

# Emojis to conversion on social media

Dušan Mladenović<sup>1</sup>  | Kamil Košťál<sup>2</sup> | Nikolina Ljepava<sup>3</sup>  | Ondřej Částek<sup>1</sup>  |  
Yash Chawla<sup>4,5</sup> 

<sup>1</sup>Department of Corporate Economy, Faculty of Economics and Administration, Masaryk University, Brno, Czech Republic

<sup>2</sup>ROI Hunter, Brno, Czech Republic

<sup>3</sup>Department of Management, Marketing and Logistics, College of Business Administration, American University in the Emirates, Dubai International Academic City, United Arab Emirates

<sup>4</sup>Department of Operations Research and Business Intelligence, Faculty of Computer Science and Management, Wrocław University of Science and Technology, Wrocław, Poland

<sup>5</sup>DAC.Digital, Gdańsk, Poland

## Correspondence

Yash Chawla, Department of Operations Research and Business Intelligence, Faculty of Computer Science and Management, Wrocław University of Science and Technology, Łukasiewicza 5/507, Wrocław 50-370, Poland.  
Email: [yash.chawla@pwr.edu.pl](mailto:yash.chawla@pwr.edu.pl)

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## Abstract

Emojis have become popular in online marketing communications. Marketers use emojis to humanize brand voice and elicit an emotional response from target audiences. However, little is known about how emojis are perceived and what kind of reactions they evoke. Therefore, this study aims to verify whether exposure to emojis leads to an increased intention to purchase and whether the use of emojis impacts campaign effectiveness in a real-life environment. In a theory build-up process, we draw upon the Dual Coding Theory and emotional contagion concept and develop seven hypotheses. We performed two data collection studies to test the hypothesized relations. The first study is based on a questionnaire ( $N = 318$ ), while the second is based on experimental design in a real-life business environment. Surprisingly, we found that using emojis had a negative effect on purchase intention, while the effect was positive when mediated by positive affect. Emojis increased the effectiveness of marketing campaigns for hedonic products and strongly impacted the return on advertising spent. The findings of this study have both theoretical and practical implications in the observed domains, particularly about the type of products emojis are most effective in promoting, gender differences, and real-life consumer behaviour. This is the first study to use an experimental design in a real-life scenario to capture the role of emojis on campaign effectiveness and decipher the differences between genders and their perceptions of emojis. Theoretical and practical implications together with future prospects are discussed.

## KEYWORDS

campaign effectiveness, consumer behaviour, Facebook, Instagram, online advertising, real-life experiments

## 1 | INTRODUCTION

Marketing communication content has been a key area of interest for researchers and marketers this century (Ferrell & Hartline, 2014). The literature emphasizes that different kinds of marketing content lead to varied outcomes and brand attitudes

among consumers (Chawla et al., 2019; Chawla & Chodak, 2021; Müller & Christandl, 2019). Since the on-set of COVID-19 pandemic, there has been a sharp increase in consumer use of social media for searching for products, gathering information about products, evaluating/reviewing products, and making purchases (Mason et al., 2021). Hence, the importance of social media

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marketing has increased for business, as has the competition for visibility (Cutolo et al., 2021).

In a trend pre-dating the pandemic, a growing number of companies have started using emojis in their online advertising and marketing communication (Jaeger et al., 2017; Luangrath et al., 2017). Essentially, the emoji can be defined as a pictograph that is used instead of a character or text (McShane et al., 2021). Over 3500 different emojis are currently in use (Unicode, 2021). Well-established brands (e.g., Burger King, Coca-Cola, Sony etc.) have strategically incorporated emojis into their marketing communication (Lee et al., 2021; McShane et al., 2021) and have even devised their emojis (Arya et al., 2018). Using emojis in their marketing communication, companies are assumed to be trying to “humanize” their voice, trigger an emotional response from customers, and establish casual relations with them (Luangrath et al., 2017). This is understandable, as approximately 90% of the online community uses emojis in everyday communications (Lohmann et al., 2017). Although scholars have randomly questioned the conventional belief that emoji influence consumers' perceived responses (e.g., brand engagement, purchase intention, online review helpfulness, intention to communicate, brand playfulness) (e.g., Arya et al., 2018; Das et al., 2019; Ganster et al., 2012; Lohmann et al., 2017; McShane et al., 2021), none of the currently available studies performed a real-life experiment and captured authentic data. Next to that, an array of open questions depicting strategic and business issues remained unattended in the context of marketing communication (Bai et al., 2019; Ge & Gretzel, 2018). For instance, although emojis are extensively used in practice, literature is silent on depicting their influence on the effectiveness of online advertising campaigns, gender differences, revenue generation, type of products (hedonic vs. utilitarian), etc. The literature points to gender differences in the advertising context as men and women are known to react and perceive online marketing communication differently (Ganster et al., 2012; Prada et al., 2018). Therefore, this study observes differences between gender clusters. Additionally, from a strategic and business perspective, no study to date has investigated the relationship between emojis and the effectiveness of marketing communication. This is an important focus of investigation insofar as it is necessary to capture the real-life measure of success or failure when emojis are used in marketer-generated content (Bai et al., 2019). Next to the fact that this study verifies relations between exposure to emojis and perceived purchase intentions, it quantifies the relationships between exposure to emojis, conversions, and campaign effectiveness. We also posit the potential moderating role of product type (hedonic vs. utilitarian) between emojis and users' reactions (perceived and real-life).

Therefore, to feel this void, this study attempts to verify and examine whether emojis influence the perceived purchase intentions and campaign effectiveness of online advertising campaigns. In a theory build-up process, we draw upon Dual Coding Theory (Paivio, 1991), online advertising and emojis literature, and propose the research framework consisting of seven hypotheses. The study has used a survey-based data collection to capture consumers' perceptions about purchase intention and an experiment in a real-life

business environment to isolate the effects of emojis on consumers' real-life behaviour (e.g., conversions, purchases).

By doing so, we make four significant contributions to the emoji and online advertising literature. Firstly, we respond to the direct calls for more emoji research in the online advertising (e.g., Bai et al., 2019; Das et al., 2019; McShane et al., 2021). Secondly, this is one of the first scientific attempts that draw upon Dual Coding Theory in quantifying the direction and nature of emoji influence on consumers' real life and perceived behaviour. Thirdly, to date, there is no single attempt to portray consumers' actual behaviour in the context of emojis and the effectiveness of online advertising. This is an original attempt to capture real-life dynamics and consumers' behaviour by running simultaneous campaigns with and without emoji conditions. In particular, our study adds to the emoji research stream by revealing that emoji influence campaign effectiveness only for hedonic products and that it influences purchase intent only when mediated by positive affect. Lastly, given that effectiveness of online advertising is a significant issue nowadays (Chawla & Chodak, 2021), by empirically testing various metrics, we contribute to the emerging field of online advertising and performance marketing altogether.

The article's structure is as follows: After a brief introduction to the study in section 1, followed by the literature review and hypotheses development in section 2. Section 3 describes the methodology used in the two parts of this study, followed by the results of the experiment and survey. Section 4 describes a detailed discussion, including the theoretical and practical implications. Finally, in Section 5, the conclusions, limitations, and potential future research directions are laid out. The references cited in this study and appendices are to be found at the end of the paper.

## 2 | LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

### 2.1 | The social context of emojis and relevance for online advertising

The emoji is a small digital icon or, as Smith and Rose (2020) define it, a pictograph that replaces facial expressions, emotions, places, things, or even people. In this broad definition, its use extends across disciplines and it has received the attention of researchers in various contexts. Emojis are either made up of symbols, such as ;), :(, etc., or appear in graphical form, such as 😊, and 😞 (Ganster et al., 2012). They originated in Japan and their main purpose was to replace or supplement written communications (words, images, symbols, etc.) (Das et al., 2019). Many confuse emojis and images, but there is a major distinction, since the emoji is essentially embedded in language and communication (Luangrath et al., 2017). Sometimes, whole paragraphs can be accompanied by a single emoji. Some see this as a great opportunity to look into the future (Bai et al., 2019). Others believe that emojis are effective in conveying emotions in a similar way to face-to-face contact (Lohmann et al., 2017), which may be considered an almost untapped field in terms of marketing communication and

advertising (Kim et al., 2021). By their nature, emojis tend to convey emotion or feeling more effectively than normal text (Luan et al., 2021). According to Cheshin et al. (2011), emojis are more often used in socioemotional contexts than in task-oriented ones. This claim is attributed to the fact that it is more appropriate to express emotions to a socially close individual than to a stranger or a socially remote one. Similarly, the same authors found that there are more positive emojis in use than those that represent negative feelings. The use of emojis helps individuals meet the need to fill the gaps that have emerged from continually growing computer-mediated communication (CMC) (Skovholt et al., 2014).

Consequently, marketers have identified a new and strategic communication vehicle, as over 90% of online users adopt emojis in daily communication (Lohmann et al., 2017). There is also a continually growing number of emojis indicating a wide spectrum of emotions, situations, and feelings (Jaeger et al., 2017). Large companies have responded quickly to this trend and incorporated emojis into their digital communication activities (see Figure 1), as one of their fundamental goals is to improve the quality of interactions with online consumers in real time. Marketers are now able to use the abundance of emojis to enhance and modify their communication with the targeted audience (Mungai & Pradiptarini, 2011). With increasing numbers of people present on SNSs, communication via nonverbal forms has become popular (Cheshin et al., 2011). SNSs have emerged as particularly fruitful venues for the use of emojis for marketing communication purposes (Arya et al., 2018). Marketers sometimes deliberately use emojis to address a particular cluster (e.g., Generation Z) for ease of communication, as they are commonly used in certain digital environments.

## 2.2 | Dual coding theory and emojis

By providing additional context (Steinhart et al., 2014), the emoji has greatly shortened the decision-making process. The most attractive advertisements use emojis extensively to trigger emotions that overrule rational consumer behaviour (Bai et al., 2019; Lohmann et al., 2017; McShane et al., 2021).

Dual Coding Theory postulates that consumers' cognition is based on two inter-connected building pillars. The first one includes a so-called verbal system that is anchored in language. In contrast, the second one is a non-verbal system that considers visual elements (e.g., pictures, emojis, pictographs, etc.) (Paivio, 1991). Consequently, a textual message is encoded via a verbal system whilst other graphical and visual cues are processed via a non-verbal system. In the context of message processing, both systems are connected and greatly affect each other (Fileri et al., 2021). Due to this, consumers can retrieve a broader context of communicated information (e.g., through online adverts) if marketers use both verbal and non-verbal stimuli.

Some companies even went a step further in creating their emojis; for instance, Google created a set of brand new emojis on World Emoji Day in 2016 (Arya et al., 2018). Essentially, marketers rely heavily on both verbal and visual cues in their communication to



**FIGURE 1** A Domino's pizza online communication based exclusively on emojis. Source: <https://staenz.com/best-performing-emojis-digital-marketing-facebook-ad-campaign>

trigger consumers' responses and engagement. For illustration, Domino's Pizza (Figure 1) uses both text and emojis, whereby a verbal cue is a plain text while visual cues are three "pizza" emojis that are disclosed and the picture of a pizza.

By relying on the Dual Coding Theory (Paivio, 1991, 2010), we assume that consumers would equally consider both verbal (e.g., text) and visual (emojis) cues when they are exposed to online advertising messages. Notably, we believe that both verbal and visual cues significantly impact on consumers' perceived purchase intention and actual purchase decisions. In continuation, we hypothesize the observed variables and conceptualize the research framework.

## 2.3 | Influence of emojis on positive affect

One of the main emotional effects related to the influence of emojis on communication receivers is a positive affect (Lohmann et al., 2017). It can be defined as the extent to which an individual feels enthusiastic, active, and alerted (Watson et al., 1988). Theoretically, there has only been one significant attempt to investigate the relationship between emojis and positive affect, namely, the concept of emotional contagion (Smith & Rose, 2020). As Riordan (2017) notes, it implies a tendency to automatically synchronize postures, movements, and facial expressions with those of another person and to eventually converge at one point. The concept can be seen as a parallel to conformity or homophily in the social psychology domain (Huang et al., 2008). Essentially, the concept of emotional contagion seeks to identify the emotions senders aim to convey and to reflect on whether those emotions are present or consistent with those of the receivers (Smith & Rose, 2020). In practical terms, the use of a

smiling emoji (😊) implies that the sender wants to communicate positive, affirmative and joyful emotions, or simply happiness. In this regard, a relatively recent study by Ganster et al. (2012) found that emojis do affect the emotions of receivers, which was supported by a study by Skovholt et al. (2014), who also claimed a direct positive relationship between emojis and positive affect and the pivotal role of the emoji in suppressing negative feelings.

Similarly, Das et al. (2019) investigated whether and to what extent positive affect can be the result of the originally used emoji. Their results, which were in the context of SNSs and focused on hedonic and utilitarian framed product (camera), confirmed the aforementioned findings. However, the authors concluded that the precise reasons for the influence of emojis on emotions in marketing communication were open to debate. Previously, Lohmann et al. (2017) had found that when someone receives a message with a negative emoji (e.g., 😞), it generally induces negative feelings (e.g., less joy, distress, worries, etc.) in the receiver. They attributed these findings to the fact that emojis increase or decrease the emotional intensity of the communication (similar to the later findings of Smith & Rose, 2020).

Scholars agree that emojis influence emotions and consumer behaviour in the direction they depict (e.g., positive emojis trigger positive emotions). Indirectly, emojis can create interest in an advertised product or service. Based on the above arguments and the Dual Coding Theory note that users simultaneously use both verbal (text) and visual (emoji) systems to decode the information, we propose the following hypothesis.

**Hypothesis 1.** *Emojis have a positive and significant effect on positive affect.*

## 2.4 | Emojis, mediation of positive affect, and purchase intention

Although it is important to ascertain how emojis can potentially trigger positive affect or emotions, from the business perspective, it is more important to understand how it affects the actual purchase intentions of customers. From the standpoint of marketing communication, there is a limited understanding of emojis (Das et al., 2019; Dehghani & Tumer, 2015; Lee et al., 2021; Okazaki et al., 2017). Most of these studies were conducted in the context of the service sector and investigated customer perceptions of service providers who used or did not use emojis. Therefore, it is difficult to unambiguously ascertain the nature of the relationship between the variables (emojis, positive affect, and purchase intention). A clear link between increased positive affect and increased purchase intention has already been established in the literature (e.g., Das et al., 2019). Babin and Andreea (1995) found that customers who feel more positive are more likely to commit themselves to a purchase (or, at least, they perceive it that way—as noted by Ge & Gretzel, 2018). Hence, as emojis trigger positive affect, they should also have a similar impact on purchase intention. Drawing on Dual Coding Theory, emojis should impact both positive affect as a cognitive state, and direct behavioural response—

purchase intention in this case. Similarly, the inclusion of emojis in online advertisements should have a positive effect on purchase intention; it should also be mediated by positive affect. Therefore, these relations are formalized in the following hypotheses:

**Hypothesis 2.** *Emojis have a positive and significant effect on perceived purchase intention.*

**Hypothesis 3.** *Positive affect mediates the effect of emojis on perceived purchase intention.*

## 2.5 | Emojis and campaign effectiveness

Effectiveness can be described as the degree to which the intended goals are achieved (Shen et al., 2016). In online advertising, a campaign's relevant goals are those related to increasing website visitors, click-through, generated sales and revenue, raising awareness, etc. The precondition for a person to engage with a campaign (e.g., click, purchase) is that they actively expose their interest in searching for information about a specific product or service (Dehghani & Tumer, 2015; Namin et al., 2020). This particular moment is related to when an individual engages with an advertisement and is redirected to a landing page with additional information (Järvinen & Karjaluo, 2015) or commits to a desired action (e.g., order placement, subscription). As Lorente-Páramo et al. (2020) note, the active expression of interest occurs when individuals click on an online advertisement and are redirected often to a specifically designed landing page. The question is how to measure whether a campaign has been effective or not.

The effectiveness of an online advertising campaign may be defined as the degree to which advertisers are successful in their marketing communication efforts to persuade individuals to engage with an advertisement (Lorente Páramo et al., 2021). In practical terms, it means how successful advertisers are in inducing individuals who have expressed an active interest (e.g., by searching for keywords/phrases) to engage with their marketing communication (e.g., online advertisements). The literature (e.g., Chawla & Chodak, 2021; Kim et al., 2015; Kim et al., 2021; Mungai & Pradiptarini, 2011) and marketers (Google, 2021) refer to several measurement units suitable for this purpose, which offer significant benefits as they quantify actual behaviour in a real-life business environment. It allows for observations to be collected unobtrusively and free of researcher bias (Peters et al., 2013). This study uses  $E_n$ , the measure used by Chawla and Chodak (2021) to measure the effectiveness of a campaign, whereby the effectiveness of a campaign is the ratio between the total sales ( $S_n$ ) generated and the total number of clicks ( $C_n$ ) on the advertisement:

$$E_n = \frac{S_n}{C_n}$$

With regard to the conversion behaviour of individuals, the effectiveness of a campaign can be measured by calculating the click-through

rate ( $CTR_n$ ). CTR is the ratio between clicks ( $C_n$ ) on an online advertisement and the number of impressions or views ( $I_n$ ) (Bonfrer & Drèze, 2009). CTR varies considerably between different products and services, and certain elements must be considered when assessing the effectiveness of a given campaign.

$$CTR_n = \frac{I_n}{C_n}$$

Furthermore, this study calculates the return on advertising spend (ROAS), which is another measure widely used by marketers to benchmark the effectiveness of online advertising campaigns (Chen et al., 2018). It measures the amount of revenue generated for each monetary unit invested (e.g., per dollar or euro) (Chen et al., 2018).

$$ROAS = \frac{\text{Sales}}{\text{Cost}}$$

Although there is a body of literature that supports the notion that emojis have an impact on the intention to purchase and positive affect (see Das et al., 2019; Jaeger et al., 2017; McShane et al., 2021), there is a void when it comes to formalizing the relation between emojis and campaign effectiveness (e.g., actually generated sales, number of real-life conversions). For instance, the study by Arya et al. (2018), based on the Indian context, concluded that when customers interact with marketer-generated content that contains emojis, their attachment to the brand and purchase intention increases. This was later supported by Coyle and Carmichael (2019) in their study on emojis and perceived responsiveness. While Smith and Rose (2020) observed a similar tendency in the relation between smiley emojis and purchase intention, Das et al. (2019) went further in deciphering the nature of the purchase intention–emoji relationship, whereby they concluded that, for hedonic products (e.g., digital cameras) in particular, there is an evident increase in purchase intention.

However, scholars have not investigated the nature of the relationship between emojis and actual purchase behaviour. There is an evident lack of understanding of how emojis influence actual commitment in the context of a real business environment. This is surprising considering that emojis increase engagement with SNS advertisements from 33% to 57% (McShane et al., 2021). The digital agency Sproutsocial investigated the impact of emojis on CTR and reported a massive effect in favour of the emoji condition, whereby a 241% increase in CTR was recorded, although under what control variables is not known (Aboulhosn, 2020). Another industry-based study reported that over 70% of respondents across all generational cohorts consider emojis a suitable (even welcomed) “humanizing” addition to marketer-generated content (Price, 2021). In a practical study, Hubspot reported a positive influx of emojis in brand engagement. They measured engagement with push notifications and recorded a 30% increase in engagement in one year (Flight, 2020).

Although several studies and industry reports have indicated an evident influence of emojis on consumer behaviour, they have failed to identify how and in what direction they trigger real-life behaviour.

This is important to observe, as it is a common occurrence that people fail to act in accordance with their stated intentions (Ajzen et al., 2004). To explain this intention–behaviour gap, it can be assumed that the symbolic situation (e.g., stated or perceived intentions) activates more favourable or fewer unfavourable considerations than the real behaviour does (e.g., conversion, subscription, order placement, etc.) (Kim et al., 2021). For illustration, if one states an intention to a specific commitment, it requires fewer resources and has hardly any consequences (material, human, etc.) when compared with actually committing to a purchase.

Based on above-mentioned argumentation, the reasoning of Babin and Andreea (1995), and anchored in Dual Coding Theory, persons who feel positive are more inclined to commit themselves to the desired action (e.g., click-through, purchase, or subscription), and the following hypotheses are put forward:

**Hypothesis 4.** *Emojis have positive and significant effect on  $CTR_n$ .*

**Hypothesis 5.** *Emojis have a positive and significant effect on  $E_n$ .*

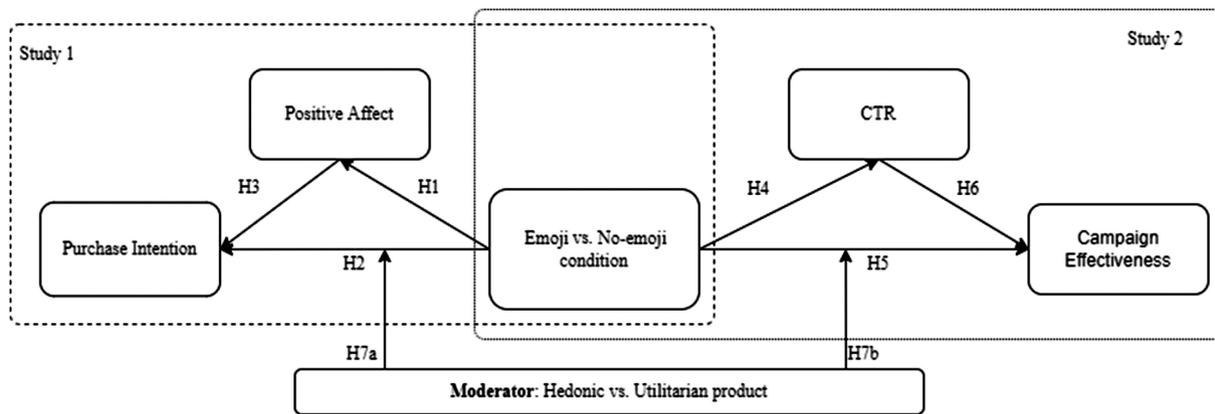
## 2.6 | Emojis, CTR mediation, and order placement

Several studies indicate that emojis positively influence consumers' purchase intentions (e.g., Das et al., 2019; Dehghani & Tumer, 2015; Lee et al., 2021). However, from the strategic marketing perspective, the nature or relation between emojis, CTR, and campaign effectiveness has not been ascertained. There is a solid reason to believe that emojis will increase CTR (formalized in Hypothesis 4), given the theoretical support that people who feel more positive are more likely to commit themselves to a certain course of action (e.g., click or purchase). Similarly, those who experience pleasurable emotions are more likely to place an actual order (indirectly affecting campaign effectiveness) (formally stated in Hypothesis 5). Given a technical configuration whereby only those who click on the online advertisements can place an actual order (as those not exposed to the online advertisements are excluded), it is to be assumed that CTR will fully mediate the effect of emojis on advertising effectiveness. Thus, the following hypothesis is put forward:

**Hypothesis 6.** *CTR mediates the effect of emojis on the effectiveness of a campaign.*

## 2.7 | Type of product as a moderator (hedonic vs. utilitarian)

Utilitarian products are considered to satisfy pure functional needs (e.g., quality, quantity, safety, sustainability, etc.) while hedonic products pursue higher order needs (e.g., fun, pleasure, aesthetics, etc.) (Das et al., 2019). Generally, users focus more on so-called positive



**FIGURE 2** Research framework and hypothesized relations. Source: Authors' elaboration

affective reactions (e.g., excitement) when deciding to purchase or consume a hedonic product (e.g., swimming pool, perfume, flowers, sports car, etc.). In contrast, they focus more on product features when considering utilitarian products (e.g., tea, microwave, personal computers, etc.) (Voss et al., 2003). As Alba and Williams (2013) present in their work, decisions in the context of hedonic products are usually based on emotions, while in the case of utilitarian products, users take a more rational approach. A notable extension in this domain comes from Kronrod and Danziger (2013). They verified in the context of figurative language that users are relating more positive emotions to hedonic than to utilitarian products. Given that emojis present a non-verbal form of communicating emotions (Das et al., 2018), we assume that emojis condition will induce more positive users' reactions (both perceived and actual behaviour) in the context of hedonic product advertisement—contrary to the utilitarian products.

Thus, we argue that for the hedonic product (swimming pool), an additional non-verbal informational cue (emojis) will induce higher self-reported perceived purchase intent and increased campaign effectiveness. Also, tea is considered to fulfil some essential needs whereby additional cues are not crucial. Given all together, we posit that type of product moderates the effect of emojis on perceived purchase intention and campaign effectiveness. We aim to identify eventual changes in users' behaviour toward the type of product advertised. The study of differences in product types is essential to enhance the theory development process and to enhance emojis and online advertising domains. Therefore, we propose the following hypotheses:

**Hypothesis 7a.** *Compared with utilitarian products, hedonic product's adverts with emojis will lead to higher perceived purchase intention.*

**Hypothesis 7b.** *Compared with utilitarian products, hedonic product's adverts with emojis will lead to higher campaign effectiveness.*

Incorporating all the hypotheses put forward in this study, the research framework model to be tested is presented in Figure 2.

### 3 | METHODOLOGY

The study was divided into two parts and used two respective scientific methods. In the first part (study 1), the [Hypothesis 1–Hypothesis 3](#), and [Hypothesis 7a](#) were tested, regarding the impact of emojis on positive affect and purchase intention and the mediation of positive affect between emojis and purchase intention. A self-administered online survey facilitated this. In the second part (study 2), an experiment in a real business environment was conducted to test the remaining [Hypothesis 4–Hypothesis 7b](#) related to actual consumer behaviour. Data from the Czech Republic were collected simultaneously for the two parts of the study over 30 days in February and March of 2020. Two real e-commerce businesses participated in the study, whose primary target customers on social media were Generation Z in the Czech Republic. This was the main reason for carrying out the whole research among only the Generation Z segment, for both the survey and the experiment. Targeting other generation segments would result in a biased outcome. The total cost of online advertisements amounted to over 900 USD, which was covered by the e-commerce enterprises. No other online advertisements were placed for the same products simultaneously by the businesses that took part in the study.

#### 3.1 | Pretest

Drawing on the domain literature, we focus on utilitarian and hedonic product types, as there is an array of suggestive evidence that indicates that various heuristics (e.g., visual, social, selling cues) interplay in a plethora of ways with consumers' cognition and actual behaviour (Das et al., 2018, 2019, 2021; Onofrei et al., 2022). To more profoundly understand the influence of visual cues (emoji) and given the fact that actual and perceived consumer behaviour is a broader mechanism rather than a set of simple direct relationships (Das et al., 2018), we focus on the moderation role of hedonic and utilitarian products.

Initially, to select the products suitable for both parts of this study (utilitarian and hedonic), a pretest was conducted as a

self-administered survey. Like the study by Klein and Melnyk (2016), four products were selected for the pretest (batteries, tea, a swimming pool, and video games). A total of eight texts were created describing these products (two for each product). The participants were required to evaluate all the variants. A total of 48 participants completed the pretest. A filter question ensured that the participants were representatives of Generation Z. They were contacted primarily via SNS and received no compensation. Participants were required to rate the hedonic and utilitarian descriptions of products. Scale items from Voss et al. (2003) were used, and, based on the results of the *t*-test, it was concluded that tea had been largely perceived by respondents as a utilitarian product, while the swimming pool was viewed as a hedonic product. We selected only one product per category to ensure the clarity and comprehensiveness of the experimental design.

### 3.2 | Control variables

Based on the pretest, two product types were adopted (hedonic-swimming pool, and utilitarian-tea). The tested online advertisements contained the following emojis: 🍃, 🌍, ✅, 😊, ☀️, and 😄. The emojis were deliberately selected to accompany and informationally support the type of product they were attached to. All of them convey positive emotions, as both genders more often use positive emojis than negative or neutral ones (Al-Rawi et al., 2020). For example, a green heart and planet represent a healthy lifestyle associated with the tea consumption (following the reasoning in Al-Rawi et al., 2020). Similarly, a sun, heat, or sweating emoji can be used in an online advertisement that promotes swimming pools. To ensure consistency, we used the same text in both versions of the online advertisement, for example, the one with the emojis and the one without.

Next, we controlled that no holidays are within the data collection window. This is important given that retailers extensively promote their products during and around a holiday (Yang et al., 2022). To isolate the effects of emojis on consumers' responses, we opted to include not well-known e-commerce web sites and relatively unknown brands as those can influence one's propensity to engage with an advert (Peters et al., 2013).

### 3.3 | Study 1—Self-administered online survey

#### 3.3.1 | Method

Two versions of the questionnaire were created which featured the online advertisements that were the subject of testing. The advertised products included tea (utilitarian) and a swimming pool (hedonic), following the procedure developed by Das et al. (2018). The first version was the condition with no emoji, while in the second version an emoji was included in the advertisement (see Appendix A). To measure positive affect, a four-item, seven-point scale (1: Not at all; 7: Very much) was used, which was developed by Watson et al. (1988), while to capture purchase intention a three-item, seven-point Likert scale (1: Not

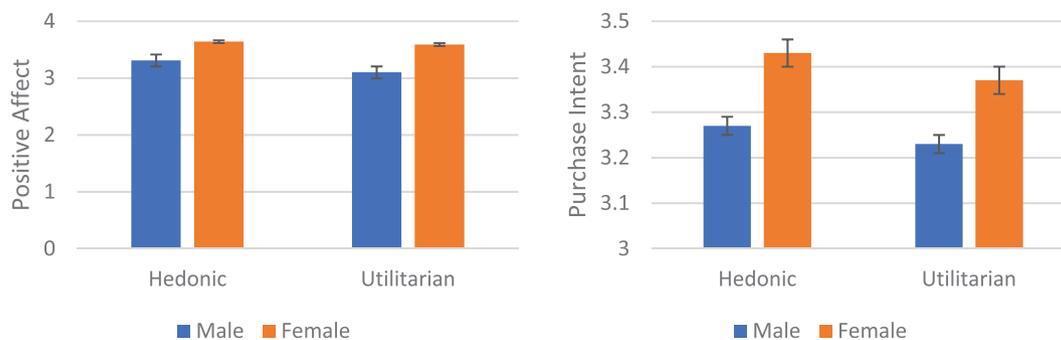
at all; 7: Very much) was used, like that in Steinhart et al. (2014). The order of the questions was randomized to check for consistent and relevant answers (as per Gehlbach & Barge, 2012). A double-translation procedure was followed when translating the survey into the Czech language. To check the validity of the survey items, a small-scale pilot study was conducted (February 2020) on a batch of 32 respondents. There were no significant changes and these results were not included in the final data set.

The survey was disseminated to 1272 randomly selected students. All respondents were informed that the collected data would be completely anonymous, that participation was voluntary, and that they were free to abandon the study at any point in time. Respondents who gave informed consent to their participation were randomly assigned to one version of the questionnaire. The survey included filter questions so that the results would only pertain to Generation Z. To assess the data quality, we incorporated an instructional manipulation check into the survey to identify any disengaged respondents (as per Oppenheimer et al., 2009).

### 3.4 | Results—Emojis, positive affect, purchase intention, and moderation analysis

Given the fact that self-reported data were utilized for the analyses, we conducted Harman's single factor test to check for common method variance (Tehseen et al., 2017). The trial reported that the total variance explained by a single factor is 21.06%, which is significantly below the 50% mark and indicates that there is no problem with common method bias. We checked the convergent validity of the scales (Appendix B), whereby we included Cronbach's alpha, loadings, composite reliability (CR), and average variance extracted (AVE). None of the used items were excluded given that all of them were loading above the 0.5 benchmarks (Hair et al., 2019; Tavakol & Dennick, 2011). Respectively, CR, AVE, and Cronbach's alpha values are all above minimums of 0.7, 0.5, and 0.7. Next, we checked the discriminant validity and we used Fornell and Larcker's (1981) procedure (Appendix B)—which implies that diagonal indicators should have higher values (Endara et al., 2019). Essentially, scales are reliable and measure what they are supposed to.

The study observed multiple relations between emojis, positive affect, and purchase intention. It indicated why exposure to emojis seemingly leads to higher purchase intention by observing the mediation effect of positive affect. Only fully completed surveys were considered for further analyses, resulting in a total of 318 valid responses (a 25% response rate). Given that sample consisted of a 71.1% female cluster, we wanted to check for eventual bias and performed the chi-square test (as suggested by McLaughlin & Drasgow, 1987). With a degree of freedom of 3 and a chi-square value of 15.09, the results should not be biased (at a significance value of 1%). Mean values and SDs together with other parameters are attached in Appendix B. Next, the existence of a statistically significant direct influence of the emoji condition on positive effect was tested ( $t[142] = 3.51; p = .012; \eta_p^2 = 0.05$ ), which supported the first Hypothesis [Hypothesis 1](#), and



**FIGURE 3** Influence of the emoji condition on positive affect (left) and purchase intention (right) by gender. Source: Authors' elaboration; Error bars indicate SD

implied that the presence of emojis in advertising messages leads to higher positive affect. The next step was to test whether there was a statistically significant relationship between the emoji condition and purchase intention. It was found that respondents who were exposed to the emoji condition ( $M = 3.96$ ) did not report substantially higher purchase intention than those who were not exposed to emojis ( $M = 3.91$ ). Surprisingly, the statistical outputs did not support the Hypothesis 2 hypothesis ( $t[141] = 3.93$ ;  $p = .301$ ;  $n_p^2 = 0.12$ ).

To ascertain whether positive affect mediates the effect of the emoji condition on purchase intention (Hypothesis 3), the study used the procedure that was followed by Hayes (2017). Essentially, the model included the presence versus the absence of emojis as independent variables, positive affect as a mediator, and purchase intention as the dependent variable. The outputs indicated that the index of mediation was significant ( $b = 0.71$ ; 95% CI [0.18–0.77]). Although the model reported no significance in the direct relationship between emojis and purchase intention ( $b = 0.40$ , 95% CI [–0.38 to –0.81]) when a positive effect was included, it fully mediated the hypothesized relationship between emojis and purchases intention. Therefore, it can be concluded that the results support Hypothesis 3, for example, a positive effect mediates the relationship between emojis and purchase intention.

Next, we investigated for moderation effect of product type between emojis and perceived purchase intention (Hypothesis 7a). Essentially, respondents who have been exposed to emoji conditions self-reported higher purchase intention ( $F [1, 318] = 49.33$ ,  $p < .001$ ) in the case of hedonic products. On the other hand, as expected, there was no significant impact on emoji condition in the case of utilitarian products ( $F [1, 318] = 10.09$ ,  $p < .452$ ). Thus, confirming the proposed relation formalized in Hypothesis 7a.

Additionally, the study examined whether there were any significant differences between genders and, if so, the extent of their significance (Figure 3). The mean values ( $M$ ) were initially observed to descriptively analyse the differences. It was found that females were influenced significantly more by the emoji condition for both positive affect and purchase intention (respectively ( $F [1, 165] = 19.80$ ,  $p = .002$ ) and ( $F [1, 147] = 17.380$ ,  $p = .004$ )).

### 3.5 | Discussion—Study 1

Given the widespread use of emojis, their accelerated incorporation into the marketing communication, and the insufficient understanding of their influence on consumer behaviour, this study aimed to provide more insight into this phenomenon. The first part of the study investigated the interplay between emojis, positive affect, and purchase intention. It was found that exposure to the emoji condition led to higher positive affect but did not have a direct effect on purchase intention, with only an indirect path (emoji-positive affect-purchase intention) showing a statistically significant effect. These findings confirm the claims of Das et al. (2019) in terms of positive affect (emojis are positively linked to the affirmative cognitive states of consumers). Surprisingly, the direct effect on purchase intention was negative, which was inconsistent with the initial expectations. It was assumed that exposure to the emoji condition would lead to higher purchase intention. This anomaly may eventually be attributed to the notion that only emojis that trigger a sufficient level of positive affect can generate greater purchase intention (McShane et al., 2021), which means positive affect fully mediates the initial effect of the emoji condition on purchase intention. To fully comprehend consumer behaviour patterns, the informative, emotional, and symbolic distinctions between emojis must be considered. Given the fact that over 3500 emojis exist (Unicode, 2021), this presents a significant obstacle for future research. Another interesting finding was that women were significantly more influenced by emoji exposure in marketing messages than men (for both types of products). This can be attributed to the fact that women more often use emojis in their communications on SNSs (Jones et al., 2020), and are better at decoding emojis than men (Tossell et al., 2012). It can be assumed that women's higher emoji usage makes them more accustomed to and influenced by them. Moreover, women seek contextual clues to emotionally comprehend messages (Coyle & Carmichael, 2019; Prada et al., 2018). In this sense, the emoji can be seen as an informational vehicle to provide greater context. Moderation analysis indicated a significant difference in self-reported purchase intention in favour of hedonic products, as predicted. Essentially, one benefit of this part of the study was that it surveyed the population in which emojis are most widespread and therefore offers significant theoretical extensions in marketing

communication, online consumer behaviour, and hedonic consumption. Nevertheless, as it was designed to quantify consumer intentions and perceptions, it was limited in terms of evaluating actual behaviour and the impact of emojis, particularly in terms of campaign effectiveness, conversion potential, etc. Therefore, the second part of this study was designed to address this limitation using an experiment to comprehend better the nature and direction of relations between emojis and campaign effectiveness.

### 3.6 | Study 2—Experiment in a real-life business environment

#### 3.6.1 | Method

This part of the study had a 2 (utilitarian and hedonic product)  $\times$  2 (with and without emoji) between-subjects design. As there was virtually no previous research that had examined the relationship between emoji exposure and campaign effectiveness, it was aimed at extending knowledge in this area and investigating the interplay between emojis and CTR (Hypothesis [Hypothesis 4](#)), and emojis and campaign effectiveness (Hypothesis [Hypothesis 5](#)). It also attempted to formalize the relationship between emojis and campaign effectiveness by observing the mediating effect of CTR. Finally, it also captured the relationship between emojis, ROAS, and type of product.

For this part, online advertisements were run on the Facebook and Instagram pages of the two e-commerce businesses that took part in this study. Both e-commerce platforms already had a Facebook page, a Business Manager, and a dedicated Facebook Ad account, which are the necessary preconditions for launching campaigns (Dehghani & Tumer, 2015). Dynamic carousel-type advertisements were run for the two products (tea—utilitarian and swimming pool—hedonic) that had been selected from the pretest. The A/B testing method was used to test the two versions of the advertisements (with and without emojis). The respective advertisements were placed on both Facebook and Instagram (as the observed population predominantly uses them). In terms of targeting and based on pixels, the e-commerce businesses possess large quantities of data on their customers, and so on this basis, we opted for lookalike audiences to extend the outreach of the marketing communication (Sapiezynski et al., 2019). As with the target population for the survey in the study 1, the audience was narrowed down to only Generation Z (up to 25 years of age). The Advanced Location Targeting (ALT) tool was used, so that the advertisements only appeared to those living in the Czech Republic. The control advertisement and the advertisement with emoji included were run under separate advertising sets. The allowed spend for each set was defined using Facebook's A/B experiment feature to ensure that both ad versions spent the same daily budget. Various metrics (sales, costs, impressions, clicks, and conversions) were captured for calculating CTR, campaign effectiveness, and other relevant indicators. The proposed hypotheses were tested using a Z-test which was suitable for A/B testing with binary variables (Hoffmann & Wagenmakers, 2020).

### 3.7 | Results—Emojis, campaign effectiveness, and moderation analysis

In total, 907 U.S. dollars were invested in two online advertising campaigns, which resulted in 201,839 unique impressions, with 5886 clicks on the presented advertisement (CTR 2.91%) (Table 1).

[Hypothesis 4](#) formalizes the relationship between emojis and CTR. From the descriptive statistics, there were no significant differences in the case of hedonic products. However, there was a difference in the case of utilitarian products (the emoji condition induced higher CTR). A Z-test was run to verify whether this difference was statistically significant, which the outputs confirmed (Z-score 2.019,  $p$ -value = .0218).

Next, the effects of the emoji condition on campaign effectiveness ( $E_n$ ) were examined. This relationship is formalized in [Hypothesis 5](#). As seen in Table 2, there is a clear difference with the hedonic product.  $E_n$  was calculated as per the formula in Section 2.4 and a Z-test was performed to statistically verify whether the discrepancy was significant. The outputs confirmed that there were statistically significant differences with the emoji condition for hedonic products and that the emoji condition influenced  $E_n$  (Z-score 3.2157,  $p$ -value = .0375).

Now, we examined the interaction effect of product type between emojis and campaign effectiveness (Hypothesis [Hypothesis 7b](#)). Outputs remarkably confirm the hypothesized relation whereby online users' that were exposed to emoji conditions in a hedonic product's context performed more actions (conversions, orders, etc.) ( $F [1,13 = 65.01, p < .001]$ ) than those exposed to emoji conditions for the utilitarian product ( $F [1,43 = 15.81, p < .387]$ ). Thus, confirming the proposed relation formalized in [Hypothesis 7b](#).

Additionally, to check whether CTR mediated the effect of the emoji condition on campaign effectiveness, the procedure in Hayes (2017) was followed. The outputs indicated that the index of mediation was significant ( $b = 0.66; 95\% \text{ CI } [0.22-0.86]$ ). In the case of the hedonic product, the statistics reported a significant indirect effect, which implies that the emoji condition significantly increased campaign effectiveness via increased CTR ( $b = 0.59; 95\% \text{ CI } [0.37-0.91]$ ). Moreover, when the direct effect of the emoji condition on  $E_n$  was included in the model, there was still a significant effect ( $b = 0.27; 95\% \text{ CI } [0.11-0.65]$ ). In the case of the utilitarian product, however, there was no statistically significant mediation ( $b = 0.36; 95\% \text{ CI } [-0.04-0.89]$ ). Therefore, it can be concluded that CTR does not mediate the effect of emojis on campaign effectiveness. Similarly, when we included the direct relationship between the emoji condition and campaign effectiveness in the model, the outputs indicated insignificance ( $b = 0.36; 95\% \text{ CI } [-0.04-0.89]$ ).

In terms of ROAS, as opposed to CTR, the emoji condition had a significant influence, although the influence was marginal in the case of the utilitarian product (see Figure 4). This relationship was subject to testing and the results confirmed an unambiguous effect

**TABLE 1** Comparative review of relevant studies focused on emoji

Authors and year	Independent variables	Other variables	Method	Theory	Context	Outcome variables
Jaeger et al. (2017)	Various emojis are used (to depict food)	Not specified	Survey	Not specified	Food preferences	Emotion measurement
Ge and Gretzel (2018)	Not Specified <sup>a</sup>	Not specified	Web scraping	Rhetorical theory	Influencer marketing	Taxonomy development
Arya et al. (2018)	Engagement on SNS	Brand communication, Present vs. absent emoji	Survey	Theory of attachment	Brand attachment and communication	Brand prominence, brand self-connection
Das et al. (2019)	Present vs. absent emoji	Positive affect	Laboratory experiments	Not specified	Online advertising	Perceived purchase intentions
Li et al. (2019)	Present vs. absent emoji	Perceived warmth, perceived competence	Laboratory experiments	Not specified	Service encounters	Behavioural intention to communicate
McShane et al. (2021)	Present vs. absent emoji	Number of likes, number of retweets, perceived playfulness,	Web scraping, laboratory experiments	Not specified	Customer care and communication	Perceived intention to engage
Lee et al. (2021)	Present vs. absent emoji	Personalization, perceived intrusiveness	Online panel	Psychological reactance theory, Social information theory	Online advertising	Perceived purchase intentions
Huang et al. (2021)	Low and high emotionally intense emoji	Present vs. future promotional orientation	Laboratory experiment	Construal level theory	Online advertising	Perceived purchase intentions
Wu et al. (2022)	Emoji meaning (single vs. multiple)	User expertise, perceived processing fluency	The survey, laboratory experiment	Processing fluency theory, naive theory	Electronic Word of Mouth	Perceived usefulness of reviews
This study	Present vs. absent emoji	Positive affect, hedonic vs. utilitarian products, CTR, advertising effectiveness	The survey, Field experiment	Dual coding theory	Online advertising	Perceived purchase intention, real-life conversions

Source: Authors' elaboration.

<sup>a</sup>Conceptual paper.

**TABLE 2** Key performance indicators—Descriptive overview

Product	Sales (\$)	Cost (\$)	Clicks	Impressions	Conversions	CTR (%)	E <sub>n</sub>	ROAS (\$)
Utilitarian no emoji	1853	277	1623	58,220	46	2.79	1.142	6.69
Utilitarian emoji	1868	278	1632	54,596	43	2.99	1.145	6.72
Total utilitarian	3721	555	3255	112,816	89	-	-	
Hedonic no emoji	2422	177	1280	43,370	9	2.95	1.893	13.68
Hedonic emoji	3842	175	1351	45,653	13	2.96	2.844	21.95
Total hedonic	6264	353	2631	89,023	22	-	-	
Grand Total	9985	907	5886	201,839	111			

Source: Authors' elaboration.

(respectively ( $F [1, 178] = 21.12, p = .022$ ) and ( $F [1, 178] = 7.482, p = .065$ )). The results of all tested hypotheses in the research model's overall framework are presented in Figure 5. Also see Tables B1 and B2 for more details.

### 3.8 | Discussion—Study 2

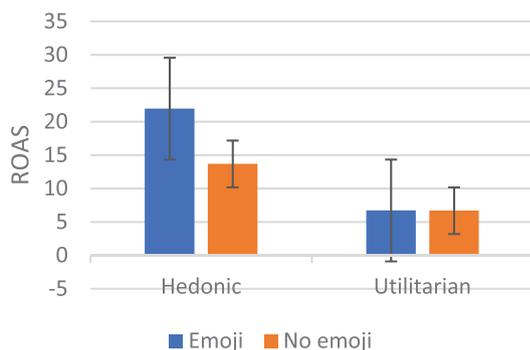
The second part of the study found that the presence of emojis only increased CTR for the utilitarian product. In the case of the hedonic

product, it only had a marginal influence on CTR, although it had a statistically significant effect on campaign effectiveness. These results add to the findings of Chawla and Chodak (2021) with regard to the planning of content based on campaign goals and type of product. In terms of ROAS, every dollar invested in advertising the hedonic product induced 22 USD of sales in the emoji condition instead of 14 USD for the absent emoji condition. In the case of the utilitarian product, there was no significant difference, as both conditions generated around 7 USD in sales. This indicates that emojis may increase ROAS for certain products, but not others. Given that the content with emojis did not result in lower ROAS for either product, it suggests that the use of emojis may be the better option. Nevertheless, conducting such a study with a wider range of products would be interesting.

In closing, we investigated the interaction effect between emojis and campaign effectiveness whereby emoji condition leads to higher campaign effectiveness in the context of the hedonic product (swimming pool). This verifies the suggestive evidence provided by the literature (e.g., Das et al., 2019).

## 4 | GENERAL DISCUSSION

The findings of a present study indicate that the use of emojis had a negative effect on purchase intention, while the effect was positive



**FIGURE 4** Influence of the emoji condition on ROAS by product type. Source: Authors' elaboration; Error bars indicate SD

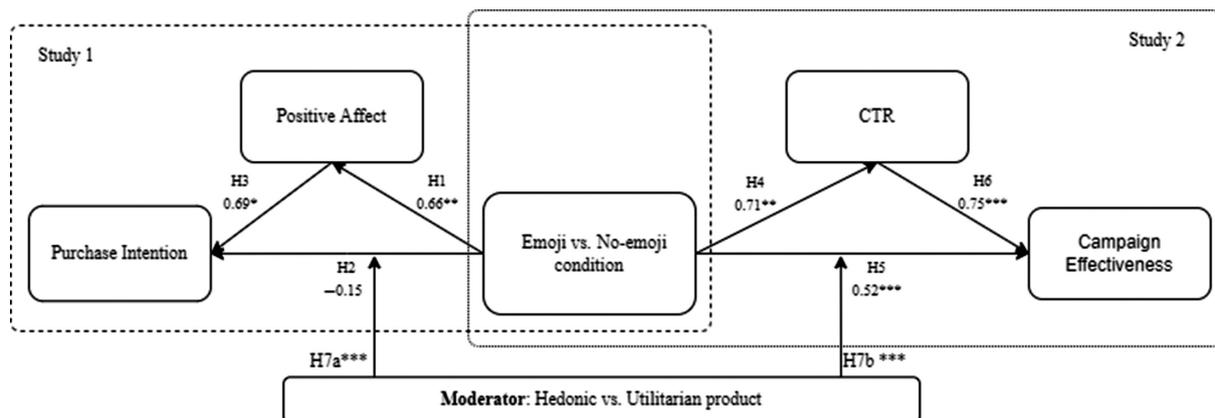
when mediated by positive affect. Further, emojis increased the effectiveness of marketing campaigns for hedonic products and had strongly impacted the return on advertising spend. Finally, we found that women are more receptive when exposed to emojis than men.

### 4.1 | Theoretical contributions

From a theoretical point of view, the results of this study extend the knowledge in multiple domains. The findings provide empirically verified inputs in the paralanguage domain, initially developed by Luan-grath et al. (2017). While their theoretical framework requires more empirical verification, this is the first study to empirically test and extend the proposed emoji-actual behaviour relationship. By observing the relationships between emojis, purchase intention, and actual conversions, this study not only filled out the recognized gap but provided a solid methodological foundation for further exploration in this domain.

Next, we extend the understanding of Dual Coding Theory and its power in explaining the influence of emojis on perceived intentions and actual behaviour. Namely, the theory postulates that consumers' cognition is positively affected when exposed to both text and graphical elements (e.g., emoji) together. Our results largely confirm this notion given that significant differences are observed in campaigns with and without emoji conditions. Previous research applied Dual Coding Theory in understanding consumers' responses in various contexts (Filiari et al., 2021; Homann et al., 2022; Monzel et al., 2022) but no study to date considered emoji as a non-verbal cue that can affect one's cognition. Consequently, we further contributed to the knowledge of Dual Coding Theory and its assumptions on consumers' responses.

The observations of well-established metrics among marketers (CTR, ROAS, and  $E_n$ ) represent a pioneering effort to scientifically formalize the relations between emojis and the effectiveness of online advertising campaigns. Given that the effectiveness of online advertising is a significant issue (Chawla & Chodak, 2021; Kim et al., 2015), by capturing the abovementioned metrics, findings contribute directly to the emerging field of online advertising and performance marketing



**FIGURE 5** Hypotheses overview and results. Unstandardized betas are reported. Significance at: \*.05; \*\*.01; \*\*\*.001.

and open many future research venues (see the concluding section of the paper). This is one of the first attempts to capture the causal relationship between emojis and measurements of effectiveness in an authentic environment, making this research output relatively significant. Namely, emojis increase CTR only for utilitarian products (tea), while for the hedonic product (swimming pool), they have a substantial influence on both ROAS and campaign effectiveness. This confirms Das et al.'s (2019) findings and is in collision with the emotional contagion concept that assumes the linear spread of emotion through emojis (regardless of the product type). This implies an extension of consumer behaviour and affect literature by confirming that product category is potentially an important contextual element to consider. In the context of gender literature, our findings support the argument that women and men react differently to marketer-generated content (Lin et al., 2019). The results reveal that the female cluster got significantly more influenced by the emojis condition. Our findings portray the situation when and to whom emojis should be used in online advertising.

The study was demographically designed to study members of Generation Z. They are reportedly the most frequent users of emojis (McShane et al., 2021) and the largest group of users of SNSs (Eger et al., 2021). Given the fact that this generation is fully used to the digital ecosystem, instant messaging, and the additional fact that their decision making and actual behaviour are under-researched (Krishen et al., 2021), our results extend the knowledge of the consumer behaviour and intentions of this particular generational cohort. The differences (if there are any) between this and other generations have yet to be explored.

Although marketers are inclined toward continuous experimentation (e.g., A/B) to find the optimal configuration for executing online advertisements, scholars largely refrain from this approach due to its complexity and the resources required to run effective online business experiments (Chawla & Chodak, 2021). Methodologically, this research contributes to the evolving literature on online experimental design and raises some methodological points (e.g., targeting, advertisement creation, emoji selection, and budget allocation) that may be of use in overcoming the challenges in designing and executing online experiments (Banks et al., 2016). The design of the structure of the experiment is such that potential replication may include a variety of modifications, such as those highlighted in the limitations and potential directions of future research section below.

Perhaps, most notably, this paper verifies that emoji is an essential element in online advertising that directly affects real-life revenue generation and consumer behaviour. Although in its infancy, the research stream proved its potential and its major role in company consumer relationships.

## 4.2 | Practical implications

Marketers have been using emojis extensively to humanize their targeted communication and promote their brands to customers.

However, there is little or fragmentary knowledge on the circumstances in which marketers can effectively use emojis in online advertising (Kim et al., 2021). In addition to the theoretical contributions, this study has several practical implications, and it has found that emojis have considerable value in online advertising. First, the findings can be used as a guide to when emojis should be used in online advertising. For illustration, the application of emojis is particularly effective in increasing the affect and conversion of hedonic products (e.g., perfumes, flowers, and watches). At the same time, they have a marginal influence on the online promotion of utilitarian products (e.g., calculators, microwaves, and detergents). Hence, marketers must consider the product category to boost campaign engagement and effectiveness. Secondly, as discussed, a female segment is more receptive to emojis. In practical terms, marketers should primarily use emojis to emotionally enhance and humanize their communications when targeting women of generation Z. Based on results, this should optimize the campaigns and influence revenue generation.

However, companies need to be cautious when using emojis and factor in all relevant contextual elements that may lead to deviations (e.g., relationship norms, type of market, brand perception, product price, etc.) (Li et al., 2019). These results also underline the importance of the suggestion by Chawla and Chodak (2021) that business managers should continuously experiment (e.g., testing various emojis, including multiple emojis, different sizes of emojis, etc.) with their target audience and products to deduce personalized recommendations. Our framework provides marketers with a solid base on which to run experiments and surveys for their products for their target audience.

## 5 | CONCLUSION, LIMITATIONS, AND FUTURE PROSPECTS

This study focused on Generation Z and provided evidence to support some previous findings (e.g., the influence of emojis on positive affect). Notably, it found that the emoji condition had a negative influence on purchase intention. The findings indicate that there is great potential for the use of emojis in online advertising. Essentially, emojis lead to higher positive affect and purchase intention (although only indirectly in the latter case). Moreover, in the case of hedonic products, there was empirical evidence that indicates that emojis increase campaign effectiveness and CTR and have an almost exponential influence on ROAS. The use of emojis may be more effective for marketers when targeting the female population, as this segment is more receptive to emoji-based messages. The results of this study are far from conclusive. Nevertheless, this research has provided some solid evidence that has theoretical and practical implications and adds to previous observations that the emoji can be a very influential strategic and emotional vehicle for approaching specific market segments.

Despite the findings and contributions of this research, there were certain limitations of the study that indicate potentially fruitful research directions in this under-researched domain. The first limitation of the study was that it was based solely on members of Generation Z, due to the prevailing target customers on social media

of the real businesses that gave access to their marketing analytics. Given the considerable differences in consumer behaviour across generational cohorts (Kim et al., 2018), further studies should extend the scope and investigate how different generations (e.g., Y, X, and baby boomers) perceive and react to emojis. In a recent study, Distel et al. (2022) also pointed out the need for a cross-generational study on emojis. However, this would require collaboration with a business that has a wider segment of target customers. We acknowledge the fact that predominantly female respondents participated in the first study (cca. 70%), which may lead to biased and somewhat skewed results. Scholars should take note of this fact in future replications and extensions. Moreover, the experimental design should be verified and replicated in various contexts. For example, well-known brands can be used in adverts (e.g., Coca-Cola, Pepsi, Kofola, etc.), as there is evidence that indicates that consumers react differently when they encounter a well-known brand (Peters et al., 2013). Additionally, replication studies could use different kinds of emojis. Given that emojis are related to particular emotions (Skovholt et al., 2014), including various emojis in a study could extend our understanding of the role emojis have in the domain of consumer behaviour. Likewise, scholars may examine if emoji induces similar behavioural effects across various categories of hedonic products (e.g., perfumes, sports cars, video games, etc.), as it is a known that high and low involvement products imply different reasoning and consumer decision making (Klaus & Zaichkowsky, 2022). This study was platform-specific, which means that Facebook and Instagram were used as the primary advertising platform to reach the respondents. Given the platform-related features and the platform audience (e.g., digital natives, most frequent users of Instagram; Bai et al., 2019), future studies should include cross-platform comparisons (e.g., Twitter, LinkedIn, TikTok) to verify whether the same emojis have a similar influence. We did not account for the effects of landing page experience in our analyses. Typically, greater users experience leads to higher engagement and conversion rates (Yang et al., 2022). In this study, we have two e-retailers with distinctive landing pages which can eventually affect the results. Therefore, we strongly advise scholars to control this variable in the future. This study was carried out in the Czech Republic, which is an appropriate context given that it has the highest number of businesses advertising online per capita in the European Union (EU, 2019). Nevertheless, a large body of knowledge (e.g., de Mooij & Hofstede, 2010; Okazaki & Mueller, 2007; Sook Moon & Chan, 2005) provides an array of suggestive evidence that cultural context may extensively influence consumer behaviour, perceptions, and decision making (e.g., high uncertainty avoidance coefficient and long-term orientation would induce higher information seeking online, and, consequently, exposure to a higher number of relevant adverts). Therefore, to consolidate and extend the domain knowledge, there is an evident urge to replicate the study design in more distant cultural settings (e.g., according to Hofstede's dimensions). In closing, another exogenous element may have influenced the results—COVID-19. The “forced digitalization era” caused by the pandemic

(Laato et al., 2020) pushed companies online - making the online space more cluttered, competitive, and reaching consumers more challenging. It would be interesting to check if results still hold in non-pandemic times (e.g., post-COVID-19), as there may be significant differences in how users perceive and react to visual and textual cues (Erjavec & Manfreda, 2022; Filieri et al., 2021).

#### AUTHOR CONTRIBUTIONS

All authors contributed to defining the aims and direction of this research. Dušan Mladenović and Kamil Koštiál initiated and managed the study. Dušan Mladenović, Kamil Koštiál, Ondřej Částek, and Nikolina Ljepava designed the methodological setup for both parts of this study. Ondřej Částek and Kamil Koštiál reviewed the survey design and conducted the pilot test. Kamil Koštiál and Dušan Mladenović developed the field experiment. Kamil Koštiál and Dušan Mladenović are responsible for final data collection for both parts of the study. Dušan Mladenović and Nikolina Ljepava led the literature review and theoretical background along with Yash Chawla, Kamil Koštiál led the data analyses and was supported by Ondřej Částek and Dušan Mladenović. All authors wrote a part of the manuscript, with Dušan Mladenović, Nikolina Ljepava, and Yash Chawla making key contributions to the structure and final display of the manuscript. Preparing the methodology annex was led by Dušan Mladenović with contributions from Kamil Koštiál.

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#### CONFLICT OF INTEREST

The authors have no conflict of interest, financial, or otherwise.

#### DATA AVAILABILITY STATEMENT

The data that support the findings of this study are openly available in Mendeley at <https://doi.org/10.17632/7thwn6rxbd.1>.

#### ORCID

Dušan Mladenović  <https://orcid.org/0000-0001-5101-2181>

Nikolina Ljepava  <https://orcid.org/0000-0002-7210-7064>

Ondřej Částek  <https://orcid.org/0000-0003-1406-7495>

Yash Chawla  <https://orcid.org/0000-0002-7925-7532>

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## AUTHOR BIOGRAPHIES

**Dušan Mladenović** got a Ph.D. degree in marketing communication from Masaryk University (Czechia) in 2020. He acts as an Assistant Professor at the Faculty of Economics and Administration, Masaryk University. Since 2015, he has been involved with

teaching and research activities in areas of consumer behaviour in the digital environment, digital marketing, Word of Mouth communication, etc. He is the main author of five peer-reviewed articles and co-author of more than 10 articles—with several of his scientific outputs subject to revision at the moment. His research interests include digital consumer behaviour, online marketing strategies, blockchain and DL technologies, etc. Corresponding author.

**Kamil Koštiál** graduated with an M.Sc. in Business Economics and Management from Masaryk University in 2021. Kamil Koštiál's research focuses on consumer behaviour in digital marketing. His research looks at the role of emoji in advertisement and the relationship between emoji and purchase intentions. He currently works as a strategic customer success manager in ROI Hunter.

**Nikolina Ljepava** acts as head of the department for Management, Marketing, and Logistics at American University in the Emirates (AUE). Her major research areas include cyberpsychology, marketing communication, digital transformation, and human–technology interaction. Dr. Ljepava serves as a frequent reviewer for the top-tier journals in the given research domains.

**Ondřej Částek** is an Associate Professor at Masaryk University, Faculty of Economics and Administration. Ondřej got his Ph.D. in Business Administration in 2010, focusing on Stakeholder Management. His current research focuses on determinants of ethical consumption, mainly on the intention-behaviour gap in this area. Dr. Částek is Fulbright Alumni.

**Yash Chawla** is a young researcher who has strived to carry out multidisciplinary research in the field of Marketing Management and Innovation Management. He has vast experience, as a trainer and an academician, reaching out to over 75,000 students, professionals, and teachers in 16 countries. Currently working as Assistant Professor, Department of Operations Research and Business Intelligence, Wrocław University of Science and Technology (Poland), and as an R&D Communications Advisor at DAC.Digital (Poland). He has authored over 15 scientific publications so far, with several of his works undergoing review. Yash is a Ph.D. with Distinction (Management Science), a double graduate with bachelor's degrees in computer application and Mechanical Engineering as well as a double postgraduate with master's degrees in International Business and Renewable Energy Technology.

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## APPENDIX A

Online advertisement for (left—emoji not present; right—with emoji condition):

## (a) utilitarian product (tea)

Chopsticks.cz - Váš specialista na asijské potraviny  
Sponsored

Chopsticks.cz - Váš asijský specialista.  
Největší výběr asijských produktů v Česku.



Chopsticks.cz - Váš specialista na asijské potraviny  
Sponsored

Chopsticks.cz - Váš asijský specialista. 🌱🍵  
Největší výběr asijských produktů v Česku. 🇨🇪



## (b) hedonic product (swimming pool)

Najlacnejsiebazeny.sk - všetko pre Vás a Vašu záhradu  
Sponsored

Chceš v lete relaxovať v novom bazéne alebo virivke?  
Objednaj ešte dnes a užívaj si letné dni už zajtra naplno.



Najlacnejsiebazeny.sk - všetko pre Vás a Vašu záhradu  
Sponsored

Chceš v lete relaxovať v novom bazéne alebo virivke? 🏊  
Objednaj ešte dnes a užívaj si letné dni už zajtra naplno. 🇸🇰



## APPENDIX B

**TABLE B1** Operationalization of constructs and variables—results of measurement model

Construct	Item	Loading	VIF	Cronbach $\alpha$	CR	AVE	Mean	SD
Positive affect	While exposed to the advertisement, how did you feel?			0.88	0.891	0.891		
	Happy	0.881	1.572				3.87	1.212
	Delighted	0.786	1.222				3.91	1.406
	Excited	0.778	1.315				3.88	1.486
	Enthusiastic	0.762	1.362				4.03	1.586
Purchase intention				0.92	0.925	0.598		
	How likely would you be to buy the advertised product?	0.675	1.510				3.46	1.346
	How inclined are you to buy the advertised product?	0.753	1.600				3.78	1.437
	How willing are you to buy the advertised product?	0.758	1.420				3.91	1.557
Hedonic and utilitarian framing	Please indicate the extent to which you believe that the described product is:			0.78	0.826	0.573		
	Exciting*	0.932	1.933				3.80	1.405
	Fun*	0.902	2.011				4.10	1.523
	Delightful*	0.889	2.100				3.99	1.344
	Thrilling*	0.903	1.366				3.50	1.342
	Enjoyable*	0.874	1.467				3.77	1.424
	Effective**	0.865	2.090				4.02	1.331
	Helpful**	0.864	1.991				4.15	1.451
	Functional**	0.889	1.879				3.88	1.424
	Necessary**	0.921	1.102				4.10	1.391
Practical**	0.910	1.437				3.98	1.518	

Abbreviations: AVE, Average variance extracted; CR, Composite reliability; Cronbach, Cronbach's Alpha; SD, Standard deviation; VIF, variance inflation factor.

Source: Authors' elaboration.

\*Indicates hedonic features.

\*\*Indicates utilitarian features.

**TABLE B2** Operationalization of constructs and variables—checking discriminant validity (Fornell-Larcker criterion)

Construct	Positive affect	Purchase intention
Positive affect	<i>0.789</i>	
Purchase intention	0.593	<i>0.772</i>

Note: Diagonal italic values are square root of AVE while other entry represents correlation coefficient.

Source: Authors' elaboration.