; NNFI = 0.99; CFI = 0.99; RMSEA = 0.03; RMSR = 0.04) and the hotel service one ( $\chi^2(137) = 282.22$ ,  $p < .00$ ; GFI = 0.93; AGFI = 0.90; NNFI = 0.98; CFI = 0.98; RMSEA = 0.04; RMSR = 0.05). The observed normed  $\chi^2$  for the search and experience product samples were 1.57 and 2.06 respectively, indicating a good fit (Fornell and Larcker, 1981). Table 1.

Following the procedures suggested by Bagozzi and Yi (1988) and Fornell and Larcker (1981), convergent validity was assessed by verifying the significance of the  $t$ -values associated with the parameter estimates. As shown in Table 1, the standardized path loadings for all the questions were positive and statistically significant ( $p < .01$ ) for both samples. The reliability of the measures was also confirmed with the composite reliability index ( $>0.60$ ; Bagozzi and Yi, 1988) and the average variance extracted ( $>0.50$ ; Bagozzi and Yi, 1988, p.80) for all latent constructs in both samples (Table 2). Discriminant validity was tested by comparing the average variance extracted by each construct to the shared variance between the construct and all other variables (Fornell and Larcker, 1981). For each comparison, the explained variance exceeded shared variances in both samples, thus confirming discriminant validity, as shown in Table 2.

### 5.2. Test of hypotheses

Once measurement invariance was confirmed,<sup>7</sup> multi-group analyses were performed using LISREL 11 in a series of nested models to examine group differences as shown in Table 3. We found full support of H3 and H5, including the predicted moderating influence. Review credibility enhanced brand reputation, particularly for search (vs experience) products, and review credibility enhanced trust of the review site, again, as predicted, particularly for search products. We found support for the direct hypotheses H1 and H4, namely that brand identification heightens review credibility, and review credibility enhances purchase intentions, but there were no significant differences between the search and experience samples. The direct relationship in H2 was supported, specifically that a consumer-reader’s skepticism affected their perceptions that the review was credible. Further, we found an unexpected moderated influence which we discuss shortly, after presenting the rest of the results.

In Table 3, we also noted the results for the statistical controls. These paths represent relationships that would particularly interest brand marketing researchers. Our purpose in their inclusion was to partial out their effects to be sure to test our focal links involving review credibility as statistically cleanly as possible. Our results confirmed that brand identification significantly influenced both brand reputation and

purchase intentions, and brand reputation had a positive effect on purchase intentions. This latter effect was significantly stronger in the search product sample, which, presumably relate back to our arguments that, due to the very nature of search products having observable and confirmable features, compared to the variability inherent to experience products, consumers would differ both in how they post opinions and how they read and interpret reviews. In addition, consumers’ knowledge of the products offered by the brand significantly reduced review credibility in the search product sample, but not in the experience product sample.

Multigroup SEM analysis was also used for testing our moderated mediation hypotheses (H6<sub>a</sub> and H6<sub>b</sub>, and H7<sub>a</sub>, H7<sub>b</sub>, and H7<sub>c</sub>). Specifically, two models were compared: one in which the direct and indirect paths fit simultaneously and freed across the search and the experience samples and a second one in which these direct and indirect paths were constrained to be equal. Differences in the chi-square obtained for these two models between direct paths involved in the mediated relationship (see Table 3), along with the significance of the indirect effects estimated in the free model were used to test the moderated mediation effects (Muller et al., 2005; Iacobucci et al., 2007). Results, reported in Table 4, indicate that all of the H6’s and H7’s supported their respective mediated relationships. Thus, for H6’s, that brand identification enhanced review credibility which in turn enhanced brand reputation and purchase intentions. For H7’s, skepticism heightened review credibility, which in turn enhanced brand reputation, purchase intentions, and trust of the review site. The moderating effect of type of product was not supported for H6’s, but they were significant for H7b and Hc; skepticism was particularly impactful for search products. Finally, Table 4 shows the data support H8 with a mediated path from review credibility to brand reputation to purchase intentions, which are all important relationships for marketers, and these relationships are stronger for search than experience purchases. Table 4.

Regarding the unexpected directionality of the moderated effect for H2, we note that as predicted, skepticism decreased review credibility for search products, that is, a skeptical consumer was simply less likely to believe the reviews. Yet review credibility increased slightly among skeptical consumers when assessing experience products. In hindsight, perhaps we should have anticipated this effect because there is research that indicates a heightened skepticism or presence of persuasion knowledge may bolster credibility instead (Isaac and Grayson, 2017). In particular, this moderation may hold due to the nature of experience purchases, and their inherent heterogeneity of individual tastes and preferences. That is, when judging experience product reviews, skeptics seem willing to give the reviews the “benefit of the doubt” due to greater subjectivity in individual tastes, which do not characterize search products. Skepticism typically induces a more critical analysis of the information, which is easier to do when such information is objective (for search) rather than subjective (for experience purchases) (Lee and Choeh, 2020).

## 6. Discussion

This research examined important issues about online consumer reviews that have not been covered previously, namely, the mechanisms through which consumers’ brand identification and skepticism about reviews influence perceived credibility of exaggerated OCRs and its influence on brand reputation, purchase intentions and trust of the review site. While several of the basic branding relationships have been established in the literature (for example, that a brand with a stronger reputation would induce a greater likelihood of purchasing), we sought to extend the theorizing and provide at least three directions of contributions.

First, our theoretical model collected the constructs and their relationships in a novel way that we argued was well-suited for understanding the online review context, and the persuasiveness (or not) of exaggerated online reviews. Second, to do so, we tested several indirect

<sup>7</sup> Most (15 of 19) factor loadings were invariant across samples, the differences were minor, as seen in Table 1. All loadings were high, positive, and significant with mean loadings of 0.85, and s.d. of 0.08.

**Table 2**  
Correlation Matrix, Reliability, AVE and Discriminant Validity<sup>a</sup>.

Search Product Sample (n = 601)	Mean	sd	AVE	1	2	3	4	5	6
1. Brand identification	3.72	1.22	0.77	0.91	0.00	0.10	0.09	0.36	0.05
2. Skepticism	4.36	0.97	0.52	-0.04	0.76	0.02	0.00	0.01	0.01
3. Review credibility	3.58	1.45	0.81	0.32	-0.13	0.95	0.20	0.36	0.46
4. Brand reputation	3.71	1.09	0.76	0.30	-0.06	0.45	0.90	0.41	0.10
5. Purchase intentions	3.82	1.26	0.79	0.60	-0.08	0.60	0.64	0.92	0.17
6. Trust of the review site	3.72	1.27	0.86	0.22	-0.09	0.68	0.31	0.41	0.95
7. Product knowledge <sup>b</sup>	6.19	2.35	na	0.28	0.06	-0.01	0.05	0.13	-0.01
<b>Experience Product Sample (n = 600)</b>	<b>Mean</b>	<b>sd</b>	<b>AVE</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>
1. Brand identification	4.00	0.98	0.72	0.89	0.00	0.15	0.06	0.28	0.06
2. Skepticism	4.26	0.98	0.48	-0.04	0.74	0.01	0.00	0.00	0.00
3. Review credibility	3.69	1.49	0.82	0.39	0.08	0.95	0.12	0.37	0.36
4. Brand reputation	3.97	0.98	0.72	0.24	0.02	0.35	0.89	0.27	0.04
5. Purchase intentions	4.20	0.96	0.60	0.53	0.03	0.61	0.52	0.82	0.14
6. Trust of the review site	3.94	1.22	0.84	0.24	0.05	0.60	0.21	0.37	0.94
7. Product knowledge <sup>b</sup>	5.67	2.16	na	0.28	0.06	0.09	0.06	0.14	0.06

<sup>a</sup> Composite reliability index is reported along the diagonal of both matrices, shared variances of multi-item measures are reported in the upper half, and correlations are reported in the lower half; <sup>b</sup> This is an eleven-point scale from 0 = “I don’t know anything about the products of this brand” to 10 = “I know a lot about the products of this brand”; na = not applicable.

links to try to understand the *processes* by which a factor such as a consumer’s orientation toward skepticism or the extent to which the consumer identified with the brand might have on ultimate dependent variables such as perceptions of brand reputation and likelihood of purchasing, through mechanisms like an evaluation of the credibility of the online reviews. Third, we investigated *moderating* effects for search versus experience products, given that the distinctive qualities of such different kinds of products are quite salient when consumers are purchasing online and are limited in what they can evaluate pre-purchase. We also tested the extent to which the search versus experience quality moderator also mediated paths in the model to begin to delve into the process by which consumer characteristics and the credibility of online reviews can affect ultimate consumer behaviors such as purchasing, and quality markers for the brand company and the review site itself. Our moderated mediation results, tested on a sample of 1,201 consumers, offer significant insights for both theory and practice.

6.1. Theoretical implications

Extreme or exaggerated OCRs are an underexplored phenomenon (Kapoor et al., 2021). Collectively, our findings contribute to the literature in many ways. Importantly, all but one direct effect proposed in H1-H8 in our framework were significant and in the hypothesized direction. We also extended the literature in examining mediation effects of review credibility in these relationships, doing so for using the moderator of two different product types.

Specifically, brand identification increased review credibility for search and experience products. In other words, exaggerated positive reviews seems to have positive effects for brand-product fans (those who identify with the brand and perceive it with high quality) with no significant difference between samples. It is conceivable that the expected easy translation of search product features into consumers’ self-concepts (and subsequent stronger influence on credibility) might have been somehow balanced by the stronger emotional feelings consumers have in experience products, as compared to search ones.

Consistently, our result show that consumer responses to review credibility in terms of brand reputation, purchase intentions and trust of the review site were stronger for search products as compared to experience ones. This builds on previous studies examining the role of exaggerated reviews in search products (Mudambi and Schuff, 2010; Lee and Choeh, 2020), and with our more extended set of constructs, and

tests of moderating influences and processes via mediators, we believe that our research provides a more comprehensive framework that begins to explain important differences between search and experience products in the context of exaggerated online reviews.

Our research posits and tests several inter-connected relationships as depicted in Fig. 1, including direct and mediated effects and an overarching examination of the search versus experience product moderator, and thereby extends several theoretical elements in the literature. The model and results provide a better understanding of consumers’ likely interpretation of reviews posted for search and experience products, and these findings have major implications for online retailers (discussed shortly). Scholars study branding elements, including our constructs of brand identification and brand reputation, and for marketers the ultimate dependent variable is often purchase intention. Yet going forward, researchers studying these branding links need to accommodate the roles that credibility and product type play in tempering these brand relationships. Similarly, scholars studying skepticism and persuasion knowledge may believe a link from skepticism to credibility to already be in their repertoire, but our theorizing and empirical results indicate that these can no longer be consider in isolation because they vary with consumers’ brand identifications and the search/experience product type moderator. In addition, given the importance of understanding consumers’ purchase intentions, we found clear support of brand reputation mediating the effect of review credibility on purchase intentions and this effect was stronger for search products, than for experience ones.

6.2. Managerial implications

Several managerial implications can be derived from our findings. First, our results show that being able to provide a brand that connects with consumers so they can “identify” with it pays off in building credibility around marketing communications about the brand, which in this new research context, leads to positive consumer responses about the brand as well as the review site. Developing a strong brand is an excellent goal for many reasons, primarily sales, but in this context of consumers interpreting online reviews, we can see other benefits—consumers who identify with the brand will be more willing to believe positive, even exaggeratedly positive, online reviews, which of course then translates to greater purchase intentions.

Second, online retailers may be generally aware of consumer



**Table 3**  
Model comparison and parameter estimates.

Model	$\chi^2$	df	p-value	NNFI*	CFI*	RMSEA*
M1: Unrestricted (All structural relationships free)	951.58	319	0.00	0.98	0.98	0.06
M2: Restricted (All structural relationships invariant)	978.47	328	0.00	0.98	0.98	0.06
Difference in $\chi^2$	26.89	9		Conclusion: structural paths vary search vs experience		

Paths 1–8 compared with restricted model	Chi-Square Difference ( $\Delta df = 1$ )	Std. Path Coefficients (t-value)		Hypothesis supported
		Search product	Experience product	
H1: Brand identification → Review credibility	$\Delta\chi^2 = 1.56$ (ns)	$\gamma = 0.34$ (t = 6.33)	$\gamma = 0.40$ (t = 9.39)	Direct
H2: Skepticism → Review credibility	$\Delta\chi^2 = 7.97$ ***	$\gamma = -0.11$ (t = -2.06)	$\gamma = 0.09$ (t = 2.06)	Direct
H3: Review credibility → Brand reputation	$\Delta\chi^2 = 4.15$ **	$\beta = 0.40$ (t = 7.37)	$\beta = 0.29$ (t = 4.76)	Direct & Moderated
H4: Review credibility → Purchase intent	$\Delta\chi^2 = 1.02$ (ns)	$\beta = 0.35$ (t = 8.83)	$\beta = 0.33$ (t = 7.39)	Direct
H5: Review credibility → Trust of the review site	$\Delta\chi^2 = 5.07$ **	$\beta = 0.68$ (t = 17.54)	$\beta = 0.60$ (t = 13.11)	Direct & Moderated
Statistical and theoretical controls:				
Brand identification → Brand reputation	$\Delta\chi^2 = 2.56$ (ns)	$\gamma = 0.20$ (t = 3.14)	$\gamma = 0.09$ (t = 1.68)	Direct
Brand identification → Purchase intentions	$\Delta\chi^2 = 5.02$ **	$\gamma = 0.40$ (t = 9.20)	$\gamma = 0.29$ (t = 6.61)	Direct & Moderated
Brand reputation → Purchase intentions	$\Delta\chi^2 = 2.77$ (ns)	$\beta = 0.39$ (t = 8.58)	$\beta = 0.30$ (t = 5.57)	Direct
Product knowledge → Review credibility	$\Delta\chi^2 = 2.77$ (ns)	$\gamma = -0.10$ (t = -2.34)	$\gamma = -0.01$ (t = -0.28)	Direct

\* p < .10; \*\* p < .05; \*\*\* p < .01; ns = not significant.

NNFI = Non-normed Fit Index and CFI = Comparative Fit Index (excellent model fits exceed 0.95); RMSEA = Root Mean Square Error of Approximation (excellent model fits should not exceed 0.06).

**Table 4**  
Moderated mediated results within search product and experience product samples.

	Std. Indirect Path Coefficients (t-value)		Hypothesis supported
	Search product (n = 601)	Experience product (n = 600)	
H6 <sub>a</sub> : Brand Identification → Review credibility → Brand reputation	0.14 (t = 4.54)	0.12 (t = 4.32)	Direct
H6 <sub>b</sub> : Brand Identification → Review credibility → Purchase intentions	0.23 (t = 6.38)	0.23 (t = 6.46)	Direct
H7 <sub>a</sub> : Skepticism → Review credibility → Brand reputation	-0.04 (t = -1.94)	0.03 (t = 1.87)	Direct
H7 <sub>b</sub> : Skepticism → Review credibility → Purchase intentions	-0.05 (t = -1.96)	0.05 (t = 1.98)	Direct & Moderated
H7 <sub>c</sub> : Skepticism → Review credibility → Trust of review site	-0.08 (t = -2.01)	0.06 (t = 2.04)	Direct & Moderated
H8: Review credibility → Brand reputation → Purchase intentions	0.15 (t = 5.05)	0.10 (t = 3.35)	Direct & Moderated

skepticism of online reviews, and our research offers more detailed help. Specifically, our results suggest that companies and brand managers of experience-based products may not need to worry so much about exaggerated online reviews. However, companies and brand managers of search-products should be more concerned. The results indicated that consumer skepticism can increase the likelihood that consumers will react adversely to exaggerated reviews, resulting in further negative consequences for both the brand (reputation and purchase intentions are hurt) and the review site (diminished trust). Therefore, there is a need to safeguard skeptical customers from prior negative attitudes when purchasing search-products. A plausible way for educating or persuading such customers may be to provide objective product information when exaggerated positive OCRs are being considered, and doing so in a way to avoid triggering their distrust. For instance, there are a good number of tools or mechanisms developed to help companies and review sites to discriminate between fake and genuine reviews, such as deception detection algorithms or trust measures (Moon et al., 2019; Pyle et al., 2021), which can be applied in review sites to prevent consumers from being exposed to deceptive OCRs. We encourage companies not only to use these tools, but also to provide additional information that may cope with skeptics' initial distrust. For instance, adding the number of filtered reviews to the featured aggregate information (e.g., "500 reviews – 93 removed as fake") or pop-up ads disclosing their policies and efforts to substantiate authentic reviews. All of these could strengthen the claim of legitimate guidance and transparency of the reviews offered, providing

skeptical consumers a good signal of both brand and site credibility. Social media companies that host review sites, even those that do not manufacture products for sale, could benefit from these actions as well. Their very business depends on consumer-readers perceiving value in checking their site. If reviews posted there seem fake, the consumer would have no motivation to return to the site. Indeed, these third-party review sites may need to proceed with extra earnestness, given their role in serving as objective arbiters of product reviews.

6.3. Limitations and suggestions for future research

Some limitations need to be acknowledged which represent avenues for future research. First, while our research methodology is not unusual, our data derived from survey-based scenarios to measure perceived credibility of exaggerated OCRs. Consumers responded to hypothetical purchase situations (pretested as appearing authentic) with a limited number of reviews, which could limit the realism of this stimuli. While the qualitative and quantitative pretest provided excellent results in terms of perceived realism of these scenarios, further research may test additional reviews or do so using laboratory experiments.

In addition, we studied cellphones and hotels as plausible exemplars of search and experience purchases, but marketers may wish to test additional product categories. Similarly, we focused on extremely positive reviews and it would be interesting to see if consumers process

negative reviews in the same manner. Additionally, going beyond search and experience purchases, one might study credence purchases, such as medical or legal services. Their inherent ambiguity, or the extent to which most consumers are unable to evaluate their quality, would provide another interesting context in which to assess consumer evaluations of the credibility of exaggerated positive online reviews.

Online reviews take many forms and it would be interesting to study possible boundary conditions when applying our theorizing to, say, verbal online reviews versus numerical ratings in online reviews. Marketers know that consumers process verbal and numerical information differently, and that would be an interesting avenue to pursue. *A priori*, we would anticipate that the exaggerated online reviews theory we have offered would replicate when words or numbers are seen to be exaggerated. As another direction for future research, we acknowledge that it is conceivable that skepticism is more readily triggered when consumers can discern paid reviews. Presumably the very notion that the review was posted in monetary exchange would heighten cognizant awareness that there is an agentic attempt to persuade the consumer to think in a certain way and subsequently act in a certain way, such as by purchasing. Paid reviews might well constitute a class of exaggerated reviews given that it is difficult to imagine that a company would pay consumers to post modest reviews. Future (longitudinal) research could also examine the causal relationship between perceived message credibility and trust of the review site<sup>8</sup>.

## 7. Conclusions

Given the growth in e-commerce, and the guidance that consumers often seek in their purchase decisions by examining product reviews, it is important to understand when posted reviews are informative versus deceptive. This research examined exaggerated positive online consumer reviews and found that they can be perceived as authentic, when read by consumers who are already positively pre-disposed toward the brand, in having strong connections and brand-identification. Other consumers will more naturally be skeptical, in general, and particularly when confronted with such extremely positive reviews. Both segments of consumers' perceptions of the reviews' credibility have consequential effects on their thoughts about the brand's reputation, their purchase intentions, and their thoughts about whether the review site itself is

trustworthy. This research also evidenced that many of these relationships are especially trickier to navigate for search versus experience products. Finally, mediation paths demonstrated the processes of how consumer characteristics and their beliefs about the credibility of the online reviews might in turn affect the brand reputation, purchase intentions, and trust toward the review sites. These findings help broaden our knowledge in the literature and help provide guidance to companies (e-retailers or review sites) about how to facilitate trustworthy information portals toward purchasing.

## CRedit authorship contribution statement

**Sergio Román:** Writing – review & editing, Writing – original draft, Visualization, Validation, Supervision, Resources, Project administration, Methodology, Investigation, Conceptualization. **Isabel P. Riquelme:** Writing – review & editing, Writing – original draft, Methodology, Formal analysis, Data curation, Conceptualization. **Dawn Iacobucci:** Writing – review & editing, Writing – original draft, Methodology, Conceptualization.

## Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

## Data availability1)

[review credibility data\\_opendocument \(Original data\)](#) (University of Murcia.)

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## Appendix A. . Survey questions and scenarios

<sup>8</sup> We thank our anonymous Reviewers for these additional directions for future research.

(Perceived search product knowledge / Perceived experience product knowledge)<sup>10</sup> Could you please indicate the extent to which you know BQ products/IBIS hotels?

0	Neutral										10
I know nothing about them											I know them perfectly
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

(Brand identification) Please indicate your level of agreement with the following statements regarding BQ / IBIS from 1 “strongly disagree” to 7 “strongly agree”:

	1 Strongly disagree	2 Disagree	3 Somewhat disagree	4 Neutral	5 Somewhat agree	6 Agree	7 Strongly agree
I feel a strong sense of belonging to this brand	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
This brand has a great deal of personal meaning for me	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I identify strongly with this brand	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

(Persuasion skepticism) Please indicate your level of agreement with the following statements regarding consumers online reviews from 1 “strongly disagree” to 7 “strongly agree”:

	1 Strongly disagree	2 Disagree	3 Somewhat disagree	4 Neutral	5 Somewhat agree	6 Agree	7 Strongly agree
I am basically doubtful about online reviews	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Online reviews are often questionable	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I am generally skeptical about online reviews	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

(Scenario BQ) IMAGINE that you want to buy a new phone and you are seriously considering to get the BQ AQUARIS U LITE (5”, 16 GB, 4G) whose price is 118 euros. You intend to get it from an E-marketplace website (which is independent of the manufacturer BQ) where the global evaluation of 860 buyers is 6.7 out of 10. Below are the three most positive opinions (please read them carefully).

(Scenario IBIS) IMAGINE that you want to spend a weekend in Málaga at the end of February and you are seriously considering to stay at the IBIS MÁLAGA-CENTRO CIUDAD hotel. The price of a double room is 59 euros per night (without breakfast), that is, 118 euros for the weekend. You intend to make the reservation at an online booking travel website (which is independent from the IBIS hotel chain) where the global evaluation of 860 customers is 6.7 out of 10. Below are the three most positive opinions (please read them carefully).

**6.7** Acceptable · 860 customer reviews

Sort reviews by: Highest scores

Reviewed 4 days ago

**10** “Exceptional”

**Anonymous**

**+** This phone is AMAZING! This is the best choice I've ever made buying a phone. From now on I will always consider BQ phones as my first option

**-** Nothing

Reviewed 12 days ago

**9.9** “Best option ever”

**Anonymous**

**+** If you are reading this review do not think twice. This is the PHONE OF YOUR LIFE! Buy it now because you won't regret it! Hurry up or there won't be more stock available!

**-** Nothing at all

Reviewed 3 weeks ago

**9.7** “Almost perfect”

**Anonymous**

**+** Everything about this phone is AWESOME! I really love it. Get it and you won't be disappointed

**-** Nothing

**6.7** Acceptable · 860 customer reviews

Sort reviews by: Highest scores

Reviewed 4 days ago

**10** “Exceptional”

**Anonymous**

**+** This hotel is AMAZING! This is the best experience I've ever had in a hotel. From now on I will always consider IBIS hotels as my first option

**-** Nothing

Reviewed 12 days ago

**9.9** “Best option ever”

**Anonymous**

**+** If you are reading this review do not think twice. This is the HOTEL OF YOUR LIFE! Book now because you won't regret it! Hurry up or the hotel will run out of rooms!

**-** Nothing at all

Reviewed 3 weeks ago

**9.7** “Almost perfect”

**Anonymous**

**+** Everything about the experience was AWESOME! I really loved it. Try it and you won't be disappointed

**-** Nothing

*(Review credibility)* In the light of the overall rating of **BQ AQUARIS U LITE cell phone** / **IBIS MÁLAGA-CENTRO CIUDAD hotel** of 6.7 out of 10, how would you consider the three most positive reviews shown earlier?

	1	2	3	4 Neutral	5	6	7	
Fake	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Real
Not credible	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Credible
Untrustworthy	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Trustworthy
Deceptive	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Honest

*(Brand reputation; Purchase intentions; Trust of the review site)* After reading the reviews shown earlier, please indicate your level of agreement with the following statements from 1 “strongly disagree” to 7 “strongly agree”:

	1 Strongly disagree	2 Disagree	3 Somewhat disagree	4 Neutral	5 Somewhat agree	6 Agree	7 Strongly agree
I would say that <b>BQ / IBIS</b> is reputable	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I would say that <b>BQ / IBIS</b> is trustworthy	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I would say that <b>BQ / IBIS</b> makes honest claims	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I would consider <b>purchasing a BQ phone / staying at IBIS hotels</b> in the future	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
It is probable that I would <b>buy a BQ phone / stay at IBIS hotels</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I would give <b>BQ phones / IBIS hotels</b> a try	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I feel that I could rely on the review site	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I feel that I could trust the review site	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I feel that I could count on the review site	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Please, indicate your:**

**Age:** (in years)  
**Gender:** 1 Male  
 2 Female

**Highest level of education completed:**

- 1=No studies
- 2=First grade
- 3=Second grade, first cycle
- 4=Second grade, second cycle
- 5=College degree, first cycle
- 6=College degree, second cycle
- 7=Master degree
- 8=Ph.D degree

Thank you very much for participating in this study.  
 Your assistance is greatly appreciated!

**Appendix B. . Dataset codebook\***

Code	Description/item	Values/range	Position in the Conceptual Model (Fig. 1)
SAMPLE	Codify the two samples of the study	1 = Search product sample (BQ cell phone) 2 = Experience product sample (IBIS hotel)	Moderator variable
PK	Perceived Search Product Knowledge	From 0 (“I know nothing about BQ phones”) to 10 (“I know BQ phones perfectly”)	Control variable in the search product sample
SK	Perceived Experience Product Knowledge	From 0 (“I know nothing about IBIS hotels”) to 10 (“I know IBIS hotels perfectly”)	Control variable in the experience product sample
BI1	First item of the Brand Identification scale: - I feel a strong sense of belonging to this brand	From 1 to 7	Observed indicators of the Brand identification construct (Antecedent)
BI2		From 1 to 7	

(continued on next page)

(continued)

Code	Description/item	Values/range	Position in the Conceptual Model (Fig. 1)
	Second item of the Brand Identification scale: - This brand has a great deal of personal meaning for me		
BI3	Third item of the Brand Identification scale: - I identify strongly with this brand	From 1 to 7	
SK1	First item of the Persuasion skepticism scale: - I am basically doubtful about online reviews	From 1 to 7	Observed indicators of the Persuasion skepticism construct (Antecedent)
SK2	Second item of the Persuasion skepticism scale: - Online reviews are often questionable	From 1 to 7	
SK3	Third item of the Persuasion skepticism scale: - I am generally skeptical about online reviews	From 1 to 7	
RC1	First item of the Review credibility scale: - Fake/Real	From 1 to 7	Observed indicators of the Review credibility construct (Consequence and mediator)
RC2	Second item of the Review credibility scale: - Not credible/Credible	From 1 to 7	
RC3	Third item of the Review credibility scale: - Untrustworthy/Trustworthy	From 1 to 7	
RC4	Fourth item of the Review credibility scale: - Deceptive/Honest	From 1 to 7	
BR1	First item of the Brand reputation scale: - This brand is reputable	From 1 to 7	Observed indicators of the Brand reputation construct (Consequence and mediator)
BR2	Second item of the Review credibility scale: - This brand is trustworthy	From 1 to 7	
BR3	Third item of the Review credibility scale: - This brand makes honest claims	From 1 to 7	
PI1	First item of the Purchase intentions scale: - I would consider purchasing a BQ phone/staying at IBIS hotels in the future	From 1 to 7	Observed indicators of the Purchase intentions construct (Consequence)
PI2	Second item of the Purchase intentions scale: - It is probable that I would buy a BQ phone/stay at IBIS hotels	From 1 to 7	
PI3	Third item of the Purchase intentions scale: - I would give BQ phones/IBIS hotels a try	From 1 to 7	
TR1	First item of the Trust of the review site scale: - I feel that I could rely on the review site	From 1 to 7	Observed indicators of the Trust of the review site construct (Consequence)
TR2	Second item of the Trust of the review site scale: - I feel that I could trust the review site	From 1 to 7	
TR3	Third item of the Trust of the review site scale: - I feel that I could count on the review site	From 1 to 7	
GENDER	Gender of the respondent	1 = Man 2 = Woman	Does not appear in the model
AGE	Age of the respondent	From 18 to 65	Does not appear in the model
EDU	Education of the respondent:	1 = No studies 2 = First grade 3 = Second grade, first cycle 4 = Second grade, second cycle 5 = College degree, first cycle 6 = College degree, second cycle 7 = Master degree 8 = Ph.D degree	Does not appear in the model

\*The dataset is available at: [https://www.um.es/documents/798223/33995783/JBR\\_review+credibility+data\\_opendocument.ods/0982989c-1de4-9626-aa5c-92ec7cbb0430?t=1663767983725](https://www.um.es/documents/798223/33995783/JBR_review+credibility+data_opendocument.ods/0982989c-1de4-9626-aa5c-92ec7cbb0430?t=1663767983725).

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