



**VILNIUS UNIVERSITY**  
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# **The Impact of Emotional Appeals in Instagram Advertising on Consumer Emotional Response and Engagement Intentions**

**Master Thesis**

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## Introduction

Digital landscape nowadays is fast-paced and highly competitive in trying to win and capture customers attention. Digital platforms became integral part of user's daily lives and they revolutionized the way brands and companies engage with customers with constantly evolving technologies, platforms and digital marketing techniques (Nozari, 2025). The shift from traditional advertising to digital advertising happened bringing methods that allow to foster consumer engagement, build trust and relationship while cultivating sales indirectly (Hollebeek & Macky, 2019).

Social media platforms have shown enormous growth and presence in people's everyday life (Francis et al., 2023). Platforms like Facebook, YouTube and Instagram are boasting billions of monthly active users. (Adweek, 2016) Instagram is being one of the highly utilized platforms that is visual based and uses algorithms that prioritize content based on user interaction (H.A. Tabrizi & I. Narmina, 2024). Digital advertising strategies now heavily rely on emotional appeals, which use the psychological and emotional aspects of human behaviour to influence consumer engagement and brand perception (Akanksha Singh et al., 2024). A primary focus of advertising research is comprehending the part emotions play in how people interpret and respond to advertising messages. Strong influencers of behaviour and decision-making, emotions improve memory recall and motivate action. One important way for firms to interact and communicate with customers is through digital advertising, especially on social media platforms like Instagram. In order to build deeper relationships, increase engagement, and sway decisions, emotional appeals in advertising seek to arouse particular emotions (such as humour, fear, nostalgia, empathy, joy, sadness, surprise, and wrath) (Akanksha Singh et al., 2024).

On social media, metrics like likes, shares, and comments are frequently used to measure user engagement. Neuromarketing methods that evaluate implicit consumer reactions, such as visual attention, emotional arousal and basic emotional expressions, include eye tracking, GSR, and facial coding, however, the shortcomings of traditional self-report-based methods in precisely evaluating consumers frequently unconscious or subtle emotional and cognitive responses to digital advertising. (Ciceri et al., 2019). Emotional appeals are frequently employed, but little detailed study has been done on which emotional appeals in social media posts actually increase objectively assessed direct behavioural involvement (Karolien Poels & Siegfried Dewitte, 2019). Studies that concentrate on traditional media or other digital formats do not adequately address the special opportunities and challenges that come with examining emotional effect because of

the dynamic and graphically rich character of platforms like Instagram (Akanksha Singh et al., 2024).

### **Relevance of the topic**

Understanding how emotional appeals in advertising affect user behaviour is crucial since social media's growing significance in daily life has changed how firms interact with consumers. Because of its visual format and appeal to younger consumers, Instagram distinguishes out among social media platforms and presents special chances for emotionally charged, eye-catching marketing tactics (Nozari, 2025). However, because of the abundance of material on these platforms, it is becoming more and more difficult to draw in customers. Emotional appeals have been shown to improve engagement, affect attitudes, and improve memory. Emotionally charged messages are more likely to be recalled, shared, and followed through on. Examples of these include joy, nostalgia, and empathy (Akanksha Singh et al., 2024). According to the Emotional Contagion Theory, viewers' views and actions towards a brand can be influenced by the emotions they experience in advertisements. More than that, developments in neuromarketing, such as eye-tracking technology make it possible to assess visual attention objectively which is a crucial sign of how effective an advertisement is. However, there is very little research on Instagram that combines visual attention and engagement with emotional content (H.A. Tabrizi & I. Narmina, 2024).

Investigating the effects of emotional appeals in Instagram advertisements on visual attention and user engagement can fill the gap. The results will potentially advance our understanding of emotional design and consumer engagement in the context of social media advertising while also providing marketers with useful insights.

### **Research Question**

How do different types of emotional appeals in Instagram advertisements influence consumers' self-reported emotional responses and engagement intentions?

### **Aim**

To investigate how different emotional appeals in Instagram advertisements influence consumers' emotional responses and engagement intentions (as indicated by likes, comments, and shares).

**Object** – The use of emotional appeals in Instagram advertisements and their impact on consumer response.

## **Objectives**

1. To analyse existing scientific literature on emotional appeals in digital advertising and consumer engagement.
2. To identify and categorize emotional appeals commonly used in Instagram ads via content analysis.
3. To measure consumers' self-reported emotional responses and engagement intentions toward selected Instagram ads using an online survey.
4. To analyse the relationship between perceived emotional appeal and engagement intentions and provide actionable recommendations for marketers.

## **Research Method**

A mixed-method approach will be employed, combining content analysis and survey-based research. The content analysis will focus on identifying and categorizing emotional appeals used in a sample of Instagram advertisements, examining how brands employ positive, negative, and neutral emotional strategies. While online survey will be conducted to measure consumers self-reported emotional responses and engagement intentions toward selected Instagram ads. This approach enables the integration of objective analysis of advertising content with participants subjective perceptions, providing a comprehensive understanding of how emotional appeals influence consumer reactions and engagement behaviour. It also allows for the examination of theoretical relationships between emotional appeals, emotional processing and engagement intentions.

## Literature Review

### 1.1 Emotional Appeals in Advertising

Advertising appeal is strategic approach to grab target audience's attention and it influences all aspects of advertising, including stages of awareness, attention, attitude and behaviour (Rizwan et al., 2013). Generally, appeals are categorised into two types: emotional appeals and rational appeals (N. D. Albers-Miller, M.R. Stafford, 1999). Emotional appeal is an ability to persuade and evoke different emotions and feelings in people, create emotional connection and encourage contact or acquisition (Franke et al., 1999). Emotional appeals aim to establish positive brand associations through emotions, moods and affective states rather than depending on logical reasons or factual data. They are therefore among the most timeless and successful forms of persuasion in advertising, especially in situations when emotional appeal outweighs logical analysis (Zhang et al., 2014). Emotional appeals aim to evoke either positive emotions, for example, like love, humour, pride, joy, affection and nostalgia or negative emotions like fear, guilt, shame, anger (Panda et al., 2013). Panda et al. (2013) also mentions that positive emotional appeals helps to associate brand with pleasurable feelings, building goodwill and improving brand's image perception. And negative emotional appeal uses it to provoke discomfort or anxiety and to motivate and encourage corrective actions or preventive behaviour (Grigaliunaite & Pileliene, 2016). While rational appeals comes from traditional information processing models of decision-making, which assume that consumers make logical and sensible choices (N. D. Albers-Miller, M.R. Stafford, 1999). These arguments focus on the product or service's practical, functional or utilitarian requirement for the customer, they highlight the qualities, advantages or justifications for using or possessing specific brand of good or service (Zhang et al., 2014).

Emotions play a crucial role in digital advertising, they can affect initial thoughts and associations people form about advertising, product or a company (Petty & Briñol, 2014). Customers perceptions, opinions and choices of products and services are frequently influenced by their emotions rather than being a secondary or coincidental component of logical reasoning (Panda et al., 2013). Frequently, seeing an advertising causes an initial emotional reaction that shapes more deliberate thoughts later on (Grigaliunaite & Pileliene, 2016). Furthermore, Panda et al., (2013) research indicates that positive affective signals can improve brand identification and recall, emotional appeals are frequently utilised to draw attention and build brand awareness. Also by providing tangible emotional cues that consumers may easily relate to like images of family or community, emotional techniques

assist advertising in overcoming the inherent abstractness of services. Emotions also have impact on purchase intention and behaviour (Grigaliunaite & Pileliene, 2016). The influence of emotions on behaviour and buying intentions makes their role even more evident. Emotional appeals frequently decrease cognitive load, which makes decision-making easier, especially powerful in situations like impulsive purchases (Panda et al., (2013). Purchase intentions are directly raised by creating positive opinions about a marketing campaign or brand. According to Panda et al., (2013), beyond the point of sale, brand loyalty and emotional fulfilment reduce post-purchase dissonance which motivates customers to ignore price and keep buying well-known goods. Emotions also serve as unconscious persuasion techniques, creating associations that might affect behaviour without openly changing one's attitude, especially noticeable in kids and teenagers, who are more sensitive to emotional cues due to their developing cognitive control (Nairn & Fine, 2008).

Emotional appeals effectiveness is highly dependent on the product and context. Affective positioning works best for hedonic and experiential services like travel, dining and hotel since customers assess these types of offerings more emotionally than practically (Grigaliunaite & Pileliene, 2016). In contrast, Grigaliunaite & Pileliene, (2016) claim although emotions like trust are still crucial to gaining customer confidence, logical arguments may predominate in credibility services like health or banking. Emotional appeals frequently serve as a bridge for technically sophisticated or socially sensitive products when logical explanation is either too challenging or unacceptable from a cultural standpoint (Panda et al., 2013).

Furthermore, the influence of emotions on purchasing decisions is somewhat moderated by individual and cultural differences like, affect intensity, or the intensity of an emotional experience, varies among consumers and individuals with higher affect intensities react more strongly to emotional advertising (Zhang et al., 2014). The kind of appeals that resonate is further influenced by cultural orientation, for example, individualist cultures place a higher value on freedom and self-improvement, while collectivist societies react strongly to affiliation and community-based appeals (Albers-Miller & Royne Stafford, 1999). Affect's temporal dimension is equally important, because vibrant and instantaneous, concrete emotional states like exhilaration or rage inspire transient behavioural reactions (Bülbul & Menon, 2010). Long-term brand relationships and loyalty are supported by diffuse lasting abstract feelings like hope and trust. Strategically aligning the appropriate effect to the consumers decision horizon is often essential to effective advertising.

In conclusion, consumer choices are heavily influenced by emotions rather than being the result of purely rational analysis. Emotional appeals give marketers strong tools to affect

decision-making and behaviour, from drawing in customers to maintaining enduring loyalty. Emotions are essential to a successful advertising strategy because they allow marketers to engage with consumers on a basic human level by influencing both conscious judgements and implicit associations.

## **1.2. Types of Emotional Appeals**

Emotions themselves are mental states of readiness that develop out of internal ideas or evaluations of external events, the individual's subjective psychological evaluation of the experience which may be conscious or unconscious is what generates the emotion rather than the objective occurrence (Bagozzi et al., 1999). Due to their profound integration into the consumption experience, emotions have a direct impact on the consumer's perceived quality of life (Panda et al., 2013, Ahmadi et al., 2023). The intensity of an emotion is communicated through the combination of subjective experience, physiological arousal, and bodily expression (Bagozzi et al., 1999). In order to build positive connections and likeable or friendly brand image, positive emotional appeals aim to make the consumer feel good about the brand or product, they are thought to be very successful at influencing attitudes, increasing memory, and establishing brand recognition (Albers-Miller & Royne Stafford, 1999). Love, joy, pride, patriotism and affection are some of the emotions that are most commonly used in positive advertising appeals, these emotions all serve as direct motivators that promote favourable brand assessments (Vrtana & Krizanova, 2023, Albers-Miller & Royne Stafford, 1999). Another well-known positive appeal is humor which works by attracting attention fostering a positive atmosphere, improving memorability and raising opinions about the reliability of the source, it works via emotional mechanisms of mood enhancement as well as cognitive mechanisms of attention (Djambaska et al., 2015, Weinberger & Gulas, 2021). Compared to serious ads, humorous ones are frequently seen to be more memorable and successful which lead to increased recall and long-lasting favourable connections, though humour can also be used for higher risk functional items they are especially well- suited for low-involvement and non-durable products like soft drinks or snack meals (Spotts et al., 1997, Annika Romell & Rebecca Segedi, 2022). However, there is a chance that humour will have the called vampire effect in which the humorous aspect draws attention but overpowers the brand or message or in which unsuccessful attempts at humour result in unfavourable reviews (Djambaska et al., 2015). Another strong positive appeal that has been used for a long time as a marketing tactic is nostalgia, though it can sometimes have a bittersweet element when affection mixes with regret and desire it evokes generally positive affective reactions like warmth, excitement and thankfulness,

explicit nostalgic appeals might be evoked by patriotic imagery, music, period-specific symbols or analogies to previous family events (Pascal et al., 2002). Marchegiani & Phau, (2010), scholars have also made a distinction between historical nostalgia which relates to imagined or collective recollections of the past and frequently depends on fantasy like reconstructions and personal nostalgia, which draws from an individual autobiographical memories and produces deeper emotive intensity. In addition to these well-known feelings, advertisers often employ deeper and persistent positive emotions like warmth, hope, trust and thankfulness, although less immediate, these abstract effects have a greater impact on long-term behavioural intentions, they are especially appropriate for goods and services that demand sustained participation or commitment like loyalty programs or retirement planning (Grigaliunaite & Pileliene, 2016). Other positive characteristics such as surgency, elation, vigour or activation, deactivation and social attachment feelings, have also been noted in the literature (Batra & Ray, 1986). These categories collectively reflect the range of emotive responses that advertisers aim to elicit. Awe- inspiring emotions, which can be evoked by beauty, human accomplishment or natural wonder are becoming more widely acknowledged as potent but covert marketing tools, especially for experience commodities like upscale vacation spots (Poels & Dewitte, 2019). It has also been demonstrated that more general pleasant emotions like pleasure, enjoyment, cheeriness and interest improve advertising efficacy and brand recognition (Panda et al., 2013).

On the other hand, negative emotional appeals aim to arouse unpleasant feelings in order to persuade customers to take a desired action or refrain from actions that are thought to be bad (Vrtana & Krizanova, 2023, Albers-Miller & Royne Stafford, 1999). Among the most researched types are fear appeals, which are communications intended to draw attention to the danger and possible harm that people could experience if they don't follow the advice given. Commercial advertising, public health efforts, and political campaigns have all made extensive use of fear appeals to deter dangerous behaviours like smoking and drunk driving. According to Yousef et al. (2021), the most often used appeals in social marketing initiatives are those based on guilt and fear especially in areas like advertising against drunk driving. Fear appeals increase feelings of vulnerability and seriousness by emphasising the serious consequences of unwanted behaviour, such as accidents, injuries or death. When fear appeals are presented with high degrees of fear and followed by efficacy claims that reassure consumers of their capacity to carry out the advised behaviour, research generally shows that they are successful in changing attitudes, intentions and behaviours. Messages that emphasise both individual vulnerability to damage and the seriousness of possible outcomes are far more effective (Tannenbaum et al., 2015, Manyiwa & Brennan, 2012). Other negative feelings are also intentionally utilised. Shame and guilt are frequent

arguments used to try to persuade people to behave morally or in accordance with social norms, frequently by emphasising the contradictions between one's behaviour and the intended results (Albers-Miller & Royne Stafford, 1999). Although a violation of internalised social or moral standards is the source of both emotions, shame is linked to a more general negative assessment of the self, which frequently results in avoidance or withdrawal, while guilt is typically associated with particular behaviours and encourages reparative measures. Because guilt appeals centre on the prospect of repentance for the violation, research indicates that they can be successful in promoting pro-social behaviour, such as attention to health and safety guidelines (Gavin Miller, 2021). On the other hand, shame appeals might backfire if they cause resistance or defensiveness as people try to defend their beliefs of self against danger. But when shame is used effectively, it can increase social norm awareness and enhance the deterrent effect of socially undesirable behaviours, such drug usage or reckless driving. More importantly, research suggests that a combination of moderate shame and guilt can have a stronger persuasive effect because shame encourages social accountability and guilt encourages corrective behaviour. But relying too much on either emotion runs the risk of reducing effectiveness or inciting negative attitudes towards the message (Peng et al., 2023). Even though it can be dangerous, anger can also be utilised to inspire customers, especially in pro-social settings like campaigns against abuse or injustice. Anger can either increase or decrease cognitive elaboration, depending on how it is expressed (H.A. Tabrizi & I. Narmina, 2024). For example, certainty assessments tend to result in less processing, while unpleasantness appraisals tend to result in more inspection. While disgust has been successfully used in public health advertising to create strong visceral reactions and demand attention, sadness and disappointment may evoke empathy and promote deeper emotional connection with a message. Even though they are unpleasant, these negative appeals have the ability to significantly influence attitudes and actions when used in conjunction with the proper message and context (Petty & Briñol, 2014).

Overall, emotional appeals come in a wide variety and can be constructed to evoke different affective states that influence particular types of customer behaviour. They are essential in forming long-term attitudes, purchase intentions, and loyalty in addition to serving to draw attention and establish unforgettable connections. Due to their extensive impact, emotional appeals are now a vital technique in advertising activity and remain the focus of scholarly investigations in marketing studies.

### 1.3. Rational vs. Emotional Appeals

Usually, advertising appeals fall into one of two categories: rational or emotional. Both tactics are crucial in determining how effective advertising is because they affect consumers attention, awareness, attitudes and behaviour (Albers-Miller & Royne Stafford, 1999). Researchers generally agree that most advertising messages contain a mixture of cognitive and affective elements, with the balance between them varying depending on the product, context, and audience (Zhang et al., 2014). Nevertheless, choosing to emphasise one type of appeal over the other is crucial when creating persuasive campaigns, because consumers frequently justify their emotions after the fact based on their original emotive responses, their reactions to advertising are rarely completely emotional or entirely rational (Grigaliunaite & Pileliene, 2016). Traditional information processing theories of decision-making, which presume that consumers act as logical agents that evaluate options based on utilitarian standards, are the source of rational appeals, also known as thinking appeals, with specific goal of changing perceptions of a brand by offering strong arguments or justifications that emphasise outstanding qualities, these appeals centre on the useful, functional or performance-related advantages of a good or service (Albers-Miller & Royne Stafford, 1999, Panda et al., 2013). Factual information concerning pricing, quality, function, materials, packaging or the location and time of purchase is usually the focus of rational advertising. These arguments usually emphasise advantages like economy, dependability, durability, or efficiency in an effort to persuade customers that the brand better suits their needs than other options. By providing customers with practical solutions that meet basic informational or safety needs and lowering uncertainty in the decision-making process, rational appeals frequently solve problems (Grigaliunaite & Pileliene, 2016). The kind of product or service as well as the level of consumer involvement have a significant impact on how effective rational appeals are. They are especially important for practical goods and services that require clear and reliable information to lower perceived risk, such financial, legal, or medical offerings, which are hard to assess even after use. Since consumers are more inclined to thoroughly consider information when making high-stakes or potentially risky purchases, rational appeals are especially well-suited for these kinds of transactions (Zhang et al., 2014). Rational criteria are also given greater significance in business-to-business settings and also cross-cultural research has revealed that rational arguments are particularly common in markets like Japan, where avoiding ambiguity is a highly valued cultural characteristic (Albers-Miller & Royne Stafford, 1999, Panda et al., 2013). Rational communications are sometimes regarded as more believable and captivating than simply emotional ones since they present product-related information in a simple manner. Particularly for convenience products where advertisements themselves

rather than brand reputation are the main factor influencing purchase behaviour (Grigaliunaite & Pileliene, 2016).

In conclusion, majority of scholars and practitioners agree that emotional and rational appeals work together rather than mutually opposing, despite the widespread portrayal of them as opposites as Zhang et al., (2014) mentioned. And depending on the situation, successful campaigns frequently combine the two forms of appeals in different ratios. Strong informational material might be necessary for a new brand to gain credibility, yet emotional appeals might be used by an established brand to update its image and keep customers loyal. Cultural background is particularly important since individualistic societies place greater emphasis on ego-focused advantages, whereas collectivist cultures are more receptive to affiliation and community-based appeals (Albers-Miller & Royne Stafford, 1999). Furthermore, while rational appeals elicit more consistent responses across consumer groups, individual differences like affect intensity moderate how strongly consumers react to emotional appeals. Individuals with high affect intensity show stronger positive responses regardless of service type. Emotional appeals rely on emotive reactions and are particularly potent for hedonic, symbolic, or socially sensitive categories, whereas rational appeals are based on reasoning and facts and are best suited for utilitarian or more involved decisions. Their interaction demonstrates the intricate and multifaceted character of consumer persuasion, where messages are received, processed, and acted upon in ways that are influenced by both intellect and emotion.

## **2. Psychological and Communication Theories of Emotion**

### **2.1. Stimulus- Organism- Response (S-O-R) Model**

Mehrabian and Russell first presented the Stimulus-Organism-Response (S-O-R) model in 1974, it is a fundamental psychological framework for examining user behavior and understanding how environmental stimuli influence emotional and behavioral effects (Hussain et al., 2022). According to the theory, an individual's internal psychological and emotional state, known as the organism (O), is influenced by external environmental elements, or stimuli (S), and this, in turn, results in a behavioral response (R) (Zhu et al., 2020)). In this way, external stimuli work through an individual's mediating internal state rather than directly influencing behavior. This framework offers a comprehensive explanation of how internal processing, environmental stimuli and observable behavioral consequences interact (Hussain et al., 2022).

The cues or indications gathered from the outside world form the stimulus component of the model. The visual and audible components of ads that communicate value propositions, brand personality, and product features are examples of stimuli in the context of social media advertising. When processing external inputs, the consumer's internal state which includes cognitive, emotional, and psychological reactions is represented by the organism (Hussain et al., 2022). This responses may include emotive assessment, perception and attention, all of which influence how a person interprets and assesses the advertisement. The following behavioral effects, such as approach or avoidance behaviors, attitude formation or particular activities like clicking, sharing, or buying, are referred to as the response stage (Zhu et al., 2020). The S-O-R framework added the organism as an intermediary variable, highlighting the significance of internal psychological processing in comprehending behavior, in contrast to early consumer behavior models that used a linear input-output pattern. S, O and R are seen as dynamic and overlapping in later model extensions, such as Jacoby's seven-sector framework, which reflects the fluidity and recursive nature of human–environment interactions (Jacoby, 2002).

The S-O-R model is especially useful in digital advertising research because it takes into account the complicated, multisensory, and interactive characteristics of online stimuli. External signals like images, music or message framing elicit emotional and cognitive states in social media contexts, which in turn affect attitudes and behavioral intentions (Hussain et al., 2022). The model is widely used to describe how internal experiences (O), such as cognitive involvement, affective involvement and flow, are influenced by perceived advertising value (S). These internal experiences in turn influence behavioral intentions (R), such as the likelihood of making a purchase or continuing to engage (Hussain et al., 2022). The S-O-R model offers a strong framework for examining how sponsored post attributes affect user reactions when applied to Instagram advertising, the stimulus is defined as the perceived advertising value of a sponsored post, which is influenced by important factors such perceived annoyance, entertainment value, credibility, incentives, personalization, and celebrity endorsement. (Hussain et al., 2022). Because consumers frequently base their opinions about advertisements on the perceived attractiveness, knowledge and sincerity of influencers, endorsements by social media influencers are especially important in determining the perceived value of advertising. Also, Hussain et al., (2022), mentioned that while informativeness and entertainment meet both cognitive and affective requirements, incentives like discounts or freebies boost attention and favorable assessments. On the other hand, aggravation lowers perceived value and engagement when commercials are annoying, repetitious, or irrelevant.

The internal states of consumers as they interact with these stimuli are reflected in the organism stage. These internal reactions show up on Instagram as flow experience (a feeling of enjoyment and interest), affective participation (the emotional connection with ad content), and cognitive involvement (the level of attention and thought given to the ad). Customers are more likely to engage cognitively and affectively when they believe an advertisement to be relevant, valuable, and credible (Hussain et al., 2022, Zhu et al., 2020). This increases the possibility of flow, a focused and enjoyable state linked to favorable customer outcomes. Usually, purchase intention or other behavioral consequences like liking, sharing or commenting are used to operationalize the response stage. Purchase intention has been found to be strongly predicted by cognitive and affective involvement as well as flow, indicating that behavioral consequences are simultaneously driven by emotional engagement and perceived ad value (Hussain et al., 2022).

The S-O -R model provides marketers with practical recommendations for enhancing Instagram advertising tactics. Brands should concentrate on maximizing perceived advertising value by combining entertainment, informativeness and incentives with avoiding annoyance through precise message timing and relevance in order to maximize positive stimuli. Affective responses and perceived value can be further enhanced by the strategic employment of relatable and trustworthy influencers (Hussain et al., 2022, Zhu et al., 2020, Jacoby, 2002) . Furthermore, by fusing educational components with captivating imagery and immersive storytelling strategies, advertising design should strike a balance between cognitive and emotional involvement. Advertisers may successfully direct internal processing and encourage positive behavioral responses by matching users psychological moods with exterior stimuli. This will ultimately result in increased engagement, trust, and purchase intentions on visual social media platforms like Instagram.

### **2.1. Emotional Contagion Theory**

A significant foundation for understanding how emotions spread among people and how they ultimately affect attitudes, focus and behaviour is offered by the theory of emotional contagion. The process by which people's feelings mimic those of others after exposure is known as emotional contagion and it can happen consciously or unconsciously (Goldenberg & Gross, 2019). Because it makes it easier to comprehend and experience the emotions of others and because it often results in behavioural, attentional and emotional synchronisation between people, it is considered basic component of human interaction (Herrando & Constantinides, 2021). Primitive emotional contagion was defined by Hatfield et al., (2014) and associates as the natural tendency to imitate and synchronise one's own facial expressions, vocalisations, postures and movements with those of another individual,

resulting in the convergence of emotional states. Usually, there are three steps in this process, the first is mimicry which is a process that may be identified by minor physiological reactions like variations in speech pace or facial muscle activity. In mimicry, people reflexively and continuously replicate the motions and expressions of others. The second step is feedback in which the physical sensations evoked by imitation impact the subject's subjective emotional experience. For example, smiling can itself evoke feelings of joy. And the third stage is known as contagion and it occurs when people 'catch' the emotions of those around them through imitation and feedback creating what has been called a pale or dim mirror of other people's affective states. This automatic and embodied method of contagion is supported by neuroscientific research especially the finding of mirror neurones that activate when an action is performed as well as when it is viewed (Liu et al., 2025, Hatfield et al., 2014).

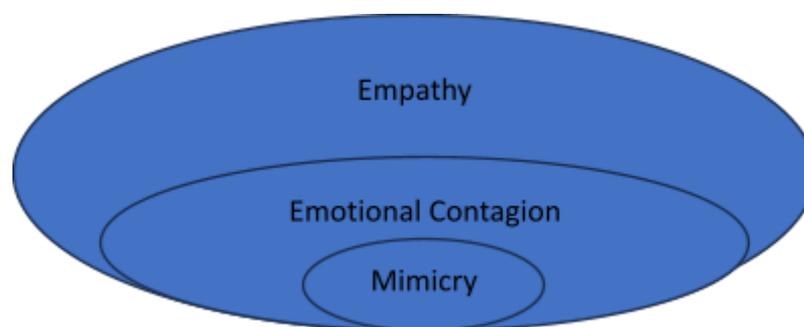


Figure 1. (Liu et al., 2025)

More recent studies have examined how emotional contagion works in digitally mediated settings whereas early explanations of the phenomenon were created in the context of in-person interactions. Digital emotional contagion is different because it is mediated by platforms that depending on their design and algorithms can either increase or impede the transmission of affect (Goldenberg & Gross, 2019). Experimental studies demonstrate that textual content alone can induce contagion, even in the absence of non-verbal cues. For instance, comprehensive study conducted on Facebook revealed that lowering the quantity of positive messages in a user's news feed caused them to post more negative updates and less positive ones while lowering the quantity of negative posts had the reverse impact (Ferrara & Yang, 2015). By exposing emotions to a huge number of people across enormous distances, digital networks can significantly increase the spread of contagion. However, frequent exposure can also result in habituation or tiredness which lessens the impact. Emotional contagion has been particularly noticeable in online social movements when feelings shared on social media sites like Facebook and Twitter (X) swiftly spread throughout networks, impacting group attitudes and actions (Kramer et al., 2014). Researchers observe a number of significant differences and difficulties in examining this

phenomenon. It is important to separate emotional contagion from the longer-term processes that make up emotions. Emotional contagion usually refers to brief shifts in affect that take place within seconds or minutes. Even though contagion frequently results in emotional convergence it can also cause complementary emotional reactions, particularly in situations involving competitive groups where rivals emotions may cause conflicting reactions. The intricacy of identifying causal mechanisms and distinguishing contagion from homophily the propensity of like people to group together and display similar emotional patterns makes it challenging to evaluate contagion empirically in digital situations (Goldenberg & Gross, 2019). Since these processes frequently function below the level of conscious awareness, traditional self-report methods are limited in their ability to capture them. Research on advertising and consumer psychology has increasingly used neuroscientific technologies, such as neuroimaging and psychophysiological assessments, which provide more accurate insights by monitoring unconscious and real-time reactions (Herrando & Constantinides, 2021).

Emotional contagion theory illustrates how people's affective states can be directly influenced by the emotions of others and stresses how emotional reactions are instinctive and socially ingrained. Emotional contagion offers a convincing theoretical framework for comprehending how emotionally charged content can affect consumers feelings and behaviours particularly in the context of advertising and social media platforms like Instagram where users are constantly exposed to the emotions of others through photos, videos, captions and comments.

## **2.2. Dual Process Models in Advertising and Decision-Making**

Due to their ability to explain how human judgements and behaviours are influenced by two different but related types of mental processes implicit and explicit dual process models of decision-making have become essential in advertising research (Nairn & Fine, 2008). According to these models, consumer reactions to advertising are the product of a dynamic interplay between automatic emotional reactions and controlled cognitive judgements rather than being the exclusive product of rational deliberation (Zhang et al., 2014). Kahneman (2011) made the most significant contribution to the conceptual underpinnings of dual process theory by distinguishing between System 1 and System 2 thinking. System 1 stands for implicit processes, which are reflexive, instinctive, impulsive, effortless, frequently taking place without conscious knowledge or intention, and challenging to regulate. Early ideas that characterised emotional reactions as "gatekeepers" that decide

whether and how brand-related information is processed in the context of advertising reflect these implicit processes. The explicit processes represented by System 2, on the other hand, are more controlled, reflective, deliberative, laborious, and consciously accessible, and therefore demand more cognitive resources for assessment (Daniel Kahneman's thinking, fast and slow," 2018).

Petty and Cacioppo (1986) developed the Elaboration Likelihood Model (ELM), one of the most well-known uses of dual process theory in advertising. According to the ELM, there are two different ways to persuade someone: the primary way and the peripheral way. When people are very involved and use significant cognitive resources in absorbing messages, evaluating arguments and using analytical thinking, central route persuasion occurs (Petty & Cacioppo, 1986). Low levels of participation result in peripheral route persuasion, when people depend more on obvious indications such as emotional tone, source beauty or message repetition than on the strength of the argument (Karson & Korgaonkar, 2012). Most importantly, later studies have shown that these two paths are not exclusive, indicating a continuum rather than a rigid dichotomy. Both central and peripheral cues can jointly affect consumer attitudes and intentions under moderate participation settings. Beyond the ELM, there was created the Dual-Process Activation Model in the context of speech comprehension and planning, while Christie Nordhielm (2002) proposed a dual-process model centred on advertisement repetition effects (Nordhielm, 2002, Oliveira et al., 2022,). Prior to the 1980s, cognition-oriented theories that placed an emphasis on logical persuasion dominated advertising theory, this paradigm was contested by argument for the primacy of affect, which maintained that emotions can function independently and even come before cognitive judgement, this viewpoint generated an increase of studies on how emotions function as both automatic behavioural triggers and catalysts of cognitive and behavioural reactions. (Poels & Dewitte, 2019). Since then, research in cognitive psychology and neuroscience has supported this theory by demonstrating that implicit affective associations also known as implicit attitudes have a significant impact on decisions and actions even when people are not aware of them (Nairn & Fine, 2008).

In the context of digital advertising, the use of dual process theory has gained significant importance. In order to directly persuade consumers, traditional advertising mostly focused on clear, logical arguments that highlighted the features, cost and usefulness of the product (Hollebeek & Macky, 2019, Albers-Miller & Royne Stafford, 1999). On the other hand, as Hollebeek & Macky, (2019) claims digital content marketing focusses more on building long-term connections, trust and consumer engagement by offering value through informative or amusing material like newsletters, blogs, podcasts and e-books. Customers growing mistrust of traditional advertising and their increased involvement in choosing and

engaging with persuasive content are reflected in this change. Digital platforms encourage simultaneous cognitive, emotional, and behavioural engagement and users deliberately seek out information that satisfies both utilitarian and hedonistic goals (Zhou & Xue, 2021). Brand related sense-making, affiliation and loyalty are made possible by this dual interaction, since emotions improve memory, make recall easier and stimulate action, they are essential to this process and help with both short-term and long-term brand development (Vrtana & Krizanova, 2023). By offering instruments to directly evaluate unconscious reactions, neuromarketing has improved the study of dual process models in digital marketing. Researchers can access consumers implicit and spontaneous responses to advertising stimuli through techniques like electroencephalography (EEG), eye tracking, galvanic skin response, facial analysis and functional magnetic resonance imaging (fMRI) (Khondakar et al., 2024). Such measures are particularly important and valuable because self-reported data often fail to capture subconscious attitudes or are distorted by social desirability biases. Studies using neuromarketing techniques suggest that up to 95 percent of purchasing decisions are made subconsciously, underscoring the centrality of implicit processes in consumer decision-making (Bhardwaj et al., 2024).

In conclusion, dual process models offer a thorough explanation of how advertising influences consumer decision-making through both explicit and implicit processes. The conventional distinction between emotional and rational persuasion has given way to a more comprehensive approach where cognitive and affective processes interact and function simultaneously (Millagala & Gunasinghe, 2024). These insights are enhanced in the digital era by neuromarketing and artificial intelligence (AI) technologies, which provide previously unheard access to implicit customer responses and enable real-time personalisation of advertising campaigns. However, in order to maximise advertising efficiency and ensure that marketing techniques respect consumer autonomy, these advancements call for serious ethical consideration.

### **2.3. Uses and Gratifications Theory**

A communication paradigm known as the Uses and Gratifications Theory (UGT) was created to explain why and how people actively seek out and consume media in order to satisfy their needs and desires (Lu & Lin, 2022). This audience-centered approach which firstly appeared in the 1940s, represented an important change from previous viewpoints that saw media audiences as passive consumers of persuasive messages (Md. Alamgir Hossain & Hajee Mohammad Danesh, 2023). Instead, Uses and Gratifications Theory (UGT) highlights that individuals are engaged users who use media in ways that are focused on their goals, selecting certain platforms and information that they find entertaining, helpful

or socially significant. Although audiences are usually conscious of their intentions, the theory also acknowledges that media competes with other forms of fulfilment and that some gratifications may only manifest during the actual act of consuming media (Falgoust et al., 2022).

Researchers, Kasirye, (2022) have identified a number of need categories that influence media use. Cognitive needs like watching tutorials or reading news stories, are a reflection of the drive to learn new things, people utilise media for enjoyment, amusement or emotional stimulation and affective requirements are related to aesthetic and emotional experiences. Reinforcing ideals, self-assurance and self-expression are all part of personal identity demands and this is frequently accomplished by following businesses or influencers that fit with one's image (Kasirye, 2022). When media offers chances for friendship, relationship maintenance or involvement in the community, social interaction needs are met. Lastly, the use of media as a distraction from stress, boredom or everyday issues is reflected in tension release or escapism. Given that Instagram's appeal to Millennials and Generation Z is linked to its capacity to provide numerous gratifications at once, it provides a compelling example of UGT theory in the digital age (Md. Alamgir Hossain & Hajee Mohammad Danesh, 2023). According to research, Instagram users are driven by social connection, relationship maintenance, information searching, and entertainment such as interacting with filters, stickers, or interactive stories (Jin et al., 2023). Many also create content to showcase aspects of their identities, lifestyles and personal values in an effort to improve and express themselves on the platform. With features like Instagram Stories, users can follow friends, celebrities and brands real time updates, further satisfying their cravings for novelty, authenticity and surveillance (Lu & Lin, 2022).

In addition to explaining why people use Instagram, UGT theory also describes how they interact with it on several levels. The main reasons why consumers read and browse content at the consumption level are for amusement, discovery or practical ease (Lu & Lin, 2022). Contributions serve relational and social sharing objectives when users engage with posts by leaving comments, responding to surveys or taking part in discussions. Creation is the process of creating unique content that satisfies consumer demands for novelty, connection and self-expression. When taken as a whole, these exercises highlight the complex character of social media customer interaction( Lu & Lin, 2022).. The Uses and Gratifications Theory is extremely relevant to digital marketing and advertising since it emphasises how crucial it is to match content strategies with user motivations. Brands can meet informative expectations by offering product demonstrations, lessons and behind the scenes peeks or they can meet entertainment needs with amusing and visually appealing material (Md. Alamgir Hossain & Hajee Mohammad Danesh, 2023). While aspirational

branding and influencer partnerships can satisfy identity and self-enhancement requirements, interactive elements like polls, contests and active brand-consumer engagement can target social gratifications. By offering rewards that align with consumer objectives, marketers may boost long-term loyalty, trust and engagement. Furthermore, empirical research demonstrates that motives like entertainment, convenience, social connection, and information seeking have a beneficial impact on stickiness, a term used to describe users ongoing dedication to a platform and engagement ( Lu & Lin, 2022, Md. Alamgir Hossain & Hajee Mohammad Danesh, 2023). The relationship between satisfactions and continued platform use is frequently mediated by emotional attachment, which is nurtured by attending to these requirements.

Cognitive needs correspond closely with rational appeals, as they reflect the desire for information, knowledge and understanding. Cognitively driven users use media to research topics, pick up new skills or evaluate their options. This takes the shape of activities like following company accounts to learn more about products, interacting with tutorials or educational articles and investigating new services or trends on social media sites like Instagram (Kasirye, 2022). Such content's utilitarian value comes from its capacity to reduce uncertainty and speed up decision-making, which raises platform and brand satisfaction. Here, convenience is also crucial because social medias perceived rational usefulness is increased by ease and speed with which information can be accessed (Lu & Lin, 2022). On the other hand, because they are associated with feelings, pleasure and aesthetic experiences, affective requirements are in line with emotional appeals, with Instagram and TikTok being places where humour, fun and visual enjoyment dominate user engagement, entertainment is frequently cited as one of the most potent drivers of social media use (Kasirye, 2022). In addition to amusement, emotional gratifications include social engagement, where the need for companionship and belonging is satisfied by digital connectivity, and tension release, which involves using media as an escape from stress or boredom. Since people utilise media to express themselves, boost their confidence and reinforce their ideals, personal identification demands are also included under emotional motives (Falgoust et al., 2022). Along with facilitating communication, curating posts or Stories on Instagram frequently helps to validate ones fame, sense of self or social worth. These purposes are a direct reflection of the ways in which emotional appeals in advertising work to build brand loyalty by arousing emotions like happiness, nostalgia or empathy (Lu & Lin, 2022).

All things considered, Uses and Gratifications Theory offers a strong theoretical foundation for relating the reasons behind media consumption to the effectiveness of both emotional and rational appeals in advertising. While affective motivations align with

emotional appeals that promote entertainment, self-expression and social connection, cognitive motivations align with rational appeals on platforms such as Instagram by promoting information-seeking and utilitarian consumption. By comprehending these connections, marketers may create tactics that appeal to consumers emotions as well as their functional demands, which will increase engagement, encourage loyalty and have an impact on both rational and affective aspects of consumer decision-making.

### **3. Visual Attention in Digital Advertising: A Conceptual Perspective**

A theoretical analysis of visual attention and neuromarketing techniques employed in earlier advertising research is presented in this section. Although these techniques are discussed to help in the interpretation of emotional advertising effects, they are not used empirically in the current study. Neuromarketing in advertising utilizes neuroscientific and psychological tools to investigate consumers subconscious responses with particular emphasis on the role of visual attention. This multidisciplinary field emerged in an effort to overcome the shortcomings of conventional self-report techniques like questionnaires and interviews which cannot accurately capture the unconscious and automatic processes that influence consumer choice (Mohd Isa & Anuar, 2024, (Ciceri et al., 2019). Since a large percentage of judgements about what to buy are done unconsciously neuromarketing offers a useful way to identify the hidden forces that influence attitudes, preferences and actions (Ungureanu et al., 2017, Bhardwaj et al., 2024). Neuromarketing is the study of how the brain absorbs advertising stimuli and how these processes influence customer behaviour, it draws on marketing, neuroscience and cognitive psychology and it focusses on examining physiological responses and brain activity to ascertain how neurocognitive processes relate to decision-making (Nozari, 2025). The ultimate goal is to better understand how consumers think in order to possibly define the neurophysiological foundations of purchase intention and persuasion. Modern research, Bhardwaj et al., (2024), stresses the complex nature of these processes and the significance of implicit affective associations, despite the fact that popular discourse occasionally refers to the concept of a "buy button" in the brain.

Since advertising messages may only be effective if they are initially noticed and processed, visual attention is a critical component of neuromarketing research. Similar to a spotlight that improves processing efficiency and lowers perceptual thresholds, visual attention is characterised as a selective brain activity that gives priority to some stimuli over others (Ciceri et al., 2019). The saturation of media settings, where consumers are always exposed to competing stimuli, makes grabbing visual attention in advertising especially crucial. Because continuous exposure to an advertisement is linked to higher recognition

and recall as well as more positive brand assessments, visual attention is closely linked to brand memory, consumer attitudes, and buy intentions (González-Mena et al., 2022).

One of the most popular neuromarketing methods for researching visual attention is eye tracking, this technique tracks eye movements and pupil position using infrared light, giving objective measurements of where people look, how long they focus on specific objects and how often they return to them (Mohd Isa & Anuar, 2024). Measures of attention, engagement and cognitive load include pupil dilation, saccadic movements and fixation frequency and duration. Heatmaps that show regions of high and low gaze concentration are commonly used to display eye-tracking results, giving advertisers a clear understanding of which elements of an advertisement pique consumers interest the most (Ungureanu et al., 2017). Eye tracking is frequently used together with complementary techniques like functional magnetic resonance imaging, which offers high spatial resolution to identify neural correlates of attention, memory, and emotion, or electroencephalography, which measures electrical activity in the brain with high temporal resolution (Millagala & Gunasinghe, 2024). By identifying physiological arousal and overt emotional reactions, other methods like facial expression analysis and galvanic skin response might enhance comprehension even more, these techniques are used in a variety of advertising domains (Ungureanu et al., 2017). Eye-tracking research has demonstrated that native ads on social media typically attract more sustained and extended attention than banner ads, which enhances brand identification (Peltier & Dahl, 2024). Further research show that temporary content draws more attention because of the possibility of losing information, and that imagery that is focused on the client or the product attracts more attention than symbolic graphics (Peltier & Dahl, 2024). Theories of "banner blindness" in online environments are supported by research that regularly show that print advertising produces longer viewing periods and better recall than online banners when comparing digital and print media. Eye tracking in video advertising shows that even when ads are fast-forwarded, viewers continue to concentrate on the main components of the screen, which helps them remember brand information when they see it repeatedly (Ciceri et al., 2019). By examining how visual composition, color and hierarchy affect attention patterns and message understanding, neuromarketing has also been used to improve the design of websites and advertisements (Bhardwaj et al., 2024).

Research on neuromarketing has profound effects for the effectiveness of advertising. Visual attention measurement shows how advertising influences brand attitudes, buying intentions, memory, and recall, because neurophysiological information may be utilised to customise material to each person's emotional response and level of interest, neuromarketing further helps the personalisation of advertising techniques. By bringing

branding and advertising tactics into line with the unconscious forces that shape customer behaviour, this process sometimes known as "neuro-optimization" builds stronger emotional bonds and loyalty (Alsharif & Mohd Isa, 2024).

However, there are significant ethical questions raised by neuromarketing's capacity to affect subconscious decision-making and avoid conscious reflection. The potential for using implicit persuasion to influence customer behaviour emphasises the necessity of openness, responsible data use, and the development of moral standards (Nairn & Fine, 2008). This is especially important because there is evidence that children and other vulnerable groups are particularly sensitive to subconscious advertising. Because of this, even though neuromarketing offers insightful information about how attention and persuasion work, its application needs to be carefully weighed against concerns about consumer privacy and autonomy.

#### **4. Consumer Engagement in Digital and Social Media**

Consumer engagement on social media is when people voluntarily use their cognitive, emotional and behavioural resources to connect with brands in ways that go beyond just buying something, it is recognised as a state of mind that is influenced by motivating factors and made possible by social networking sites interactive elements, which have emerged as the main avenues for communication between brands and customers (Demmers et al., 2020). Engagement is a particularly useful indicator in modern digital marketing since it is not a passive reaction but rather an active decision made by customers to take part in brand-related discussions, content sharing and community development (Hollebeek & Macky, 2019). Customer involvement on social media is crucial since it can be used as a measurement of social media strategy performance and as a catalyst for sustained brand success, along with contributing to building meaningful consumer-brand relationships which end up in better results like word-of-mouth recommendations, brand advocacy, co-creative activities and increased profitability, engagement also helps to increase brand awareness, loyalty and trust (Demmers et al., 2020). Because they demonstrate higher levels of customer connection and readiness to associate with brand-generated content, active engagement behaviours like enjoying, sharing and commenting give firms a competitive edge, primary objective of digital marketing efforts is to increase engagement since research continuously demonstrates that it is positively correlated with consumer trust, brand reputation and loyalty (Yu et al., 2024). It is commonly acknowledged that social media engagement is a multifaceted concept. Cognitive engagement, which is frequently driven by

functional and authenticity-related demands, is the term used to describe customers' mental investment in understanding brand-related information and creating meaning around brand identification or usage (Hollebeek & Macky, 2019). And the affective states that are evoked during encounters with branded content whether good, negative or ambivalent are referred to as emotional engagement. These feelings are crucial for establishing brand identity, credibility, and satisfaction. Consumers' specific actions when connecting with a brand on social media, including sharing content, leaving reviews or joining brand communities, are captured by behavioural engagement. By encouraging favourable brand attitudes and trust, these factors support one another and work together to build consumer and firm-based brand equity (Hollebeek & Macky, 2019).

The Uses and Gratifications theory (UGT), which claims that people actively seek out media information to satisfy particular needs, is frequently used to explain the reasons driving consumer participation on social media. Functional incentives, which mainly stimulate cognitive engagement, are based on consumers utilitarian informational needs such as corporate responsibility or product quality. Enjoyment, leisure, and entertainment are all linked to hedonic motives, which promote pleasant emotions and future action to increase emotional and behavioural involvement (Demmers et al., 2020). Consumer's need for real, reliable and accountable brand content is reinforced by authenticity motives, which are driven by a desire for consistency, integrity and symbolism in brand communication. These factors affect both cognitive and emotional engagement. This reasons demonstrate that social media engagement is a result of customers intentional search for meaning and value rather than just a response to brand presence (Hollebeek & Macky, 2019). A variety of tactics are used by brands to encourage customer interaction in digital spaces. They also mention, Hollebeek & Macky, (2019), that by concentrating on producing and sharing material that is relevant, useful and beneficial to customers, digital content marketing deviates from conventional persuasive advertising and subtly fosters trust and lasting connections. Digital advertising often uses emotional appeals to generate responses from consumers, using feelings like surprise, contempt, delight or grief to increase virality and shareability. Because it enables material to be personalised to individual interests and mental states, personalization powered by AI and machine learning has grown in popularity and increased engagement (Vences et al., 2020). Influencer marketing offers a humanised and trustworthy avenue for interaction, particularly with younger audiences, while interactive elements like surveys, tests or user-generated material further increase participation and create a feeling of community. In order to produce immersive experiences that stimulate emotions and deepen brand loyalty, emerging technologies like virtual reality and multichannel content are also used (Peltier & Dahl, 2024).

Contextual considerations especially the stage of the client journey, affect how effective certain methods. Since customers are primarily looking for information during the pre-consumption period, informational material typically works better, so by offering more hedonic value, interesting content frequently increases engagement throughout the consumption stage (Demmers et al., 2020). Both amusing and educational content can maintain post-consumption engagement as customers look for ways to express their satisfaction or for confirmation of their purchase decisions. Since visual content like images and videos is more vivid and takes less mental processing than text heavy content, it has been shown to be particularly effective at increasing levels of engagement (Zhou & Xue, 2021). It is necessary to go beyond self-report techniques, which are frequently constrained by biases and consumers incapacity to express unconscious reactions, in order to measure consumer participation on social media. The most straightforward and popular measures of engagement are still behavioural metrics like likes, shares, and comments (Mohd Isa & Anuar, 2024, Demmers et al., 2020). Eye-tracking, galvanic skin response and facial expression analysis are examples of neuromarketing techniques that offer additional understanding of customers affective responses to content, emotional arousal and visual attention (ADRIAN et al., 2021). And furthermore, social listening and sentiment analysis tools make it possible to evaluate a lot of unstructured data from social media platforms in order to identify distinct emotions and consumer sentiment that are expressed in online discussions, comments, and microblogs. When combined, these methods offer a more complete view of customer involvement, taking into account both overt and covert reactions (Peltier & Dahl, 2024).

Social media consumer engagement has disadvantages as well as advantages. Because digital environments are so saturated and competitive, marketers are always fighting for consumers' attention. The increasing use of big data analytics, neuromarketing, and personalisation also raises ethical questions, especially in relation to privacy, transparency and consumer autonomy. The potential for changing behaviour by implicit attitude raises concerns about susceptibility and manipulation, particularly with regard to children and other vulnerable populations. Furthermore, the spread of misinformation and the distortion of engagement metrics by automated bot accounts pose risks to the reliability of insights and the welfare of consumers. These challenges underscore the need for responsible practices and ethical frameworks to ensure that engagement strategies create genuine value for consumers while safeguarding their rights.

## 5. Instagram as an Advertising Platform

Instagram is with 1.39 billion active users as of 2021, Instagram came in fourth place globally, behind Facebook, YouTube, and WhatsApp. From 2011 to 2018, the platform's user base grew by 1000%, from 10 million to 1 billion active users, surpassing the growth rates of both Facebook and Twitter in the same time frame (Salunke & Jain, 2022.). According to Statista, 2025 Instagram's active users are over 2 billion of monthly users. Instagram is especially useful for marketers aiming to reach younger audiences because, according to current estimates, it has over one billion monthly active users, the majority of whom are between the ages of 18 and 34. Instagram is a major channel for brand discovery and consumer-brand connection, as evidenced by the fact that 83% of users find new products or services on the site and 90% of users follow at least one company account, according to HubSpot (Salunke & Jain, 2022). According to empirical research, Rahayuningrat et al.,(2024), Instagram is a better platform for customer connection than Facebook and Twitter because of its higher engagement rate. It has been discovered that internet-based advertising, such as Instagram, produces almost three times the financial impact of conventional print media. According to research, firm-generated content and visually rich imagery greatly increase brand loyalty, awareness, and word-of-mouth intentions, while emotional and compassionate content can account for up to 48.7% of consumer purchase attractiveness (Rahayuningrat et al.,2024).

Instagram is a powerful instrument for data analysis and the creation of customer insights in addition to its advertising potential. Using demographic characteristics like age, gender, geography, and behavioral trends, its advertising solutions enable accurate audience segmentation. With the help of the platform, advertisers may design highly focused ads, such as ones that target individuals who look like current clients or have previously interacted with a brand's website. Instagram's real-time analytics capabilities enable marketers to keep an eye on key performance indicators (KPIs) and performance metrics, enabling data-driven campaign optimization and prompt adjustments. By enabling companies to assess engagement, reach, and conversion in real time, this capacity improves strategic decision-making (Rahayuningrat et al.,2024, Salunke & Jain, 2022).

Instagram's interactive and visually appealing design has made it a popular platform for advertising since it allows marketers to interact with customers, create enduring relationships and affect their purchasing decisions in ways that traditional media cannot (Dwivedi et al., 2019). Dwivedi et al., (2019) claims that its strength is its ability to combine emotional

appeals with captivating content forms that work well in the fast-paced, scrolling world of social media, where opinions are frequently influenced by first impressions and attention spans are short. Instagram advertising is more successful when organised around digital content marketing tactics than traditional advertising, which seeks to persuade directly through overt product promotion. To build trust, loyalty and long-term engagement all of which indirectly lead to sales digital content marketing places a strong emphasis on creating and sharing material that is meaningful, relevant, and engaging. This strategy represents a change from a “selling to” to a “helping” mindset, where brands improve the lives of their customers by providing them with pleasure or knowledge as opposed to concentrating on instant persuasion (Hollebeek & Macky, 2019). also it builds a “earned audience” because customers actively interact with brand material as opposed to passively absorbing messaging, this concept works particularly well with Instagram’s framework, which allows both user-generated and brand-generated content in the form of reels, stories, videos and images (Hollebeek & Macky, 2019).

The power of Instagram advertising to evoke emotion is closely linked to its effectiveness. Instagram’s focus on self-expression and visual storytelling makes it a good place for emotional appeals that try to evoke both negative emotions like fear or guilt and positive ones like joy, humor, love or nostalgia. These emotions can all have an impact on buying decisions (Albers-Miller & Royne Stafford, 1999). While there are rational appeals that emphasise the qualities, value or aspects of the product, emotional appeals have a greater influence on Instagram because they speak to the hedonic and experiential impulses that influence a large portion of customer behaviour in social media settings. Purchase intentions are directly impacted by emotional reactions to advertising, which also affect views about the brand and the advertisement (Zhang et al., 2014). A key metric for assessing Instagram advertising effectiveness is customer engagement, which is the voluntary allocation of behavioural, emotional, and cognitive resources to brand interactions. Likes, comments, and shares are common metrics used to measure engagement because they offer direct evidence of how users react to content. These behaviours indicate interest, attachment and a readiness to engage with a brand. They are behavioural expressions of underlying psychological emotions (Demmers et al., 2020). Also Demmers et al., (2020) mentions that because interested individuals spread content to their own social circles, high levels of engagement increase reach through network effects, resulting in co-created value. Positive brand outcomes like loyalty, trust and higher sales are also closely linked to engagement.

For Instagram advertising, a few tactics have shown exceptional success. One of the most effective strategies nowadays is influencer marketing, particularly when it comes to

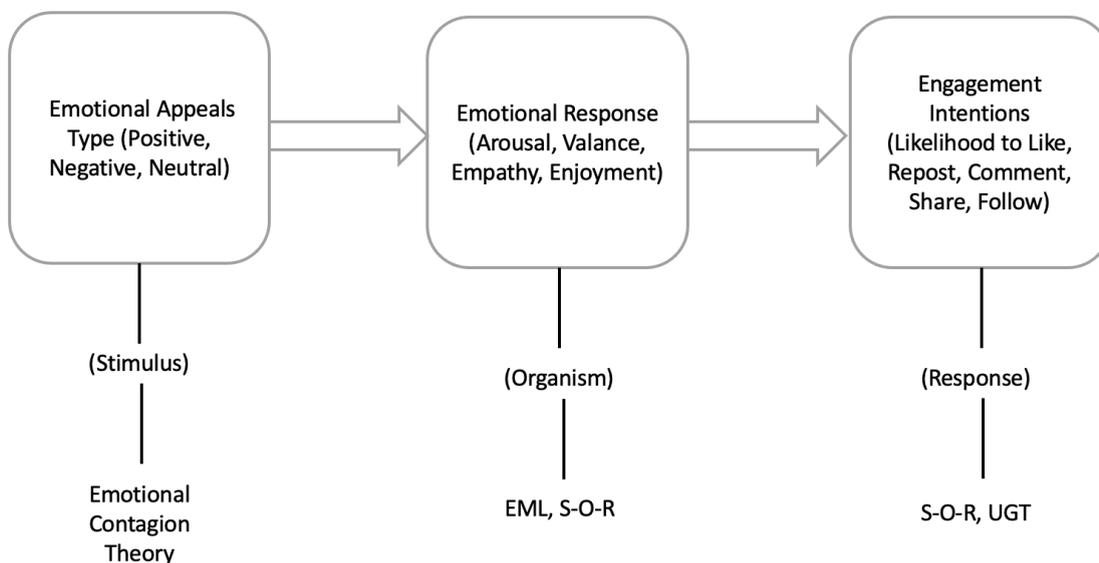
connecting with younger audiences (Boerman & Müller, 2021). Influencers and their followers form parasocial bonds that give their recommendations a sense of credibility and authenticity. The effectiveness of this approach depends heavily on trust in the influencer, and regulations now demand that sponsored content be disclosed. According to eye-tracking research, Instagram's integrated 'paid partnership' label works better than textual identifiers like hashtags at drawing attention and improving comprehension of sponsorship. In order to determine whether content is commercial, users also look to bottom-up indicators such as the size of the influencer's fan base or the presence of a brand tag (Boerman & Müller, 2021). The efficiency of the message and brand memory are also called into doubt by neuromarketing research that shows that teenagers, in particular, have a tendency to visually focus on the influencer's face or physique rather than the promoted brand (Mañas-Viniegra et al., 2020).

Instagram advertising layout and content are equally important. According to research, imagery that is focused on the consumer or the product attracts greater visual attention than imagery that is symbolic or customer oriented (Zhou & Xue, 2021). The degree of vividness is also important, pictures with a medium level of richness typically generate more interaction than films, which require more time and mental processing. However, animated films and other dynamic and interactive media may cause more powerful emotional reactions than still images (Demmers et al., 2020). Instagram's quick scrolling mimics fast-forwarded TV advertising, which puts users in a state of high attention where they stay focused on the screen and process information more quickly, which improves ad memory beyond expectations (Siefert et al., 2008). Repeated exposure to perceptual elements like logos, colour schemes or slogans can promote familiarity and positive affective connections because they are processed more easily, but repeating complete ads can lead to wear out (Nordhielm, 2002).

Depending on the stage of the client journey, various advertising methods have varying degrees of effectiveness. Customers interact more with educational content during the pre-consumption phase since they are looking for knowledge. Because they enhance the experience and maintain the brand consumer relationship, entertaining postings are typically more successful both during and after consumption (Demmers et al., 2020). The Uses and Gratifications theory, which emphasises that consumers actively seek out material that meets their functional and hedonistic demands is in line with these findings. Looking ahead, Instagram advertising will probably experience even more change as a result of the combination of artificial intelligence and neuromarketing (Demmers et al., 2020). Increasingly, techniques like fMRI, EEG, eye tracking and face coding are being used to record consumers subconscious responses to advertising stimuli (Nozari, 2025). These

techniques offer insights into emotion, memory and attention that are not possible with standard surveys and by using these techniques, brand aspects, design and content can be optimised to better suit the implicit preferences of customers. With the help of AI and machine learning, advances in cognitive targeting seek to provide adaptive advertising by analysing users mental states in real time, such as their attention spans or emotional readiness. This raises the possibility of highly personalised, empathic advertising systems that respond to consumers psychological circumstances rather than just to their previous actions (Nozari, 2025).

In conclusion, Instagram's effectiveness as a medium for advertising is a result of its capacity to seamlessly combine visual narrative, emotive appeals and user interaction. Successful Instagram advertising uses tactics that foster trust and enduring connections rather than depending just on direct persuasion. These tactics include utilising influencers, optimising visual content, and customising messages for various phases of the customer journey. Given the growing importance of neuromarketing and artificial intelligence, Instagram advertising is expected to become more emotionally charged and tailored, giving firms strong tools to engage with customers while also posing significant ethical, transparent, and consumer autonomy issues.



Theoretical framework

**Variables:**

The Stimulus (S) – The emotional appeal of Instagram ads, defined through participants' impressions of the ad's emotional tone (positive, negative, or neutral), is the stimulus in this study.

The Organism (O) – refers to users' self-reported emotional valence, arousal and particular affective reactions (warmth, excitement, concern) in response to the ads.

The Reaction (R) – Users engagement intentions, such as their intention to like, comment on, share or follow the suggested brand.

### **Hypothesis:**

H1: Positive emotional appeals (joy/humor) will produce higher self-reported engagement intentions than neutral appeals.

H1a. Positive emotional appeals (humor, joy, nostalgia) yield higher valence and enjoyment than neutral appeals.

H1b. Negative emotional appeals (e.g., fear/sadness) yield higher arousal but lower valence than neutral appeals.

H2 (S-O): Emotional appeal type (positive/negative/neutral) significantly affects emotional responses (arousal, valence, empathy, enjoyment).

H3 (O-R): Emotional responses significantly predict engagement intentions (like/comment/share/follow).

H4 (S-R) : Emotional appeal type significantly affects engagement intentions.

H5: Emotional responses mediate the relationship between emotional appeal type and engagement intentions.

H6: Emotional intensity (self-reported arousal) will be positively associated with engagement intention.

## Methodology

For this research paper a mixed-method approach will be used, combining content analysis and survey-based research. The content analysis will focus on identifying and categorizing emotional appeals used in a sample of Instagram advertisements, examining how brands employ positive, negative, and neutral emotional strategies. While online survey will be conducted to measure consumers self-reported emotional responses and engagement intentions toward selected Instagram ads. This approach enables the integration of objective analysis of advertising content with participants subjective perceptions, providing a comprehensive understanding of how emotional appeals influence consumer reactions and engagement behaviour. It also allows for the examination of theoretical relationships between emotional appeals, emotional processing and engagement intentions.

This study's main goal is to find out how various emotional appeals in Instagram ads affect users emotional reactions and intents to engage (such as likes, comments and shares/reposts, follows). The goal of the study is to determine how users self-reported emotional reactions (such as arousal, valence, empathy, and enjoyment) and behavioural engagement intentions (likely to like, comment, share or follow a brand) are influenced by positive, negative, and neutral emotional appeals.

The primary conceptual framework for the study is the Stimulus-Organism-Response (S-O-R) paradigm. Within this framework: An Instagram advertisement's emotional appeal type (positive, negative or neutral) is represented by the Stimulus (S). The viewer's internal emotional state (arousal, valence, empathy, enjoyment) is captured by the Organism (O).

The behavioural result, operationalised as engagement intentions (probability to like, comment, share, or follow), is indicated by the Response (R). Emotional Contagion Theory, which explains how viewers unconsciously "catch" emotions in advertisements, lends support to this hypothesis. The Elaboration Likelihood Model (ELM) explains how message processing is impacted by emotional intensity. Instagram users interact with emotionally charged content for amusement, identity or social connection, according to Uses and Gratifications Theory (UGT).

In order to ensure a thorough understanding of how brands use emotional appeals (objective observation) and how audiences perceive and respond to them (subjective evaluation) a mixed-method design will be used, combining a content analysis of Instagram ads with a survey-based experiment. The content analysis implements the Stimulus component of the conceptual framework while the survey captures the Organism and Response components.

### Scope and Sampling

The Instagram advertisements selected for the study were sourced from well-known global brands and international non-profit organizations including Zara, Samsung, Audi, IKEA, the World Food Programme (WFP) and UNICEF and etc. These companies were picked because they are well-known to global audiences on social media and represent a wide range of industries, including fashion, technology, automotive, home products and humanitarian aid. Most significantly, these accounts frequently post advertising content that reflects a variety of emotional appeals, such as neutral/informational, negative (sadness, fear, guilt) and positive (joy, humour, inspiration). This variety made it possible to create a balanced set of stimuli that matched the conceptual framework's emotional categories.

Title, Year	Sample	Method	Variables	Platform
EMOTIONAL OR RATIONAL? THE DETERMINATION OF THE INFLUENCE OF ADVERTISING APPEAL ON ADVERTISING EFFECTIVENES, 2016	30 participants for eye-tracking, 19 participants for IAT, and 80 participants for the questionnaire	A three-step approach was used: an eye-tracking experiment, an implicit-association test (IAT), and questionnaire research. Analysis included Structural Equation Modeling (SEM)	Predictor variables were advertising appeal (emotional vs. rational). Dependent variables included attention, brand awareness (recall and recognition), attitude toward the advertisement, attitude toward the brand, and purchase intentions	Print and outdoor advertisements for a convenience product (mineral water)
Positive, Negative or Both? Assessing Emotional Appeals Effectiveness in Anti-Drink Driving	352	Partial Least Squares Structural Equation Modeling (PLS-SEM) to validate the	Independent variable was the emotional appeal type (positive, negative, or combined); dependent	Online video advertisements (Budweiser and TAC advertisements on YouTube)

Advertisements, 2021		Theory of Reasoned Action (TRA) and paired sample t-tests to assess changes between pre- and post-exposure surveys	variables were attitudes, subjective norms, intentions regarding drink driving, and likability of the ad	
Understanding the Emotional Impact of GIFs on Instagram through Consumer Neuroscience, 2021	30	Phase 1 used neuromarketing tools (facial coding, GSR, and eye tracking); Phase 2 involved sentiment analysis and content analysis of user comments via Python-based tools and APIs	Key variables were implicit and explicit emotional valence, engagement, basic emotions (happiness, surprise, etc.), comment length, and proportion of emojis	Instagram (specifically GIFs used by top international brands)
Analyzing the influence of celebrities' emotional and rational, 2023	214	A between-subjects experiment using two manipulated stimuli (positive emotional brand post vs. negative rational brand post) and questionnaires	Independent variable was brand post content (emotional vs. rational); moderating variable was product involvement; dependent variables were offline word of mouth (WOM) and electronic WOM (eWOM)	Instagram brand posts featuring a celebrity endorser

Table. 1

Previous empirical research on emotional advertising in digital and social media environments shows that sample sizes vary significantly based on the methodology used. Smaller samples (  $n = 30$  in eye-tracking or neuroscience-based research) are commonly used in experimental and neuromarketing studies, which reflects the complicated and resource-demanding nature of such processes. Survey-based research on emotional reactions and participation intentions, on the other hand, usually uses moderate to large samples, with 80 to more than 300 participants. The current study's survey sample of 128 Instagram users is suitable to perform inferential statistical analyses including group comparisons, regression, and mediation testing within this methodological framework and is in line with accepted procedures in the area. Furthermore, the sample size offers a suitable

balance between statistical power and practical feasibility given the study's non-experimental, perception-based methodology.

For content analysis, there will be gathered around 80 Instagram ads from verified. The sample size of 80 advertisements allowed for systematic comparison across emotional categories and brand sectors, while maintaining analytical depth and coding consistency. As a result, the amount of examined ads is considered suitable for the content analysis's descriptive and comparative objectives. Publicly accessible company accounts in three industries will be gathered using a purposive sampling technique:

- Fashion and beauty brands, such as Zara, Nike, L'Oreal, Dove, and H&M, mostly appeal to positive emotions (joy, empowerment, nostalgia).
- Negative or empathetic appeals (fear, shame, sadness, empathy) in social awareness and charity campaigns ( UNICEF, WWF, WHO, UN Women).
- Technology and lifestyle brands, such as Apple, Samsung and IKEA, have neutral or educational charms.

As required by the conceptual model, its tri-sectoral design guarantees coverage of neutral, negative, and positive appeals. To ensure clarity, the chosen advertisements will be posts that are open to the public (no private accounts), from official accounts for a company or brand (verified if possible), posts from the previous 12 months, posts with a clear advocacy or promotion message (textual, graphic or both). And influencer posts with no brand affiliation or content that cannot be identified are excluded.

### **Coding Procedure**

For decoding and structuring Instagram advertisings was used Excel table with specific criterias.

<b>Variable</b>	<b>Description</b>	<b>Example</b>
AD_ID	Every advertisement has a unique identification number. encodes the sequence number and brand.	01_Zara_01

Ad Link	URL of the advertisement used for coding and survey stimuli.	URL to Instagram
Brand	The company or organization that produced the advertisement.	IKEA
Industry	The category of industry the advertisement belongs to.	Fashion, Technology, Charity, and etc.
Emotional Appeal	The advertisement's overall emotional tone.	Positive, Negative, Neutral and etc.
Emotional Category	Specific emotion the advertisement intends to evoke.	Joy, Anger, Sadness, etc.
Emotional Intensity	The strength of the emotional tone conveyed.	1 – Low; 2 – Moderate; 3 – High.
Presence of Human Face	Whether human faces appear in the advertisement.	No/Yes.
Facial Expression Type	Observable expression of the primary face(s) in the ad.	Smiling, Laughing, Neutral, Crying, Distressed, Angry, No Faces.
Color Tone	Dominant color palette used in the advertisement.	Warm / Cool / Neutral / Mixed
Message Type	Whether the advertisement communicates mainly emotional or informational content.	Emotional / Informational / Mixed
Format	The type of Instagram post (Ad)	Image / Carousel / Video / Reel
Visible Likes	Number of likes visible on the post, if publicly displayed.	Numeric value or N/A

Visible Comments	Number of comments visible on the post	Numeric value or N/A
Reposts	Visibility of share statistics, if applicable	Numeric value or N/A
Call to Action (CTA)	Whether the advertisement includes a direct CTA	Yes / No. Examples: "Donate now," "Shop now," "Learn more."
Hashtag Presence	Presence of hashtags in the caption	#Samsung
Celebrity Included	Whether a public figure or known personality appears	Yes / No
AI or Real Footage	Whether the ad uses AI-generated imagery or real-life footage	AI/Real
Music Tone	Categorization of the auditory emotional tone, if applicable	Uplifting, Calm, Sad, Dramatic, Dark/ominous, Energetic, Neutral, None
Symbolic Cues	Key visual or narrative symbols that convey emotional meaning	Celebration, Family, Tears, Conflict imagery, Nature, Fire/smoke, Urgency symbols, Product-only etc
Coder Confidence	The coder's subjective confidence in the accuracy of the coding	1 – Unsure to 5 – Absolutely Certain
Notes	Additional contextual comments, interpretation, or justification for coding decisions, if any	Free text

Table. 2

Each advertising was coded manually based on the categories indicated in Table X. Key structural, visual, auditory and emotional elements that affect how emotional appeals are presented and interpreted in Instagram advertising were captured by the coding scheme. These variables were selected in accordance with the research framework

Stimulus-Organism-Response model. The coding was done with a Excel file, where each row represented one advertising and each column linked to a specific category. This maintained consistency and comparability across all adverts. Each advertisement was watched several times and recorded the cues (such as facial expressions, music tone, colour scheme and symbolic elements) that supported each classification in order to ensure coding reliability. The coder confidence score was utilised to suggest potential ambiguity or borderline cases, allowing for reconsideration during data cleaning. Both visual and symbolic clues were useful for identifying emotional appeals. For instance, warm lighting, smiling faces and celebratory features signalled positive emotional tone, while dark colour palettes, sorrowful emotions or images of crisis surroundings conveyed negative emotional appeals such as sadness, fear or guilt. Music tone was coded depending on its emotional direction (uplifting, peaceful, dramatic, ominous), which strengthened the emotional categorization.

The final five advertisements included in the survey experiment were chosen based on a clear categorisation of the advertising into positive, negative, and neutral emotional categories made possible by this methodical coding approach.

Categorical variables made up the majority of the content analysis data. Descriptive statistics produced by Excel pivot tables were thus used for analysis, enabling calculation of frequencies, percentages and cross-tabulations across industries, emotional appeals and visual characteristics. Rather than performing inferential statistical testing, the goal of this research was to identify dominating emotional techniques on Instagram and to support the selection of advertisements for the next survey phase.

Next phase of the empirical part of the research was quantitative analysis – online survey. It involved online self-report survey , respondents were recruited through online channels using convenience and snowball sampling. The participation was voluntary and anonymous, and main criteria for participation was that participants have to be 18 years old and older and active usage of Instagram ( at least once per week). As well, this survey collected such demographic data such as age, gender, country of residency.

Based on the results of the content analysis, five Instagram ads were chosen as survey stimuli. The selection was made with the intention of representing various advertising contexts and emotional appeal kinds (positive, negative and neutral or unclear). The advertisements were chosen from designated four industries – Fashion & Beauty, Home,

Technology, Charity/ Humanitarian organisations. Instead of directly comparing industries, the questionnaire used industry as a contextual factor to guarantee ecological validity and a variety of emotional cues. To keep the experimental design simple, industries with similar emotional traits or less significance were eliminated.

The Google Forms platform was used to conduct the survey. Following the viewing of each of the five advertisements in a sequential manner, participants were asked to answer a short series of questions. This process made sure that evaluative and emotional reactions were recorded right away upon exposure. The questionnaire measured emotional responses using descriptive adjectives like warmth, excitement, and concern, as well as perceived emotional appeal (classified as positive, negative, neutral or unclear), emotional valence, and emotional intensity (arousal). Moreover, participants self-reported likelihood of like, commenting on or sharing the advertising was used to grasp their involvement intentions. The degree to which the advertisement matched consumers reasons for interacting with Instagram content was also assessed using perceived gratification fit. In most of questions, Seven-point Likert-type scales were used to evaluate measurement item. To reduce the possibility of priming effects, brand familiarity was assessed before evaluating emotional reactions. The questionnaire included an attention-check item to guarantee the quality of the data.

Survey data were analysed using descriptive and comparative statistical techniques. To summarise participants assessments of the ads, average scores and standard deviations were calculated for the emotional response and engagement intention variables. In order to find trends in emotional reactions and engagement intents and evaluate how well they aligned with the suggested theories, comparative studies were then carried out across emotional appeal categories. The Stimulus-Organism-reaction (S-O-R) framework was used as the basis for the analysis, which concentrated on the connections between engagement intention as the reaction, emotional appeal as the stimulus, and emotional response as the organism.

At the analysis's interpretation stage, the two empirical phases were combined. The emotional reactions and engagement intentions seen in the survey data were analysed and interpreted using the content analysis findings. A thorough assessment of the suggested conceptual framework was made possible by this integrative method, which also strengthened the validity and robustness of the study's findings.

Standard ethical principles were followed in conducting the study. All participants gave their informed consent before data was collected and participation in the survey was voluntary and anonymous. And no personally identifying or sensitive data was gathered. Every advertising that was part of the analysis was accessible to the general public and was only utilised for scholarly research.

### **Content Analysis Research**

Structured content analysis was used to examine a purposive sample of 80 Instagram ads. To find trends across industries, advertisements were categorised into emotional appeal groups and measured. During research of empirical part, 80 of Instagram advertisements was coded and analysed – they were collected from official brand and organisational accounts. The ads were gathered manually from different industries in order to get a wider perspective as well as to be able to get a full scope of emotional appeals: negative, positive, neutral and unclear. The advertisements were gathered based on their visibility on Instagram.

After ads were collected, they were viewed and familiarised with, in order to later on be decoded by assigned criterias ( Facial Expressions, Message Type, Format, etc). The Excel spreadsheet was used to create a table with all the coding material in order to get easy and clear view. The predefined codebook was used to code all advertisements (Table 2)

The final sample consisted of 80 Instagram advertisements collected from four industries: fashion (n=31), technology (n=18), home (n=12), and humanitarian/non-profit organizations (n=18). Ads varied in format, including videos, images, and reels. The distribution is a reflection of these industries typical activity levels and presence on Instagram, where fashion businesses in particular exhibit high posting frequency and a strong focus on emotive visual storytelling. Instead of achieving proportional industrial balance, the content analysis's goal was exploratory rather than representational, with the goal of identifying patterns of emotional appeal utilisation. Total of 25 brands was analysed, with prevalence of companies in Fashion industry (n=10) and least amount in Home Industry (n=3). It could be explained with generally bigger media presence of Fashion and Beauty companies.

The analysis have revealed clear distribution of emotional appeals across the different industries. For example, in fashion industry the dominant emotional appeal was Positive (n=20), followed by Neutral (n=11) and as Unclear were marked (n=5) and negative emotional appeal was not identified in any of the coded advertisement. On contrary to that the humanitarian/non-profit organizations industry showed significantly different results with prevalence of negative emotional appeals (n=11) and only (n=1) positive, the rest were identified as neutral (n=4) and unclear (n=4). In Technology industry was noticed prevalence of positive emotional appeals (n=13), and neutral (n=7), and (n=2) identified as unclear. In Home Industry most of the advertisements were categorized as neutral (n=11) and (n=1) as positive. This Industry showcased absence of negative and unclear content.

	Number	Percentage
Positive	35	44%
Negative	11	14%
Neutral	33	41%
Unclear	11	14%
Total	80 (90)	113%

Table. 3

Prevalence of Positive emotional appeals in Instagram Advertisements with 44%, Neutral with 41%. During coding process and analysis some of the Instagram advertisement content was identified in more than one emotional appeals category, for example Positive and Neutral, Neutral, Unclear, etc., this is why total number of identified appeals vary as well as total percentage reaching 113%.

	Positive Emotional Appeal	Negative Emotional Appeal	Neutral Emotional Appeal	Unclear Emotional Appeal
Emotional Intensity	Low to Moderate	Moderate to High	Low	Inconsistent
Presence Of Human Face	Often Present	Often Present	May be present or absent	May be present or absent

Facial Expression Type	Smiling, Laughing, Neutral	Sad, Distressed, Crying, Angry	Neutral	Mixed, Unclear
Music Tone	Cheerful, Uplifting, Calm	Sad, Tense, Melancholic, Dramatic, Dark, No music	Neutral, Minimal, No music	Unclear, contradicts
Message Type	Emotional, Mixed	Informational, Emotional, Mixed	Informational, Mixed	Mixed, Unclear

Table. 4

To categorise the emotional appeal of each advertisement a structured coding scheme was developed based on visual, auditory and symbolic cues. Based on the predominance of emotional indicators across various dimensions, such as emotional intensity, facial expressions, music tone, symbolic cues and message type, advertisements were categorised into one of four emotional appeal categories: positive, neutral, negative or unclear. An advertisement was coded as positive when the majority of cues conveyed pleasant emotions such as joy, happiness, cheerful. While negative appeals were identified when distressing emotions such as sadness, fear dominated the content. Advertisements that were mainly informative or emotionally restrained were given neutral appeals. The advertising was classified as unclear when the emotional cues were inconsistent, conflicting, or not apparent.

In order to make sure that advertisements were decoded and categorised correctly, the parameter of “Coder Confidence” was integrated. Each ad was rated from 1 (unsure) to 5 (absolutely certain). After the analysis was completed the average coder confidence was 3,1. The content analysis was conducted by a single coder using a structured coding scheme based on predefined emotional appeal categories (positive, neutral, negative). Formal intercoder reliability metrics like Cohen's  $\kappa$  or Krippendorff's  $\alpha$  could not be computed due to the single-coder configuration. Detailed operational definitions were established before coding to improve coding consistency and analytical robustness, and a pilot coding phase was carried out to adjust category boundaries. In order to evaluate subjective certainty in classification, coder confidence ratings were also recorded for every advertisement. When combined with open coding practices, single-coder quantitative

content analysis is a recognised method in exploratory advertising research, despite the lack of intercoder reliability. And one coder will be treated as a limitation. Prior to analysis, a structured quantitative coding scheme with predetermined emotional appeal categories (positive, neutral, and negative) was created in order to reduce subjectivity. Explicit criteria based on the emotional tone, narrative framing, and affective indicators in the ads were used to operationalise each category.

A lot of attention was put into presence of human faces in advertisement as well as analysing facial expressions and emotional category. The presence of human faces was in 57 out of 80 advertisements, dominantly in Fashion and Beauty Industry (n=24), with least presence of human faces in Home Industry (n=6).

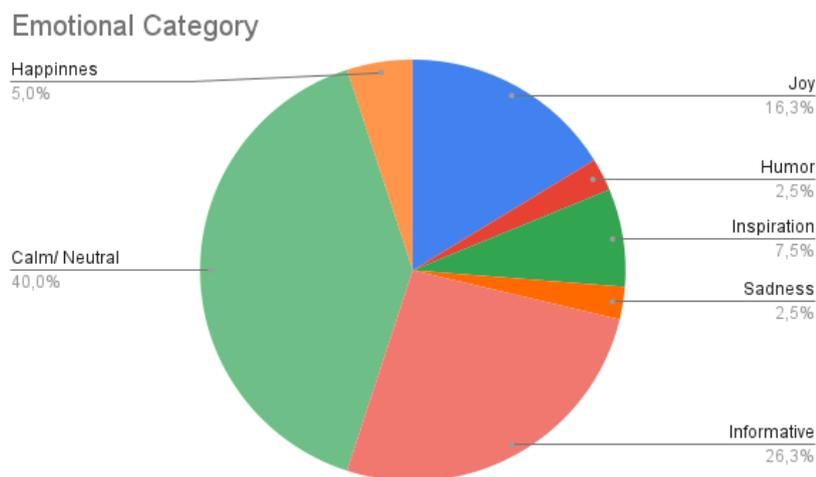


Chart 5.

Calm/neutral (n = 32) was the most commonly recognised emotional type, taking up 40% of the analysed ads. This means that a significant amount of Instagram advertising takes on a low-arousal, emotionally balanced tone, probably with the intention of preserving brand visibility without generating strong affective reactions. Informative material (n = 21; 26.25%) was the second most popular category, indicating a focus on product features, functioning or factual information as opposed to emotional persuasion. Ads pertaining to technology and homes were where this pattern was most noticeable.

Joy was found in 13 ads (16.25%), followed by inspiration (n = 6; 7.5%) and happiness (n = 4; 5%) among obviously positive emotional appeals. These results show that although they are still less common than neutral or informational approaches, advertisers tend to choose

pleasant and uplifting emotions when using emotional appeals. There were comparatively few negative emotional categories. Feelings like fear, anger and guilt were not found in the sample, while sadness was seen in just two ads (2.5%). Due of the platform's entertainment-focused and visually attractive atmosphere, it appears that marketers typically keep clear of high-risk negative affect in Instagram advertising. Humour and nostalgia were used little, with humour showing up in just two ads (2.5%) and nostalgia not showing up at all. This result would suggest that certain appeals need longer exposure or more complex storytelling which might not work well with Instagram's short-form video forms.

Advertisements coded as positive emotional appeals frequently had symbolic cues associated with warmth, comfort, and social connection. Common symbolic cues included celebration and togetherness, nature, smiling or laughing faces, children, family settings and animals. As well as everyday comfort-related symbols such as food, water (in meaning of purity, cleanliness). Although product-focused visuals were also used they were typically interconnected with emotionally rich contexts. In some cases, symbols such as clocks were included to suggest urgency, yet these cues were framed within an overall positive emotional narrative rather than distressing one. On the other hand, negative emotional appeals depended on symbols of urgency, vulnerability and distress. These included references to war or violence, broken things, dark or unpleasant surroundings, children in unsafe circumstances, crying or distressed features and health and medical images. Themes of need, pain and moral obligation were further reinforced by symbolic clues like hands reaching out for help. These cues were used to evoke feelings like melancholy, worry or moral obligation are most prevalent in charity related ads. Neutral advertisements mostly used minimalistic styles or product-only images with little to no emotional connotation. Instead of using dramatic visuals or emotional storytelling, these advertisements concentrated on providing the product or service in an understandable and practical way. Their categorisation as emotionally neutral was influenced by the absence of significant symbolic clues. In the same way ads that were considered unclear also mainly used simple, product-focused images. The intended emotional appeal was unclear because, in contrast to neutral advertisements, these ads included weak or mixed clues that did not consistently support a particular emotional interpretation.

The use of music as an auditory cue for demonstrating emotional appeals in Instagram ads has been studied in the content analysis. Eventhough its application differs between emotional categories, the results show that music tone plays a significant role in maintaining

emotional meaning. A variety of kinds of music were used in advertisements that were categorised as positive emotional appeals. Calm and peaceful, cheerful and energetic fast paced music were frequently noted tones that supported emotions of happiness, optimism and joy. While minimal or no music was used in advertisements that depended primarily on visual storytelling, dramatic music was occasionally included to heighten emotional intensity. In general, pleasant emotional experiences were associated with the audio signals in positive appeals which increased the perceived emotional richness. Music was typically used to evoke seriousness and emotional depth in negative emotional appeals. Themes of tension, urgency or vulnerability were enhanced by dramatic and emotional compositions, as well as dark or sad music. A number of ads in this category also had little to no music which allowed the story and visual content to communicate emotional weight without being distracted by sound. The intensity of negative emotional appeals was made stronger by this limited use of music. Advertisements that were categorised as neutral and unclear mostly had minimal music, calm to no music.

### **Quantitative research**

The online survey was completed by 128 people in total. However, in some data there will be a lower sample due to the fact that some answers were not given (n=124-127). Instagram users who were exposed to five ads from different companies made up the sample. In terms of demographics, most respondents were between the ages of 18-24 with 34,4% identifying as male and 65,6% as female. Instagram usage is global, as evidenced by the respondents representation of several nations. The majority of participants reported using Instagram everyday (40,6%) or multiple times a day (40,6%), demonstrating their familiarity with the platform and its advertising material (37,5%). And 96,9% of respondents follow brands on Instagram.

The descriptive statistics show that people's emotional reactions to the Instagram ads are mostly positive. The advertising were generally viewed as emotionally positive, as indicated by the comparatively high mean valence ( $M = 4.12$ ,  $SD = 0.65$ ). Neither extremely intense nor emotionally flat reactions were indicated by the moderate arousal levels ( $M = 3.57$ ,  $SD = 0.72$ ). Concern emotions were lower ( $M = 2.42$ ), in line with Instagram's primarily hedonistic and entertainment focused setting, but warmth ( $M = 3.32$ ) and excitement ( $M = 3.42$ ) were somewhat high. Similar trends were seen in involvement intentions: liking intentions were

highest (M = 3.57) and commenting intentions were lowest (M = 2.11), which is indicative of typical passive social media participation behaviour. Distributional checks supported the use of parametric analysis by demonstrating satisfactory Skewness and Kurtosis for all variables.

### Descriptives

Descriptives									
	valence_mean	arousal_mean	feel_warm_mean	feel_excited_mean	feel_concerned_mean	eng_like_mean	eng_comment_mean	eng_share_mean	eng_follow_m
<b>N</b>	127	127	124	124	124	127	127	127	12
<b>Mean</b>	4.12	3.57	3.32	3.42	2.42	3.57	2.11	2.84	2.8
<b>Standard deviation</b>	0.648	0.721	0.754	0.745	0.609	0.790	0.787	0.856	0.88
<b>Skewness</b>	-0.957	-0.525	-1.05	-0.922	0.277	-0.898	0.918	0.316	-0.15
<b>Std. error skewness</b>	0.215	0.215	0.217	0.217	0.217	0.215	0.215	0.215	0.21
<b>Kurtosis</b>	2.46	1.53	0.805	1.50	0.417	1.79	1.63	1.04	-4.13e-
<b>Std. error kurtosis</b>	0.427	0.427	0.431	0.431	0.431	0.427	0.427	0.427	0.42

### Descriptives Data 6.

The internal consistency of the emotional response scale was satisfactory ( $\alpha = .65$ ). This degree of dependability was seen as acceptable for exploratory research due to the complex character of emotional reactions (positive and negative components). The engagement intention scale showed excellent reliability, justifying the use of a composite engagement intention measure.

#### Scale Reliability Statistics

Cronbach's $\alpha$	
scale	0.653

[3]

#### Item Reliability Statistics

	If item dropped	
	Item-rest correlation	Cronbach's $\alpha$
feel_warm_mean	0.571	0.394
feel_excited_mean	0.534	0.452
feel_concerned_mean	0.310	0.733

#### Item Reliability Statistics

	If item dropped	
	Item-rest correlation	Cronbach's $\alpha$
eng_like_mean	0.692	0.866
eng_comment_mean	0.579	0.890
eng_share_mean	0.750	0.852
eng_follow_mean	0.793	0.841
eng_overall_mean	0.794	0.842

### Reliability Statistics 7.

During self-report 5 advertisements were given for people to evaluate based on specific criterias. Ads were from 4 different industries and significantly different in symbolic cues, emotional categories and appeals. First advertisement was from Fashion Industry – Zara and Disney collaboration, second was from charity and humanitarian organizations by World Food Programme, third was by Ikea and Home industry, and two advertisements were related to Technology industry, however, referred to different emotional appeals – Samsung and Audi Sport.

There was no support for H1. When compared to neutral appeals, exposure to positive emotional appeals was notably linked to reduced involvement intention, according to linear regression analysis ( $\beta = -0.35$ ,  $p < .001$ ). This result contradicts the original hypothesis and implies that, in the context of Instagram advertising, positive emotional appeals did not increase engagement intentions in comparison to neutral material.

There was no support for H1a. When compared to neutral appeals, exposure to positive emotional appeals did not generally predict higher valence or enjoyment, according to regression analyses ( $p > .05$ ). These findings suggest that positive emotional framing by itself did not result in more favourable emotional assessments, possibly because Instagram ads already had a good emotional tone.

There was no support for H1b. Despite a positive directional connection between arousal and exposure to negative emotional appeals, this link was not statistically significant ( $p > .05$ ). In the same way, compared to neutral appeals, negative appeals did not substantially predict lower valence. Therefore, there was no empirical support for the proposed emotional distinction impact of negative appeals.

There was some support for H2. Major differences in emotional reactions to different ads were found using non-parametric group comparisons (Kruskal–Wallis tests), especially in terms of arousal and valence. Nevertheless, these results did not hold true for all stimuli or emotional dimensions, suggesting that emotional appeal type affected emotional reactions in an ad-specific rather than a systematic way.

There was support for H3. A significant amount of the variability in engagement intention was explained by emotional responses taken together, according to multiple regression analysis ( $R^2 = .40$ ,  $p < .001$ ). In particular, overall valence and arousal were not significant predictors of engagement intention, but warmth ( $\beta = .26$ ,  $p = .004$ ), excitement ( $\beta = .31$ ,  $p = .001$ ), and worry ( $\beta = .23$ ,  $p = .004$ ) were. This suggests that distinct emotional reactions have a greater impact on engagement than general emotional intensity or positivity.

H4 was partially supported. Emotional appeal exposure strongly predicted engagement intention, according to regression analysis; nevertheless, the effect's direction was different from what was predicted by theory. Appeal type was a significant predictor, however negative appeals had no apparent effect while positive emotional appeals were linked to decreased engagement intention in comparison to neutral appeals. This suggests that

engagement intentions are influenced by emotional appeal type, but not always in a favourable way.

Conceptually, H5 was endorsed. According to the research, exposure to emotional appeals affected emotional reactions, which in turn strongly predicted engagement intention. The direct impact of emotional appeal exposure on engagement intention decreased when emotional response variables were incorporated into regression models, indicating a partial mediation effect. The results offer empirical support for the suggested S–O–R pathway, even though causal mediation cannot be fully demonstrated because of the non-experimental approach.

There was no support for H6. In all one-way and multivariate models, arousal did not significantly predict engagement intention ( $p > .05$ ). This suggests that emotional intensity is not enough to motivate engagement behaviour, emphasising the significance of emotional quality over intensity.

Ads vary in terms of brand familiarity, which could have affected engagement intentions without regard to emotional appeal. Brand familiarity is considered a limitation since it could not be reliably modelled as a control variable due to uneven category sizes.

The findings suggest that emotional intensity or positive outlook are not the only factors influencing the effectiveness of emotional advertising on Instagram. Instead, engagement intentions are more strongly influenced by particular emotional traits like warmth, excitement, and concern. Positive emotional appeals did not consistently outperform neutral appeals, suggesting the significance of emotional appropriateness within the platform's usage context as well as potential advertising saturation effects.

The first advertisement presented to participants was a Zara & Disney collaboration, representing the fashion industry and a positive emotional appeal strategy. 40.6% of respondents said they were very familiar with the brand and 34.4% familiar, which shows generally high level of familiarity with brands. Regarding the perceived emotional appeal, 40.6% of respondents picked happiness as the main feeling expressed in the advertising. The second most popular emotional category was nostalgia (28.1%), indicating that both happy and nostalgic feelings were evoked by the collaboration with Disney.

The majority of respondents chose 5 on a 7-point Likert scale assessing emotional valence, where 7 represented a “very positive”. This indicates that the advertising evoked a moderately positive emotional response. Similarly, the most common rating for emotional intensity (arousal) was 5 indicating a medium-to-high degree of perceived excitement or emotional stimulation. Regarding specific emotional responses, the advertisement was evaluated as moderately warm, with a mean score of 4 out of 7 on a scale. On the other hand, ratings for excitement and concern were both low (= 1), suggesting that although the advertising produced positive emotions but it did not significantly activate negative affect or high arousal emotions.

In general, engagement intentions are low. The intentions to comment, share/repost or follow the brand all scored low (= 1) on a 7-point scale, although intention to like the advertisement received an average rating of 4 on a scale. The majority of respondents said that they were unlikely to engage with the advertisement and overall engagement intention was low. Participants tended to react positively to the content itself despite having little engagement intentions. With an agreement score of 4 on a 7-point scale, the majority agreed with the statement that this ad fits the type of content they enjoy or connect with on Instagram. This means that although the advertisement was entertaining and emotionally appealing but it did not significantly encourage active engagement behaviors. These results demonstrate the Stimulus-Organism-Response process, in which good emotional reactions were generated by a positive emotional stimulus but only slightly converted into intentions to engage in actions.

The World Food Programme was the second ad that was shown to the participants. It was a charity related advertisement that used a negative emotional appeal. Regarding brand familiarity, 34.4% of participants said they knew the organisation somewhat, indicating an intermediate level of knowledge. In terms of perceived emotional appeal, 34.4% of respondents chose to link the advertisement with sadness. The advertising presented a wide range of negative feelings associated with vulnerability and moral concern, as evidenced by the presence of additional emotional categories such as fear or worry (21.9%) and guilt or responsibility (21.9%). The majority of respondents chose option 3 on the 7-point Likert scale measuring emotional valence, where 1 represented a “very negative”. This suggests that the advertising provoked moderately negative emotional response. Despite the negative valence, emotional intensity (arousal) ratings were higher with the majority of participants choosing 4 or 5 (both 36 respondents), suggesting a medium-to-high level of emotional

activation. In terms of particular emotional reactions the advertising was rated highly for concern (= 5), but very poorly for warmth (1 out of 7) and excitement (= 1). This pattern shows how the commercial prioritises moral attention, seriousness and empathy over enjoyment or pleasure. Engagement intentions were generally low. While intentions to comment, share, or follow were all evaluated at 1, suggesting a low likelihood of active engagement behaviours, the intention to like the commercial got a mean score of 3. The majority of respondents said that engaging was unlikely, and overall engagement intention was likewise low. Participants showed a moderate degree of acceptance of such content on Instagram despite their low interaction intentions. On a 7-point agreement scale, the majority agreed at level 3 that they would anticipate or put up with this kind of content on their Instagram account. This suggests that even though the commercial caused negative feelings and worry, it did not significantly encourage interactive interaction and was still thought to be appropriate for the platform's setting. Relying to the Stimulus-Organism-Response framework, the results show how negatively valenced emotional stimuli can produce relatively weak engagement intentions while generating significant emotional intensity and concern.

The third advertisement presented to participants came from IKEA, representing the home and lifestyle industry and employing a predominantly positive emotional appeal. Strong brand recognition within the sample was demonstrated by the high level of brand familiarity among respondents, with 31.3% saying they were very familiar with the brand and another 31.3% saying they were familiar. When it came to the advertisement's perceived emotional appeal, 66.7% of respondents selected happiness as the main feeling conveyed. This suggests that the positive emotional goal of the advertisement is consistently and clearly perceived. The majority of responders chose 5 or 6 (each 40 of respondents), indicating a strongly pleasing emotional response, on the 7-point Likert scale evaluating emotional valence, while 7 represented a "very positive" emotional response. A balanced level of arousal that complemented the pleasant emotional tone was indicated by the moderate emotional intensity ratings, with the majority of participants choosing 4. In terms of particular emotional reactions, the advertising was viewed as having very little concern (= 1), moderate warmth (= 4 out of 7), and moderate excitement (= 3). This trend implies that the commercial effectively communicated positivity and comfort without causing discomfort. There weren't many intentions to engage. While intentions to comment, share/repost, or follow the brand were all evaluated at 1, suggesting a low possibility of active engagement behaviours, the

intention to like the advertising got an average score of 3. Respondents typically indicated that contact with the brand was unlikely, and overall engagement intention was equally low. Participants reacted positively to the content itself despite having moderate involvement objectives. On a 7-point agreement scale, the majority felt that this kind of Instagram material is entertaining at a level of 5. This suggests that the commercial met users expectations for the platform and was well accepted emotionally, it did not significantly encourage interactive interaction.

The fourth advertisement shown to participants was by Samsung, representing the technology industry. High brand recognition within the sample was confirmed by the fact that 40.6% of respondents said they were familiar with the brand. According to 37.5% of respondents, the advertising was primarily linked to happiness in terms of perceived emotional appeal. However, a significant number of participants (31.3%) said the advertisement was neutral and informative, suggesting that functional product communication was important and that the emotional appeal was less prominent. The majority of respondents chose 4, indicating a somewhat favourable emotional response, on the 7-point Likert scale evaluating emotional valence, where 7 indicated a highly positive emotional response. Similar trends were seen in the assessments of emotional intensity, with the majority of participants choosing 4, which indicates a moderate degree of emotional arousal. Concern was scored as extremely low (= 1), but the advertising was rated as somewhat warm (= 3 out of 7) and moderately exciting (= 3) in terms of particular emotional reactions. These results imply that while the advertising did not produce significant affective engagement, it did evoke mildly positive emotions.

In general, there were few intentions to engage. While intentions to comment, share/repost, or follow the brand were scored at 1, indicating a low readiness to engage in active behaviours, likelihood of liking the advertisement was assessed at 3. Despite low scores for certain actions, the overall engagement intention was assessed at 4, indicating a moderate general openness towards interaction. The content's acceptability for Instagram was rated as moderate by the participants. On a 7-point agreement scale, the majority gave this kind of content a level of 3, indicating that they would want to see it on their Instagram feed. This suggests that the ad did not particularly stand out in terms of emotional or engagement appeal, even if it was thought to be appropriate and relevant for the platform.

The fifth advertisement was by Audi Sport, representing the automotive and technology-oriented premium sector. 43.8% of respondents said they were familiar with the

brand, which is comparable to the familiarity levels shown for other international brands included in the survey, like Samsung and Zara. Respondents most commonly classified the advertising as neutral and informative (31.3%) in terms of perceived emotional appeal. Nonetheless, a similar percentage of participants (31.3%) reported surprise and awe as the most common emotional reaction. In contrast to the IKEA and Zara advertising, which were more obviously linked to happiness, this dual view was more noticeable. The majority of respondents chose option 4, indicating a somewhat positive emotional response, on the 7-point Likert scale measuring emotional valence (where 7 represented a “very positive”). This is comparable to the Samsung advertisement and lower than the IKEA and Zara advertisements, which received stronger positive valence ratings. The same pattern was seen in the ratings of emotional intensity, with the majority of respondents choosing 4, which suggests a moderate level of arousal. Audi Sport, on the other hand, scored significantly higher for excitement (= 6 out of 7) than the other five ads. Simultaneously, the advertisement was evaluated as extremely low (= 1) on concern and somewhat warm (= 4). This implies that stimulation and visual impact, rather than emotional intimacy or empathy, were the main sources of emotional attraction. There were still few intents to engage. The intention to like the advertisement was rated at 4, which is somewhat higher than the Samsung and IKEA ads and comparable to the Zara advertisement. On the other hand, intentions to follow the brand, share/repost, or comment were all scored at 1, suggesting a low probability of active engagement activities. In contrast to the Samsung advertising, which had a higher overall engagement score despite comparable emotional intensity levels, overall engagement intention was likewise low (= 1). Participants’ evaluation of the content’s suitability for Instagram was relatively positive. The majority agreed at levels of 4 to 5 on the 7-point agreement scale that this type of content is enjoyable on Instagram. This places the Audi Sport advertisement closer to IKEA and Zara in terms of platform fit, despite weaker engagement intentions.

## **Conclusion**

This study explored the role of emotional appeals in Instagram advertising and their impact on consumer engagement. A comprehensive review of existing literature established the theoretical foundations for understanding how different types of emotional appeals influence user responses in digital advertising contexts. Building on this, a content analysis of selected Instagram ads identified and categorized the emotional appeals commonly

employed, revealing a strong prevalence of positive and entertaining strategies alongside variations in their intensity and presentation. An online survey assessed participants' self-reported emotional reactions and engagement intentions towards the chosen advertisements in order to investigate how these appeals affect users. The results demonstrated that while overly positive appeals unexpectedly decreased participation, certain emotions, such as warmth and excitement, positively predicted engagement intentions. The applicability of the S-O-R model in explaining Instagram consumer behaviour was confirmed by regression and mediation studies, which also showed that emotional reactions partially mediated the association between ad appeals and engagement.

In conclusion, these results highlight how context-specific emotional advertising is on Instagram. Positive emotional appeals may not always increase engagement in a saturated social media space where users are continuously exposed to content, and they may even have the opposite effect. Because platform dynamics and audience expectations can dramatically decrease the effectiveness of emotional appeals, this suggests that marketers should carefully examine both the type and strength of emotional messaging. The findings did not support hypotheses H1, H1a, H1b, and H6. In contrast to neutral appeals, positive emotional appeals were linked to reduced engagement intentions ( $\beta = -0.35$ ,  $p < .001$ ), which suggests that excessively optimistic marketing may lessen users' motivation to connect with Instagram content. Furthermore, arousal did not significantly predict engagement, suggesting that merely making an advertisement more intense or exciting is not enough to encourage user involvement on this platform. A number of other hypotheses were found to have partial support. Kruskal-Wallis tests partially confirmed hypothesis H2, which expected ad-specific differences in emotional responses, showing that different ads did elicit diverse emotional reactions among participants. Certain emotional reactions, such as warmth ( $\beta = .26$ ) and excitement ( $\beta = .31$ ), substantially predicted involvement intentions and explained a large amount of the variance ( $R^2 = .40$ ), supporting hypothesis H3. Partial support was also given to hypothesis H4, which proposed that appeal type would predict engagement. However, the effect's direction was different from what was originally expected, with some appeal types generating engagement patterns that were in opposition to the anticipated trend. Although this pathway was not entirely robust across all measures, hypothesis H5 regarding the mediating role of emotional responses within the S-O-R (Stimulus-Organism-Response) framework revealed partial mediation, indicating that emotional reactions do play a role in translating ad stimuli into engagement.

## Recommendations and Future Research

Based on the findings of this study, it is recommended that emotional advertising on Instagram prioritise emotional appropriateness and user gratification alignment rather than emotional intensity alone. Furthermore to being more likely to evoke positive emotional reactions and moderate engagement intentions, positive emotional appeals that convey warmth, joy, and everyday happiness seem to be more consistent with the platform's usage context.

In order to increase perceived emotional clarity and audience receptiveness, advertisers should make sure that creative aspects like music, symbolic clues, colour tone, and human facial expressions are coherent with emotional appeal. When creating short-form video ads, content that appeals to amusement and identity-related gratifications is especially appropriate for Instagram and should be prioritised. On Instagram, negative emotional appeals such as those based on shame or fear should be utilised with caution because, while they can increase emotional intensity, they may not always result in increased engagement intentions. To prevent emotional disengagement, such solicitations should be balanced by educational or uplifting components. It is advised that researchers use self-report or behavioural measurements together with content analysis to record audience reactions as well as the emotional structure of ads. When evaluating the effectiveness of social media advertising, future research should take platform-specific standards of involvement into account as well as passive types of connection. In general, emotional efficacy on Instagram relies not just on the kind of emotion expressed but also on how effectively that emotion aligns with platform expectations, user incentives and the advertisement's overall narrative coherence. Incorporate neuromarketing (e.g., eye-tracking for visual attention) in future campaigns to validate self-reports and optimize ad elements like human faces (present in 57/80 ads). Test hybrid appeals blending neutral/informational with targeted emotions (e.g., warmth, excitement over generic positivity) across diverse samples and industries, given fashion's positive dominance vs. charity's negative focus. Employ multi-coder analysis and larger, stratified surveys to enhance reliability, while exploring real behavioral metrics (likes/shares) beyond intentions.

## Limitations

When evaluating the results, it is important to take into account the many limitations of this study. First, this study only used self-reported measurements of emotional reactions and engagement intentions, in contrast to neuromarketing techniques like eye tracking and facial expression analysis, which might record automatic and subconscious reactions. Self-reports are intrinsically prone to biases, such as social desirability, memory recall errors, and participants' biases to report what they think is anticipated, even while they offer insightful information about participants' conscious perceptions. As a result, certain automatic or subtle emotional responses that might affect participation might have gone unnoticed. Second, only one coder performed the content analysis of Instagram advertising. The use of a single coder precluded formal evaluation of intercoder reliability, such as Cohen's kappa, which restricts the robustness of the coding results, even though pilot testing was conducted and coder confidence ratings averaged 3.1 out of 5. In content research, single-coder analyses are frequently criticised because coding choices may be arbitrary and subject to personal interpretation, which could lower the findings' reproducibility and dependability. Third, convenience and snowball sampling were used to recruit 128 participants, the majority of whom were regular Instagram users between the ages of 18 and 24. This limits the results' applicability to larger groups, such as users who are older, use social media less frequently, or come from diverse cultural backgrounds. Small effects that might exist in bigger or more diverse populations may be obscured by the small sample size, which also lowers statistical power. And lastly, because the study concentrated on Instagram ads during a certain period, the results might not accurately reflect changing trends in digital advertising or platform-specific engagement patterns. The reported impacts can be different in different situations or on different platforms due to the quick change of social media content formats, algorithms, and user behaviour. When considered collectively, these limitations emphasise the need for caution when extrapolating the results and offer directions for future research, such as the use of multimethod approaches, multiple coders for content analysis, larger and more varied participant samples, and longitudinal designs to record shifting patterns of engagement over time.

## Appendix

### Model Fit Measures

Model	R	R <sup>2</sup>
1	0.139	0.0192

*Note.* Models estimated using sample size of N=127

### Model Coefficients - valence\_mean

Predictor	Estimate	SE	t	p
Intercept	3.7677	0.2574	14.640	<.001
Pos_Appeals	0.0600	0.0697	0.860	0.391
Neg_Appeals	0.2192	0.1474	1.487	0.140

### Descriptives

	Pos_Appeals	Neu_Appeals	Neg_Appeals	valence_mean	arousal_mean	feel_excited_mean	feel_concerned_mean	feel_warm_mean	eng_overall_mean
<b>N</b>	127	127	127	127	127	124	124	124	127
<b>Missing</b>	875	875	875	875	875	878	878	878	875
<b>Mean</b>	2.56	1.54	0.906	4.12	3.57	3.42	2.42	3.32	3.01
<b>Median</b>	2.00	2.00	1.00	4.20	3.60	3.60	2.40	3.40	3.00
<b>Standard deviation</b>	0.861	0.843	0.407	0.648	0.721	0.745	0.609	0.754	0.816
<b>Minimum</b>	0.00	0.00	0.00	1.40	1.00	1.00	1.00	1.00	1.00
<b>Maximum</b>	5.00	5.00	2.00	5.60	5.60	5.00	4.60	4.60	5.20
<b>Skewness</b>	0.384	0.492	-0.715	-0.957	-0.525	-0.922	0.277	-1.05	-0.228
<b>Std. error skewness</b>	0.215	0.215	0.215	0.215	0.215	0.217	0.217	0.217	0.215
<b>Kurtosis</b>	1.08	1.72	2.58	2.46	1.53	1.50	0.417	0.805	0.457
<b>Std. error kurtosis</b>	0.427	0.427	0.427	0.427	0.427	0.431	0.431	0.431	0.427

## Model Fit Measures

Model	R	R <sup>2</sup>
1	0.568	0.323

Note. Models estimated using sample size of N=124

## Model Coefficients - eng\_overall\_1

Predictor	Estimate	SE	t	p
Intercept <sup>a</sup>	0.697	0.6072	1.15	0.253
valence_1	0.198	0.0922	2.15	0.034
arousal_1	0.163	0.0882	1.85	0.067
feel_warm_1	0.140	0.0919	1.52	0.130
feel_excited_1	0.274	0.0894	3.06	0.003
feel_concerned_1	-0.196	0.1120	-1.75	0.083
brand_familiarity_1:				
Familiar – brand_familiarity_1	NaN	NaN	NaN	NaN
Very Familiar – brand_familiarity_1	NaN	NaN	NaN	NaN
Somewhat Familiar – brand_familiarity_1	NaN	NaN	NaN	NaN
Not Familiar – brand_familiarity_1	NaN	NaN	NaN	NaN

<sup>a</sup> Represents reference level

## Assumption Checks

## Normality Test (Shapiro-Wilk)

Statistic	p
0.990	0.475

## Kruskal-Wallis

	$\chi^2$	df	p
eng_like_3	1.9702	1	0.160
eng_comment_3	1.2467	1	0.264
eng_share_3	0.0710	1	0.790
eng_follow_3	2.0957	1	0.148
eng_overall_3	2.5582	1	0.110

## Kruskal-Wallis

	$\chi^2$	df	p
eng_like_2	0.132	2	0.936
eng_comment_2	1.200	2	0.549
eng_share_2	1.660	2	0.436
eng_follow_2	1.306	2	0.520
eng_overall_2	7.371	2	0.025

## Kruskal-Wallis

	$\chi^2$	df	p
eng_comment_1	2.23	3	0.526
eng_share_1	5.65	3	0.130
eng_like_1	6.46	3	0.091
eng_follow_1	1.04	3	0.791
eng_overall_1	6.77	3	0.080

Correlation Matrix

		valence_mean	arousal_mean	feel_warm_mean	feel_excited_mean	feel_concerned_mean	eng_like_mean	eng_comment_mean	eng_share_mean
valence_mean	Pearson's r	—							
	df	—							
	p-value	—							
arousal_mean	Pearson's r	0.459	—						
	df	125	—						
	p-value	<.001	—						
feel_warm_mean	Pearson's r	0.243	0.282	—					
	df	122	122	—					
	p-value	0.006	0.002	—					
feel_excited_mean	Pearson's r	0.339	0.385	0.578	—				
	df	122	122	122	—				
	p-value	<.001	<.001	<.001	—				
feel_concerned_mean	Pearson's r	0.296	0.288	0.299	0.251	—			
	df	122	122	122	122	—			
	p-value	<.001	0.001	<.001	0.005	—			
eng_like_mean	Pearson's r	0.212	0.250	0.473	0.544	0.238	—		
	df	125	125	122	122	122	—		
	p-value	0.017	0.005	<.001	<.001	0.008	—		
eng_comment_mean	Pearson's r	0.063	0.260	0.255	0.299	0.268	0.378	—	
	df	125	125	122	122	122	125	—	
	p-value	0.483	0.003	0.004	<.001	0.003	<.001	—	
eng_share_mean	Pearson's r	0.285	0.317	0.421	0.410	0.344	0.598	0.558	—
	df	125	125	122	122	122	125	125	—
	p-value	0.001	<.001	<.001	<.001	<.001	<.001	<.001	<.001
eng_follow_mean	Pearson's r	0.162	0.259	0.508	0.523	0.372	0.653	0.561	—
	df	125	125	122	122	122	125	125	—
	p-value	0.069	0.003	<.001	<.001	<.001	<.001	<.001	<.001
eng_overall_mean	Pearson's r	0.211	0.295	0.516	0.529	0.389	0.698	0.502	—
	df	125	125	122	122	122	125	125	—
	p-value	0.017	<.001	<.001	<.001	<.001	<.001	<.001	<.001

## Model Fit Measures

Model	R	R <sup>2</sup>	Overall Model Test			
			F	df1	df2	p
1	0.631	0.398	15.6	5	118	<.001

Note. Models estimated using sample size of N=124

## Model Coefficients - eng\_overall\_mean

Predictor	Estimate	SE	t	p	Stand. Estimate
Intercept	0.1964	0.4257	0.461	0.645	
valence_mean	-0.0580	0.1024	-0.567	0.572	-0.0471
arousal_mean	0.0783	0.0937	0.836	0.405	0.0705
feel_warm_mean	0.2775	0.0955	2.907	0.004	0.2596
feel_excited_mean	0.3365	0.0999	3.370	0.001	0.3112
feel_concerned_mean	0.3002	0.1030	2.915	0.004	0.2270

## Item Reliability Statistics

	Item-rest correlation	If item dropped
		Cronbach's $\alpha$
eng_like_mean	0.692	0.866
eng_comment_mean	0.579	0.890
eng_share_mean	0.750	0.852
eng_follow_mean	0.793	0.841
eng_overall_mean	0.794	0.842

## Scale Reliability Statistics

Cronbach's $\alpha$	
scale	0.653

[3]

## Item Reliability Statistics

	Item-rest correlation	If item dropped
		Cronbach's $\alpha$
feel_warm_mean	0.571	0.394
feel_excited_mean	0.534	0.452
feel_concerned_mean	0.310	0.733

## Descriptives

## Descriptives

	valence_mean	arousal_mean	feel_warm_mean	feel_excited_mean	feel_concerned_mean	eng_like_mean	eng_comment_mean	eng_share_mean	eng_follow_mean
N	127	127	124	124	124	127	127	127	127
Mean	4.12	3.57	3.32	3.42	2.42	3.57	2.11	2.84	2.84
Standard deviation	0.648	0.721	0.754	0.745	0.609	0.790	0.787	0.856	0.888
Skewness	-0.957	-0.525	-1.05	-0.922	0.277	-0.898	0.918	0.316	-0.15
Std. error skewness	0.215	0.215	0.217	0.217	0.217	0.215	0.215	0.215	0.215
Kurtosis	2.46	1.53	0.805	1.50	0.417	1.79	1.63	1.04	-4.13e-
Std. error kurtosis	0.427	0.427	0.431	0.431	0.431	0.427	0.427	0.427	0.427

## Questionnaire

1. You are invited to take part in a research study about emotional responses to Instagram advertisements.

Your participation is voluntary and anonymous. The survey takes 10–12 minutes.

By selecting "I agree," you confirm that you are 18 or older and consent to participate.

I Agree

2. How often do you use Instagram?

Less than once a week

Several times a week

Once a day

Several times a day

Many times a day

3. How would you describe your familiarity with Instagram advertising?

Not familiar at all

Somewhat familiar

Familiar

Very familiar

I don't know

4. How often do you interact with ads on Instagram?

1 (Not interacting at all) – 7 (Constantly Interacting)

5. Do you follow any brands on Instagram?

Yes

No

6. How familiar are you with this brand?

Not Familiar

Somewhat familiar

Familiar

Very Familiar

7. Which emotion do you think this ad primarily communicates?

Joy / Happiness / Amusement

Nostalgia / Warmth

Surprise / Awe

Sadness / Sorrow

Fear / Worry

Guilt / Responsibility

Anger

Neutral / Informational

The ad does not clearly communicate an emotion / I am not sure

8. How positive or negative did this ad make you feel?

1 (Very negative) – 7 (Very positive)

9. How emotionally intense/exciting was this ad?

1 (Not Intense) – 7 (Very Intense)

10. This ad made me feel... (1 = Not at all, 7 = Very much)

Warm

Excited

Concered

11. Engagement intentions ((1 = Very unlikely — 7 = Very likely)

How likely to like

How likely to comment

How likely to share/respost

How likely to follow

Overall, how likely to engage

12. Do you agree with this statement: "This ad fits the type of content I enjoy or connect with on Instagram."?

1 = Disagree – 7 = Agree

13. Gender

Female

Male

Prefer not to say

14. What is your age

18-24

25-34

35-44

45-54

55-64

65+

15. What country do you currently live in?

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