

## Research Article

# Using Emoji in Response to Customer Reservation Requests and Service Reviews

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The use of paralinguistic cues—including emoji—in computer-mediated communication has become prevalent in recent years. Brands and service providers have also been using these cues in their communication strategies. And yet, research examining how such emoji use influences customers' perception and behavior is still scarce. In two experiments (combined  $N = 401$ ), we tested if using emoji to reply to a customer request (restaurant reservation, Study 1) or online review (hotel experience, Study 2) influenced perceptions of the brands. The emoji used by the brand was always congruent with the valence of the situation. Results from both studies revealed that the presence (vs. absence) of emoji influenced consumers' perception of the brand/service at several levels. Specifically, the restaurant/hotel was perceived to have a more informal communication style, have a warmer service, and be more modern. In Study 1, we also observed that emoji use had a positive impact on competence perception and reservation intentions. Importantly, these effects of emoji use were not moderated by the valence of the situation. Taken together, our results showed that emoji can influence different perceptions about brands and services and determine how customers relate to brands.

## 1. Introduction

People use computer-mediated communication (CMC) in myriad situations, namely, to stay in touch with others, expedite job tasks, or request services from brands. Given its nature, CMC affords easy and open communication channels that facilitate social relationships (e.g., a sense of being connected at all times; [1]). This mode of communication also allows people to implement strategies to overcome potential limitations in their written communication (e.g., the lack of nonverbal cues). For example, people tend to add paralinguistic cues in their written messages [2–5], such as variations in typography (e.g., capitalization to signal screaming). These cues also include emojis, which are readily available on most digital platforms and smartphone keyboards [6]. Emojis are colorful graphic symbols that represent facial expressions, emotions, and activities, among other concrete and abstract concepts and tend to be perceived as familiar, aesthetically appealing, positive, arousing, and meaningful [7].

Paralinguistic cues—and emoji, in particular—are used to customize messages, help disambiguate and provide context to a message, signal the intention of the sender, or express emotionality, support, and affection [8–13]. For example, recent studies showed that messages with (vs. without) emoji were perceived as emotionally more intense [14] and that the emotionality conveyed by emoji and human faces is similar [15]. This suggests that emojis are effective cues to transmit emotional content in written communication (but see also [16]). Despite the growing interest in understanding the outcomes of emoji use for interpersonal relationships (e.g., [17, 18]), there is still a dearth of research examining the implications of including emoji in brand communications and advertisements.

*1.1. Emoji Use by Brands.* Much like in interpersonal communication, brands have been including emoji in their communication (e.g., [19]). For instance, brands such as McDonald's, Ikea, or Durex have included emoji in both above and below the line advertising. Other brands have

even promoted the development of a new emoji (e.g., Taco Bell’s petition to create a taco emoji, [20]) or an entire set of emoji (e.g., Dove developed a set of over 100 curly-haired emoji as part of their “Love your curls” campaign). Still, the impact of emoji use on consumers is rather unexplored. A recent report by Adobe [21] has shown that consumers seem to be highly receptive to emoji use by brands, namely, in advertising (e.g., higher likelihood of purchasing products advertised with emoji) and in direct communication (e.g., higher likelihood of opening an email from a brand with an emoji in the subject line). This report also showed that consumers are willing to communicate with brands using emoji (e.g., purchasing meals using an emoji representing the desired product). Likewise, Cavaleiro et al. [22] showed that the specific context in which brands use emoji can also determine consumers’ perceptions. Overall, consumers seem more receptive to the use of emoji in social media ads, replies to consumers’ social media posts, and announcements of a new product, but not in negative situations (e.g., announcing the callback of a defective product). These perceptions are likely to shape how people evaluate and engage with the brand.

The few studies addressing this topic have focused essentially on how consumers perceive service providers that use (vs. do not use) emoji in their communication. For example, Li et al. [23] found that service employees were perceived as warmer (but less competent), and consumers were more satisfied with the service, when emoji was used in communication. Other studies have revealed that the use of happy/smiling emoji in service messages tend to elicit positive affective responses from consumers [24]. In the same line, Das et al. [25] found that the presence of emoji in advertisements increased the purchase intention of consumers and enhanced positive affect. Nevertheless, this was only true when emojis were featured in advertisements that framed the product as hedonic instead of utilitarian (e.g., “delightful camera” vs. “functional camera”, respectively).

Manganari and Dimara [26] used a different approach and examined how the presence of emoji (e.g., “thumbs up” or “thumbs down”) in negative and positive online reviews determined consumers’ attitudes towards a hotel and their booking intentions. Unsurprisingly, booking intentions were higher for participants exposed to positive (vs. negative) reviews. Although emoji use did not have a significant effect on the perceived usefulness of the review, the inclusion of emoji in negative reviews increased the perceived credibility of that review, and elicited more negative attitudes towards the hotel and fewer booking intentions.

We aimed to extend these findings by systematically varying emoji inclusion and valence in scenarios that mimic interactions between brands and consumers, examining its influence on consumers’ perceptions and behavioral intention towards fictitious brands. Specifically, in Study 1, we examined the impact of emoji use on a negative or positive response to an online restaurant reservation request through Instant Messaging (IM). Broadening the context of analysis, in Study 2, we examined if a hotel was perceived differently, depending on whether the response to a customer’s public negative or positive review on a booking platform included

an emoji or not. We included a broad range of judgments in both studies, to examine the extensiveness of the emoji use effect on participants’ evaluations.

## 2. Study 1

In this study, we examined if including emoji in a negative (vs. positive) response to a reservation request influenced people’s perceptions about a restaurant, their expectations about its service, and how they evaluate the booking experience. We expected participants exposed to messages with (vs. without) emoji to form a more positive impression of the restaurant by perceiving it as warmer (but not necessarily as more competent, e.g., [23]), more modern, and as having a more informal communication style. Concerning the valence of the message, we expected participants exposed to a positive message (vs. negative) to perceive the restaurant as more competent and to indicate a higher likelihood of reusing the online service to make a reservation. We also explored if the impact of emoji was moderated by the valence of the message [26].

## 3. Method

**3.1. Participants and Design.** A sample of 200 adult individuals (74% women,  $M_{Age} = 25.76$  years,  $SD = 6.92$ ; age range: 18-58 years) volunteered to collaborate in this study. Most participants were students (51%) or workers (40%), and had a college degree (76.5%). Overall, participants reported a frequent use of emoji ( $M = 6.02$ ,  $SD = 1.45$ , 95% CI [5.81,6.22]) and IM platforms ( $M = 6.09$ ,  $SD = 1.65$ , 95% CI [5.85,6.32]). In contrast, using IM to make online reservations was infrequent ( $M = 2.64$ ,  $SD = 1.93$ , 95% CI [2.37,2.90]). Attitudes toward emoji use were also positive ( $M = 5.10$ ,  $SD = 0.99$ , 95% CI [4.96,5.24]).

Participants were randomly assigned to one of the four conditions defined by the between-participant design: 2 (Valence: positive vs. negative) X 2 (Emoji: absent vs. present).

**3.2. Materials.** The scenarios were designed to mimic an IM chat on Facebook (see Figure 1). The text was similar in all conditions (i.e., Sender: “Good afternoon, I would like to make a reservation”; Restaurant n°20: “Good afternoon, for how many people?”, Sender: “Four people”; Restaurant n°20: “Very well, and at what time?”, Sender: “20 h30”). The manipulation occurred in the last sentence, which could be either a positive (left pane, Figure 1) or negative (right pane, Figure 1) response to the table booking request and could either include a congruently valenced emoji or not. Specifically, the restaurant replied: “We have checked, and we have a table available” (positive condition, with happy emoji/without emoji) vs. “We have checked, and we don’t have a table available” [negative condition, with unhappy emoji/without emoji].

### 3.3. Measures

**3.3.1. Communication between Consumer and Brand.** To examine participants’ perceptions regarding the restaurant’s

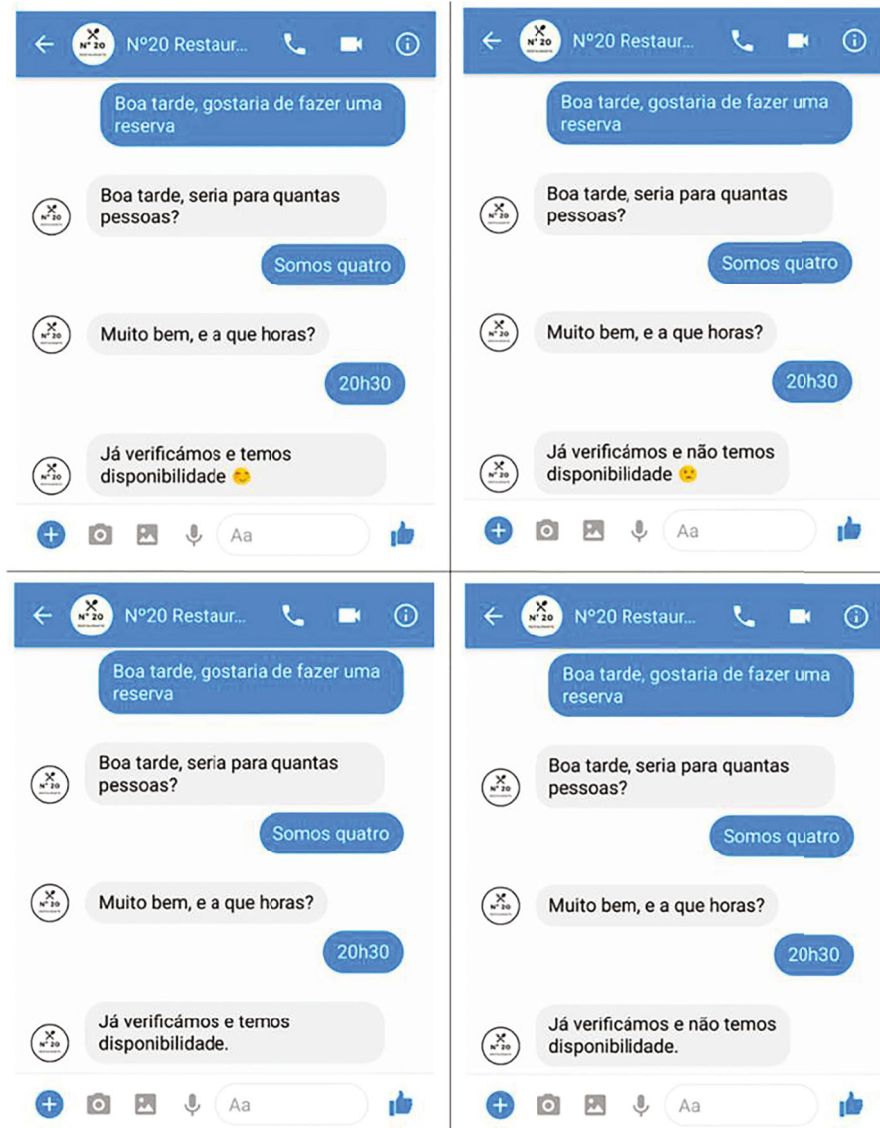


FIGURE 1: Experimental scenarios (Study 1). Note. Original materials in Portuguese (for the English translation, please see Section 3).

communication style, we asked participants to respond to two rating scales (i.e., “Please, indicate your opinion regarding the way Restaurant nº20 interacted with the customer. Specifically, to what extent do you think the language used was...”: 1=Formal to 7=Informal; 1=Inappropriate to 7=Appropriate).

**3.3.2. Brand Perception: Competence and Warmth.** To assess the impression formed about the restaurant, we asked participants to form an overall opinion and rate the restaurant’s competence (1=Not Competent at all to 7=Very Competent; 1=Not Efficient at all to 7=Very Efficient;  $r(200) = .85, p < .001$ ) and warmth (1=Not attentive at all to 7=Very Attentive; 1=Not helpful at all to 7=Very Helpful;  $r(200) = .79, p < .001, [27]$ ).

**3.3.3. Intention to Make a New Reservation.** We asked participants to indicate their willingness in making a reservation

using the same method as depicted in the scenario (1 = Very unlikely to 7 = Very likely).

**3.3.4. Expectations about the Modernity of the Restaurant.** To evaluate participants’ expectations about the restaurant, we asked them to indicate how formal they expected the restaurant environment to be (1=Formal to 7=Informal) and its type of cuisine (1=Traditional to 7=Modern), as well as the age group of regular customers (1=Older to 7=Younger) and of the restaurant staff (1=Older to 7=Younger). We computed average scores indicating higher perceived modernity ( $\alpha = .72$ ).

**3.3.5. Control questions.** As control questions, we assessed the frequency of use of emoji and of IM (i.e., How often do you use...: “...emoji in everyday communications?”; “... instant messaging platforms?”; “... instant messaging to make reservations?” - 1=Rarely to 7=Frequently), and

general attitudes toward the use of emoji [7] in a set of six bipolar items (e.g., 1 = *Useless* to 7 = *Useful*; 1 = *Informal* to 7 = *Formal*;  $\alpha = .85$ ).

**3.4. Procedure.** The survey was developed at Qualtrics, and the link to an online survey was distributed on social media. The general instructions informed about the purpose of the study, its expected duration, and ethical aspects, namely that all the data was confidential and anonymous, and that participants could withdraw from the study at any point by closing the browser, without their responses being considered for analysis. After agreeing to take part in the study, participants were asked to provide sociodemographic information (e.g., sex, age, education, and occupation). After this, we asked participants to imagine a scenario in which a potential customer used an IM platform (i.e., Facebook messenger) to make a reservation for a restaurant (“Restaurant n°20”). Next, we randomly presented one image representing the complete interaction between the customer and the restaurant. It was made clear that the blue speech bubble represented the customer, whereas the grey speech bubble referred to the restaurant’s response. Participants were also told to pay attention to these messages so they could answer some questions.

After examining the message exchange, participants were presented with the dependent measures. To check for the valence manipulation, we asked participants to indicate whether the client got the reservation (1 = *Certainly not* to 7 = *Certainly yes*). To check the emoji manipulation, we asked participants to indicate how certain they were that the restaurant included emoji in their messages (1 = *Certainly did not include* to 7 = *Certainly included*) and to select which one (1 = *happy emoji*, 2 = *sad emoji*, 3 = *did not use any emoji*). Next, participants responded to the control questions (e.g., frequency of use of emoji and of instant messaging platforms). At the end of the survey, participants were thanked and debriefed, and the contact information of the research team was provided.

**3.5. Data Analytical Plan.** First, we present results regarding the manipulation checks of both factors (i.e., the valence of the message and the presence of emoji). Second, we conducted a 2 (valence of the message: positive vs. negative) x 2 (emoji: present vs. absent) ANOVA for each dependent variable (language used, competence and warmth, the modernity of the restaurant, and intention to make new reservations).

## 4. Results

**4.1. Preliminary Analyses: Manipulation Checks.** Participants in the positive condition were more certain that the reservation was successful ( $M = 6.43$ ,  $SD = 1.07$ ) than those in the negative valence condition ( $M = 1.70$ ,  $SD = 1.31$ ),  $t(198) = -28.05$ ,  $p < .001$ ,  $d = 3.99$ . Likewise, participants in the emoji condition were more certain that the message included an emoji ( $M = 5.25$ ,  $SD = 2.48$ ) than those in the condition that did not include emoji ( $M = 1.26$ ,  $SD = 0.75$ ),  $t(198) = -15.77$

,  $p < .001$ ,  $d = 2.24$ . Overall, these results suggest that both the valence and emoji manipulations were successful.

Next, we explored whether participants in the emoji conditions ( $n = 95$ ) accurately identified the specific emoji presented. In the positive condition, 71.1% of the participants accurately reported that they saw a happy emoji and the remaining reported that no emoji was included in the message exchange. In the negative condition, 71.4% of the participants reported that they saw an unhappy emoji, 22.5% reported that no emoji was included, and 6.1% incorrectly reported seeing a happy emoji. Only participants that accurately recalled the emoji presented ( $n = 173$ ) were included in subsequent analyses. The overall pattern of results is the same when all participants are included (i.e., participants that did not recall seeing the emoji or recalled seeing an incorrect emoji), except for: (a) the main effect of emoji on perceived competence that becomes nonsignificant,  $F(1,196) = 2.10$ ,  $p = .149$ ,  $\eta_p^2 = .011$ ; and (b) the main effect of emoji on intention to make new reservation that becomes marginal,  $F(1,196) = 3.68$ ,  $p = .057$ ,  $\eta_p^2 = .018$ .

**4.2. Restaurant Perception: Communication Style.** As expected, participants in the emoji condition rated the restaurant’s communication style as more informal ( $M = 5.05$ ,  $SE = 0.18$ ) than those in no emoji condition ( $M = 4.14$ ,  $SE = 0.14$ ),  $F(1,168) = 12.15$ ,  $MSE = 32.63$ ,  $p = .001$ ,  $\eta_p^2 = .067$ . The main effect of valence,  $F(1,168) = 0.94$ ,  $MSE = 2.51$ ,  $p = .335$ ,  $\eta_p^2 = .006$ , and the interaction effect between valence and emoji,  $F(1,168) = 0.68$ ,  $MSE = 1.82$ ,  $p = .412$ ,  $\eta_p^2 = .004$ , were nonsignificant.

In contrast, we only observed a main effect of valence for the adequacy ratings,  $F(1,168) = 5.88$ ,  $MSE = 18.62$ ,  $p = .016$ ,  $\eta_p^2 = .034$ . Specifically, participants in the positive conditions rated the restaurant’s communication style as more adequate ( $M = 5.22$ ,  $SE = 0.20$ ) than those in the negative conditions ( $M = 4.54$ ,  $SE = 0.20$ ). Both the main effect of emoji,  $F(1,168) = 0.66$ ,  $MSE = 2.09$ ,  $p = .418$ ,  $\eta_p^2 = .004$ , and the interaction effect between valence and emoji was nonsignificant,  $F(1,168) = 1.56$ ,  $MSE = 4.93$ ,  $p = .214$ ,  $\eta_p^2 = .009$ .

**4.3. Restaurant Perception: Warmth and Competence.** As expected, participants in the emoji condition rated the restaurant as warmer ( $M = 5.05$ ,  $SE = 0.18$ ) than those in no emoji condition ( $M = 4.14$ ,  $SE = 0.14$ ),  $F(1,168) = 16.49$ ,  $MSE = 34.51$ ,  $p < .001$ ,  $\eta_p^2 = .089$ . Likewise, participants in the positive condition perceived the restaurant as warmer ( $M = 5.17$ ,  $SE = 0.16$ ) than those in the negative condition ( $M = 4.01$ ,  $SE = 0.16$ ),  $F(1,196) = 26.24$ ,  $MSE = 54.90$ ,  $p < .001$ ,  $\eta_p^2 = .135$ . The interaction effect between valence and emoji was nonsignificant,  $F(1,168) = 3.50$ ,  $MSE = 7.32$ ,  $p = .063$ ,  $\eta_p^2 = .020$ .

Participants in the emoji condition also rated the restaurant as more competent ( $M = 5.21$ ,  $SE = 0.18$ ) than those in no emoji condition ( $M = 4.66$ ,  $SE = 0.18$ ),  $F(1,168) = 5.61$ ,  $MSE = 12.65$ ,  $p = .019$ ,  $\eta_p^2 = .032$ . Again, we observed a main effect of valence,  $F(1,168) = 15.78$ ,  $MSE = 35.59$ ,  $p <$

.001,  $\eta_p^2 = .086$ , with higher competence ratings observed for participants in the positive condition ( $M = 5.40$ ,  $SE = 0.17$ ) than in negative one ( $M = 4.47$ ,  $SE = 0.17$ ). The interaction effect between emoji and valence was nonsignificant,  $F(1,168) = 2.37$ ,  $MSE = 5.36$ ,  $p = .125$ ,  $\eta_p^2 = .014$ .

**4.4. Restaurant Perception: Modernity.** Supporting our hypothesis, participants exposed to messages that included an emoji perceived the restaurant as more modern ( $M = 5.07$ ,  $SE = 0.12$ ) than those in the conditions without emoji ( $M = 4.16$ ,  $SE = 0.10$ ),  $F(1,168) = 35.43$ ,  $MSE = 34.48$ ,  $p < .001$ ,  $\eta_p^2 = .174$ . The valence of the message did not impact modernity perceptions,  $F(1,168) = 2.10$ ,  $MSE = 2.01$ ,  $p = .152$ ,  $\eta_p^2 = .012$ , nor did it interact with emoji,  $F(1,168) = 2.37$ ,  $MSE = 5.36$ ,  $p = .125$ ,  $\eta_p^2 = .015$ .

**4.5. Intention of Making New Reservations.** As expected, participants in the emoji condition indicated a higher likelihood of making reservations through IM ( $M = 4.92$ ,  $SE = 0.23$ ) than those in the conditions without emoji ( $M = 4.10$ ,  $SE = 0.18$ ),  $F(1,168) = 8.14$ ,  $MSE = 27.72$ ,  $p = .005$ ,  $\eta_p^2 = .046$ . Similarly, participants in the positive condition also reported stronger intentions to make reservations through IM ( $M = 5.42$ ,  $SD = 1.77$ ) than those in the condition with a negative valence ( $M = 3.29$ ,  $SD = 2.00$ ),  $F(1,168) = 38.74$ ,  $MSE = 131.94$ ,  $p < .001$ ,  $\eta_p^2 = .187$ . Again, the interaction between valence and emoji was nonsignificant,  $F(1,168) = 3.25$ ,  $MSE = 11.07$ ,  $p = .073$ ,  $\eta_p^2 = .019$ .

In sum, the results of this study suggest that the inclusion of a single emoji by a brand (or service provider) is able to influence consumer perception in several ways. Specifically, we showed that participants considered the restaurant's communication style as more informal, and its service to be warmer, more competent, and modern in the presence of an emoji. In addition, the use of these paralinguistic cues positively influenced the intention of making reservations through this communication channel. In Study 2, we aimed to replicate and extend our findings to a different service provider (hotel), namely, by examining the extent to which using (or not) emoji in response to online reviews influenced potential customers' evaluations.

## 5. Study 2

Study 2 was aimed at analyzing the impact of the presence of a positive or negative emoji, in a response given by a hotel to a customer's online review on a public booking platform, on the consumer's perception and attitudes towards the brand. We expected participants exposed to a brand response that includes an emoji to form more favorable attitudes toward the brand than those exposed to that same message without an emoji. Additionally, as in the previous study, we also expected participants exposed to a positive evaluation to have more favorable attitudes towards the brand than those exposed to a negative evaluation. Again, we did not advance a priori hypotheses concerning the interaction between valence and emoji use.

## 6. Method

**6.1. Participants.** A sample of 201 participants (75.6% women,  $M_{Age} = 35.57$  years,  $SD = 13.69$ ; age range: 18-78 years) volunteered to collaborate in this study. Most participants were workers (72.2%) with a college degree (84.1%). Overall, participants reported using emoji frequently ( $M = 4.80$ ,  $SD = 2.21$ , 95% CI [4.49,5.10]) and positive attitudes toward emoji use ( $M = 4.76$ ,  $SD = 1.23$ , 95% CI [4.59,4.94]). Still, using websites for making reservations was infrequent ( $M = 2.64$ ,  $SD = 1.93$ , 95% CI [2.37,2.90]).

Participants were randomly assigned to one of the four conditions defined by the following between-subjects design: 2 (Valence: positive vs. negative) X 2 (Emoji: absent vs. present).

**6.2. Materials.** We developed scenarios to replicate a realistic online booking platform (see Figure 2). The customer username (i.e., "S. Santos") and profile picture (a beach landscape) prevented participants from making inferences based on physical traits (e.g., gender and age) or other characteristics (e.g., socioeconomic status).

The structure of the customer review and the hotel response was uniformized (e.g., webpage layout and photos of the hotel), but some aspects varied according to valence (differences in bold):

- (a) Negative condition: *Customer review*—"We stayed in this hotel, two nights in the summer and we could tell that it has been renovated recently. It *wasn't* as central as described; it took us about 25 minutes to get to the city center. The hotel was close to restaurants and bars and *there was noise until 11 pm*. Moreover, the room *wasn't spacious at all!*"; *Hotel response*—"Thank you so much for your comments. We will share your feedback with our team. We are sorry to hear that your stay did not meet your expectations [🤔; without emoji]. The H40 Hotel hopes to see you soon!"
- (b) Positive condition: *Customer review*—"We stayed in this hotel, two nights in the summer and we could tell that it has been renovated recently. It *was* as central as described; it took us about 5 minutes to get to the city center. The hotel was close to restaurants and bars, but *the room was quiet*. Moreover, the room *was very spacious*"; *Hotel response*—"Thank you so much for your comments. We will share your feedback with our team. We are happy to hear that your stay met your expectations [😊; without emoji]. The H40 Hotel hopes to see you soon!"

As described, the emoji was always congruent with the valence of the review and was included in the second to the last sentence.

**6.3. Procedure and Measures.** The procedure was similar to Study 1. The main variables were adapted from Study 1 to refer to the scenario used in the current study (i.e., online reviews of a hotel experience).

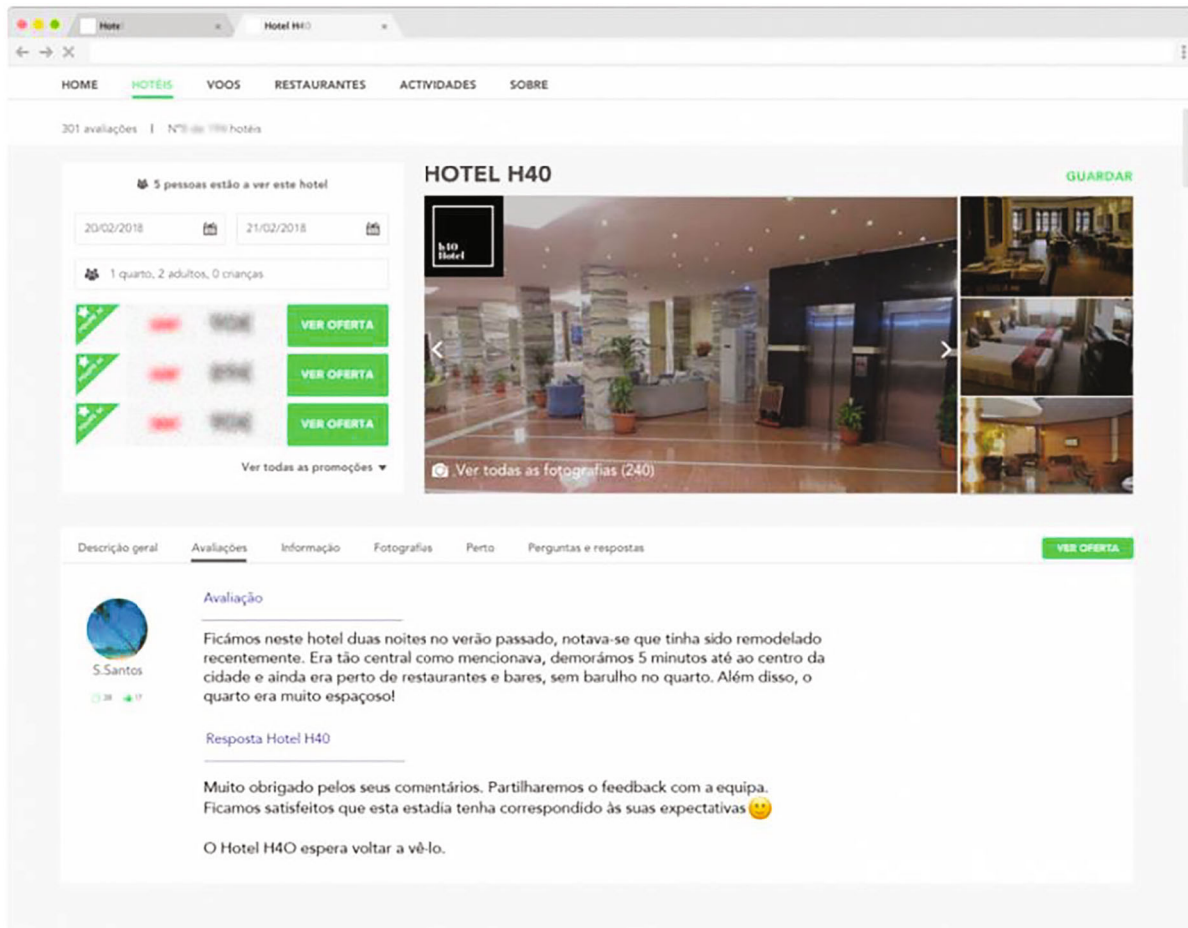


FIGURE 2: Hotel evaluation scenario (Study 2). Note. Original materials in Portuguese (for the English translation, please see Section 3).

## 7. Results

**7.1. Preliminary Analyses: Manipulation Checks.** As expected, participants in the positive condition indicated that the customer review was more positive ( $M = 6.13$ ,  $SD = 1.16$ ) than those in the negative valence condition ( $M = 3.13$ ,  $SD = 0.99$ ),  $t(199) = 19.80$ ,  $p < .001$ ,  $d = 2.81$ . Likewise, participants in the emoji condition were more certain that the message included an emoji ( $M = 4.71$ ,  $SD = 2.42$ ) than those in the condition that did not include emoji ( $M = 2.32$ ,  $SD = 1.56$ ),  $t(199) = 8.27$ ,  $p < .001$ ,  $d = 1.17$ . Overall, these results suggest that both the valence and emoji manipulations were successful.

Next, we explored whether participants in the emoji conditions ( $n = 100$ ) accurately identified the specific emoji presented. In the positive condition, 54.0% of the participants accurately reported that they saw a happy emoji, and the remaining reported that no emoji was included in the message exchange. In the negative condition, 60.0% of the participants reported that they saw an unhappy emoji, 30.0% reported that no emoji was included, and 10.0% incorrectly reported seeing a happy emoji. Only participants that accurately recalled the emoji presented ( $n = 156$ ) were included in the following analyses. The overall pattern of results is the same when all participants are included (i.e., participants

that did not recall seeing the emoji or recalled seeing an incorrect emoji), except for (a) the main effect of emoji on ratings of the formality of the hotel communication that becomes nonsignificant,  $F(1,197) = 1.20$ ,  $p = .275$ ,  $\eta_p^2 = .006$ ; and (b) the main effect of emoji on perceived warmth that becomes nonsignificant,  $F(1,197) = 3.26$ ,  $p = .072$ ,  $\eta_p^2 = .016$ .

**7.2. Hotel Perception: Communication Style.** As expected, participants in the emoji conditions rated the hotel's communication style as more informal ( $M = 4.20$ ,  $SE = 0.23$ ) than those in no emoji condition ( $M = 3.45$ ,  $SE = 0.17$ ),  $F(1,152) = 7.07$ ,  $MSE = 20.33$ ,  $p = .009$ ,  $\eta_p^2 = .044$ . Both the main effect of valence,  $F(1,152) = 0.09$ ,  $MSE = 0.26$ ,  $p = .763$ ,  $\eta_p^2 = .001$ , and its interaction with emoji,  $F(1,1152) = 0.02$ ,  $MSE = 0.06$ ,  $p = .886$ ,  $\eta_p^2 = .000$ , were nonsignificant.

In contrast, for the adequacy ratings, we only observed a main effect of valence,  $F(1,152) = 16.09$ ,  $MSE = 50.01$ ,  $p < .001$ ,  $\eta_p^2 = .096$ . Specifically, participants in the positive conditions rated the hotel's communication style as more adequate ( $M = 5.73$ ,  $SE = 0.21$ ) than those in the negative conditions ( $M = 4.56$ ,  $SE = 0.20$ ). Both the main effect of

emoji,  $F(1,152) = 0.44$ ,  $MSE = 1.35$ ,  $p = .510$ ,  $\eta_p^2 = .003$ , and its interaction with valence were nonsignificant,  $F(1,152) = 0.02$ ,  $MSE = 0.06$ ,  $p = .889$ ,  $\eta_p^2 = .000$ .

**7.3. Hotel Perception: Warmth and Competence.** As expected, participants in the emoji conditions rated the hotel as warmer ( $M = 5.31$ ,  $SE = 0.18$ ) than those in no emoji condition ( $M = 4.87$ ,  $SE = 0.13$ ),  $F(1,152) = 3.89$ ,  $MSE = 6.95$ ,  $p = .050$ ,  $\eta_p^2 = .025$ . Participants in the positive conditions also perceived the hotel as warmer ( $M = 5.65$ ,  $SE = 0.16$ ) than those in the negative conditions ( $M = 4.53$ ,  $SE = 0.15$ ),  $F(1,152) = 25.32$ ,  $MSE = 45.20$ ,  $p < .001$ ,  $\eta_p^2 = .143$ . The interaction effect between valence and emoji was nonsignificant,  $F(1,152) = 1.39$ ,  $MSE = 2.47$ ,  $p = .241$ ,  $\eta_p^2 = .009$ .

For the competence ratings, we only observed a significant main effect of valence,  $F(1,152) = 40.74$ ,  $MSE = 70.06$ ,  $p < .001$ ,  $\eta_p^2 = .211$ , with higher competence ratings observed for participants in the positive conditions ( $M = 5.40$ ,  $SE = 0.17$ ) than in negative ones ( $M = 4.47$ ,  $SE = 0.17$ ). The main effect of emoji,  $F(1,152) = 1.35$ ,  $MSE = 2.33$ ,  $p = .247$ ,  $\eta_p^2 = .009$ , and its interaction with valence was nonsignificant,  $F(1, 52) = 0.79$ ,  $MSE = 1.35$ ,  $p = .377$ ,  $\eta_p^2 = .005$ .

**7.4. Hotel Perception: Modernity.** As expected, participants exposed to messages that included an emoji perceived the hotel as more modern ( $M = 5.07$ ,  $SE = 0.12$ ), than those in the conditions without emoji ( $M = 4.16$ ,  $SE = 0.10$ ),  $F(1,152) = 7.06$ ,  $MSE = 7.52$ ,  $p = .009$ ,  $\eta_p^2 = .044$ . The valence of the message did not impact modernity perceptions,  $F(1,152) = 0.09$ ,  $MSE = 0.10$ ,  $p = .761$ ,  $\eta_p^2 = .001$ , nor did it interact with emoji,  $F(1,152) = 0.25$ ,  $MSE = 0.27$ ,  $p = .616$ ,  $\eta_p^2 = .002$ .

**7.5. Intention of Making New Reservations.** We only observed a significant main effect of valence, such that participants in the positive condition also reported stronger intentions to make a new reservation using a booking platform ( $M = 5.42$ ,  $SD = 1.77$ ) than those in the condition with a negative valence ( $M = 3.29$ ,  $SD = 2.00$ ),  $F(1,152) = 77.06$ ,  $MSE = 193.82$ ,  $p < .001$ ,  $\eta_p^2 = .336$ . The main effect of emoji,  $F(1,152) = 0.09$ ,  $MSE = 0.23$ ,  $p = .764$ ,  $\eta_p^2 = .001$ , and its interaction with valence was nonsignificant,  $F(1,152) = 0.04$ ,  $MSE = 0.10$ ,  $p = .847$ ,  $\eta_p^2 = .000$ .

Results from both studies are summarized in Table 1. Overall, we replicated the results from Study 1, except for the nonsignificant main effect of emoji on the perception of competence of the service and the intention to make new reservations.

## 8. General Discussion

Despite the increasing presence of emoji in brands' communication strategies, the influence of these paralinguistic cues on customers' perception and behavior toward the brand is still scarce. Our main goal was to understand how the use

of emojis by brands can influence the perception of customers. To do so, we designed two experiments that varied in the type of hospitality service (i.e., restaurant and hotel) and communication platform (i.e., IM and booking website). In both cases, we defined positive and negative scenarios, in which a single emoji was used by the brand in response to an alleged reservation request (Study 1) or response to an online review by a former customer (Study 2). Previous research has revealed that the use of emojis has a strong impact on the involvement of the recipient and may have the power to influence their disposition [10]. Based on the assumption, we expected that the use of emojis (as well as the valence of the response) would influence participants' perceptions.

Our results showed that the use of emoji had an overall impact on the way participants perceived the brand's communication style and personality. Specifically, participants in the emoji conditions considered the language to be more informal than those in the nonemoji condition. This result is noteworthy as written information was kept constant (according to scenario valence) and the inclusion of the emoji was the only aspect that varied. Furthermore, the use of more informal communication by brands can have different consequences on consumer perceptions. For instance, recent research has suggested that emoji use is deemed more adequate when communicating with close others [28]. Still, in the context of brand-consumer communication, emoji use is also rated as appropriate in familiar or positive contexts (e.g., advertising in social media, [25]). By using an informal communication style, positive outcomes for the brand may be observed. For example, Casado-Molina et al. [29] concluded that emojis were a differentiating element for brand positioning after analyzing tweets from four Spanish breweries. Moreover, high engagement was observed when the communications that included emoji were aimed at customer service and care. Other studies showed that emoji use increased consumers' trust (but only when the brand is familiar; [30]) or purchase intentions [31]. Despite the novelty of our findings, we must also highlight that brands should be aware that emoji may not have a generalized positive impact on their communication with customers. For example, an informal communication style may also negatively impact brand attitude when the brand has a utilitarian (vs. hedonic) position strategy [32].

Regarding brand personality, and in line with Li et al. [23], our results suggest that participants inferred that using emoji in a message may imply that the restaurant/hotel is warmer. Also, Wall et al. [33] found that emoji can create a sense of agreeableness, so the fact that the restaurant/hotel uses emoji in replies can generate a perception of "friendship" among customers. Moreover, Study 1 revealed that some brands can be perceived as having a more competent service when emojis are used in communication. Considering that previous studies have revealed that emoji may lead to lower perceptions of competence [23, 34], our mixed results on perceived competence reveal the need to explore this potential relationship. For example, future research could replicate our studies and compare the evaluations of brands that advertise hedonistic (e.g., perfume) and

TABLE 1: Summary of results: main effects of emoji and valence in Study 1 and Study 2.

	Study 1		Study 2	
	With (vs. without) emoji	Positive (vs. negative)	With (vs. without) emoji	Positive (vs. negative)
<b>Communication</b>				
Informality	Restaurant’s communication style rated as more informal	—	Hotel’s communication style rated as more informal	—
Adequacy	—	Restaurant’s communication style rated as more adequate	—	Hotel’s communication style rated as more adequate
<b>Brand perception</b>				
Warmth and competence	Restaurant rated as warmer/more competent	Restaurant rated as warmer/more competent	Hotel rated as warmer	Hotel rated as warmer/more competent
Modernity	Restaurant’s communication style rated as more modern	—	Hotel’s communication style rated as more modern	—
Intention: future reservations	Higher likelihood of making a new reservation	Higher likelihood of making a new reservation	—	Higher likelihood of making a new reservation

Note. In both studies, the interaction between emoji and valence was not significant for any of the variables.

utilitarian products (e.g., toilet paper) or brands that are more or less familiar to customers. These studies could help disentangle the actual impact of emoji use in a myriad of judgments associated with brands that are currently on the market (e.g., customer service, brand personality, and intended engagement).

Our findings are also innovative by showing that emoji presence influenced perceived modernity, with participants in the emoji conditions perceiving the restaurant/hotel as more modern. Participants may have such perceptions because the use of emojis brings to the message a sense of innovation and creativity, and this can be considered an evolution of the older language [35].

Finally, our results suggest that the mere inclusion of an emoji may be able to influence behavior intentions towards the brand. Indeed, participants in the emoji condition reported a higher likelihood of making new reservations compared to participants in the condition without emoji. However, as in perceived competence, this effect was only observed in Study 1. Such differences in results may stem from the specific scenarios used. The scenario used in Study 2 mimicked a booking website and was visually more complex (e.g., display of hotel images) than the one used in Study 1. Given that a single emoji was included, it may have become less salient in such conditions. Our manipulation check data seems to support this idea, as lower accuracy in the identification of the emoji was observed in Study 2. Besides the complexity of the scenarios, the platform used may have also contributed to the differences observed, such that the impact of emoji use may be more evident in synchronous communication channels (i.e., IM vs. booking website). Future studies should seek to disentangle the contributions of these factors.

Unsurprisingly, we also observed an overall impact of the valence of the scenarios across most brand perception

measures (except for perceived informality and modernity). For instance, in positive (vs. negative) conditions, participants rated the brand’s communication style as more adequate and the brand as more competent and reported a stronger intention to make a new reservation. When customers get the booking confirmation/positive review, they most likely want to schedule the service again. Previous research found that if customers feel helped and served, this can increase brand trust and make them more loyal to the brand [36]. One could argue that, from a customer’s standpoint, having their expectations met (e.g., managing to secure a table at a restaurant or having a pleasant experience in a hotel) is the default. Indeed, the fact that only valence (irrespective of emoji presence) determined perceptions of communication adequacy in both studies seems to be in line with this idea.

This study contributes to the literature by showing the importance of the features of the CMC—namely emoji use—for the communication between brands and customers. Our findings seem to support the popular saying that a “picture is worth a thousand words” in the ever-changing world of digital communication, as the inclusion of a single emoji shaped perceptions of the brand’s communication style, personality, and modernity and even consumer’s behavioral intentions toward the brand. Academics and professionals (e.g., brand managers and marketers) can draw from our findings to develop new theoretical models and ecologically valid studies aimed at improving brand communication and engagement and promoting better customer service and experiences.

## Data Availability

The data used to support the findings of this study are available from the corresponding author upon request.



## Conflicts of Interest

The authors declare that there is no conflict of interest regarding the publication of this article.

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## References

- [1] T. F. Pettigrew, "Secondary transfer effect of contact," *Social Psychology*, vol. 40, no. 2, pp. 55–65, 2009.
- [2] M. Knapp, J. Hall, and T. Horgan, "Nonverbal communication: basic perspectives," in *Nonverbal Communication in Human Interaction*, pp. 3–28, Cengage Learning, 2013.
- [3] S.-K. Lo, "The nonverbal communication functions of emoticons in computer-mediated communication," *Cyberpsychology & Behavior: The Impact of the Internet, Multimedia and Virtual Reality on Behavior and Society*, vol. 11, no. 5, pp. 595–597, 2008.
- [4] K. Skovholt, A. Grønning, and A. Kankaanranta, "The communicative functions of emoticons in workplace e-mails: :-," *Journal of Computer-Mediated Communication*, vol. 19, no. 4, pp. 780–797, 2014.
- [5] J. B. Walther and K. P. D'Addario, "The impacts of emoticons on message interpretation in computer-mediated communication," *Social Science Computer Review*, vol. 19, no. 3, pp. 324–347, 2001.
- [6] P. K. Novak, J. Smailović, B. Sluban, and I. Mozetič, "Sentiment of Emojis," *Plos One*, vol. 10, no. 12, article e0144296, 2015.
- [7] D. Rodrigues, M. Prada, R. Gaspar, M. V. Garrido, and D. Lopes, "Lisbon Emoji and Emoticon Database (LEED): norms for emoji and emoticons in seven evaluative dimensions," *Behavior Research Methods*, vol. 50, no. 1, pp. 392–405, 2018.
- [8] N. Aldunate and R. González-Ibáñez, "An integrated review of emoticons in computer-mediated communication," *Frontiers in Psychology*, vol. 7, p. 2061, 2016.
- [9] D. Derks, A. H. Fischer, and A. E. R. Bos, "The role of emotion in computer-mediated communication: a review," *Computers in Human Behavior*, vol. 24, no. 3, pp. 766–785, 2008.
- [10] T. Ganster, S. C. Eimler, and N. C. Krämer, "Same same but different!? The differential influence of smilies and emoticons on person perception," *Cyberpsychology, Behavior and Social Networking*, vol. 15, no. 4, pp. 226–230, 2012.
- [11] L. K. Kaye, H. J. Wall, and S. A. Malone, "'Turn that frown upside-down': a contextual account of emoticon usage on different virtual platforms," *Computers in Human Behavior*, vol. 60, pp. 463–467, 2016.
- [12] X. Lu, W. Ai, X. Liu et al., "Learning from the ubiquitous language: an empirical analysis of emoji usage of smartphone users," in *UbiComp '16: Proceedings of the 2016 ACM International Joint Conference on Pervasive and Ubiquitous Computing*, pp. 770–780, Heidelberg, Germany, 2016.
- [13] C. Rodríguez-Hidalgo, E. S. H. Tan, and P. W. J. Verlegh, "Expressing emotions in blogs: the role of textual paralinguistic cues in online venting and social sharing posts," *Computers in Human Behavior*, vol. 73, pp. 638–649, 2017.
- [14] T. M. Erle, K. Schmid, S. H. Goslar, and J. D. Martin, "Emojis as social information in digital communication," *Emotion*, 2021.
- [15] B. Fischer and C. Herbert, "Emoji as affective symbols: affective judgments of emoji, emoticons, and human faces varying in emotional content," *Frontiers in Psychology*, vol. 12, article 645173, 2021.
- [16] C. M. Robus, C. J. Hand, R. Filik, and M. Pitchford, "Investigating effects of emoji on neutral narrative text: evidence from eye movements and perceived emotional valence," *Computers in Human Behavior*, vol. 109, article 106361, 2020.
- [17] D. Rodrigues, B. P. Cavalheiro, and M. Prada, "Emoji as ice-breakers? Emoji can signal distinct intentions in first time online interactions," *Telematics and Informatics*, vol. 69, article 101783, 2022.
- [18] D. Rodrigues, D. Lopes, M. Prada, D. Thompson, and M. V. Garrido, "A frown emoji can be worth a thousand words: perceptions of emoji use in text messages exchanged between romantic partners," *Telematics and Informatics*, vol. 34, no. 8, pp. 1532–1543, 2017.
- [19] L. McShane, E. Pancer, M. Poole, and Q. Deng, "Emoji, playfulness, and brand engagement on twitter," *Journal of Interactive Marketing*, vol. 53, pp. 96–110, 2021.
- [20] J. Ralat, "The brief history of the Taco emoji now has a happy ending. Vice," 2016, <https://www.vice.com/en/article/3d4kzb/the-brief-history-of-the-taco-emoji-now-has-a-happy-ending>.
- [21] D. Rhatigan, "The cultural phenomenon of emoji," 2019, <https://blog.adobe.com/en/publish/2019/07/17/the-cultural-phenomenon-of-emoji>.
- [22] B. P. Cavalheiro, M. Prada, D. L. Rodrigues, M. V. Garrido, and D. Lopes, "With or without emoji? Perceptions about emoji use in different brand-consumer communication contexts," *Human Behavior and Emerging Technologies*, vol. 2022, article 3036664, pp. 1–8, 2022.
- [23] X. Li, K. W. Chan, and S. Kim, "Service with emoticons: how customers interpret employee use of emoticons in online service encounters," *Journal of Consumer Research*, vol. 45, no. 5, pp. 973–987, 2019.
- [24] L. W. Smith and R. L. Rose, "Service with a smiley face: emotional contagion in digitally mediated relationships," *International Journal of Research in Marketing*, vol. 37, no. 2, pp. 301–319, 2020.
- [25] G. Das, H. J. D. Wiener, and I. Kareklas, "To emoji or not to emoji? Examining the influence of emoji on consumer reactions to advertising," *Journal of Business Research*, vol. 96, pp. 147–156, 2019.
- [26] E. E. Manganari and E. Dimara, "Enhancing the impact of online hotel reviews through the use of emoticons," *Behaviour & Information Technology*, vol. 36, no. 7, pp. 674–686, 2017.
- [27] L. E. Bolton and A. S. Mattila, "How does corporate social responsibility affect consumer response to service failure in buyer-seller relationships?," *Journal of Retailing*, vol. 91, no. 1, pp. 140–153, 2015.
- [28] B. P. Cavalheiro, M. Prada, D. L. Rodrigues, D. Lopes, and M. V. Garrido, "Evaluating the adequacy of emoji use in positive and negative messages from close and distant senders," *Cyberpsychology, Behavior and Social Networking*, vol. 25, no. 3, pp. 194–199, 2022.

- [29] A. M. Casado-Molina, M. M. Rojas-de Gracia, P. Alarcón-Urbistondo, and M. Romero-Charneco, "Exploring the opportunities of the emojis in brand communication: the case of the beer industry," *International Journal of Business Communication*, p. 232948841983296, 2019.
- [30] A. Gretry, C. Horváth, N. Belei, and A. C. R. van Riel, "'Don't pretend to be my friend!' When an informal brand communication style backfires on social media," *Journal of Business Research*, vol. 74, pp. 77–89, 2017.
- [31] R. H. Barcelos, D. C. Dantas, and S. Sénécal, "Watch your tone: how a brand's tone of voice on social media influences consumer responses," *Journal of Interactive Marketing*, vol. 41, pp. 60–80, 2018.
- [32] S. M. Hegner, C. Lotze, and A. D. Beldad, "Emoticons are not for everyone: the role of congruence between hotel brand positioning strategies and communication style in enhancing customers' brand attitude and booking intention," *Tourism and Hospitality Research*, vol. 21, no. 3, pp. 317–329, 2021.
- [33] H. J. Wall, L. K. Kaye, and S. A. Malone, "An exploration of psychological factors on emoticon usage and implications for judgement accuracy," *Computers in Human Behavior*, vol. 62, pp. 70–78, 2016.
- [34] E. Glikson, A. Cheshin, and G. A. Kleef, "The dark side of a smiley," *Social Psychological and Personality Science*, vol. 9, no. 5, pp. 614–625, 2018.
- [35] H. Alshenqeeti, "Are emojis creating a new or old visual language for new generations? A socio-semiotic study," *Advances in Language and Literary Studies*, vol. 7, no. 6, pp. 56–69, 2016.
- [36] R. E. Anderson and S. S. Srinivasan, "E-satisfaction and e-loyalty: a contingency framework," *Psychology & Marketing*, vol. 20, no. 2, pp. 123–138, 2003.