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# Antecedents and consequences of perceived helpfulness of extremely positive and exaggerated reviews

Sergio Román<sup>a,\*</sup>, Isabel P. Riquelme<sup>a</sup>, Dawn Iacobucci<sup>b</sup>

- a Marketing at University of Murcia. Spain
- <sup>b</sup> Marketing at the Owen Graduate School of Management, Vanderbilt University, USA

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### ABSTRACT

Consumers often engage in exaggeration when sharing their experiences online. This study focuses on how consumers interpret extremely positive and exaggerated product reviews. Results derived from a survey with 601 consumers evaluating cell phone reviews indicate that internal and external attributions fully mediate the influence of the reader's shopping related characteristics (online shopping expertise and product involvement) and personality traits (close-mindedness, Machiavellianism, cynicism) on perceptions of the review's helpfulness. Helpfulness, in turn, enhances consumers' behavioral and recommendation intentions. The impact of perceived helpfulness on purchase intentions is stronger for brands seen as low-quality compared to those regarded as high-quality. Several theoretical and practical implications are discussed.

### 1. Introduction

"The extremely positive reviews were more than a bit misleading. These are not unlike any other temporary wear nails. The glue was not special, the nails themselves were not thicker or better than any other existing drugstore brand" (Retrieved from Amazon)<sup>1</sup>

This review from Amazon is an example of an extremely positive and exaggerated rating. Should marketers worry—are these reviews a problem? Online marketers are finding that these reviews occur frequently; around 70% of online reviews available in the major review communities were found to be extreme (Schoenmueller et al., 2020). This opening example shows that consumers are becoming increasingly adept at recognizing when reviews not only seem extremely positive, but also when reviews exaggerate product benefits.

Ideally, online reviews provide valuable information for consumers in making purchase decisions. Helpful reviews can mitigate the inherent risks and information asymmetry in online shopping by providing relevant insights into the quality and characteristics of products (Mudambi and Schuff, 2010; Zhai et al., 2024). Given its importance, the topic of what constitutes a helpful review has received considerable scholarly interest across disciplines such as marketing, consumer behavior and information systems (e.g., Choi and Leon, 2020). These studies have primarily concentrated on two main areas: (1) Reviews (e.

g., review length, valence); and (2) Reviewers (e.g., reviewer's expertise, consistency).

Our research takes a unique perspective by focusing on how readers perceive extremely positive and exaggerated reviews. Extremely positive and exaggerated online consumer reviews are becoming significantly more prevalent (BBC, 2021; Kapoor et al., 2021; Shin et al., 2023), and scholars are studying them to see if they are intentional distortions of product characteristics that may not accurately reflect true consumption experiences.

This concern leads us to several essential questions: When consumers encounter online reviews that seem excessively positive and exaggerated, do they find them helpful, or does skepticism reduce their perceived value and subsequent responses? How do consumer characteristics influence the way they respond to these reviews? What are the cognitive dynamics and attributions consumers make when faced with exaggerated online reviews that are inconsistent with the actual product performance? In particular, we examine: (1) the causal attributions made by readers regarding these discrepancies, as internal (related to their own lack of effort) or external (focused on the company or brand's deceptive practices), (2) how readers' characteristics (online shopping expertise and product involvement) and personal traits (close-mindedness, Machiavellianism, cynicism) act as antecedents to these attributions and how they influence the interpretation and perception of review

 $<sup>^{\</sup>star}$  Corresponding author.

 $<sup>\</sup>textit{E-mail addresses: } sroman@um.es (S. Román), ip.riquelme@um.es (I.P. Riquelme), dawn.iacobucci@vanderbilt.edu (D. Iacobucci).$ 

<sup>&</sup>lt;sup>1</sup> Available at: https://www.amazon.com/-/es/gp/aw/review/B079ZRG4CS/R2YPFTTE7VVYVL.

helpfulness, (3) the impact of these attributions on perceptions of the review's helpfulness and how this perception shapes their behavioral intentions, and (4) how marketers might mitigate these relationships (cf., Alzate et al., 2022).

In what follows, we review the existing literature on extremely positive and exaggerated online reviews, in particular focusing on their perceived helpfulness. After an overview of our theoretical framework and hypotheses, we describe our methodology and present the findings from a survey of real consumers exposed to extremely positive and exaggerated reviews of cell phones. To conclude, we discuss the theoretical and practical implications of our findings.

### 2. Literature review

### 2.1. Extremely positive and exaggerated online reviews

Online reviews can assist consumers by providing relevant and timely information which can reduce the uncertainties and risks associated with online purchasing. This is particularly the case when reviews are perceived as helpful and diagnostic, offering information that aids consumers in making informed purchase decisions (Hu, 2020).

Yet research has shown that consumers often engage in exaggeration when sharing their experiences online, particularly in product or service reviews (Baker and Kim, 2019). For example, Schoenmueller et al. (2020, p.21) analyzed more than 280 million reviews from 25 online review and e-commerce sites and concluded that: "Consumers using reviews as a source of online WOM should be aware that reviews on many platforms reflect an extreme picture of the true shape of consumer preferences." This behavior has been attributed to such factors as the desire for social approval (DePaulo, 1996), or due to the anonymity online where the perceived lack of accountability can embolden individuals to make exaggerated claims (Kapoor et al., 2021). Unrealistic reviews can trigger skepticism among consumers, leading them to question the authenticity of the review (Baker and Kim, 2019; Moon et al., 2019; Román et al., 2019). Filieri (2016, p. 53) revealed that consumers believe that extreme reviews "are more likely to be manipulated, namely posted by the owner of an establishment, by competitors, or by overly critical people" and "businesses are more likely to inflate their scores to minimize the impact of negative reviews" (Filieri, 2016, p. 54).

**Table 1**Overview of research on the helpfulness and persuasiveness of exaggerated and extreme reviews in comparison to the current research.

Author/s	Unit of analysis	Type of data	Context (product reviewed)	Reader characteristics as antecedents of helpfulness?	Consequences of helpfulness included?
Forman et al. (2008)	175,714 book reviews from Amazon	Secondary	Books	_	_
Mudambi and Schuff (2010)	1608 reviews o from Amazon	Secondary	Digital products	-	-
Cao et al. (2011)	3460 reviews from CNET Download.com	Secondary	Software programs	_	_
Pan and Zhang (2011)	41,900 reviews from Amazon	Secondary	Electronic and health care products	-	-
Qiu et al. (2012)	Laboratory experiment with 168 participants	Secondary	Multimedia speakers	-	-
Racherla and Friske (2012)	3000 reviews from Yelp	Secondary	Furniture, restaurants and beauty saloons	-	-
Zhu et al. (2014)	16,265 reviews from Yelp	Secondary	Hotels	_	_
Kuan et al. (2015)	126,369 reviews from Amazon	Secondary	DVDs and books	_	_
Park and Nicolau (2015)	5090 reviews from Yelp	Secondary	Restaurants	-	-
Fang et al. (2016)	19,674 reviews from TripAdvisor	Secondary	Attractions	-	_
Filieri (2016) <sup>a</sup>	35 in-depth interviews with consumers	Primary	Travel	Consumer involvement and experience affecting trustworthiness	-
Filieri et al. (2018)	11,358 reviews from TripAdvisor	Secondary	Hotels	_	_
Kupor and Tormala (2018)	A mixed method approach including 60,358 reviews from an online and retailer and several experiments with	Primary and secondary	A wide variety of goods and services including hotels and restaurants	-	Purchase intentions and actua choice but as direct consequences of review
Baker and Kim	more than 3100 participants.  Mixed-method approach using a	Primary	Tourism	Experience and review	extremity Behavioral intentions toward
(2019) <sup>a</sup>	qualitative critical incident technique (n = 172) and a quantitative experimental design			skepticism as control variables of trustworthiness	the firm and the review website <sup>a</sup>
Chatterjee (2020)	942 reviews from TripAdvisor	Secondary	Hotels	_	_
Choi and Leon (2020)	14,051,211 reviews from Amazon	Secondary	A wide variety of products	_	-
Hernández-Ortega (2020)	Online experiment with 239 participants	Primary	Restaurants	Gender, age and internet experience as control variables of reader responses	Purchase intentions and attitude towards the restaurar but as responses to review extremity
Filieri et al. (2021)	3757 extremely positive ratings of from TripAdvisor	Secondary	Hotels	-	-
Roh and Yang (2021)	951,178 reviews from Yelp	Secondary	Restaurants	_	-
Choi (2022)	31 million reviews from Amazon	Secondary	A wide variety of products	-	-
Nicolau et al. (2022)	48,491 from Booking	Secondary	Hotels	-	-
Shin et al. (2023)	A mixed-method approach was used. 134,106 reviews from TripAdvisor and two online experiments with 198 and 153 participants.	Primary and secondary	Restaurants	-	Purchase intentions and attitude towards the restaurar but as responses to review extremity
Current Research	Online survey with 601 consumers	Primary	Cell phones	Close-mindedness, online expertise, involvement, Machiavellianism and cynicism	Product purchase intentions and site WOM intentions

<sup>&</sup>lt;sup>a</sup> These studies are focused on review trustworthiness rather than helpfulness. (—) Not considered in the study.

In the present study, we define Extremely Positive and Exaggerated Online Reviews (EEORs) as those that drastically magnify the consumer's experience by using ratings that are exceptionally high and clearly diverge from the overall average rating of the product or service (cf., Filieri et al., 2021; Kupor and Tormala, 2018). These reviews not only highlight the extremity in terms of scoring but also deviate significantly from average ratings, primarily grounded in subjective and emotional judgments rather than factual accuracy. "Exaggerated" specifically denotes a deviation from objective truth, often influenced by subjective or emotional arguments, suggesting a review that may overstate the merits of a product. Consequently, while exaggerated reviews would likely result in extreme scores due to their departure from moderate, balanced evaluations, the reverse need not be true: not all extreme reviews are exaggerated. Some extremely positive reviews may indeed represent accurate depictions of a consumer's genuine experience. Our research focuses on reviews that combine both of these aspects: extreme positivity and exaggeration. These reviews often integrate subjective and somewhat ambiguous details with emotionally charged language to reflect the reviewer's personal experiences and emotions, as discussed in recent studies (Banerjee, 2022; Baker and Kim, 2019; Kapoor et al.,

Table 1 summarizes the existing research on the helpfulness and persuasiveness of EEORs. Several key observations and research gaps can be derived from this body of work. First, although extreme reviews are extensively found in the online marketplace, scholarly attention to this topic has been relatively recent, leading to a limited number of academic studies. This is notably different from the greater interest that online reviews in general, and their helpfulness in particular, have received across various disciplines (e.g., Choi and Leon, 2020; Hong et al., 2017; Wang et al., 2019). Second, the majority of these studies rely on large sets of unstructured, textual review data. While this approach has provided important insights, it also brings to light concerns regarding the reliability of data, because some reviews included in the analysis might not be genuine. For example, certain reviews could be artificially enhanced due to incentives or fabricated by the companies themselves (The Guardian, 2023; Zhuang et al., 2018). Third, many of these studies have been conducted in the context of highly experiential services, mostly hotels and restaurants. The service-dominant nature of restaurants and hotels means that customer experiences are highly variable and context-dependent, involving more emotional engagement (Mattila and Enz, 2002), which may not generalize to other sectors (Pan and Zhang, 2011).

Table 1 also indicates that existing research has largely overlooked the reader's role in evaluating the helpfulness of reviews. One notable exception is the work conducted by Filieri (2016), who found that highly involved and knowledgeable consumers can detect patterns in unreliable reviews, based on 35 interviews. Also considering the reader's role, Shin et al. (2023) discovered that extremely positive restaurant reviews had a greater influence on attitudes and intentions to visit compared to moderate reviews (also see Hernández-Ortega, 2020; Kupor and Tormala, 2018). However, none of these studies explicitly incorporated review helpfulness in their analyses, and our study aims to fill these gaps in the literature.

### 2.2. Causal attributions

The theory of causal attributions aims to understand how individuals explain the causes of behavior and events (Heider, 1958; Weiner, 1985). Our research asks how consumers use internal and external attributions to explain consumers' perceptions of review helpfulness and credibility (e.g., Fan et al., 2022; Qiu et al., 2012). After reading EEORs, which do not accurately reflect product performance, a consumer may attribute such misrepresentation to company deceptive actions (external) or to their own insufficient effort while reading the reviews (internal) (as we describe in more detail shortly).

### 2.3. Elaboration Likelihood Model

In the context of extremely positive and exaggerated online reviews, the Elaboration Likelihood Model (ELM, Petty and Cacioppo, 1986) provides an understanding of how different consumers may arrive at different judgments about the same review. The ELM posits two distinct routes for information processing: the central and the peripheral route (like Kahneman's 2011 Systems 1 and 2, where System 1 is faster, mapping onto ELM's peripheral processing, and System 2 is more deliberative, like ELM's central processing). The choice between these routes is influenced by two key factors: motivation and ability. Motivation refers to the consumer's goal-directed behavior, while ability pertains to the consumer's skill level in comprehending the information at hand. When consumers are both motivated and able to engage with a message, they are likely to adopt the central route for information processing, engaging in a more cognitive evaluation of the message. They scrutinize the reviews, assess their relevance, and consider specific product features or attributes. Conversely, when consumers lack either the motivation or the ability to deeply process the information, they are more inclined to use the peripheral route (Metzger and Flanagin, 2013). In this less effortful mode of processing, consumers rely on heuristics or mental shortcuts. They may quickly glance at the overall rating of the product or tally the number of reviews, without delving into the content of each review (Román et al., 2019).

### 3. An overview of the conceptual model

Our conceptual model argues that when encountering extremely positive and exaggerated review information that ultimately does not align with the product's actual performance, readers make casual attributions regarding the exaggerated and potentially misleading nature of the review. As shown in Fig. 1, these attributions can be either internal (e.g., blaming their own lack of effort) or external (e.g., suspecting the company/brand of deceptive practices). The ELM is used to explain how these attributions are processed cognitively by deeply analyzing the review (central route) or taking mental shortcuts (peripheral route) depending on readers' characteristics (H1-H5). Specifically, our framework incorporates five personal characteristics-close-mindedness, product category involvement, online shopping expertise, Machiavellianism, and consumer cynicism-to examine their impact on how consumers process EEORs. These variables were selected to align with the motivational and ability constructs of the ELM. Close-mindedness (H1) and product category involvement (H2) influence the motivational factors that dictate the depth and engagement with which consumers approach review content, affecting their willingness to accept or scrutinize the information presented. Online shopping expertise (H3) enhances a consumer's ability to critically analyze review details, promoting deeper cognitive processing. Additionally, Machiavellianism (H4) and cynicism (H5) are included to assess how strategic suspicion and inherent distrust influence perceptions of authenticity and manipulative intent in reviews. Machiavellian consumers are likely to attribute overly positive reviews to external manipulation due to their competitive and strategic nature, while cynical consumers view such exaggerations as deceitful marketing tactics, reflecting a pervasive skepticism towards promotional content. Together, these characteristics provide a comprehensive view of the cognitive mechanisms that shape consumer interactions with online reviews.

The type of causal attribution made (internal or external) serves as a direct antecedent to how consumers perceive the helpfulness of the review (H6-H7). Thus, in our framework, as we will theorize, test, and show evidence for, attributions mediate the influence of readers' characteristics on helpfulness (Fiske and Taylor, 1991). Perceptions of review helpfulness, in turn, are hypothesized to shape consumers' behavioral intentions, including their likelihood to purchase the product (H8a) and recommend the site where reviews were posted (H8b). Product purchase intentions are expected to increase intentions to

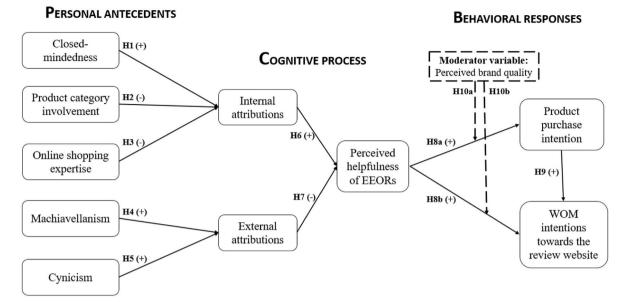


Fig. 1. Conceptual framework.

recommend the review site (H9). Finally, the influence of helpfulness on behavioral intentions is hypothesized to be moderated by perceived brand quality (H10a and H10b).

The model in Fig. 1 outlines several of the intended contributions of this study, building on the body of knowledge of online reviews, and extending it in several ways. We theorize and test antecedents about the consumers reading EEORs, we hypothesize and test the cognitive processing of that information, and we model the impact of these relationships on two important dependent variables: purchase intention and WOM intention. Thus, contrary to prior studies that have primarily used secondary publicly available data to examine the attributes of reviews and reviewers that contribute to helpfulness of online reviews, our research adopts a distinct perspective by concentrating on the readers of these reviews. By shifting the focus, our framework is an attempt to weave together heretofore unrelated constructs in a way that will improve our understanding of readers processing and reactions to EEORs. Specifically, the structure of the model allows us to integrate the mediating role of causal attributions in shaping the influence of reader's characteristics on review helpfulness and their influence on responses covering both the product itself and the review site where reviews were posted. Also moderating mediation paths from personal antecedents to behavioral responses will be examined. Next, we present and justify our hypotheses.

### 4. Hypotheses development

### 4.1. Personal antecedents

Close mindedness is related to individuals' need to have cognitive closure on a topic or situation (Kruglanski et al., 1993). It is defined by Webster and Kruglanski (1994, p. 1050) as "an unwillingness to have one's knowledge confronted (hence, rendered insecure) by alternative opinions or inconsistent evidence." Closed-minded individuals exhibit a preference for expedient cognitive processing, often considering a smaller amount of information prior to reaching a purchase decision (Kruglanski, 2004). Once a conclusion is reached, these individuals tend to be reluctant to reassess the chosen course of action or to assimilate new information (Roets et al., 2015).

We expect closed-mindedness to influence internal attributions when consumers encounter EEORs. Close-minded individuals are more likely to engage in peripheral processing, paying less attention to the quality or credibility of the review and more to simpler cues like the emotional tone or the number of stars (Zhang et al., 2002). This peripheral route to persuasion makes them more susceptible to internal attributions, being less likely to critically evaluate the information presented (Petty and Cacioppo, 1986). For EEORs, attributing the potentially deceptive nature of the review to internal factors offers a simpler causal explanation than considering external factors that could be at play (Riquelme and Román, 2023). By making internal attributions (i.e., their own insufficient effort in reading reviews), they maintain a sense of control and predictability, which is comforting to those who are resistant to new or challenging information control (Kruglanski, 2004). Stated formally.

### H1. Close mindedness will increase internal attributions.

Consumers differ in their willingness and ability to process information based on their involvement with the product (Yoo et al., 2004). In online reviews, Yang et al. (2009) showed that more involved consumers invest more cognitive effort and rely on reviews as a crucial source of information, while less involved consumers are likely to base their decisions on heuristic cues like images or source credibility. This increased involvement leads consumers to attribute any inconsistencies or flaws in reviews less to internal deficiencies, such as lack of effort or understanding. For a highly involved consumer, admitting to insufficient effort in reading reviews could create cognitive dissonance, especially if they want to make a purchase based on those reviews (Bian et al., 2016). To maintain a consistent self-image, they are more inclined to not make internal attributions to factors like their own lack of effort. Based on these arguments, we propose that.

### H2. Product category involvement will decrease internal attributions.

Online shopping expertise relates to "a subject's experience in using the Internet as a channel to make purchases and to search for information" (Yoon et al., 2013, p. 888). Consumers with high expertise often have more cognitive resources than low-expert consumers to evaluate information (Riquelme and Román, 2014). Internet expertise has been linked to a consumer's ability to process online information and is associated with a higher likelihood of engaging in detailed, central route processing of persuasive messages (e.g., Zhuang et al., 2018).

Such expertise should reduce internal attributions. The ELM contends that consumers with higher expertise are more likely to engage in central route processing (Petty and Cacioppo, 1986). Hence, they will engage in cognitive elaboration, evaluating the arguments presented in the review. Consumers with expertise will be more able to discern credible reviews from exaggerated or fake ones (Zhuang et al., 2018).

Moreover, consumers with greater expertise, while adept at processing information and discerning motives behind the information presented, do not necessarily attribute exaggerations to external factors such as the company's deceptive practices. They are capable of recognizing the subtleties and complexities in online information without resorting to simplified external attributions (Ahmad and Guzmán, 2021). Accordingly, we hypothesize that shopping expertise influences the attribution process as follows.

### H3. Online shopping expertise will decrease internal attributions.

Machiavellianism is characterized by a propensity for strategic planning, tactical maneuvering, emotional detachment, practicality, and a manipulative disposition (Rauthmann and Will, 2011). Machiavellian individuals are characterized by high levels of self-confidence and a strong competitive nature (Paulhus and Williams, 2002), and are more likely to attribute any misleading aspects of reviews to external sources (Riquelme and Román, 2023). From a psychological standpoint, this external attribution protects the Machiavellian individual's self-concept of being astute and not easily fooled (Wilson et al., 1996). This aligns with the self-serving bias, where Machiavellian individuals attribute negative outcomes to external factors (Duval and Silvia, 2002). Furthermore, due to their inherent distrust in others, Machiavellian individuals may assume that overly positive and exaggerated reviews are strategic moves by the brand (external attribution), rather than genuine opinions of satisfied customers. Stated formally.

### H4. Machiavellianism will increase external attributions.

Consumer cynicism relates to "an individual consumer's stable, learned attitude towards the marketplace characterized by the perception that pervasive opportunism among firms exists and that this opportunism creates a harmful consumer marketplace" (Helm et al., 2015, p. 516). Cynicism is commonly related to suspicion and skepticism (Vice, 2011).

Cynical consumers, shaped by their interactions with firms, are inclined to ascribe deceitful or overstated marketing elements to external factors (Chylinski and Chu, 2010). This tendency is rooted in their perception of companies as inherently opportunistic and self-serving (Riquelme and Román, 2023). Hence, cynical consumers are more likely to attribute EEORs to external factors such as the suspicion that the brand may be generating fraudulent online reviews or incentivizing customers for excessively positive feedback (Román et al., 2019). Stated formally.

H5. Consumer cynicism will increase external attributions.

### 4.2. Cognitive process

Next, we turn to the influence of causal attributions on perceptions of review helpfulness. We predict that internal attributions will enhance the perceived helpfulness of reviews, while external attributions will diminish it. For example, Riquelme et al. (2021) found that consumers viewed a situation where they paid a higher price than their peers for the same item as more fair when they attributed the price disadvantage to their own lack of skills or knowledge (internal attribution).

Drawing from the construct of cognitive dissonance, individuals strive for internal consistency within their beliefs and attitudes (Sweeney et al., 2000). When readers make internal attributions, they are essentially aligning the exaggerated reviews with their own (limited) cognitive effort. This alignment reduces cognitive dissonance and is likely to increase the perceived helpfulness of the review. In addition, when readers attribute the exaggerated nature of the review to their own lack of effort, they may feel a heightened sense of accountability for their interpretation, thereby increasing the likelihood of finding the review helpful (Lerner and Tetlock, 1999). When consumers make internal attributions, they may be motivated to perceive the review as helpful because it aligns with their desire to feel competent and in control of

their decision-making process. This motivation can lead to a biased processing of the review, where the consumer emphasizes its helpful aspects. Hence, we propose that.

### **H6**. Internal attributions will increase perceived review helpfulness.

We predict that consumers' awareness of persuasive intent and their ability to attribute such intent to external sources (i.e., the company's deceptive practices) will significantly reduce the value they place on the information provided in the review, thus deeming it less helpful in their decision-making process. When readers attribute the exaggerated nature of a review to external factors such as company manipulation, they are essentially questioning the source's credibility (Pornpitakpan, 2004). This erosion of credibility is likely to reduce the relevance given to the review, thus limiting its helpfulness. Furthermore, when readers make external attributions, they may perceive the review as a calculated attempt by the company to deceive them (Qiu et al., 2012). This perception can lead to a trust deficit, which in turn diminishes the review's perceived helpfulness. Stated formally.

### H7. External attributions will decrease perceived review helpfulness.

### 4.3. Behavioral responses

According to the ELM, persuasive messages aim to induce attitudinal and behavioral changes (Petty and Cacioppo, 1986). Helpful EEORs can serve as powerful persuasive messages that not only influence purchase intentions, but also the likelihood to recommend the platform where these reviews are posted. EEORs, when perceived as helpful, not only reduce information asymmetry and uncertainty, but actively may persuade consumers towards a positive attitude towards the product (Shin et al., 2023). In addition, the perceived helpfulness of an EEORs can also have a halo effect on the website hosting these reviews (Lee and Hong, 2019). If a consumer finds EEORs helpful and relevant, they are likely to attribute this positive experience to the platform itself, thereby increasing their intention to recommend the website (Albayrak and Ceylan, 2021). Therefore, the strong valence of the review, when perceived as helpful, plays a critical role in shaping both the consumer's purchase intentions and their perception of the review website. Hence, we hypothesize.

**H8.** Perceived review helpfulness will increase (a) purchase intentions and (b) intentions to recommend the website where reviews where posted.

We expect that if consumers intend to purchase a product based on reviews from a site, they may value the site for its perceived role in aiding their decision-making process. This value can translate into intentions to spread positive WOM about the site. That is, they may project their positive intentions about the product onto the review site as well, suggesting a halo effect (Boatwright et al., 2008). Stated formally.

## **H9.** Product purchase intentions will increase intentions to recommend the review website.

Finally, we anticipate that the impact of review helpfulness on behavioral intentions will be moderated by brand quality. Brands perceived as high in quality are associated with reduced purchase risk, then we do not anticipate a significant change in consumer purchase intentions due to helpful reviews, as the baseline level of uncertainty is relatively low (Erdem and Swait, 1998). Conversely, for brands perceived as lower in quality, where consumer uncertainty and perceived risk are heightened, helpful reviews can play a pivotal role in alleviating these concerns, thus leading to stronger purchase intentions (Nowlis, 1995).

In a similar line of reasoning, helpful reviews which provide comprehensive and pertinent information (as perceived by readers), can diminish the ambiguity surrounding a product and act as a form of risk alleviation (Kirmani and Rao, 2000; Ko and Bowman, 2023). In

addition, building on the halo effect, where positive perceptions in one area (helpful reviews) can influence perceptions in another (the website), one might expect that when a brand is perceived as low quality, consumers may rely more heavily on helpful reviews. Consequently, positive experiences with these reviews can extend to a more favorable view of the website hosting them, leading to stronger WOM intentions. For high-quality brands, consumers may already have established trust, so the impact of review helpfulness on their perception of and WOM intentions towards the website may be less significant. Hence, we propose that.

**H10**. The influence of perceived helpfulness on (a) purchase intentions and (b) intentions to recommend the website will be stronger when perceived brand quality is low.

Finally, we posit a full mediation model as depicted in Fig. 1. We will show the antecedents (e.g., close-mindedness through cynicism in H1-H5) are fully mediated through internal and external attributions (H6-H7) in their downstream effects on perceived helpfulness and subsequently, purchase and WOM intentions.

### 5. Methodology

### 5.1. Data collection and sample

Data were gathered via an online survey administered by an independent market research company through its panel of real consumers. Out of 850 panelists contacted, 601 successfully completed the survey (response rate = 70.7%). These participants were selected to represent the general population's age and gender distribution On average, the sample was 40.9 years old (s.d. = 12.4), with 49.9% female, and 55.4% holding a college degree.

### 5.2. Experimental stimuli and measures

In conducting the survey, we adopted a scenario-based approach, a technique widely recognized for its effectiveness in eliciting authentic consumer responses about perceptions, attitudes, and intentions (Baker and Kim, 2019; Kapoor et al., 2021). To ensure the clarity of our questionnaire, we conducted both qualitative and quantitative pretests. The qualitative pretest involved 10 consumers and 4 scholars knowledgeable in our research area, while the quantitative pretest was carried out with 99 individuals from a convenience sample. These pretests confirmed that the reviews used in our survey were perceived as extremely positive and exaggerated.

All measures were derived from existing and previously validated scales (see Table 2). A 7-point Likert scale was used in all cases, except for perceived helpfulness. A 3-item scale, adapted from Roets and Van Hiel (2011) to the online context, was used to measure consumers' closed-mindedness. Online shopping expertise was measured with 3 items from Yoon et al. (2013) and Zhuang et al. (2018). A 3-item scale from Jin (2009) was used to measure product category involvement. Machiavellianism and consumer cynicism were assessed using 3 items from Dahling et al. (2009) and Helm et al. (2015) respectively. A 3-item scale from Yoo et al. (2000) was used to measure perceived brand quality, which addresses consumers' subjective judgment about a brand's overall quality.

Participants were instructed to imagine themselves as actively considering the purchase of a new cell phone. To enhance the authenticity of the scenario, subjects were provided with actual information about the phone, including its key features and price (see Appendix; note that the stimuli focused on the phone itself, not any accompanying telecom services). They were shown a simulated review website where three individual online reviews, characterized by their extremity and exaggeration, both in ratings and textual content. The reviews had

 Table 2

 Construct measurement summary: Results of convergent validity tests.

construct measurement summary. Results of convergent vali	
Constructs and Survey Items (Sources) <sup>a</sup>	Std. Loading (t-
	value)
Close-mindedness (Roets and Van Hiel, 2011)	
I usually make up my mind without looking at many opinions	0.74 (t = 19.28)
I don't like questions which could be answered in many	0.92 (t = 29.53)
different ways	0.06 (1
I like to stay away from situations where I have to think really	0.86 (t = 26.00)
hard	
Involvement (Jin, 2009)  For me, cell phones are very relevant	0.67 (t = 16.44)
Cell phones mean a lot to me	0.92 (t = 26.58)
For me, cell phones are very important	0.92 (t = 20.65) 0.92 (t = 27.65)
Expertise (Yoon et al., 2013; Zhuang et al., 2018)	(*,
I find online shopping really easy	0.89 (t = 23.91)
I am pretty good at online shopping	0.90 (t = 27.84)
I am an expert at online shopping	0.96 (t = 26.34)
Machiavellianism (Dahling et al., 2009)	
In dealing with people, it is most effective to say what they	0.77 (t = 20.84)
want to hear	
Sharing your real reasons for doing something only makes	0.83 (t = 20.89)
sense if it helps you out	
Achieving success often requires manipulating others	0.65 (t = 17.11)
Cynicism (Helm et al., 2015)	
Most businesses are more interested in making profits than in	0.73 (t = 15.81)
serving consumers	0.06 (4 20.12)
Companies see consumers as "puppets" to manipulate	0.96 (t = 20.13)
Once you've bought their product, companies stop caring about you	0.53 (t = 10.66)
Internal attributions (Riquelme et al., 2021)	
Imagine that the cellphone described in the scenario fails to meet the exp	nectations set by the
reviews, this could be attributed to	poolutions out by the
In general, I don't read all the reviews in detail	0.78 (t = 20.89)
I don't bother comparing reviews with others if what I've read	0.77 (t = 19.14)
already matches my own thoughts	
In general, I don't like to spend a lot of time reading reviews	0.88 (t = 25.95)
before buying	
The large number of reviews online can be overwhelming, so I	0.84 (t = 24.98)
end up reading only a few	
External attributions (Akhtar et al., 2019)	
Imagine that the cellphone described in the scenario fails to meet the exp	pectations set by the
reviews, this could be attributed to	0.04 (* 20.07)
The people who wrote these reviews were not actual customers but company's employees	0.84 (t = 20.97)
The company would have incentivized customers to write	0.94 (t = 26.28)
extremely positive reviews	0151 (0 20120)
Reviews were "fabricated" by the brand to boost their sales	0.88 (t = 25.13)
Perceived helpfulness (Folse et al., 2016)	
These reviews were not at all useful/very useful	0.89 (t = 27.66)
These reviews were not at all informative/very informative	0.93 (t = 30.57)
These reviews were not at all helpful/very helpful	0.94 (t = 34.09)
Product purchase intention (Reimer and Benkenstein, 2016)	
After reading these online reviews	
I would consider buying a BQ phone in the future	0.92 (t = 25.43)
It is probable that I would buy a BQ phone whenever possible	0.86 (t = 24.53)
I would give BQ phones a try	0.87 (t = 23.35)
WOM intentions towards the review website (Verhoef et al., 2002)	)
After reading these online reviews  I would say positive things about the website where reviews	0.92 (t = 25.94)
were posted	0.92 (t = 25.94)
If somebody were to ask for my opinion, I would recommend	0.93 (t = 30.54)
this website	2.50 (1 00.01)
I would encourage relatives and friends to use this website	0.92 (t = 25.68)

<sup>&</sup>lt;sup>a</sup> Except for perceived helpfulness, that was measured as seven-point differential semantic scale, all items were measured on seven-point Likert-type scales (1 = "strongly disagree" to 7 = "strongly agree").

exceptionally high ratings (9.7, 9.9, and 10), significantly above the cell phone's average global rating (6.7 out of 10). As for the content, the reviews were exaggerated following prior research (e.g., Baker and Kim, 2019; Folse et al., 2016) by focusing solely on positive aspects, using emotionally intense words and phrases, capital letters, and exclamation marks for emphasis (e.g., "This is the PHONE OF YOUR LIFE!").

Table 3
Mean, SD, correlations, average variance extracted (AVE) and discriminant validity.

	Mean	sd	AVE	1	2	3	4	5	6	7	8	9	10
1. Involvement	5.07	1.26	0.71	0.88	0.22	0.00	0.00	0.00	0.07	0.00	0.00	0.00	0.00
2. Expertise	5.14	1.30	0.84	0.47	0.94	0.00	0.00	0.00	0.09	0.00	0.00	0.02	0.00
<ol><li>Perceived helpfulness</li></ol>	3.76	1.49	0.84	0.02	-0.01	0.94	0.34	0.43	0.01	0.18	0.04	0.03	0.01
4. Purchase intentions	3.82	1.26	0.79	-0.06	0.00	0.58	0.92	0.53	0.03	0.12	0.03	0.03	0.01
5. WOM intentions	3.66	1.25	0.85	0.02	0.01	0.65	0.73	0.95	0.02	0.15	0.05	0.10	0.04
6. Internal attributions	3.31	1.22	0.67	-0.27	-0.30	0.12	0.17	0.15	0.89	0.02	0.00	0.21	0.02
7. External attributions	4.19	1.28	0.79	0.04	0.02	-0.42	-0.34	-0.39	0.13	0.92	0.12	0.00	0.03
8. Cynicism	4.97	1.08	0.58	0.05	0.04	-0.21	-0.18	-0.22	-0.01	0.35	0.80	0.00	0.00
9. Close-mindedness	3.23	1.20	0.71	-0.07	-0.16	0.18	0.19	0.31	0.46	0.03	-0.07	0.88	0.32
10. Machiavellianism	3.02	1.26	0.57	0.04	-0.06	0.09	0.12	0.20	0.29	0.17	-0.01	0.57	0.80

Scale composite reliability 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.

Participants were required to answer two attention-check questions as a condition for advancing through the survey. After reading the reviews, participants were asked to respond to the measures of attributions that were particularly adapted to the context of online reviews. Internal and external attributions were measured with 4 and 3 items adapted from Riquelme et al. (2021) and Akhtar et al. (2019) respectively. Subjects evaluated the helpfulness of the reviews on a 7-point semantic differential scale (3 items) from Folse et al. (2016). Product purchasing and WOM intentions towards the review website were measured using a 3-item scale from Reimer and Benkenstein (2016) and Verhoef et al. (2002) respectively.

### 6. Results

### 6.1. Measurement validation

We assessed the dimensionality and validity of measures by an initial Confirmatory Factor Analysis (CFA, see Table 2). The measurement model displayed an excellent fit ( $\chi$ 2(389) = 530.83, p < 0.01; GFI = 0.93; AGFI = 0.91; NNFI = 0.99; CFI = 0.99; RMSEA = 0.03; RMSR = 0.04). All items had statistically significant path loadings (Table 2), which determines convergent validity (Bagozzi and Yi, 1988).

The reliability of the measurements was verified using the composite reliability index (CRI >0.60; Bagozzi and Yi, 1988) and the average variance extracted (AVE >0.50; Bagozzi and Yi, 1988) (Table 3). We assessed discriminant validity by comparing the average variance extracted by each construct to the shared variance between the construct and all other variables (Fornell and Larcker, 1981). In every case, the variance explained exceeded the shared variances, confirming discriminant validity (Table 3).

### 6.2. Hypotheses testing

The relationships proposed in our research model were estimated using structural equation modelling through LISREL 12. The structural model had a very good fit ( $\chi 2(414) = 612.84$ , p < 0.01; GFI = 0.91; AGFI = 0.90; NNFI = 0.98; CFI = 0.98; RMSEA = 0.02; RMSR = 0.06). As shown in Table 4, all hypotheses were supported except H10 b. Specifically, closed-mindedness significantly increases internal attributions (H1). Both involvement (H2) and expertise (H3) decrease internal attributions. Machiavellianism and cynicism significantly increase external attributions, in line with H4 and H5 respectively. As predicted in H6 and H7, internal attributions increase perceived helpfulness while external ones decrease it. Helpfulness, in turn, positively influence both purchase and WOM intentions, confirming H8a and H8b respectively. Consistent to H9, purchase intentions had a positive effect on WOM intentions.

The moderated hypotheses (H10a and b) were tested through multigroup LISREL representing low vs. high perceived brand quality to ensure homogeneity within each group and heterogeneity between them (Stone and Hollenbeck, 1989). Results show that perceived brand quality moderated the impact of helpfulness on purchase intentions, supporting H10a (Table 4). This effect was significantly stronger in the low brand quality group (0.65, p < 0.01) compared to the high brand quality group (0.49, p < 0.05). The influence of helpfulness on WOM intentions was not contingent on brand quality, so H10b was not supported.

Our theoretical model proposed that closed-mindedness, involvement and expertise influenced internal attributions, while Machiavellianism and cynicism influenced external ones. We tested a competing model where paths from the first three personal antecedents to external attributions and the last two to internal attributions were estimated. In comparison to our theoretical model, none of the additional five paths were significant, and the decrease of the chi-square was not significant either ( $\Delta \gamma 2(5) = 3.83$ , p > 0.1).

The mediating role of perceived helpfulness was tested through structural equation modelling following the procedure established by Iacobucci et al. (2007) and Cheung and Lau (2008). Specifically, we fit one model in which the direct and indirect paths from consumer characteristics to helpfulness were fit simultaneously to estimate either effect while statistically controlling for the other. This model fits the data well ( $\chi 2$  (409) = 596.75, p < 0.01; GFI = 0.92; AGFI = 0.90; NNFI = 0.98; CFI = 0.98; RMSEA = 0.02; SRMR = 0.05). Our analysis supports the presence of full mediation, because in the presence of the significant indirect paths (from personal antecedents to attributions to helpfulness), the direct paths from personal antecedents to helpfulness are not significant. Table 5 shows the significance (and Sobel z-tests) of the indirect effects mediated through internal and external attributions.

The total indirect effects reveal the mechanisms through which consumer characteristics, the attributions they form, and their perceptions of review helpfulness shape their behavioral intentions. Table 6 shows the total indirect paths that closed-mindedness leads to an increase in behavioral intentions, while the remaining consumer characteristics significantly decrease these intentions.

Finally, we calculated moderated mediation paths (Table 7). We observed a significant positive total indirect effect of close-mindedness on behavioral responses in the low-brand quality group, and Machia-vellianism and cynicism displayed a similar trend, with their negative total indirect effects being more pronounced in the low-brand quality group. Expertise showed a negative total indirect effect exclusively in the low-brand quality group.

### 7. Discussion

Our research, based on a survey with 601 consumers evaluating cell

<sup>&</sup>lt;sup>2</sup> We checked for the invariance of the measurement model. Partial metric invariance was established, with only 3 out of 31 estimated factor loadings appearing to vary across contexts (Byrne, 2008).

**Table 4**Parameter estimates.

Paths	Stdzd Path Coeff. (t-value)	Hypothesis supported?
H1: Closed-mindedness → Internal attributions	0.43 (t = 9.18)	Yes
H2: Involvement → Internal attributions	-0.17 (t = -3.32)	Yes
H3: Expertise → Internal attributions	-0.15 (t = -3.18)	Yes
H4: Machiavellianism → External attributions	0.16 (t = 3.74)	Yes
H5: Cynicism → External attributions	0.36 (t = 7.93)	Yes
H6: Internal attributions → Helpfulness	0.18 (t = 3.92)	Yes
H7: External attributions → Helpfulness	-0.45 (t = -9.92)	Yes
H8a: Helpfulness → Purchase intentions	0.59 (t = 15.56)	Yes
H8b: Helpfulness → WOM intentions towards the review website	0.35 (t = 6.96)	Yes
H9: Purchase intentions → WOM intentions towards the review website	0.52 (t = 10.06)	Yes

Moderation hypotheses	$\chi^2$ difference $(\Delta df = 1)$	Low-brand quality (n $=$ 320)	High-brand quality (n = 281)	
H10a: Helpfulness → Purchase intentions	4.43**	0.65 (t = 12.00)	0.49 (t = 6.61)	Yes
H10b: Helpfulness → WOM intentions	0.36 (ns)	0.33 (t = 6.46)	0.31 (t = 5.28)	No

<sup>\*\*</sup>p < 0.05; ns = not significant.

**Table 5**Indirect effects from consumer characteristics to perceived helpfulness.

Indirect paths	Stdzd Indirect Path Coeff. (t-value)	Sobel test				
To perceived helpfulness through internal attributions						
Close-	0.11 (t = 3.26)	Sobel test statistic $= 3.50 p =$				
mindedness		0.00				
Involvement	-0.04 (t = -2.79)	Sobel test statistic $= 2.51 p =$				
		0.01				
Expertise	-0.04 (t = -2.55)	Sobel test statistic = 2.49 p =				
		0.01				
To perceived helpfuli	To perceived helpfulness through external attributions					
Machiavellianism	-0.10 (t = -3.59)	Sobel test statistic = 3.37 p =				
		0.00				
Cynicism	-0.22 (t = -5.98)	Sobel test statistic = 5.49 p =				
		0.00				

phone reviews, employs the combined framework of the ELM and attribution theory as a theoretical lens to explain how readers, when faced with extremely positive and exaggerated online reviews (EEORs) that do not reflect a true and accurate description of product characteristics, make causal attributions about the review's exaggerated and potentially misleading nature. These attributions are influenced by the reader's shopping related characteristics (expertise and product involvement) and personality traits (close-mindedness, Machiavellianism and cynicism). We found that the type of causal attribution, either internal (e.g., the consumer spent too little effort while reading the reviews) or external (e.g., the company/brand manipulated the reviews) directly influences how consumers perceive the review's helpfulness. These perceptions of helpfulness significantly impact consumers' behavioral intentions, affecting their likelihood to purchase the product and recommend the review site. Lastly, the impact of perceived helpfulness on purchase intentions is moderated by the perceived quality of the brand. Several implications for theory and management can be derived from these findings.

**Table 6**Total indirect effects from consumer characteristics to behavioral intentions.

Indirect paths	Stdzd Indirect Path Coeff. (t-value)
To purchase intentions	
Closed-mindedness	0.06 (t = 3.15)
Involvement	-0.02 (t = $-2.71$ )
Expertise	-0.02 (t = $-2.50$ )
Machiavellianism	-0.05 (t = $-3.52$ )
Cynicism	-0.12 (t = $-5.28$ )
To WOM intentions towards the review websit	e
Closed-mindedness	0.06 (t = 3.20)
Involvement	-0.03 (t = $-2.74$ )
Expertise	-0.02 (t = $-2.50$ )
Machiavellianism	-0.06 (t = -3.61)
Cynicism	-0.13 (t = $-5.42$ )

**Table 7**Moderated mediated paths from consumer characteristics to behavioral intentions.

Moderated mediated effects	Low brand quality (n $=$ 320)	$\begin{array}{l} \text{High brand quality (n =} \\ 281) \end{array}$		
	Stdzd Indirect Path Coeff. (t-value)	Stdzd Indirect Path Coeff. (t-value)		
To purchase intentions				
Closed-mindedness	0.07 (t = 3.08)	0.04 (t = 1.51)		
Involvement	-0.02 (t = -1.55)	-0.02 (t = $-1.62$ )		
Expertise	-0.04 (t = -2.64)	-0.01 (t = -0.98)		
Machiavellianism	-0.05 (t = -2.94)	-0.04 (t = -2.15)		
Cynicism	-0.12 (t = -4.72)	-0.09 (t = -3.06)		
To WOM intentions				
Closed-mindedness	0.07 (t = 3.16)	0.05 (t = 1.50)		
Involvement	-0.03(t = -1.58)	-0.02 (t = -1.59)		
Expertise	-0.04 (t = -2.66)	-0.01 (t = -0.98)		
Machiavellianism	-0.06 (t = -3.01)	-0.05 (t = $-2.20$ )		
Cynicism	-0.12 (t = -4.69)	-0.11 (t = -3.28)		

### 7.1. Theoretical implications

Despite its prevalence in the online context, only recently have scholars begun to pay attention to studying the helpfulness of EEORs. The present research contributes to the literature in several ways. First, our study of real consumers is focused on readers of reviews. This shift provides new insights, discussed next, into the cognitive process consumers experience when they come across extremely positive and exaggerated online reviews.

Second, distinct from previous research that generally focused on the hospitality industry, this study centers on products dominated by tangible aspects—specifically cell phones. This setting, which leans more towards objectivity and tangibility compared to the subjective evaluations more typical of service-oriented contexts in other studies in the literature, underscores the relevance of the ELM. Specifically, our findings show that in this more objective environment, the ELM helps explain how close-minded consumers using mental shortcuts (the peripheral route) and highly motivated and capable readers engaging in thorough analysis (the central route) respectively increase and decrease internal attributions. Interestingly, our results also reveal that personality traits like Machiavellianism and cynicism increase in external attributions.

Third, our research is, to best of our knowledge, the first to integrate causal attributions in the context of exaggerated online reviews. Past research has examined the mediating role of causal attributions in the relationship between online review information and consumer evaluation of its effectiveness and credibility (Qiu et al., 2012). Importantly, our findings provide evidence for the key role of causal attributions in

explaining consumers interpretation of overly positive reviews as they fully mediate the influence of consumers' characteristics on review helpfulness. It is also important to highlight the much stronger negative effect of external attributions ( $-0.44,\,p<0.01$ ) compared to the positive effect of internal ones (0.18, p<0.01) in determining the helpfulness of a review. A possible explanation for this lies in the attribution bias triggered by a self-protective psychological mechanism. Specifically, when consumers are exposed to an adverse scenario, such as encountering a review that is excessively exaggerated and potentially misleading, they tend to downplay personal factors and emphasize external influences (Riquelme et al., 2021).

Fourth, our research is the first to show how the perceived helpfulness of EEORs positively affects consumer behavioral intentions. Additionally, our findings offer deeper insights by showing that the effect of helpfulness on purchase intentions is stronger for brands seen as low-quality compared to those regarded as high-quality. The effect was not as strong on WOM intentions; perhaps those actions are driven more by aspects of the website, such as ease of use and interactivity, engagement features, usability, etc.

Fifth, our study reveals that the total indirect negative effects of consumer shopping-related variables (ability and motivation) on responses to exaggerated reviews are relatively weaker than those of personality traits. Personality traits are generally stable and consistent across different situations and over time (Steenkamp and Maydeu-Olivares, 2015). In contrast, expertise and involvement are more context-dependent and can vary significantly across different situations and products (Amos et al., 2014).

Finally, the test of moderated mediation paths revealed an interesting pattern, namely, the way personal characteristics like close-mindedness, expertise, cynicism, and Machiavellianism influence consumer behavior heavily depends on their perception of the brand's quality. In particular, with the exception of close-mindedness which had a positive effect, these characteristics generally had a more pronounced negative impact on purchase and WOM intentions in cases where the brand was perceived as low quality. These observations align with and extend recent results from Ko and Bowman (2023), who found that consumers were less likely to doubt a review's authenticity if the brand was well-regarded.

### 7.2. Practical and managerial implications

Our research highlights the critical need for companies and review platforms to address the issue of exaggerated online reviews, particularly for products dominated by tangible properties. In particular, our research offers guidance regarding how they can ensure quality reviews. EEORs can trigger skepticism among many consumers, leading to adverse effects on both intentions to purchase the product and recommend the review site. To mitigate this issue, companies and review sites could implement a multifaceted approach consisting of: (1) the use of sophisticated algorithms and AI technologies (e.g., Fakespot.com), and/ or the collaboration with specialized external firms (e.g., Powerreviews. com) to cross-check the reviews against the reviewer's purchase history, confirm the authenticity of the purchase, and determine if the reviewer received a free product sample or was incentivized, for instance, through participation in contests or sweepstakes, in exchange for their review; (2) the development and dissemination of educational content that advises and encourages consumers to post genuine and realistic reviews which provide detailed and evidence-backed feedback, particularly when the overall rating is extremely positive.

For example, our suggestions could include guidelines, displayed through service terms or pop-up ads disclosing company policies, on how to write helpful reviews (e.g., Amazon, 2024a); (3) the introduction of features that allow users to flag reviews they suspect to be exceptionally exaggerated or inauthentic; (4) the development of incentive programs (e.g., loyalty points, discounts, or even public recognition on the platform) that reward users for providing honest and helpful reviews (e.g., Amazon, 2024b), and (5) the implementation of regular monitoring and auditing of reviews to ensure compliance with set guidelines (e.g., Amazon, 2024c). This could involve periodic checks and the use of software and tools, as mentioned earlier, to detect patterns indicative of exaggerated and potentially misleading reviews.

### 7.3. Future research and limitations

Any research has limitations that represent interesting opportunities for further research. Our focus was on extremely positive and exaggerated reviews, with several mediating and moderating factors. Future research could also examine factors like review anonymity, e.g., perhaps the presence or absence of reviewer identity affects consumer trust and the perceived credibility of reviews. We found clear indications of the utility of attributions as mediators. Future research could explore their potential moderator role in the influence of personal characteristics on helpfulness. Additionally, the possible mediating or moderating effects of other consumer variables such as age and generational differences could be examined. Like our attribution variables, marketers might anticipate that these additional consumer characteristics would also function as perceptual lenses through which consumers read and process information regarding the content valence and extremity of online reviews.

### CRediT authorship contribution statement

Sergio Román: Writing – review & editing, Writing – original draft, Supervision, Methodology, Formal analysis, Conceptualization. Isabel P. Riquelme: Writing – review & editing, Writing – original draft, Methodology, Formal analysis, Conceptualization. Dawn Iacobucci: Writing – review & editing, Writing – original draft, Conceptualization.

### **Declaration of competing interest**

None.

### Data availability

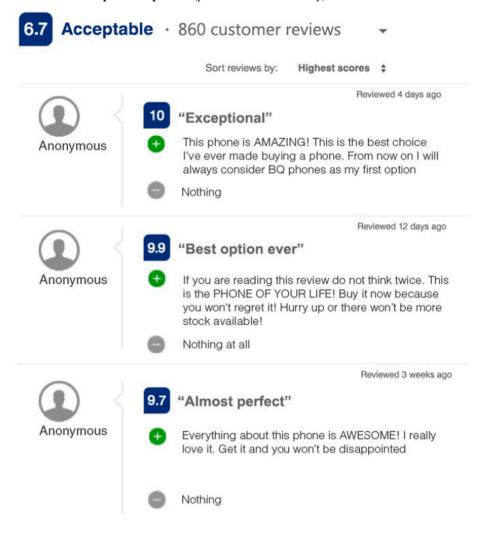
Data will be made available on request.

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#### **Appendix**

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).



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