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Humor in Webcare Interactions: Impacts on Focal Customer Satisfaction and Positive Word-of-Mouth Intentions

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15/05/2024

Abstract

In an era where digital communication continues to redefine the landscape of customer service, the use of humor in webcare emerges as a potential strategy for companies to influence the dynamics of customer interactions. This thesis therefore studies the underexplored role of humor in webcare, sheds light on its complex effects on customer service evaluations, and provides strategic insights for businesses striving to enhance interactions with online customers. This research adds to the existing literature on humor in webcare by investigating the reactions of complaint posters, as well as the use of self-enhancing humor against aggressive humor. Through a comprehensive literature review and experimental research, this study examines these two humor styles influence focal customer satisfaction and positive word-of-mouth intentions in webcare interactions. The research uses a 2 (self-enhancing humor vs aggressive humor) by 2 (provision of compensation vs no provision) between-subjects design to analyze data collected in the online survey and test the hypotheses.

In the context of a complaint about a faulty phone, the findings show that the use of self-enhancing humor in the company's response, despite being a positive form of humor, does not lead to better customer service evaluations than aggressive humor. Then, anxiety relief was not found to moderate the relationship between humor and customer service evaluations. Furthermore, male customers were not found to have significantly more positive reactions to aggressive humor compared to female customers. Finally, no interaction effect between humor and compensation could be identified when compensation was offered in the humorous reply. Following the quantitative analysis, theoretical implications and managerial recommendations are presented.

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Introduction

As companies increasingly engage with customers on digital platforms, the landscape of customer service is continually evolving (Ghazali et al., 2016; Kaplan & Haenlein, 2010). Social media platforms, including Facebook and X (Twitter), host global user bases of over 3 billion and 600 million users respectively (Statista, 2024). These platforms play an important role in customer interactions as 75% of X's users and 59% of Facebook's users actively engage with brands (Khoros, 2023). Notably, 20% of users on X and 14% on Facebook interact specifically to voice complaints (Khoros, 2023). This volume of engagement highlights the importance of innovative customer service strategies in webcare.

This thesis explores the integration of humor in webcare and its impacts on customer service evaluations, such as satisfaction and positive word-of-mouth intentions. The literature has extensively discussed general webcare strategies but has often overlooked the nuanced role of humor. This gap in research highlights the need to understand how humor can influence customer service evaluations in webcare. The motivation behind this research comes from the shift in consumer behavior and expectations, driven by digital transformation. Customers are not only looking for solutions but also for entertaining experiences when interacting with brands online (De Veirman et al., 2016; Muntinga et al., 2011). Humor presents a potential strategy for companies to differentiate their services and enhance customer service evaluations. However, the effectiveness, potential benefits, and risks of humor in webcare are not extensively documented. This led to the formulation of the following research question: "**How does the use of different humor styles in companies' webcare responses impact focal customer satisfaction and positive word-of-mouth intentions?"**

The thesis follows a structured approach beginning with a literature review to establish a theoretical framework. Based on the information collected, the working hypotheses are developed. A 2 (self-enhancing vs aggressive humor) by 2 (provision of compensation vs no provision) between-subjects experimental design is used to test the hypotheses. In the quantitative study, variables, such as customer satisfaction, positive word-of-mouth intentions, feelings of anxiety relief, and the provision of compensation, are assessed. Then, data analysis helps test the significance of the relationship between humor styles and customer service evaluations. Lastly, we discuss the theoretical implications and some managerial recommendations. This thesis will contribute to the existing literature by studying the service evaluations of complaint posters when exposed to self-enhancing versus aggressive humor.

Part I: Literature review

1. Webcare

1.1. Exploring webcare

1.1.1. Webcare definition

In the evolving landscape of digital customer service, various terms such as online customer service, online customer care, social media customer care, and online service recovery are often used interchangeably to describe the interactions between brands and consumers on digital platforms. However, for the purposes of this study, the term *webcare* will be consistently employed. Webcare is commonly described as *exploring the web in order to find and analyze consumer feedback, such as complaints and questions, and communicating online and publicly with these consumers to provide timely resolutions* (Edwards & De Kool, 2015; van Noort & Willemsen, 2012). The use of webcare for managing positive reviews has been a subject of debate in the literature, with practitioners supporting it (Liao et al., 2022; Schamari & Schaefers, 2015) and others expressing reservations (Li et al., 2018; Wang & Chaudhry, 2018). In this paper, the use of webcare for positive reviews will also be adopted as part of a comprehensive approach to webcare, thus encompassing responses to negative and positive reviews, and neutral requests. Extending across various online platforms, webcare can be implemented in company websites, customer support portals, social media (e.g., Instagram, X), review sites (e.g., Google reviews, Trustpilot), as well as forums (e.g., Reddit).

1.1.2. Benefits

It is widely acknowledged in the literature that companies should respond to customer requests and electronic word-of-mouth (eWOM), especially negative eWOM which has been extensively studied, as companies could derive multiple benefits from employing webcare. Electronic word-of-mouth can be defined by the sharing of opinions, experiences, and information about products/services on digital platforms (Cheung & Lee, 2012). Researchers found that in the case of service recovery, which involves the actions taken by a company to address and resolve customer complaints, there is an increase in customer satisfaction (Gu & Ye, 2014; Lin et al., 2011), in satisfaction with the handling of the complaint (Einwiller & Steilen, 2015), in purchase intentions (Casado-Díaz et al., 2020), in customer loyalty (Ghosh, 2017; Lin et al., 2011), and in positive customer engagement (Schamari & Schaefers, 2015). Moreover, webcare serves as a means to differentiate from competitors by prioritizing superior customer service and addressing identified weaknesses (Lui et al., 2018; Stevens et

al., 2018). It also enhances the company's reputation (Stevens et al., 2018), results in more positive consumer attitudes toward the firm (H. Liu et al., 2019), and strengthens the relationship between the eWOM sender and the brand (Ma et al., 2015). This is a non-exhaustive list of webcare benefits. It is important to consider that these benefits depend on various factors, including the webcare strategies employed, the content, timing, and format of responses, and so on. (Xie et al., 2017). Hence, as explained in section 1.2., companies are advised to tailor their responses to eWOM in a "*personalized, detailed, and timely manner*" (Lopes et al., 2023, p.1) in order to leverage these benefits.

1.1.3. Risks and challenges

As a result of this necessity for tailored public responses to consumer feedback, webcare also represents challenges and risks for companies. First, despite the research conducted on different webcare strategies, consensus is lacking regarding their effectiveness (Sparks & Bradley, 2017). The optimal strategies to address customer feedback have not been researched much, thus opening up an interesting research avenue (Lui et al., 2018; Manu & Sreejesh, 2021). Then, digital platforms have empowered customers to share their feedback on companies and/or their offerings more easily, faster, and on a larger scale than ever before (Cheung & Lee, 2012; Dijkmans et al., 2015). This amplifies the detrimental effect of negative feedback and of potential poor response management on the company, as it reaches not only the poster of the review/request, but also review/request readers (Abney et al., 2017). Lastly, online feedback can theoretically remain accessible and visible indefinitely to anyone (Cheung & Lee, 2012; Park & Lee, 2009). In this instance, mismanagement of webcare could have immediate and lasting negative consequences on the company (van Noort et al., 2014).

1.2. What we know about webcare

Webcare has been extensively researched over the years, with practitioners and researchers concentrating on identifying factors that could positively influence webcare responses to benefit the company. This research involves analyzing the diverse reactions from posters or observers. Building on the systematic literature on managerial response strategies to eWOM by Lopes et al. (2023) and on service failure & online service recovery by Manu & Sreejesh (2021), we have synthesized and analyzed the literature to explore existing coverage and identify effective webcare practices and strategies. Figure 1 provides a summary of the concepts related to webcare response strategies that have been examined in the literature.

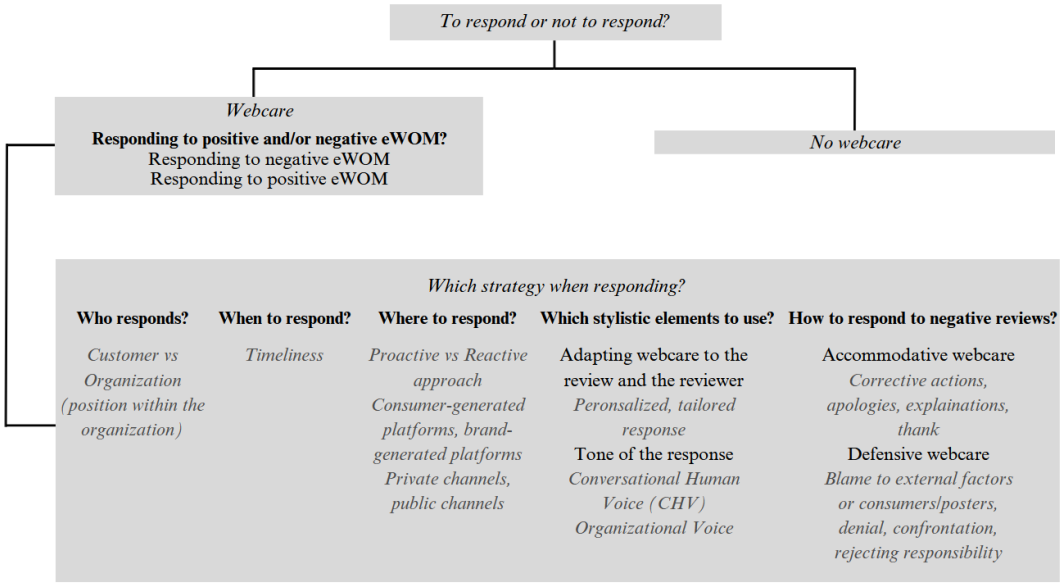


Figure 1: Conceptual framework of webcare (Adapted from Lopes et al. (2023))

1.2.1. To respond or not to respond?

The debate over the provision of webcare services persists. According to Lopes et al. (2023), their literature review suggests that responding to eWOM is generally agreed to be more beneficial than not responding. Moreover, extensive research has been conducted on whether companies should prioritize responses to negative or positive eWOM. Lopes et al. (2023) concluded from their review of the literature that negative eWOM should always be addressed, whereas positive eWOM, although less studied, is considered of lower priority. For instance, responses to negative eWOM were found to have a positive influence on customer satisfaction (Javornik et al., 2020) and brand evaluations (van Noort & Willemsen, 2012), among others.

1.2.2. Who, when, and where?

Studies on webcare strategies typically involve considerations of the source, the timeliness of responses, and the platforms on which webcare is implemented. As summarized by Manu et Sreejesh (2022) and Lopes et al. (2023), there can be multiple sources of webcare, originating from various positions within the company and even from customers themselves, who could serve as brand advocates (Stevens et al., 2018). Furthermore, there is consistent evidence in the literature supporting the notion that responses to customer feedback should be provided promptly (Lopes et al., 2023; Manu & Sreejesh, 2021; Stevens et al., 2018). Then, social media such as Facebook and X (Twitter) as well as company websites have received the most scrutiny in the literature. Yet, there is no consistent conclusion regarding which platform is preferable for responses (Lopes et al., 2023; Manu & Sreejesh, 2021). Lastly, webcare is

strategically divided into reactive and proactive engagement. Reactive webcare occurs when responses are prompted by a direct request from the customer, such as a mention on social media specifically directed at the company (van Noort & Willemsen, 2012; Weitzl, 2019). In contrast, proactive webcare involves companies actively engaging with customers who did not directly address the company online (Kemp et al., 2020; van Noort & Willemsen, 2012).

1.2.3. Response style

The literature also highlights the significance of response style. Manu et Sreejesh (2022), Lopes et al. (2023), and Stevens et al. (2018) advocate for personalizing or tailoring responses to suit the customer and their review in order to humanize the interaction. The customization and tailoring of responses further suggest that companies should opt for a conversational human voice (CHV) rather than an organizational one (Lopes et al., 2023). Indeed, it gives rise to various emotions among posters and observers, such as trust, perceived relevance, and a human touch in the conversation (Lopes et al., 2023). Furthermore, companies need to consider the length of their responses, as research indicates that longer, more specific replies are effective for addressing negative reviews (Chen et al., 2019). On the other hand, shorter responses are recommended in order to avoid accentuating any negative points that may exist within an otherwise positive review (Chen et al., 2019).

1.2.4. How to respond to negative reviews?

In the literature, accommodative webcare is widely acknowledged as the preferred strategy (Lopes et al., 2023; Weitzl & Hutzinger, 2017). It can be defined as a public acknowledgment of the company's responsibility and errors, which is characterized by one or a combination of expressions such as showing understanding, apologies, explanations, and the implementation of corrective actions (Casado-Díaz et al., 2020; Lopes et al., 2023). On the other hand, defensive webcare is about attributing the blame to external factors, rejecting responsibility, confronting the complainants, denying, or employing a permutation of these tactics (Casado-Díaz et al., 2020; Lee & Song, 2010). Within the extensive research into webcare strategies and the search for optimal approaches for online customer feedback management, recent studies have been conducted on the role of humor in webcare. Nevertheless, the understanding of the latter remains ambiguous and therefore highlights the necessity for further research to gain insight into whether, how, and when humor can enhance webcare responses.

2. Humor in communication

2.1. Definition and styles

The literature on humor is extensive and encompasses a wide array of definitions. Most of them have in common that they refer to humor as an effort to engage with others and convey a message in a way that is intended to elicit laughter and lead to an emotional response from the audience (Mathies et al., 2016; McIlheran, 2006; Porteous, 1989). Humor is a complex (Lynch, 2002; Meyer, 2000) and multidimensional concept (Lynch, 2002; Speck, 1991) as it involves various processes giving rise to five types of humor: 1. Comic wit, 2. Sentimental humor, 3. Satire, 4. Sentimental comedy, 5. Full comedy (Speck, 1991). This complexity allows for different effects to be generated based on the type of humor used. In this paper, the focus will rather be on the four styles of humor as they can be categorized based on the target of the joke and whether the joke is positive or negative (Table 1) (Chiew et al., 2019; Martin et al., 2003; Mathies et al., 2016).

Table 1: Summary of the four styles of humor (Adapted from van der Wel (2017))

Valence / **Target**	**Positive**	**Negative**
Others	**Affiliative humor** It is employed to strengthen social bonds or relationship development. It can be found in everyday situations as it involves sharing jokes, anecdotes, or funny remarks in order to bring people together	**Aggressive humor** It is aimed at humiliating the recipient (e.g., mockery, teasing). It can be deliberate or accidental. In the latter case, the recipient may interpret a failed effort at affiliative humor as aggressive
Oneself	**Self-enhancing humor** It is used in a way that reframes situations to focus on the humorous side rather than on negatives. It can serve as a coping mechanism to laugh about oneself or an awkward situation in order to maintain composure and a positive outlook	**Self-deprecating humor (or Self-defeating humor)** It is intended for putting oneself down, such as irony and sarcasm. This humor style signals a lack of self-confidence from the sender and is detrimental to their well-being

In addition, humor and sense of humor are two terms that can be easily mixed up, but which hold different definitions. While the former has just been explained, the latter is defined as a

human personality trait and ability to participate in humorous interactions and recognize what is a source of amusement or not (Chaves & Gerosa, 2021; David, 2008; Mathies et al., 2016). While generally regarded as a positive trait, a sense of humor can also be perceived as unpleasant or mean (Meyer, 2000).

2.2. Humor as a unifying or dividing force

The concept of humor can be analyzed through two lenses: the individual level and the societal level. The literature is notably interested in exploring the motivations and mechanisms individuals employ to create humor, as well as the societal applications of humor. At the individual level, which is the most studied in the literature, research focuses on the three theories supporting humor: relief theory, incongruity theory, and superiority theory (Lynch, 2002). At the societal level, research centers on the functions of humor and their effect on social groups, internally and in interactions between groups, ultimately contributing to the literature on the paradox of humor (Lynch, 2002; Ziv, 2010).

2.2.1. Three theories of humor

Humor is based on three processes that sometimes overlap one another. First of all, the *relief* (or arousal) theory suggests that humor serves as a release of psychological tension (e.g., anxiety, anger, sadness) by providing a momentary escape from serious thoughts or emotions (Lynch, 2002; Meyer, 2000). In the *incongruity* theory, humor arises from a disparity between what is expected and what actually occurs (Meyer, 2000). That is, jokes or humorous situations that involve surprising elements that go against our normal expectations, as long as they are perceived as non-threatening (Meyer, 2000). Lastly, in the *superiority* theory, humor often involves a feeling of superiority over someone or something else either intellectually or socially, and people find amusement in these situations (Meyer, 2000). In spite of their distinct reactions, Speck (1991) states that these humor theories are interestingly similar as they share common elements: tension, arousal, playfulness, and a process enabling the reduction of tension.

2.2.2. Social functions of humor

These three theories support the functions of humor, highlighting its complexity and paradoxical nature, as it can transition from beneficial and inclusive to detrimental and divisive. Based on these theories, Graham et al. (1992) came up with three social functions of humor: positive for the relief theory, expressive for the incongruity one, and negative for the superiority theory. The positive function is related to the creation of inclusion and

identification of others, the expressive function is about demonstrating affection to others, and the negative function involves creating distance from others by asserting dominance and control (Graham et al., 1992). Meyer (2000) and Lynch (2002) go deeper and complement the work of Graham et al. (1992) by proposing four functions that will constitute the base to explain one of the paradoxes of humor in the next chapter: identification, clarification, enforcement, and differentiation. Humor helps individuals *identify* with values or ideas, fosters a sense of belonging, and enhances cohesiveness (Lynch, 2002). Humor also facilitates the *clarification* or explanation of complex or ambiguous situations (Meyer, 2000). Then, the adherence to and *reinforcement* of norms within a particular social context can be done through humor (Meyer, 2000). Finally, humor can be used to *differentiate* between social groups and beliefs, which can eventually lead to the creation of boundaries and the establishment of identities (Lynch, 2002). In an organizational setting, these functions manifest when leaders employ humor, which can either diminish the gap between leaders and followers by fostering clarity and a sense of camaraderie, or widen these gaps if humor accentuates the disparities between leaders and followers (Hu, 2023).

2.2.3. Paradox of humor

These four functions could be placed along a spectrum, with identification on the left end and differentiation on the right end, thus displaying a continuum from what unites to what divides people. Nevertheless, the reality is that unity and division coexist, resulting in the humor paradox. Meyer (2000, p.310) therefore portrays humor as a "*double-edged sword*", that is simultaneously a social "*lubricant*" and a social "*abrasive*" (Martineau, 1972, p. 103). On the one hand, the identification and clarification functions of humor serve to bring people together by fostering deeper connections between individuals and confirming common beliefs (David, 2008; Graham et al., 1992; Lynch, 2002). On the other hand, these functions also tend to dismiss individuals that do not share the same values, beliefs, or references. This exclusionary tendency is accentuated by the reinforcement and differentiation functions, which reaffirm existing boundaries between groups (Lynch, 2002; Meyer, 2000).

2.2.4. Reconsidering the Unity/Division Paradox in Humor

The unity/division paradox of humor offers one comprehensive approach to the complexity of humor. However, this perspective could be criticized as potentially oversimplifying and polarizing complex human interactions. Unity and division are presented as diametrically opposed forces, whereas in reality, more nuances should be provided between both. Besides, the relationship between unity and division can also be looked at in a positive way since they

can offer constructive elements such as diverse opinions and healthy debates that contribute to societal progress.

2.3. Dark side of humor

Even though humor is generally seen as a positive communication trait, well-intentioned efforts at positive humor can be misused, misunderstood, or unrecognized, thus transforming humor into a potential weapon (Booth-Butterfield & Booth-Butterfield, 1991; McIlheran, 2006). The three primary risks for the sender of failed humor are: 1. confusing the audience, 2. being perceived as wrong, 3. generating a critical assessment from the audience (Speck, 1991). On the recipient side, failed humor is generally met with sighs or fake laughter. According to Hay (2001), a more frequent response to failed humor involves not engaging with the attempt, providing comments that assess the person employing humor or the statement, or expressing non-verbal reactions such as silence. It is noteworthy that recipients of failed humor, when under the social expectation of possessing a good sense of humor, may feel compelled to recognize the humor attempt and express their lack of appreciation in order to establish their credibility as conversational partners (Bell, 2009).

2.4. Subjectivity of humor

The effectiveness of humor is subjective as it is dependent on the situation in which the humorous message is conveyed as well as the audience addressed (Mathies et al., 2016; Meyer, 2000; Miczo, 2019; Speck, 1991). Meyer (2000, p. 315) also uses the expression of "*one's theoretical sunglasses*" to describe the reasons behind variations in the interpretation of humorous communications. Furthermore, David (2008) gives a non-exhaustive list of factors that come to play when influencing an individual's perception of humor: personality, demographics, culture, environment (e.g., geographic location, weather), mood, gender (Hay, 2000), and the style of humor commonly used by the receiver (Wu et al., 2023). Successfully delivering a humorous message may then appear challenging, given the multitude of factors involved, but McIlheran (2006) presents four crucial skills for effectively conveying a humorous message: possessing original humor, understanding one's audience, delivering messages accurately, and analyzing the environment to gauge the relevance of humor.

2.5. Humor in business communication

The use of humor in business communications is also contextual, and its effectiveness varies depending on the environment, whether it is in marketing efforts, service encounters, or

organizational settings. In marketing, incorporating humor has been identified as a valuable tool. Studies indicate that humor in advertising can have a positive influence on customers' brand attitudes (Shin et al., 2023), and their purchase intentions (Eisend, 2009). In an organizational setting, humor acts like a communication magnet between people as it fosters organizational cohesiveness and inclusiveness (Martin et al., 2004; Mesmer-Magnus et al., 2012), as well as an improvement in learning and compliance (McIlheran, 2006). As for interpersonal service, rapports between employee and customers are enhanced with the use of humor, along with trust, positive word-of-mouth intentions, and relationship continuity (Lussier et al., 2017).

As previously noted, the effectiveness of humor is nuanced, as it may backfire if perceived as inappropriate, potentially evoking negative emotions and causing harm to the recipient. (Shin et al., 2023; Söderlund & Oikarinen, 2018; Warren & McGraw, 2016). For instance, Mccoll-Kennedy & Sparks (2003) discovered that the use of offensive humor by service employees can result in low customer satisfaction, and Eisend (2009) found that failed humor in business communications decreases the credibility of the individual or company attempting the humor.

As we have discovered in this section, humor, complex and multi-faceted, involves styles ranging from affiliative to self-deprecating, each with potential to bond or alienate. Its effectiveness in communication depends on context, audience, and delivery. While humor can positively influence brand perception and customer engagement, it risks misinterpretation or offense. The challenge lies in navigating humor's complex and double-edged nature in webcare, which highlights a need for further study on its use in addressing customer feedback on social media. Before proceeding to formulate working hypotheses, it is essential to review the existing literature on humor in webcare and identify interesting gaps in research coverage.

3. Use of humor in webcare

Table 2 provides an overview of the existing literature on the use of humor in the webcare domain. Besides, a table listing non-published papers addressing the same topic can be found in the Appendix 1. The focus on the literature on webcare revealed a limited number of previous studies specifically addressing humor. The few available studies have delved into the efficacy of humor in social media, which includes humorous responses to both negative feedback (Shin & Larson, 2020) and positive feedback (Liao et al., 2022). In the context of negative feedback, humorous responses negatively affect a company’s perceived trustworthiness while positively impacting its exactingness (Shin & Larson, 2020). When it

comes to positive feedback, humorous responses lead to improved brand attitude and purchase intentions (Liao et al., 2022). Research has also explored how observers react to the utilization of humor in addressing complaints (Béal & Grégoire, 2022), as well as in handling uncivil complaints (Béal et al., 2023), revealing that affiliative humor gets the most favorable responses. Finally, an analysis is conducted on the use of humor as a response strategy to a paracrisis unfolding on Facebook (Honisch & Más Manchón, 2020).

While previous studies provide relevant insights into how the use of humor in responding to online reviews, whether positive or negative, impacts consumer perceptions and intentions differently based on the style of humor (affiliative vs. aggressive) and the context (positive vs. negative reviews), they suffer two main shortcomings. First, as Table 2 shows, most studies focus on aggressive and affiliative humor. Four styles of humor however exist (Martin et al., 2003), which may lead to diverse outcomes. For instance, the affiliative style is commonly associated with enhanced relationships in the social psychology literature, whereas the self-deprecating style is associated with greater perceived humility, honesty, and inclusiveness, but also lower self-esteem and lower confidence (An et al., 2023; Martin et al., 2003). In addition, so far self-oriented humor styles have not been distinguished from aggressive and affiliative humor (e.g., Honish & Más Manchón, 2020). Examining the impact of other humor styles is therefore necessary to shed light on their respective effects on customer outcomes in the webcare context.

Second, while the existing literature on webcare has primarily focused on analyzing either individuals posting feedback or the observers, studies on humor in webcare have exclusively concentrated on the effects of humor on the observing audience. This suggests a gap in research that requires further exploration. Indeed, within the webcare literature, it has been observed that posters and observers often exhibit different reactions to webcare responses. For instance, in the context of negative eWOM, a company's public apology positively impacts viewers, but not those who posted the complaints (Kim et al., 2016). This also aligns with certain calls in the literature advocating for a clearer distinction between how webcare is perceived by the poster compared to observers who may be potential customers (Lopes et al., 2023). Given that the poster represents the primary target of webcare responses, it is essential to pay attention to their perspective to better understand how webcare is perceived from their standpoint when humor is employed. Expanding research on the posters will also facilitate tailoring webcare strategies to optimize reactions from both posters and observers.

Table 2: Previous studies on humor in webcare

Authors	Research Objective	Context	Perspective	Humor Styles	Outcome Variable(s)	Underlying mechanism(s)	Key Findings
Shin & Larson (2020)	Demonstrating the impact of employing humor in responses to negative online consumer reviews on corporate image perceptions	Negative reviews	Observers	-Affiliative humor -Aggressive humor	-Perceived excitement of the firm -Perceived trustworthiness of the firm	-Perceived firm innovativeness and coolness -Perceived firm sincerity	-Humorous responses negatively affect a company's perceived trustworthiness while they positively impact its exactingness -Humorous responses maintain their significant positive impact, whether affiliative or aggressive humor is employed -Humor responses' negative effect on trustworthiness is intensified by aggressive humor
Béal & Grégoire (2022)	Investigating the reactions of observing consumers when humor is used to deal with online public complaints on social media	Negative reviews	Observers	-Affiliative humor -Aggressive humor	-Online consumer reactions (likes and retweets) -Purchase intentions	-Inferred negative motives -Humor appreciation	-Affiliative humor generates more favorable reactions from observers than aggressive humor, but an accommodative recovery is equally effective -Sincere brands should choose affiliative humor, and exciting brands should opt for aggressive humor
Liao et al. (2022)	Showing that a humorous response strategy to positive online reviews can lead to positive attitudinal and behavioral responses	Positive reviews	Observers	Affiliative and self-enhancing humor (no distinction made)	-Brand attitudes -Purchase intentions	Perceived parasocial interaction	-Brand attitude and purchase intention are improved through the use of humorous responses to positive reviews, compared with non-humorous ones
Béal et al. (2023)	Examining if the use of humor by companies serves as an effective tactic in responding to the incivility of complainants on social media.	Negative reviews	Observers	Affiliative humor	Purchase intentions	Amusement	-In cases of uncivil complaints, affiliative humor leads to more engagement than an accommodative recovery and results in comparable purchase intentions. It goes the other way around for civil complaints
Honisch & Más Manchón (2020)	Determining the most advisable response strategy for a paracrisis situation occurring on Facebook	Negative reviews	Observers	Self-deprecating and aggressive humor (no distinction made)	-Perceived company reputation -Behavioral intentions	Not specified	-The reform strategy emerges as the most recommended course of action, while employing humor is considered the least appropriate for managing a paracrisis situation on Facebook

4. Conclusion

The literature review highlights webcare as a strategic tool for managing online customer interactions, whether they are positive (praise), negative (complaints), or neutral (requests). Webcare is particularly effective with negative eWOM and has many advantages when it comes to service recovery such as enhancing customer satisfaction, loyalty, and brand reputation. Despite its advantages, webcare faces challenges, including the need for tailored responses and the risks of negative feedback amplification. The systematic literature review on managerial response strategies to eWOM from Lopes et al. (2023) suggests a nuanced understanding of webcare strategies is important for maximizing its benefits and mitigating potential drawbacks. In other words, companies should take into consideration various strategies, such as the actor responding to webcare (e.g., employee, customer), the response timeliness, platform selection, response style (e.g., tone, degree of personalization), and the approach to responding (accommodative vs defensive webcare) (Lopes et al., 2023).

Humor emerges as a complex, multifaceted communication tool that can unify or divide, depending on its application and the audience's perception. The review explores various theories of humor (relief, incongruity, and superiority theory), its social functions (identifying, clarifying, reinforcing, and differentiating), its styles (affiliative, self-enhancing, aggressive, self-deprecating), and the paradox it presents between being a social lubricant and a potential source of conflict. Humor is also subjective and can be misinterpreted or considered inappropriate, resulting in negative audience reactions. This emphasizes the importance of context, audience understanding, and careful selection of humor styles in communication.

Focusing on humor within webcare, the literature review has identified two critical gaps. Firstly, previous studies have primarily focused on the broad effects of humor in customer interactions, often emphasizing affiliative and aggressive styles. This emphasis leaves a significant void in our understanding of the nuanced effects that different styles of humor, such as self-enhancing and self-deprecating, may elicit from customers or online viewers. Secondly, while existing research has extensively documented the reception of humor by observing audiences, there is a lack of research on direct participants in these interactions, known as posters. Understanding the effects of humor on posters is crucial, as their direct involvement could yield different reactions compared to passive observers. This gap is significant because tailoring webcare strategies that effectively leverage humor requires a dual approach that enhances both the posters' and observers' webcare experiences.

Part II: Hypotheses development

To build our research model (Figure 2), we draw upon the insights collected from the literature review and previous studies on this subject. This foundation will lead us to propose several hypotheses regarding responses to negative eWOM, which will be explored and tested in Part III of this paper.

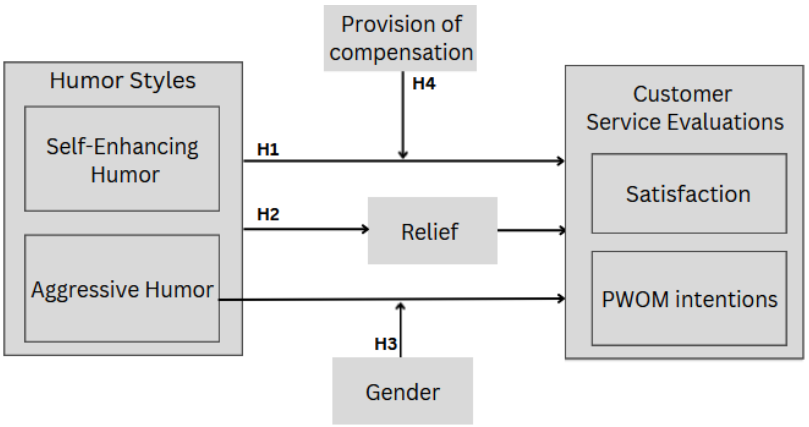


Figure 2: Research model

H1: Customers exhibit more positive service evaluations (i.e., satisfaction and positive word-of-mouth intentions) in response to self-enhancing humor versus aggressive humor

Customer satisfaction (CSAT) is often defined as the difference between the customer's perceived performance of a product, service, or company and their expectations regarding that performance (Gerpott et al., 2001; Parker et al., 2001). A positive deviation from the expectation leads to enhanced satisfaction, whereas a negative gap indicates diminished satisfaction (Parker et al., 2001). Besides, positive word-of-mouth (PWOM) intentions are defined as the tendency of consumers to share positive recommendations with others about the company and/or its products/services (Maxham III, 2001). CSAT and PWOM intentions were selected because their relationship with humor in webcare has not yet been explored. The literature indicates that customer service evaluations are positively influenced by webcare responses to negative eWOM (Lopes et al., 2023). However, the impact may differ when humor is integrated into these responses, depending on the style of humor employed. According to the *incongruity theory of humor*, as presented by Meyer (2000), humor arises from the disruption of conventional expectations with the potential to impact customer service evaluations either positively or negatively. Empirical evidence indicates that employing the two positive humor styles, namely self-enhancing and affiliative humor, can elicit positive consumer responses, such as increased purchase intentions and more favorable brand attitudes (Béal et al., 2023; Béal & Grégoire, 2022; Liao et al., 2022).

On the other hand, the existing body of literature indicates that aggressive humor has primarily yielded adverse reactions to webcare responses. In addition, Mccoll-Kennedy & Sparks (2003) demonstrated that the use of offensive humor by service employees in face-to-face context leads to lower customer satisfaction. This finding is consistent with the *superiority theory* of humor, suggesting that the employment of aggressive humor acts as a strategy to assert dominance over the complainant (Meyer, 2000). Examining self-enhancing humor alongside aggressive humor will facilitate a comparison between a humor style that is more documented and recognized as the most negative, and a humor style acknowledged as positive but not previously studied independently from affiliative humor.

H2: The impact of humor type on focal customer service evaluations is mediated by feelings of anxiety relief. Specifically, aggressive humor elicits less of a feeling of anxiety relief compared to self-enhancing humor, which leads to a decrease in customer service evaluations

In line with the relief theory of humor, self-enhancing is expected to relieve the audience from feelings, such as anger or anxiety, and lead to an improvement in customer satisfaction (Erickson & Feldstein, 2007; Martin et al., 2003). Self-enhancing humor highlights the company's optimism and resilience and conveys to the audience that the company maintains control over the situation, which could eventually result in a sense of relief among the audience (Martin et al., 2003; Mathies et al., 2016). On the other hand, following the superiority theory, aggressive humor is aimed at hurting rather than entertaining (Meyer, 2000). As a result, it triggers high-arousal emotions such as anger and anxiety (Taecharungroj & Nueangjamnong, 2014). Instead of fostering a sense of relief, it tends to provoke emotional responses opposite to relief. This suggests that aggressive humor might undermine the beneficial effects typically associated with tension release.

Hypothesis 3: In the case of aggressive humor, men (vs women) exhibit less negative service evaluations

Because of the subjective nature of humor, its effectiveness is significantly influenced by the diverse individual and social characteristics of the audience (Mathies et al., 2016; Meyer, 2000; Miczo, 2019; Speck, 1991). It follows that gender could serve as a moderating variable in the relationship between humor and customer service evaluations. This variation would highlight the importance of customizing humor in webcare interactions to accommodate

demographic nuances. The emphasis is specifically on aggressive humor in this context, as no differences have been observed in the general use of the other three humor styles between genders (Hofmann et al., 2023). Moreover, men's humor is primarily based on power, dominance, and aggression, characteristics that align with the features of aggressive humor (Hay, 2000). Additionally, men are generally more inclined to enjoy aggressive humor compared to women as men show similar reactions to both affiliative and aggressive styles. Indeed, men perceive aggressive humor as positively as affiliative humor, a sentiment that is not equally shared by women (Hofmann et al., 2023).

Hypothesis 4: The provision of compensation moderates the effect of humor style on customer service evaluations, such that when compensation is present (vs absent), the positive effect of self-enhancing humor is enhanced, and the negative effect of aggressive humor is attenuated

The literature on humor in webcare suggests that humor, when used appropriately, can elicit reactions from customers that are in line with, or even exceed, those achieved through accommodative recovery strategies in terms of engagement, purchase intentions, and customer satisfaction (Béal et al., 2023; Béal & Grégoire, 2022). Among such strategies, offering compensation (e.g., discounts, refunds, returns) is a common approach. The impact of compensation on customer satisfaction is nuanced, influenced by various factors, but evidence shows that combining an apology with compensation tends to boost customer satisfaction (Dens et al., 2015; Fang et al., 2013; Liu et al., 2019, Goodwin & Ross, 1992). Drawing on the definition of apology from Dens et al. (2015), it can be argued that self-enhancing humor includes an apologetic element, due to its self-referential nature. This characteristic suggests an acknowledgment of the issue at hand and the direct acceptance of fault (Silvestro, 2023). In this context, the positive effects of providing compensation could overlap with those of self-enhancing humor and therefore moderate the relationship between this humor style and customer service evaluations. Moreover, although aggressive humor is anticipated to negatively influence customer service evaluations, the offer of compensation may mitigate these adverse effects by serving as an acknowledgement of responsibility. Besides, research suggests that compensation fosters perceptions of fairness and justice (Smith et al., 1999), as well as positive emotions (Wei & Lin, 2022).

Part III: Quantitative research

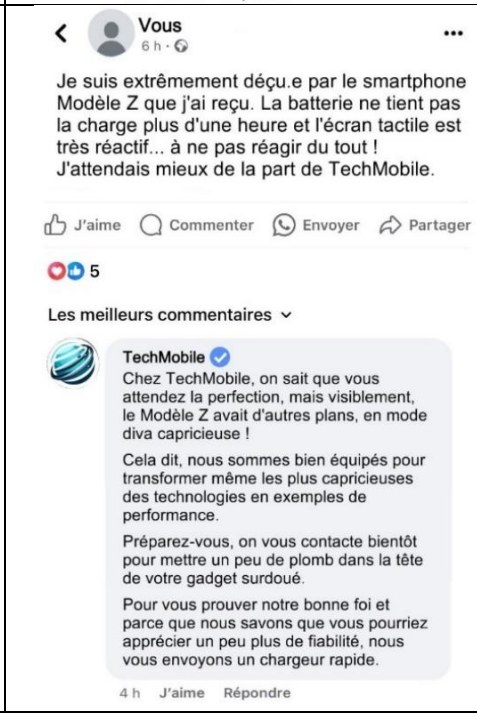
1. Methodology

1.1. Experiment design

1.1.1. Between-subjects experimental design

The hypotheses were tested through a between-subjects experimental design involving a 2x2 matrix: self-enhancing versus aggressive humor, and provision of compensation versus no provision. Four scenarios were developed to study the impacts of these variables (Table 3).

Table 3: 2x2 matrix comprising the four scenarios presented to the respondents

	Self-enhancing Humor	Aggressive Humor
Compensation Absent		
Compensation Present		

In the research setting, a fictional interaction on Facebook between a customer complaining and a tech company responding was presented. The interaction and all modifications made in each scenario were generated with the assistance of ChatGPT-4. Participants were prompted to imagine themselves as the complaining customer. The complaint described the malfunction of a smartphone model, focusing on issues with the battery life and overly reactive screen.

To manipulate the variables under study, the responses given to the complaining customers began and ended with the same sentences. This ensured that any potential changes in the respondents' reactions could be attributed solely to alterations in humor and the introduction of compensation. While the initial sentence set a humorous tone, stating that the phone was acting like a capricious diva, the significant change in humor emerged in the second part of the reply.

In the self-enhancing and no compensation (SE) scenario, the company employs self-enhancing humor by leveraging the diva situation to flip the situation to its advantage and show it has control over the situation. The company highlights its intention to seize this opportunity to exhibit exceptional performance.

In the aggressive and no compensation (A) scenario, the company adopts aggressive humor to mock the customer intentionally by suggesting that if the customer struggles with minor technical issues, perhaps technology is not suited for them. Such a strategy tests the boundaries of customer tolerance and humor appreciation.

When it comes to the two scenarios involving compensation, namely self-enhancing and compensation (SEC), and aggressive and compensation (AC), the responses remain unchanged from the SE and A scenarios. However, a concluding part is added, in which a fast charger is offered to demonstrate the company's reliability and good faith.

1.1.2. Survey design

Qualtrics was the platform used for creating and publishing the survey. The experiment was conducted through an online survey, given that participants were required to be familiar with Facebook or other online platforms. It also emerged as the optimal approach for quickly distributing the survey and easily randomizing the four scenarios. Besides, carrying out the survey online facilitated immediate data encoding (Lambin & de Moerloose, 2016).

The online survey consisted of seven pages, and a copy of it is included in Appendix 2. Initially, the respondents became familiar with the goal of the survey. A consent form was included to ensure data privacy and GDPR compliance. Upon providing consent, respondents were presented with an introduction message detailing the context they were to immerse themselves in. After that, respondents were exposed to one of the four randomly assigned scenarios. Following this, a series of questions concerning the variables studied in this paper were asked, including customer satisfaction, PWOM, anxiety relief, and the provision of compensation. The measurement scales and items for these variables are further elaborated on in section 1.3. below. Before delving into socio-demographic questions aimed at describing the sample population, two questions were asked to verify the realism of the scenario respondents were immersed in. The survey concluded with a message confirming completion and thanking the respondents. It is also important to mention some of the activated settings, including the requirement to answer all questions and the inability to navigate back to the previous page.

1.2. Sampling

The required sample size for the experiment was determined using G*Power. As displayed in the Appendix 3, a minimum of 128 respondents was deemed necessary to ensure sufficient statistical power for the experiment. This number was then multiplied by 2 to 256 respondents in anticipation of the interaction effect between two variables, humor style and the provision of compensation. To calculate the minimum sample size, an effect size of 0.25 was selected as no effect size was specified in the literature on humor in webcare. It follows the convention for a medium effect according to Cohen (1988). The alpha level (α) was set to 0.05, the statistical power expected ($1- \beta$) was set to 0.8, and the number of groups was set to four.

A total of 510 responses were collected between April 25 and May 6. The survey was shared on Facebook, LinkedIn, and via a link sent to individuals or groups. Before starting the analysis and interpretation of the collected responses, data cleaning was necessary. Out of the 510 responses, 173 were incomplete and therefore removed. Similarly, the 34 responses completed in under 120 seconds, a timeframe personally deemed necessary to ensure respondents understood the situation and responded accurately, were also removed. At the end of the cleaning process, 303 responses were retained for analysis, which exceeds the minimum required sample size. There were 71 participants assigned to the SE scenario, 79 to the SEC scenario, 81 to the A scenario, and 72 to the AC scenario.

When examining the composition of the sample population (Table 4), a small gender imbalance can be noted, with 62% of respondents being females and 37% being males. Regarding age, the average age of respondents is 42 years old, with a median age of 45 years old. The majority of respondents are employed full-time, while 19% are students. Additionally, the most prevalent highest level of education among respondents is a bachelor's degree, accounting for 39% of the sample population. This distribution remains relatively consistent across the four scenarios presented randomly to respondents (Appendix 4). However, there is a wider gender imbalance in the SEC scenario, with only 27% of male respondents compared to 72% of females.

Table 4: Demographic profile of survey respondents (N = 303)

Gender	
Male	37.3%
Female	62.0%
Non-binary / Third gender	0.3%
Prefer not to respond	0.3%

Age	
Min	18
Mean	42
Median	45
Max	79

Current occupation	
Full-time Employee	53%
Part-time Employee	9%
Unemployed	2%
Retired	8%
Student	19%
Other	9%

Highest Level of Education	
No Diploma	2%
Certificate of Higher Secondary Education	25%
Technical or Vocational Education	8%
Bachelor	39%
Master	22%
PhD	1%
Continuing Education or Other	2%
Other	1%

1.3. Measurements

In order to conduct the experiment presented earlier via a questionnaire, the dependent, mediating, and moderating variables present in the research model, as well as a couple of other variables had to be measured. All these variables are associated to between two and four items (Table 5). For the majority of the questions presented in the questionnaire a 7-point Likert scale was used to assess the respondents' level of agreement with each item statement: "Strongly disagree", "Disagree", Somewhat disagree", "Neither agree nor disagree", "Somewhat agree", "Agree", "Strongly agree". The decision to adopt a 7-point scale instead of a 5-point scale was made to achieve improved accuracy and reliability (Russo et al., 2021). The scale format used to measure the likelihood of positive word-of-mouth intentions was different, ranging from the first scale point being "Very Unlikely" to the seventh point being "Very Likely". It is worth noting that all items and scale points were translated into French for the purpose of this experiment using advanced translators, namely ChatGPT-4 and DeepL.

To ensure the reliability of combining results from each item of a variable into an average, the internal consistency of the items must be assessed. A Cronbach's alpha measure exceeding 0.7 indicates that internal reliability among items is achieved (Bujang et al., 2018). In this experiment, all variables present in Table 5 have a Cronbach's alpha higher than 0.7, which means that the results from each item of a variable can be averaged for analysis. All survey responses can be accessed through the OSF link provided in Appendix 5.

Table 5: Summary of the relevant variables and their measurement scales

Variables	Items	Wording	Cronbach's alpha	References
Customer satisfaction	CSAT1	I feel satisfied about the service provided to me by the company	α = 0.946	Adapted from Bansal et al. (2004)
	CSAT2	I feel the company did a good job with the service provided		
	CSAT3	I feel happy with the service provided by the company		
Positive word-of-mouth intentions	PWOM1	I would say positive things about this brand	α = 0.958	Adapted from Alexandrov et al. (2013)
	PWOM2	I would recommend this brand to others		
	PWOM3	I would recommend this brand to someone else who seeks advice		
Anxiety Relief	AR1	The company's use of humor reduces the fear I feel due to the issue at hand	α = 0.948	Adapted from Darrat et al. (2016)
	AR2	The company's use of humor reduces my feeling of being upset or feeling of panic about the problem at hand		
	AR3	The company's use of humor reduces my worries about the issue I encountered		
Scenario realism	SR1	I had no difficulty picturing myself in the situation presented	α = 0.752	Adapted from Dabholkar (1994)
	SR2	The situation described was realistic		
Provision of compensation	PCOM1	Yes	/	/
	PCOM2	No		
Gender	GEND1	Male	/	/
	GEND2	Female		
	GEND3	Non-binary / third gender		
	GEND4	Prefer not to say		

2. Results

The statistical software used to conduct the analyses was SPSS. An exploratory approach was employed to test each hypothesis, and the findings are detailed below.

2.1. Testing H1

To examine H4, a two-way ANOVA is necessary due to the between-subjects experimental design involving a 2x2 matrix (self-enhancing versus aggressive humor, and provision of compensation versus no provision). Yet, the output of this analysis is also useful to test H1, which posits that customers exhibit more positive service evaluations in response to self-enhancing humor versus aggressive humor.

Before performing this two-way ANOVA, three assumptions must be checked: independence of observations, normality of residual errors, and homogeneity of variances (Henson, 2015). Independence was assured by the design of the survey, which randomly distributed scenarios to respondents (Appendix 6). Normality was assessed using the Shapiro-Wilk's test. In this instance, the distribution of residual errors was found to be non-normal, with p-values below 0.05 for both CSAT and PWOM intentions (Appendix 7, Appendix 8). Given ANOVA's robustness to deviations from normality, analyses are conducted with a non-normal distribution (Glass et al., 1972; Harwell et al., 1992; Lix et al., 1996). Levene's test demonstrates that the null hypothesis of equality of error variances across groups cannot be rejected for CSAT, confirming homogeneity (Appendix 9). However, the hypothesis is rejected for PWOM intentions (Appendix 10). To address its non-homogeneity, the logarithm of PWOM intentions was employed to perform the ANOVA (Appendix 11).

2.1.1. Tests for customer satisfaction

As shown in Table 6 and Table 7, the main effect of humor type on customer satisfaction yielded an F ratio of $F(1, 299) = 2.982$, $p > 0.05$ meaning that the mean change in customer satisfaction was not significantly higher for self-enhancing humor ($M = 3.45$, $SD = 1.74$) than for aggressive humor ($M = 3.12$, $SD = 1.57$). The means and standard deviations presented here relate to cases where no compensation is provided. In conclusion, at a 95% confidence level, self-enhancing humor does not result in greater satisfaction than aggressive humor. Consequently, H1 is rejected for CSAT.

Table 6: Descriptive statistics of customer satisfaction for each humor style

Humor type	Compensation	Mean	Std. Deviation	N
Aggressive	No	3.1193415638	1.5699510272	81
	Yes	3.5138888889	1.6262108767	72
	Total	3.3050108932	1.6036087375	153
Self-enhancing	No	3.4460093897	1.7447823915	71
	Yes	3.8523206751	1.7506586758	79
	Total	3.6600000000	1.7538580037	150
Total	No	3.2719298246	1.6564459470	152
	Yes	3.6909492274	1.6953528368	151
	Total	3.4807480748	1.6862796625	303

Table 7: Two-way ANOVA test on CSAT

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	21.652[a]	3	7.217	2.578	.054
Intercept	3663.614	1	3663.614	1308.594	<.001
Humortype	8.350	1	8.350	2.982	.085
Compensation	12.107	1	12.107	4.324	.038
Humortype * Compensation	.003	1	.003	.001	.976
Error	837.097	299	2.800		
Total	4529.778	303			
Corrected Total	858.749	302			

a. R Squared = .025 (Adjusted R Squared = .015)

1.1.2. Tests for PWOM intentions

The outcomes for PWOM intentions are similar to those of CSAT. As displayed in Table 8 and Table 9, the main effect of humor type on PWOM yielded an F ratio of $F(1, 299) = 0.381$, $p > 0.05$ meaning that the mean change in customer satisfaction was not significantly higher for self-enhancing humor ($M = 3.08$, $SD = 1.83$) than for aggressive humor ($M = 2.84$, $SD = 1.73$). In conclusion, at a 95% confidence level, self-enhancing humor does not result in greater PWOM intentions than aggressive humor. Consequently, H1 is rejected for PWOM.

Table 8: Descriptive statistics of PWOM intentions for each humor style

Humor type	Compensation	Mean	Std. Deviation	N
Aggressive	No	2.8436213992	1.7321201041	81
	Yes	3.3287037037	1.8592854194	72
	Total	3.0718954248	1.8035625793	153
Self-enhancing	No	3.0751173709	1.8276510930	71
	Yes	3.5105485232	2.1462452757	79
	Total	3.3044444444	2.0070482319	150
Total	No	2.9517543860	1.7752313925	152
	Yes	3.4238410596	2.0099507180	151
	Total	3.1870187019	1.9074059279	303

Table 9: Two-way ANOVA test on LN(PWOM)

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	1.795[a]	3	.598	1.387	.247
Intercept	278.405	1	278.405	645.449	<.001
Humortype	.164	1	.164	.381	.538
Compensation	1.475	1	1.475	3.419	.065
Humortype * Compensation	.087	1	.087	.202	.653
Error	128.969	299	.431		
Total	409.253	303			
Corrected Total	130.764	302			

a. R Squared = .014 (Adjusted R Squared = .004)

In conclusion, the use of self-enhancing humor in webcare responses does not lead to a higher focal customer service evaluations when compared to aggressive humor.

2.2. Testing H2

In order to test H2, a mediation analysis is performed to examine potential mediation role of anxiety in the relationship between humor style (self-enhancing and aggressive) and customer service evaluations (CSAT and PWOM intentions). The PROCESS function in SPSS was used for this purpose (Hayes, 2013), with the bootstrapping option set to 5000 samples to ensure robust confidence intervals for the indirect effects.

For mediation to occur, two conditions must be met: first, the humor type must significantly influence anxiety relief, and second, anxiety relief must significantly influence customer service evaluations (Demol, 2018). Moreover, there is a complete mediation effect when the coefficient of the independent variable is not significant in the mediation analysis, while there is a partially complete mediation effect otherwise (Demol, 2018). The output of the mediation for CSAT and PWOM intentions analyses can be found in Appendix 12 and Appendix 13.

2.2.1. Tests for CSAT

As displayed in Figure 3, the transition from self-enhancing humor to aggressive humor leads to a decrease in anxiety relief by a coefficient of -.5092. Although this coefficient is not statistically significant at the alpha level of 0.05, it is approaching significance with a p-value of 0.0748. Additionally, the relationship between humor style and customer satisfaction is not significant. However, the relationship between anxiety relief and customer satisfaction is significant with a p-value < 0.0001. Had the p-value for aggressive humor on relief been significant, a complete mediation effect could have been observed. H2 is rejected for CSAT.

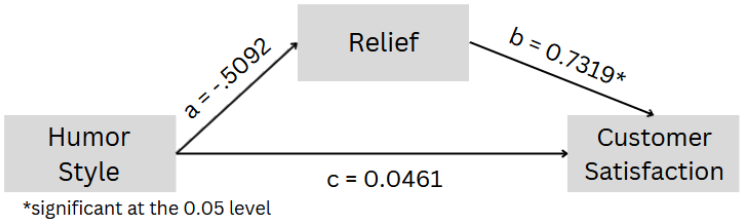


Figure 3: Mediation model for CSAT

2.2.1. Tests for PWOM intentions

The conclusion for the mediation analysis for PWOM intentions is similar to that of CSAT. The mediation model is illustrated in Figure 4. The relationship between aggressive humor and relief compared to self-enhancing humor remains consistent. Relief significantly influences PWOM intentions with a coefficient of 0.7834, slightly higher than for CSAT. Once again, the direct effect between humor type and PWOM intentions is not significant. H2 is rejected for PWOM as well.

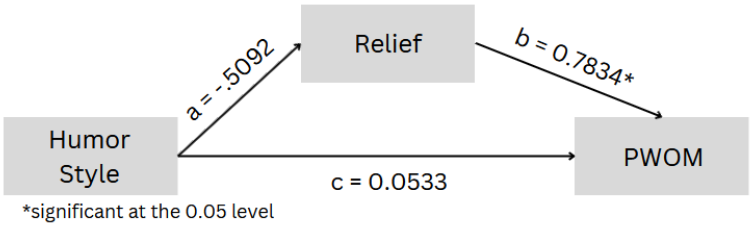


Figure 4: Mediation model for PWOM

In conclusion, the findings from the tests indicate that relief does not mediate the relationship between the type of humor employed in webcare responses and the focal customer service evaluations.

2.3. Testing H3

Before delving into a moderation analysis via multiple regression, a t-test is conducted to check if regression analysis is necessary, especially if the means between genders are not significantly different. This preliminary examination helps determine whether proceeding with regression analysis is justified.

2.3.1. Tests for customer satisfaction

Prior to conducting the t-test, some tests must be carried out to ensure that the same assumptions as for ANOVA are met. As detailed in Table 10, the Levene's test yields a

significant result with a p-value of 0.026. The null hypothesis of variance equality is rejected, which indicates non-homogeneous variances. In addition, the Shapiro-Wilk's test shows that the data distribution for women deviates from normality, while it is normally distributed for men (Appendix 14). To address the issue of non-homogeneity, two robustness tests are performed: the Brown-Forsythe's and Welch's tests, the latter being chosen for its assumption-free approach regarding variance equality (Kulinskaya et al., 2004). When exposed to aggressive humor, men did not have significantly higher customer satisfaction (M = 2.97, SD =1.33) than women (M = 3.25, SD = 1.69), t(78) = -.772, p = 0.221. The means and standard deviations can be found in Appendix 15. Both the t-tests (Table 10) and robust tests (Table 11) are not significant at a 0.05 confidence level, meaning that the null hypothesis of equality of means cannot be rejected. H3 is rejected for CSAT.

Table 10: Levine's test and t-test on customer satisfaction

		Levene's Test for Equality of Variances		t-test for Equality of Means							
						Significance				95% Confidence Interval of the Difference	
		F	Sig.	t	df	One-Sided p	Two-Sided p	Mean Difference	Std. Error Difference	Lower	Upper
CSAT	Equal variances assumed	5.167	.026	-.772	78	.221	.443	-.2800000000	.36278127902	-1.002242046	.44224204596
	Equal variances not assumed			-.820	72.378	.208	.415	-.2800000000	.34157337350	-.9608533364	.40085333636

Table 11: Robust tests of equality of means on customer satisfaction

	Statistic[a]	df1	df2	Sig.
Welch	.672	1	72.378	.415
Brown-Forsythe	.672	1	72.378	.415

a. Asymptotically F distributed.

2.3.2. Tests for PWOM intentions

The findings remain consistent with those regarding CSAT means. Levene's test indicates a violation of homogeneity of variance with a p-value of 0.04 (Table 12). Moreover, the distribution of data for women is still not normally distributed according to Shapiro-Wilk's test (Appendix 16). When exposed to aggressive humor, men did not have significantly higher PWOM intentions (M = 2.93, SD =1.45) than women (M = 2.83, SD = 1.89), t(78) = 0.265, p = 0.396. The means and standard deviations can be found in Appendix 17. Both the t-test (Table 12) and the robust tests (Table 13) yield non-significant results at a confidence level of 0.05. Once again, the null hypothesis of equality of means cannot be rejected.

Table 12: Levine's test and t-test on PWOM intentions

		Levene's Test for Equality of Variances		t-test for Equality of Means							
						Significance		Mean	Std. Error	95% Confidence Interval of the Difference	
		F	Sig.	t	df	One-Sided p	Two-Sided p	Difference	Difference	Lower	Upper
PWOM	Equal variances assumed	4.340	.040	.265	78	.396	.791	.10666666667	.40201581331	-.6936853369	.90701867021
	Equal variances not assumed			.283	73.171	.389	.778	.10666666667	.37661720513	-.6439007143	.85723404761

Table 13: Robust tests of equality of means on customer satisfaction

	Statistic[a]	df1	df2	Sig.
Welch	.080	1	73.171	.778
Brown-Forsythe	.080	1	73.171	.778

a. Asymptotically F distributed.

As a result, for both customer satisfaction and PWOM intentions, there is no significant moderation effect from gender in the relationship between aggressive humor and customer service evaluations.

2.4. Testing H4

As previously mentioned, customer service evaluations were subjected to the same two-way ANOVA as for H1 to examine a potential interaction effect between the humor type (self-enhancing, aggressive) and the provision of compensation (present, absent). As the ANOVA assumptions were tested earlier, we can directly delve into the outcomes of the analysis.

2.4.1. Tests for CSAT

The main effect of humor style yielded an F ratio of $F(1, 299) = 2.982$, $p > 0.05$, indicating that customer satisfaction was not significantly greater for self-enhancing-humor ($M = 3.66$, $SD = 1.75$) than for aggressive humor ($M = 3.31$, $SD = 1.60$). The means and standard deviations presented here are the average of all cases (compensation present and absent). The main effect of the provision of compensation yielded an F ratio of $F(1, 299)= 4.324$, $p < 0.05$, indicating that the customer satisfaction mean change was significantly higher when the compensation was present ($M = 3.69$, $SD = 1.70$) than when the compensation was absent ($M = 3.27$, $SD = 1.66$). The statistics for both CSAT and PWOM can be found in Table 6 and Table 8, which were presented in section 2.1. The interaction effect was non-significant, $F(1, 299) = 0.001$, $p > 0.05$. Therefore, H4 is rejected for CSAT.

2.4.2. Tests for CSAT

Regarding PWOM intentions, the main effect of humor style yielded an F ratio of F (1, 299) = 0.381, p > 0.05, indicating that PWOM intentions were not significantly greater for self-enhancing humor (M = 3.30, SD = 2.01) than for aggressive humor (M = 3.07, SD = 1.80). The main effect of the provision of compensation yielded an F ratio of F(1, 299)= 3.419, p > 0.05, showing that the PWOM mean change was not significantly higher when the compensation was present (M = 3.42, SD = 2.01) than when the compensation was absent (M = 2.95, SD = 1.78). The interaction effect was non-significant, F(1, 299) = 0.202, p > 0.05. Therefore, H4 is rejected for PWOM.

Table 14: Two-way ANOVA test on CSAT

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	21.652[a]	3	7.217	2.578	.054
Intercept	3663.614	1	3663.614	1308.594	<.001
Humortype	8.350	1	8.350	2.982	.085
Compensation	12.107	1	12.107	4.324	.038
Humortype * Compensation	.003	1	.003	.001	.976
Error	837.097	299	2.800		
Total	4529.778	303			
Corrected Total	858.749	302			

a. R Squared = .025 (Adjusted R Squared = .015)

Table 15: Two-way ANOVA test on LN(PWOM)

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	1.795[a]	3	.598	1.387	.247
Intercept	278.405	1	278.405	645.449	<.001
Humortype	.164	1	.164	.381	.538
Compensation	1.475	1	1.475	3.419	.065
Humortype * Compensation	.087	1	.087	.202	.653
Error	128.969	299	.431		
Total	409.253	303			
Corrected Total	130.764	302			

a. R Squared = .014 (Adjusted R Squared = .004)

As a result, it cannot be concluded that the provision of compensation moderates the relationship between humor type and customer service evaluations.

Part IV: Discussion, theoretical insights, and managerial implications

1. Summary of the key findings

This research investigated the effectiveness of humor in webcare. More specifically, it examined and compared the impact of self-enhancing humor and aggressive humor on focal customer service evaluations (i.e., CSAT and PWOM intentions). Besides, the research analyzed the mediating effect of relief on humor styles, as well as the moderating effect of gender on aggressive humor. Finally, the research explored the interaction effect between humor style and the provision of compensation. The research was based on an online experiment, which produced the following findings (Table 16).

Table 16: Overall results of the experiment

Hypotheses	Accepted/rejected
H1	Rejected
H2	Rejected
H3	Rejected
H4	Rejected

2. Discussion and theoretical implications of this study

This study makes several significant contributions to the existing literature on webcare and humor, by examining the effects of self-enhancing, which has not been previously studied independently, compared to aggressive humor. Unique to this study is also the adoption of a complainant perspective, which provides fresh insights into involved customer reactions. Finally, this thesis explores dependent variables such as customer service evaluations, as well as moderating variables like gender and provision of compensation, and mediating variables such as anxiety relief, which have not yet been studied in the context of humor in webcare.

The main theoretical implication from this analysis is that, despite being perceived as a positive form of humor, self-enhancing humor does not significantly outperform aggressive humor in terms of focal customer service evaluations. It is interesting in the sense that aggressive humor is the most negative form of humor due to its aim at humiliation and mockery (Chiew et al., 2019; Martin et al., 2003; Mathies et al., 2016). However, despite this negative connotation, self-enhancing humor was unable to produce superior results.

Several factors, relevant across all tested hypotheses, could explain why significant results were not observed in this study. Indeed, as mentioned earlier in this paper, humor is a multidimensional and complex concept (Erickson & Feldstein, 2007; Lynch, 2002; Meyer, 2000; Speck, 1991). The subjectivity of humor makes that its effectiveness depends greatly on the context in which it is used and the audience characteristics (Mathies et al., 2016; Meyer, 2000; Miczo, 2019; Speck, 1991). Given this subjectivity, the experimental context about responding humorously to a complaint about a faulty phone by referring to the phone as a "diva" might represent a context where humor, whether self-enhancing or aggressive, does not effectively resonate. Therefore, it potentially explains the lack of significant results. These findings introduce a new dimension to the contexts previously explored in this field.

Moreover, the perceptions of both the sender and the recipient regarding humor also contribute to its effectiveness since they are not universal (Mesmer-Magnus et al., 2012). An attempt at humorous communication might not be perceived as humorous by all the stakeholders. This can explain why the impacts of self-enhancing humor was not significantly different from aggressive humor. Indeed, although the scenarios presented to the survey respondents were initially considered to be humorous according to my sense of humor, they might have been perceived as not humorous or even insulting by the respondents.

Furthermore, existing literature on humor in webcare has only focused on the perceptions of humor by observers. However, this study shifts the focus to the focal customers who receive humorous responses to their complaints. Given that people's attitudes can vary depending on whether they observe or are the target of humor, with individuals being more likely to conform when they are observers, some differences from previous findings may arise (Carnevale & Benegal, 2023; Janes & Olson, 2010). For instance, a positive humor style did not produce significantly distinct outcomes in focal customers' reactions compared to the aggressive humor style, despite previous research indicating that positive humor styles had positive effects on observers' reactions (Liao et al., 2022).

Then, the extent to which the respondents were able to put themselves in the position of the complaining customer can also explain the results. The average result for the “situation realism” questions was 4.86. On average, respondents were neutral to somewhat approving of the realism of the scenario and their ability to put themselves in the same situation. This level of engagement may have influenced their reactions to the humor used.

Regarding the second hypothesis, the study findings indicate no significant link between the studied humor styles and customer service evaluations. Once again, this outcome may stem from the varied perceptions of the respondents. Indeed, humor, as a psychological defense mechanism, can be perceived as either a mature or immature defense (Erickson & Feldstein, 2007). When seen as a mature defense, humor can alleviate stress and promote optimism, but when viewed as immature, it can have the opposite effects (Erickson & Feldstein, 2007). These perceptions largely depend on individual respondent characteristics, such as their personal sense of humor (Martin et al., 2003; Vaillant, 2000).

The lack of insignificant relationship between humor and relief might be attributed to the absence of empathy in the company's humorous responses, which fail to acknowledge the customer's worries or anger by simply making fun of the situation. Once again, despite great differences between individual needs and expectations about the company, including empathy in the response was shown to lead to better customers' positive reactions (Clark et al., 2013; Javornik et al., 2020; Liu & Ji, 2019).

When it comes to H3, it was anticipated that men would respond more favorably to aggressive humor compared to women. However, the results showed no significant gender differences in reactions. This outcome could be influenced by various social and cultural factors that interact with gender, potentially obscuring any clear distinctions. Indeed, as Erickson & Feldstein (2007) note, despite having different humor mechanisms (e.g., coping, defense), there is no significant differences between genders when other factors such as age and humor approaches are taken into account. The findings indicate that although men and women may approach humor differently, their perception of it as targets does not vary with aggressive humor.

Lastly, the analysis conducted to test H4 shows that there is no significant moderating relationship between humor styles and the provision of compensation. An alternative explanation for this result is the absence of an explicit apology in the humorous company response. As seen in the hypothesis construction, the combination of apology and compensation generally leads to positive responses from customers (Dens et al., 2015; Fang et al., 2013; Liu et al., 2019, Goodwin & Ross, 1992). In this case, it appears that self-enhancing humor was not perceived as an apology per se, potentially leading to a disconnection between the use of humor and the provision of compensation. An apology alone usually has no impact on the customers' reactions (Lopes et al., 2023). However, its combination with self-enhancing humor and the provision of compensation remains to be investigated.

3. Managerial implications of this study

Given the nuanced impact of humor on customer satisfaction and positive word-of-mouth intentions, managers should implement humor strategically and selectively to enhance the customer experience effectively. This would ensure that humor is only used when appropriate. The main goal here is to enhance the overall customer experience without overshadowing the primary message. Key findings from this study suggest that while humor can be a valuable tool in webcare, its application must be carefully calibrated to match the context and customer expectations.

Since anxiety relief does not significantly mediate the effectiveness of humor, managers should consider other factors that might enhance the customer experience. Instead of relying only on humor to alleviate customer distress, they should combine humor with clear communication and effective problem-solving strategies. This can be done by including more aspects of accommodative webcare such as apologies, explanations, or showing understanding (Casado-Díaz et al., 2020; Lopes et al., 2023).

Given the lack of significant gender differences, managers should avoid making assumptions about customer preferences only based on gender when using aggressive humor. Instead, focus on developing a deeper understanding of individual customer profiles such as age, culture, personality, preferences, and background with the company (David, 2008). By leveraging this data, webcare teams can tailor their communication strategies more effectively.

Results from the analysis showed no interaction effect between humor and the provision of compensation. Therefore, managers should treat compensation and humor as independent tools in the service recovery process. Given its significant positive effect on customer service evaluations, compensation should be used carefully and strategically to address legitimate grievances and ensure that it is perceived as a sincere effort to rectify the situation. Furthermore, the compensation should prioritize spiritual elements such as apologies and respect, rather than utilitarian aspects like refunds or cash returns (Wei & Lin, 2022). On the other hand, humor should be applied in specific instances to make sure it does not undermine the sincerity of the compensation or the seriousness of the customer's issue.

Part V: General conclusions

1. Overall summary

In conclusion, this thesis delves into the complex interactions between two humor styles and focal customer service evaluations (i.e., satisfaction and positive word-of-mouth intentions). This work contributes to the existing literature by exploring the impacts of self-enhancing humor and aggressive humor on customer service evaluations. It offers new insights into online customer service evaluations from the perspective of those posting complaints, a difference from previous research that primarily focused on observers. In order to address the research question "**How does the use of different humor styles in companies' webcare responses impact focal customer satisfaction and positive word-of-mouth intentions?",** four hypotheses were developed. This thesis draws upon extensive literature review and empirical analysis to shed light on the strategic use of humor in interactions with focal customers on webcare platforms.

The analysis of the online survey results shows that all four hypotheses were rejected with a confidence level of 95%. The findings indicated that despite being a positive humor style, self-enhancing humor did not result in higher customer service evaluations compared to aggressive humor, which is the most negative humor style. Then, although humor is known to alleviate stress and anxiety according to literature, no significant mediating relationship was found between the studied humor styles and anxiety relief. Moreover, there was no significant difference in customer service evaluations between men and women regarding their reactions to aggressive humor. Lastly, the study could not establish a moderating relationship between the two humor styles examined and the provision of compensation.

As a result, the study reveals that neither self-enhancing nor aggressive humor significantly improves customer satisfaction or positive word-of-mouth intentions. This highlights the need for humor to be applied selectively and contextually in order to ensure that humor aligns with the specific nuances of each customer interaction. Furthermore, personalizing responses to align with individual customer histories and preferences is a necessity. This approach is particularly crucial in environments where the impact of humor can vary significantly among different audiences. Finally, the use of humor and the provision of compensation should be seen as two separate tools in service recovery.

2. Limitations

Firstly, the humor content generated with the help of ChatGPT that we selected introduces a subjective element into what was considered humorous or aggressive. This subjectivity could influence the consistency and applicability of the results since the perceived humor might not match the diverse perceptions of a wider audience.

Secondly, a medium effect size convention was used to calculate the minimum number of respondents required for the survey to detect interaction effects. If the effect size is small, the current sample size may be insufficient to detect significant differences. This limitation could lead to Type II errors where true effects are not identified.

Thirdly, the study focused primarily on two specific types of humor, namely self-enhancing and aggressive. Other humor styles, such as affiliative or self-deprecating humor, were not explored, which might have provided different insights into humor's role in webcare.

Fourthly, the survey was only sent out to a French-speaking Belgian audience, where a single cultural context was therefore targeted. Given that humor's effectiveness can vary greatly across different demographic and cultural backgrounds (David, 2008), the results observed might not be representative of other cultures where humor could have different impacts.

Lastly, the experiment design may not have adequately controlled all external variables that could influence the perception and effectiveness of humor in webcare, such as prior customer experiences or the specific nature of the complaint. For example, the responses in the scenarios lacked immediate solutions and specific next steps, which is not in line with the consumers' need for quick and detailed resolutions (Parise et al., 2016).

3. Suggestions for future research

Future studies could explore additional combinations of humor styles, such as self-enhancing and self-deprecating humor, to gain deeper understanding of the posters' reactions to webcare responses. These humor styles, oriented towards the self, might elicit different reactions compared to the more commonly studied aggressive or affiliative humor. Studying these styles could uncover how the target of the humor, whether it is directed towards oneself or others, impacts the effectiveness of webcare responses. By comparing these humor styles,

researchers could identify differences in customer reactions, potentially leading to more tailored and effective webcare strategies.

Research could also be expanded to examine how different demographic groups perceive and react to humor in webcare. This could involve studying variations across age groups, cultural backgrounds, or even personality traits to understand how these factors influence the effectiveness of humor. For example, younger audiences might prefer a different style of humor compared to older consumers, and cultural background might affect what is considered appropriate or funny.

Research could explore how humor interacts with other elements of service recovery, such as apologies, compensation, and empathy. For example, humor combined with sincere apologies might mitigate customer dissatisfaction more effectively than either strategy used alone. Research could explore optimal combinations of these elements to find out how they can be integrated to maximize customer reactions.

Finally, longitudinal research could be carried out to observe the long-term effects of humor on customer relationships and loyalty. This approach would help in understanding how humor impacts customer perceptions over time, rather than just immediate reactions. This approach could also reveal whether humorous interactions lead to sustained customer loyalty for instance. Such studies would be insightful in understanding how humor influences customer perceptions over time, which could help businesses develop long-term strategies for customer engagement and retention.

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Appendices

Appendix 1: Summary of non-published papers on humor in webcare

Author	Research Objective	Context	Perspective	Humor Styles	Outcome Variable(s)	Underlying mechanisms	Key Findings
Jacobs (2016)	Investigating how employing humor in webcare affects the company's reputation	Positive & negative reviews	Observers	Humorous vs. Non-humorous responses	Corporate reputation	-CHV -Perceived propinquity -Perceived credibility	Humor makes the company appear closer and more human-like, which enhances the company's reputation regardless of the positive or negative EWOM
van Hoof (2021)	Exploring how humor in webcare responses affects observers' attitudes toward the response and their intention to engage in EWOM	Positive & negative reviews	Observers	-Self-deprecating humor -Affiliative humor	-Attitudes toward the response -Intention to engage in eWOM	-Perceived appropriateness of the response -Perceived originality of the response	The humor style used and the valence of the eWOM response influence the attitude toward the response but do not impact observers' eWOM intention
Schaffelaars (2018)	Exploring how the use of humorous responses in webcare affects the management of negative eWOM	Negative reviews	Observers	-Affiliative humor -Self-deprecating humor	Attitude towards webcare responses	-Perceived CHV -Perceived appropriateness	The presence of humor in webcare responses does not result in a more positive attitudes to the webcare response than responses without humor
van der Wel (2017)	Exploring how using humor styles and humorous visuals in webcare interactions affects corporate reputation	Positive & negative reviews	Observers	-Self-enhancing humor -Affiliative humor	-Corporate reputation -Perceived CHV	-Not specified	No notable impacts on corporate reputation and CHV were observed from humor styles or visual types
Leduc (2017)	Exploring gender distinctions regarding the appreciation of humor varieties in webcare discussions and their impact on the company's reputation and perceived CHV	Positive & negative reviews	Observers	-Self-enhancing humor -Affiliative humor	Company's reputation and CHV	-Company reputation -Perceived CHV	-Men use more humor when sending webcare messages compared to women -There are no significant differences in the impact of self-enhancing and affiliative humor on the company's reputation and perceived CHV between genders
Van Bergeijk (2018)	Examining the impact of companies incorporating emojis in their webcare interactions on the evaluations of their brand	Positive & negative reviews	Observers	-Emoji -Repeated emoji vs. no emoji or emoticon	Brand evaluations	-Perceived CHV -Perceived appropriateness	There is no immediate influence of emoji style on brand evaluations, but an indirect impact was noted through perceived CHV

Appendix 2: Content of the online survey

Start of Block: Intro & Consent

Q1 Bienvenue!

Dans le cadre de mon mémoire en sciences de gestion à la Louvain School of Management, je réalise une étude dans le but d'examiner comment l'utilisation de l'humour affecte les réactions des clients lorsqu'ils reçoivent des réponses humoristiques à leurs plaintes en ligne contre une entreprise.

La participation à cette étude est entièrement volontaire et garantit un anonymat complet. Toutes les données seront collectées, traitées de manière collective, et publiées uniquement sous une forme agrégée. Les informations recueillies seront exclusivement utilisées à des fins de recherche.

Votre contribution ne vous prendra que 5 minutes. Si vous avez d'autres questions concernant cette étude veuillez me contacter : colin.raty@student.uclouvain.be

Si vous avez 18 ans ou plus, comprenez les déclarations ci-dessus et consentez librement à participer à l'étude, répondez 'oui' ci-dessous.

- ○ Oui (1)
- ○ Non (2)

End of Block: Intro & Consent

Start of Block: Aggressive

Q2 Dans cette étude, vous serez exposé.e à une interaction fictive entre vous, en tant que client.e, et l'entreprise TechMobile. Cette interaction comprendra votre commentaire initial sur Facebook et la réponse de TechMobile à votre commentaire.

Nous vous demandons de vous immerger pleinement dans cette situation et de considérer votre expérience et vos sentiments comme si vous étiez réellement le/la client.e impliqué.e.

Page Break

Q3 **Instructions**

Veuillez lire attentivement l'interaction entre le/la client.e et l'entreprise ci-dessous, puis répondre aux questions qui suivent pour nous aider à comprendre votre perception et votre réaction face à cette situation.

End of Block: Aggressive

Start of Block: Aggressive & Compensation

Q4 Dans cette étude, vous serez exposé.e à une interaction fictive entre vous, en tant que client.e, et l'entreprise TechMobile. Cette interaction comprendra votre commentaire initial sur Facebook et la réponse de TechMobile à votre commentaire.

Nous vous demandons de vous immerger pleinement dans cette situation et de considérer votre expérience et vos sentiments comme si vous étiez réellement le/la client.e impliqué.e.

Page Break

Q5 **Instructions**

Veuillez lire attentivement l'interaction entre le/la client.e et l'entreprise ci-dessous, puis répondre aux questions qui suivent pour nous aider à comprendre votre perception et votre réaction face à cette situation.

End of Block: Aggressive & Compensation

Start of Block: Self-enhancing

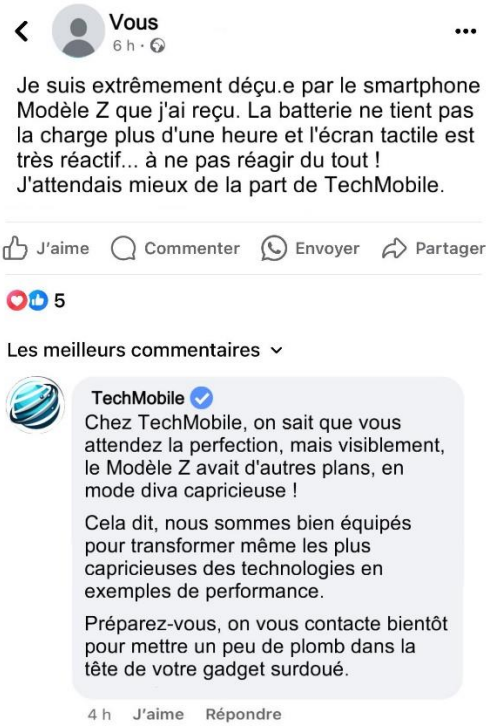
Q6 Dans cette étude, vous serez exposé.e à une interaction fictive entre vous, en tant que client.e, et l'entreprise TechMobile. Cette interaction comprendra votre commentaire initial sur Facebook et la réponse de TechMobile à votre commentaire.

Nous vous demandons de vous immerger pleinement dans cette situation et de considérer votre expérience et vos sentiments comme si vous étiez réellement le/la client.e impliqué.e.

Page Break

Q7 **Instructions**

Veuillez lire attentivement l'interaction entre le/la client.e et l'entreprise ci-dessous, puis répondre aux questions qui suivent pour nous aider à comprendre votre perception et votre réaction face à cette situation.



End of Block: Self-enhancing

Start of Block: Self-enhancing & Compensation

Q8 Dans cette étude, vous serez exposé.e à une interaction fictive entre vous, en tant que client.e, et l'entreprise TechMobile. Cette interaction comprendra votre commentaire initial sur Facebook et la réponse de TechMobile à votre commentaire.

Nous vous demandons de vous immerger pleinement dans cette situation et de considérer votre expérience et vos sentiments comme si vous étiez réellement le/la client.e impliqué.e.

Page Break

Q9 **Instructions**

Veuillez lire attentivement l'interaction entre le/la client.e et l'entreprise ci-dessous, puis répondre aux questions qui suivent pour nous aider à comprendre votre perception et votre réaction face à cette situation.

End of Block: Self-enhancing & Compensation

Start of Block: Questions

Q10 **Veuillez répondre aux questions suivantes en vous imaginant dans la situation présentée précédemment.**

Dans quelle mesure êtes-vous d'accord avec les propositions suivantes ?

Q11 Je me sens satisfait du service que m'a fourni l'entreprise.

- ○ Pas du tout d'accord (1)
- ○ Pas d'accord (2)
- ○ Plutôt pas d'accord (3)
- ○ Indifférent (4)
- ○ Plutôt d'accord (5)
- ○ D'accord (6)
- ○ Tout à fait d'accord (7)

Q12 Je pense que l'entreprise a bien réalisé le service fourni.

- ○ Pas du tout d'accord (1)
- ○ Pas d'accord (2)
- ○ Plutôt pas d'accord (3)
- ○ Indifférent (4)
- ○ Plutôt d'accord (5)
- ○ D'accord (6)
- ○ Tout à fait d'accord (7)

Q13 Je suis content du service fourni par l'entreprise.

- ○ Pas du tout d'accord (1)
- ○ Pas d'accord (2)
- ○ Plutôt pas d'accord (3)
- ○ Indifférent (4)
- ○ Plutôt d'accord (5)
- ○ D'accord (6)
- ○ Tout à fait d'accord (7)

Q14 **Dans quelle mesure seriez-vous susceptible de faire l'une des actions suivantes ?**

Q15 Je recommanderais cette marque à d'autres personnes.

- ○ Très improbable (1)
- ○ Moyennement improbable (2)
- ○ Légèrement improbable (3)
- ○ Ni probable, ni improbable (4)
- ○ Légèrement probable (5)
- ○ Moyennement probable (6)
- ○ Très probable (7)

Q16 Je dirais des choses positives à propos de cette marque.

- ○ Très improbable (1)
- ○ Moyennement improbable (2)
- ○ Légèrement improbable (3)
- ○ Ni probable, ni improbable (4)
- ○ Légèrement probable (5)
- ○ Moyennement probable (6)
- ○ Très probable (7)

Q17 Je recommanderais cette marque à quelqu'un d'autre qui cherche des conseils.

- ○ Très improbable (1)
- ○ Moyennement improbable (2)
- ○ Légèrement improbable (3)
- ○ Ni probable, ni improbable (4)
- ○ Légèrement probable (5)
- ○ Moyennement probable (6)
- ○ Très probable (7)

Page Break

Q18 **Dans quelle mesure êtes-vous d'accord avec les propositions suivantes, basées sur la situation présentée précédemment ?**

Q19 L’utilisation de l’humour par l’entreprise réduit la peur que je ressens face au problème en question.

- ○ Pas du tout d'accord (1)
- ○ Pas d'accord (2)
- ○ Plutôt pas d'accord (3)
- ○ Indifférent (4)
- ○ Plutôt d'accord (5)
- ○ D'accord (6)
- ○ Tout à fait d'accord (7)

Q20 L’utilisation de l’humour par l’entreprise diminue mon sentiment de contrariété ou de panique concernant le problème actuel.

- ○ Pas du tout d'accord (1)
- ○ Pas d'accord (2)
- ○ Plutôt pas d'accord (3)
- ○ Indifférent (4)
- ○ Plutôt d'accord (5)
- ○ D'accord (6)
- ○ Tout à fait d'accord (7)

Q21 L’utilisation de l’humour par l’entreprise réduit mes inquiétudes concernant le problème rencontré.

- ○ Pas du tout d'accord (1)
- ○ Pas d'accord (2)
- ○ Plutôt pas d'accord (3)
- ○ Indifférent (4)
- ○ Plutôt d'accord (5)
- ○ D'accord (6)
- ○ Tout à fait d'accord (7)

Page Break

Q27 **Toujours concernant la situation décrite précédemment, dans quelle mesure êtes-vous d'accord avec les propositions suivantes ?**

Q28 Je n'ai eu aucune difficulté à me projeter dans la situation présentée.

- ○ Pas du tout d'accord (1)
- ○ Pas d'accord (2)
- ○ Plutôt pas d'accord (3)
- ○ Indifférent (4)
- ○ Plutôt d'accord (5)
- ○ D'accord (6)
- ○ Tout à fait d'accord (7)

Q29 La situation décrite était réaliste.

- ○ Pas du tout d'accord (1)
- ○ Pas d'accord (2)
- ○ Plutôt pas d'accord (3)
- ○ Indifférent (4)
- ○ Plutôt d'accord (5)
- ○ D'accord (6)
- ○ Tout à fait d'accord (7)

Page Break

Q22 **Nous y sommes presque. Veuillez nous en dire plus à propos de vous.**

Q23 Quel est votre genre?

- ○ Homme (1)
- ○ Femme (2)
- ○ Non-binaire/transgenre (3)
- ○ Ne souhaite pas répondre (4)

Q24 Indiquez votre âge

_____

Q25 Vous êtes actuellement

- ○ Employé.e à temps plein (1)
- ○ Employé.e à mi-temps (2)
- ○ Sans emploi (3)
- ○ Retraité.e (4)
- ○ Étudiant.e (5)
- ○ Autres: (6) _____

Q26 Quel est le plus haut niveau d'éducation que vous avez complété ?

- ○ Aucun diplôme (1)
- ○ Certificat de l'enseignement secondaire supérieur (CESS) (2)
- ○ Enseignement technique ou professionnel (3)
- ○ Baccalauréat (bachelor) (4)
- ○ Master (5)
- ○ Doctorat (6)
- ○ Formation continue ou autre formation spécialisée (7)
- ○ Autres: (8) _____

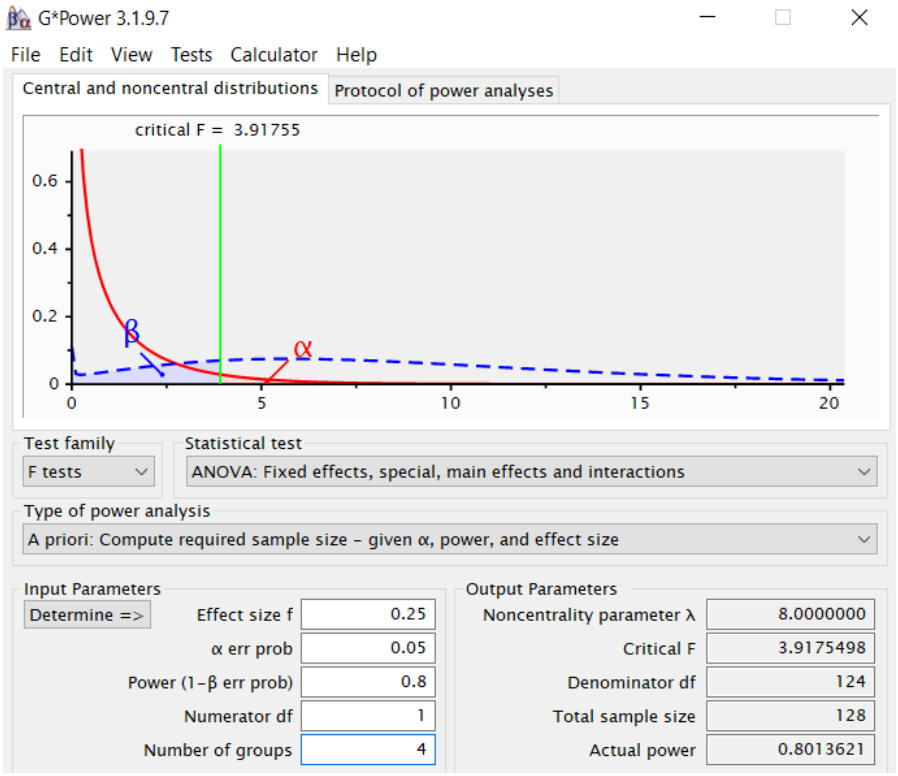
End of Block: Questions

Fin du questionnaire.

Merci d'avoir pris le temps de participer à cette enquête.

Votre réponse a été enregistrée.

Appendix 3: Sample size computation on G*Power



Appendix 4: Demographic distribution of survey participants across the four scenarios

Gender	SE	SEC	A	AC
Male	41%	27%	37%	46%
Female	59%	72%	62%	54%
Age	SE	SEC	A	AC
Average	44	44	42	40
Current Occupation	SE	SEC	A	AC
Full-time Employee	63%	42%	62%	47%
Part-time Employee	10%	13%	6%	8%
Unemployed	3%	4%	2%	0%
Retired	3%	10%	6%	11%
Student	17%	18%	16%	25%
Other	4%	14%	7%	8%
Highest Level of Education	SE	SEC	A	AC
No Diploma	0%	1%	1%	4%
Certificate of Higher Secondary Education	25%	22%	26%	28%
Technical or Vocational Education	10%	8%	7%	10%
Bachelor	38%	42%	38%	36%
Master	23%	27%	22%	15%
PhD	1%	8%	2%	0%
Specialization	1%	0%	1%	6%
Other	1%	0%	1%	1%

Appendix 5: Link to all the survey responses

https://osf.io/e2g95/?view_only=513a813e4a054e7b97d36a6cb01b139c

Appendix 6: Between-subject factors for the two-way ANOVA

		N
Humor type	Aggressive	153
	Self-enhancing	150
Compensation	No	152
	Yes	151

Appendix 7: Residual error normality test for customer satisfaction (H1)

		Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Humor type	Statistic	df	Sig.	Statistic	df	Sig.
CSAT	Aggressi	.112	153	<.001	.946	153	<.001
	Self-enh	.138	150	<.001	.948	150	<.001

a. Lilliefors Significance Correction

Appendix 8: Residual error normality test for PWOM intentions (H1)

		Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Humor type	Statistic	df	Sig.	Statistic	df	Sig.
PWOM	Aggressi	.129	153	<.001	.911	153	<.001
	Self-enh	.162	150	<.001	.888	150	<.001

a. Lilliefors Significance Correction

Appendix 9: Homogeneity test for customer satisfaction (H1)

		Levene Statistic	df1	df2	Sig.
CSAT	Based on Mean	.961	3	299	.412
	Based on Median	.963	3	299	.410
	Based on Median and with adjusted df	.963	3	298.463	.410
	Based on trimmed mean	.998	3	299	.394

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.

a. Dependent variable: CSAT

b. Design: Intercept + Humortype + Compensation + Humortype * Compensation

Appendix 10: Homogeneity test for PWOM intentions (H1)

Levene's Test of Equality of Error Variances[a,b]

		Levene Statistic	df1	df2	Sig.
PWOM	Based on Mean	3.552	3	299	.015
	Based on Median	2.300	3	299	.077
	Based on Median and with adjusted df	2.300	3	284.669	.077
	Based on trimmed mean	3.473	3	299	.017

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.

a. Dependent variable: PWOM

b. Design: Intercept + Humortype + Compensation + Humortype * Compensation

Appendix 11: Homogeneity test for LN(PWOM) (H1)

		Levene Statistic	df1	df2	Sig.
LN_PWOM	Based on Mean	.887	3	299	.448
	Based on Median	.992	3	299	.397
	Based on Median and with adjusted df	.992	3	290.205	.397
	Based on trimmed mean	.902	3	299	.441

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.

a. Dependent variable: LN_PWOM

b. Design: Intercept + Humortype + Compensation + Humortype * Compensation

Appendix 12: Output mediation analysis on CSAT (H2)

```
OUTCOME VARIABLE:
 Relief

Model Summary
      R     R-sq      MSE        F       df1       df2        p
   .1449    .0210    3.0485    3.2186    1.0000  150.0000    .0748

Model
         coeff       se         t         p       LLCI      ULCI
constant  3.5915    .2072   17.3328    .0000    3.1821    4.0010
Scenario  -.5092    .2839   -1.7940    .0748   -1.0701    .0516

************************************************************************
OUTCOME VARIABLE:
 CSAT

Model Summary
      R     R-sq      MSE        F       df1       df2        p
   .7753    .6010    1.1094  112.2261    2.0000  149.0000    .0000

Model
         coeff       se         t         p       LLCI      ULCI
constant   .8172    .2166    3.7727    .0002    .3892    1.2453
Scenario   .0461    .1731    .2662    .7905   -.2959    .3880
Relief     .7319    .0493   14.8598    .0000    .6346    .8293

****************** DIRECT AND INDIRECT EFFECTS OF X ON Y ******************

Direct effect of X on Y
   Effect       se         t         p       LLCI      ULCI
    .0461    .1731    .2662    .7905   -.2959    .3880

Indirect effect(s) of X on Y:
        Effect    BootSE  BootLLCI  BootULCI
Relief  -.3727    .2077   -.7888    .0344

*********************** ANALYSIS NOTES AND ERRORS ************************

Level of confidence for all confidence intervals in output:
 95.0000

Number of bootstrap samples for percentile bootstrap confidence intervals:
 5000
```

Appendix 13: Output mediation analysis on PWOM intentions (H2)

```
OUTCOME VARIABLE:
 Relief

Model Summary
      R     R-sq      MSE        F       df1       df2        p
   .1449    .0210    3.0485    3.2186    1.0000  150.0000    .0748

Model
         coeff       se         t         p       LLCI      ULCI
constant  3.5915    .2072   17.3328    .0000    3.1821    4.0010
Scenario  -.5092    .2839   -1.7940    .0748   -1.0701    .0516

************************************************************************
OUTCOME VARIABLE:
 PWOM

Model Summary
      R     R-sq      MSE        F       df1       df2        p
   .7707    .5940    1.2967  108.9850    2.0000  149.0000    .0000

Model
         coeff       se         t         p       LLCI      ULCI
constant   .2615    .2342    1.1168    .2659    -.2012    .7243
Scenario   .1674    .1871    .8949     .3723    -.2023    .5372
Relief     .7834    .0533   14.7108    .0000    .6782     .8886

****************** DIRECT AND INDIRECT EFFECTS OF X ON Y *****************

Direct effect of X on Y
   Effect       se         t         p       LLCI      ULCI
    .1674    .1871    .8949     .3723    -.2023    .5372

Indirect effect(s) of X on Y:
        Effect    BootSE  BootLLCI  BootULCI
Relief  -.3989    .2265    -.8503    .0436

************************ ANALYSIS NOTES AND ERRORS ************************

Level of confidence for all confidence intervals in output:
 95.0000

Number of bootstrap samples for percentile bootstrap confidence intervals:
 5000
```

Appendix 14: Normality tests for customer satisfaction (H3)

		Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Gender	Statistic	df	Sig.	Statistic	df	Sig.
CSAT	1	.133	30	.187	.951	30	.175
	2	.149	50	.007	.915	50	.002

a. Lilliefors Significance Correction

Appendix 15: Group statistics for customer satisfaction (H3)

	Gender	N	Mean	Std. Deviation	Std. Error Mean
CSAT	1	30	2.9666666667	1.3314642071	.24309099359
	2	50	3.2466666667	1.6967489255	.23995653423

Appendix 16: Normality tests for PWOM intentions (H3)

		Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Gender	Statistic	df	Sig.	Statistic	df	Sig.
PWOM	1	.140	30	.140	.946	30	.136
	2	.169	50	.001	.860	50	<.001

a. Lilliefors Significance Correction

Appendix 17: Group statistics for PWOM intentions (H3)

	Gender	N	Mean	Std. Deviation	Std. Error Mean
PWOM	1	30	2.9333333333	1.4527025943	.26522599342
	2	50	2.8266666667	1.8907100731	.26738678279

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