

# Does Humour Enhance Facebook Users' Responses?

## Study of the Impact of Humour on Customers' Engagement

---

Fatma Smaoui

University of Tunis, ISG Tunis, LARIME Lab.

Fatma Choura

University of Tunis El Manar, ISI Tunis, LIGUE Lab.

Mohamed Wassim Abassi

Digital advertising agency

Hela Zouaoui

University of Tunis, ISG Tunis, LARIME Lab.

---

**Abstract:** In a context of overabundance of information on social media, the challenge for an organization is to stand out and to create a link with its target. A Facebook page is a means for a company to federate the users around communities and to drive their engagement. The objective of this research is to test the effect of the use of humour in Facebook posts on perception, attitude and intention of engagement of social media users. An experimental study was conducted on a sample of fans of a Facebook page where we manipulated absence/presence of humour, and humour types. Results show a positive effect of perceived humour on attitude toward the publication, which influences the Facebook user's intention to engage. Need for humour does not moderate the effect of humour on the attitude and the results do not reveal any difference between the types of humour tested.

**Keywords:** Humour, Engagement, Need for humour, Facebook, Tunisian context

## Introduction

Today, communicating on the Internet and on social networks has become essential for any business, given the impact of technological growth on the media scene and consumer dynamics (Dahlen & Rosengren, 2016). Recent statistics demonstrate that the Internet is projected to represent the most favoured advertising medium, accounting for more than 65 percent of global ad expenditures in 2024 (Statista, 2022a). Online advertising is rapidly growing, mainly supported by ads on social networks.

Today, Facebook (FB) offers a company a powerful virtual communication space, due to the importance of its audience and the possibilities of interaction it offers. With roughly 2.89 billion active users monthly in 2021, Facebook is the biggest social network worldwide ([Statista 2022b](#)) and counts for one quarter of total digital advertising spending in the US ([E-marketer, 2021](#)). It represents the benchmark platform for Business-to-Business and Business-to-Consumer companies that would offer the best Return on Investment. Through their Facebook page, companies seek to develop virtual communities and interact with their target audience.

Increasing the engagement of users towards social media becomes, thus, one of the major goals of a digital communication strategy ([Gummerus et al., 2012](#); [Pezzuti, Leonhardt & Warren, 2021](#)) as it is considered to be the best way to increase the reach of a business. Accordingly, humour can be one of the ways to improve this engagement and generate Internet users' interest, especially since these latter are present in an overwhelming environment characterized by information and advertising overload ([Ge & Gretzel, 2018](#); [Dolan et al., 2019](#)).

The literature on humour in a digital context remains to be developed compared to the abundant research on humour in advertising in general ([Shifman & Blondheim, 2010](#); [Taecharungroj & Nueangjammong, 2015](#); [Weinberger & Gulas, 2019](#)). Used in communication messages, humour can help attract consumers' attention, improve their understanding of the related message, and induce a positive attitude towards it, as well as towards the brand ([Madden & Weinberger, 1982](#); [Zhang, 1996](#); [Eisend, 2011](#)). Thanks to its ability to generate positive emotions and initiate social interactions, humour can be a powerful means of communication in a digital context ([McGraw, Warren & Kan, 2015](#); [Ge & Gretzel, 2018](#); [Pezzuti, Leonhardt & Warren, 2021](#)). This effect is reinforced by great possibilities of interaction between consumers, rendered possible thanks to the Web 2.0, as well as the diversity of expressions of humour allowed by digital technology ([Shifman, 2007](#); [Ge & Gretzel, 2018](#)). Therefore, many of the effects of humour examined in traditional advertising settings may not be extendable to social media engagement behaviours ([Barry & Graça, 2018](#)). Indeed, social media is mainly characterized by interactivity and virality ([Yeo et al., 2020](#)). Some authors evoke a paradigm shift, evolving from a one-way communication in advertising to conversational communication where consumers are active contributors ([Ge & Gretzel, 2018](#)). Thus, Internet users' engagement, such as commenting or sharing messages, becomes a central marketing effectiveness measuring tool of marketing effort on social media. Despite this, little is known today about the impact of humour messages in a digital context and particularly on customers' engagement ([Yeo et al., 2020](#); [Barry & Graça, 2018](#)).

The effect of humour on consumer reactions remains dependent to a number of individual factors, such as personal traits. In particular, individuals may react differently to humorous messages depending on their need of humour (NFH), i.e., their tendency to generate humour

or to seek for it (Cline, Altsech & Kellaris, 2003). Humour effectiveness depends also on message characteristics like humour types (i.e., joke, pun, comedy, satire) (Weinberger & Gulas, 1992; Crawford & Gregory, 2015; Oikarinen & Söderlund, 2016). Managers and content creators may wonder which type of humour, as an executional message dimension, is the most effective. So far, little is known about the effectiveness of message humour types. Gulas & Weinberger (2006) underline the lack of interest of advertising research on this topic, in addition to the fact that research findings are globally non-conclusive and divergent (Taecharungroj & Nueangjamnong, 2015). Finally, the impact of humour on consumer reactions depends as well on cultural context. Empirical evidence indicates that people of different cultural backgrounds respond to humour differently (Weinberger & Gulas, 1992; Kuiper *et al.*, 2010). For instance, humour seems to be an important element in the daily life of certain Arab countries, especially since the Arab Spring revolutions of 2011 (Moalla, 2015; Alharthi, 2014). Nevertheless, only little marketing research has been conducted in non-Western settings (Ge & Gretzel, 2018; Yeo *et al.*, 2020).

In a context where studies on humour in a digital environment are relatively limited, especially in the Middle East and North Africa region and Tunisian context, this research aims to investigate the effect of humour used in Facebook posts on humour perception, attitude about the post and intention to engage with that post. Specifically, we will test the effect of presence versus absence of humour, along with the effect of humour types, on Internet users' reactions. The moderating role of the need for humour is considered.

This paper is structured in four parts. First, a literature review on the use of humour in advertising and digital communication, and on its impact on perceptions, attitudes and engagement is presented. This theoretical background allows the development of research hypotheses. Then, the methodological approach is detailed, including a preliminary qualitative study and an experimental design. The results are presented in a section that follows. Finally, we conclude with discussion of results, contributions, limitations and future research paths.

## Theoretical Background and Hypotheses

### Humour in advertising communication

Defining the concept of humour is a complex task because of its multiple facets and meanings (e.g., psychological, sociological or philosophical). Humour can be interpreted as a psychological state (seen as amusement, fun), as well as a behavioural tendency to laugh at the stimuli that elicit it (Gulas & Weinberger 2006; Warren, Barsky & McGraw, 2018). Meyer (2000) views humour as a means of providing fun and pleasure, initiating social interactions and generating emotional responses from an audience. Humour is not expressed in a unique

way; several typologies have been proposed ([Goldstein & McGhee, 1972](#); [Kelly & Solomon, 1975](#); [Catanescu & Tom, 2001](#)). The most common is that of Speck ([1991](#)), which proposes a taxonomy of five types of humour classified according to the induced psychological mechanisms: Comic wit, sentimental humour, satire, sentimental comedy, and full comedy (Appendix Table A1). This humour taxonomy is based on three basic humour processes: arousal-safety, incongruity-resolution, and humorous disparagement. Catanescu & Tom ([2001](#)) identified seven types of humour in the context of broadcast and print media (comparison, personification, exaggeration, pun, sarcasm, silliness, and surprise). Besides, humour perception and interpretation are individually and culturally laden. Humorous messages can be perceived as (not) funny according to personal sensitivity and cultural settings ([Alden, Hoyer & Lee, 1993](#); [Ruch & Hehl, 1993](#)).

## Humour in digital communication strategies

Literature established that social media messages influence significantly consumers' attitudes and behaviours, thanks to their interactive character that facilitates their dissemination and sharing ([Brown, Bhadury & Pope, 2010](#); [Botha & Reyneke, 2013](#)). Indeed, humour and social media are intrinsically associated with sharing ([Ge & Gretzel, 2018](#)). Advertising content's ability to generate emotions increases the probability of their diffusion on the Internet, particularly when they are funny and entertaining ([Dobele et al., 2007](#)). Accordingly, ads that contain humour are among the most shared ones on social media networks ([Berger & Milkman, 2012](#); [Schifman, 2012](#)). Interactivity allowed by Web 2.0 and digital technologies have created new humour techniques, such as PowerPoint files and interactive humour, which contribute to the spreading of humorous messages on Internet sites and their effectiveness ([Shifman 2007](#); [Ge, 2019](#)). Shifman ([2007](#)) identifies six new formats of humorous messages specific to the Internet: Interactive humour, where the Internet user is invited to add humorous elements; the "Funny photo" (photo accompanied by a funny text) broadly known in the contemporary digital world as memes; the Maniphoto (photo manipulated digitally); Phanimation (static photo subject to animation); Celebrity soundboard (collection of sound clips from celebrities from films, radio or TV); and humorous PowerPoints.

Ge & Gretzel ([2018](#)) pointed out the emergence of new digital linguistic expressions in social media (e.g., hashtag, animated GIF, smiley, like, share) stimulated by the development of digital technology and the creative and participatory culture on the Internet. These new digital expressions offer consumers a wide variety of responses to humorous messages taking place behind a screen through various forms expressing different degrees of users' engagement. Beyond the "like", for example, humorous messages provide the ability to initiate various types of sharing, including sharing as dissemination (viral message), sharing as participation

(generating cooperative actions by the audience), and sharing as communication (where humour is used as a language of communication) ([Shifman, 2012](#)). On contemporary social networks, consumers express the need to share their daily lives and experiences; which contribute to shaping their digital identities. All social networks respond to this need for sharing and brands find it an interesting and timely field to generate the engagement of Internet users and thus increase their visibility among them.

## Impact of humour on the social media user's perception and attitude

The perception of the humorousness of a message depends on consumers' individual characteristics as well as content elements ([Madden, Allen & Twible, 1988](#); [Flaherty, Weinberger & Gulas, 2004](#)). Speck ([1987](#)) tested the effect of different types of humour on consumer responses (i.e., attention, liking, Attitude towards the Advertisement (Aad), message comprehension). Results suggested that full comedy has the strongest general effect on some consumer reactions, while sentimental humour was found to outperform other humour treatments on message comprehension. Further research produced divergent and non-conclusive results. Hatzithomas, Zotos & Boutsouki ([2011](#)), for example, found comic wit to be the most popular type of humour, while Barry & Garça ([2018](#)) suggest that there are no significant differences in the performance of the Speck ([1991](#)) taxonomy humour types tested. Likewise, Taecharungroj & Nueangjamnong ([2015](#)) found that the two most frequent types of humour used in social media memes are sarcasm and silliness, but they report no obvious differences observed in the effects of seven types of humour tested on virality of memes on Facebook posts.

Therefore, it seems that it is more the presence of the humorous content that influences perceptions rather than the categories of humour used in the message. Respondents in the humour condition, compared to those in the no-humour one, will experience greater responses, which we propose to test in the hypothesis H1.

**H1:** A Facebook post with a humorous element generates a higher perception of humour among Internet users than a non-humorous post.

Several studies have shown that the advertising content perceived as humorous has a positive impact on consumers' perceptions of products and improves attitude towards the advertisement and the brand ([Chung & Zhao, 2003](#); [Lee, Hosanagar & Nair, 2018](#); [Eisend, 2009](#); [Barry & Garcia, 2018](#)). Indeed, research on advertising attributes to ad perceptions a decisive role in shaping attitude towards the advertisement (Aad) ([Mackenzie & Lutz, 1989](#)), which is also confirmed in the context of Internet advertising ([Burns & Lutz, 2006](#); [Tafesse, 2015](#); [Ge & Gretzel, 2018](#)). Thus, positive perceptions towards an advertisement would favour the creation of a favourable attitude, in particular when this perception is linked to the

entertaining nature of the advertisement. Consequently, the perception of a humorous advertisement as non-humorous could have negative effects on the attitude towards it. The perceived humour degree of an advertising message is therefore a significant antecedent of the attitude of the Internet user to this message ([Flaherty, Weinberger & Gulas, 2004](#)). Hence the statement of hypothesis H2:

**H2:** The more a FB message is perceived as humorous, the more the attitude towards it is positive (Aad).

## The need for humour: a moderator of Internet user's response

The response to humorous content may differ from one person to another. Accordingly, the studies by Cline, Altsech & Kellaris ([2003](#)) and Cline, Kellaris & Machleit ([2011](#)) emphasized that individuals present humour needs to different degrees, which can significantly influence their responses to humorous stimuli. "Need for humour" (NFH) is a construct derived from individuals' need for levity. It can be defined as a personality trait that reflects a person's tendency to generate humour (interior NFH) or to seek it (exterior NFH) ([Cline, Altsech & Kellaris, 2003](#)). Scholars found NFH to play a moderating role in humour studies: for people who have high levels of NFH, the response to a humorous stimulus will be greater ([Cline, Altsech & Kellaris, 2003](#); [Crawford & Gregory, 2015](#); [Yeo et al., 2020](#)). Hence, we expect individual NFH to moderate the relationship between perceived humour and attitude toward the advertisement. We propose the following hypothesis:

**H3:** The need for humour moderates the relationship between the Facebook message perceived humour and the attitude towards the message (Aad).

## The Internet users' engagement

In digital marketing, users' engagement is a central measure of the effectiveness of communication on social media ([De Oliveira Santini et al., 2020](#)). This indicator reflects an individual's motivation to interact with content on social networks and Facebook pages in particular ([Baldus, Voorhees & Calantone, 2015](#); [Dessart, Veloutsou & Morgan-Thomas, 2015](#)). Engagement is generally measured by the number of likes, comments and shares of a post on the Internet ([Smith, Fischer & Yongjian, 2012](#); [Pezzuti, Leonhardt & Warren, 2021](#)). Previous literature established that a positive attitude towards the ad influences positively the purchase intention ([Edell & Burke, 1987](#); [Lord, Lee & Sauer, 1995](#)). This significant relationship between Aad and intention to behave in a certain way may allow us to suggest that a positive attitude towards a post on an FB page can give rise to an intention to react to this stimulus in the form of an intention to like, comment or share; hence the hypothesis H4.



**H4:** A positive attitude towards a Facebook message increases the user's intention to engage in terms of: intention to like (H4.1); intention to comment (H4.2); and intention to share (H4.3).

## Methodology and Empirical Approach

To test our hypotheses, experimentation was conducted among Facebook users to test their reactions to different humour conditions relating to humorous Facebook posts (non-humour vs humour types). We conducted an exploratory qualitative study with digital communication experts in Tunisia as a preliminary step to the experimentation, in order to better understand the uses of humour in digital communication in Tunisia.

### Preliminary qualitative study

Six semi-structured in-depth interviews were conducted with digital communication professionals in Tunisia in order to better understand the characteristics and practices of humour in communication within the specific cultural context of this study and to identify the forms of humour most used on social networks in it (Appendix Table A2). The interviews lasted between 30 and 60 minutes and were audio-recorded and transcribed. A thematic content analysis was performed on this qualitative material ([Miles & Huberman, 1994](#)).

### Humour and advertising in the Tunisian context

The results show that humour is an integral part of the daily life of the Tunisian individual and her/his culture: “... *Especially in Tunisia, humour is a major distraction, acquired since childhood; it is part of the Tunisian culture and it presents specificities compared to other types of humour, such as Anglo-Saxon humour. The latter is a very fine humour; we are more on the side of the joke and the irony*” (Haythem, CEO). As for social networks, respondents say that humour is a very good stimulus for sharing publications; Tunisian Internet users often react to humorous content and posts. Our study also found that Tunisian individuals do not accept all forms of humour; they would be more attracted by the humour lived in everyday life translated into scenes of dramatization of reality, a common humour in which they recognize themselves.

In practice, the experts underlined the efficiency of the digital tool compared to television in terms of the effectiveness of humour, due to the significant capacities of creativity; as opposed to TV ads, considered as more formal. Regarding the performance of the types of humour, the experts interviewed agreed that the interaction of the Tunisian consumer with the humorous content of a communication depends more on the subject tackled and on the coherence of the message than on the type of humour deployed. They also specify that, in the same message,

several types of humour can be found. Humour cannot thus tackle all subjects; there would be limits to be respected, in particular when it deals with taboo subjects like religion.

### Types of humour most frequently used in the Tunisian context

The perception of the humorous nature of a message depends on the cultural context (Weller, Amitsour & Pazzi, 1974; Kuiper *et al.*, 2010; Crawford & Gregory, 2015). For the purposes of the experimental study, rather than reproducing a typology proposed by the literature and developed in the Western contexts, we preferred to identify the types of humour most frequently used in the Tunisian context. Therefore, we presented to our respondents a list of the three main taxonomies of humour proposed in the literature (Speck, 1991; Goldstein & McGhee, 1972; Kelly & Solomon, 1975) (Appendix Table A1). We then asked them to classify these types according to the frequency of their use in marketing communication in Tunisia. We identified the following three types as being the most recurrent: full comedy (ridiculous situation that makes people laugh with its unusual, different or surprising aspect); aggressive humour (aims to mock and ridicule); and pun word games (using a word or phrase that suggests two or more interpretations). This classification allowed us to better specify our explanatory variables and to design our experimental stimuli.

In the light of theoretical developments and the results of the qualitative study, a research model is presented in Figure 1, expressing the different variables' relationships and the relating hypotheses.

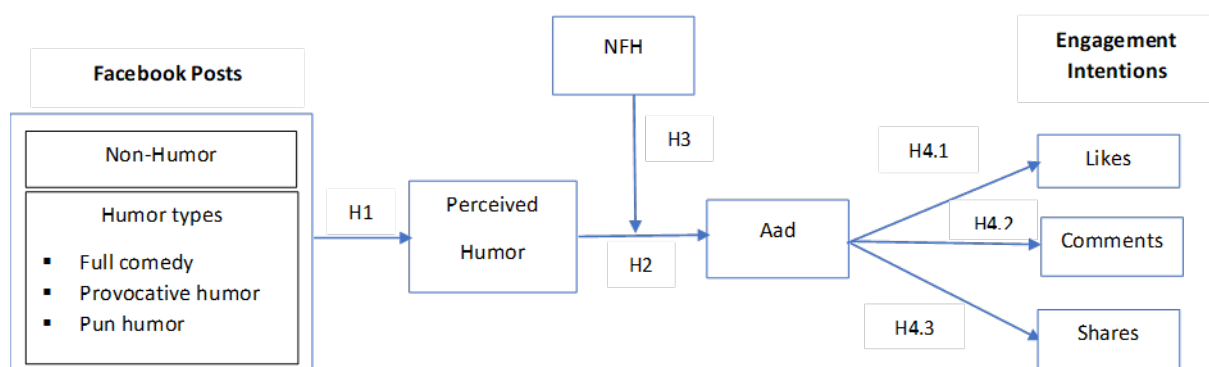


Figure 1. Research model

## Experimentation

### General design

We used a one-factor between-subject experimental design to test the hypotheses. Four different versions of Facebook posts were developed to serve as stimuli; three of them contained humour, while the fourth version did not contain humour. After being randomly



exposed to one of these messages, participants were asked to complete a questionnaire to measure their reactions to stimuli. Participants were members of a Facebook page that we created for the purpose of this experiment.

### Choice of the Facebook page

A Facebook page has been created and animated for the purpose of this study. The goal was to build a community of fan members, who will form our target population for the empirical survey. The choice of the theme of the page was guided by two considerations: (1) a “neutral” theme not related to a brand, nor to a commercial product, to avoid causing controversy; and (2) a “popular” theme that could interest the social media users and provoke their fast adhesion to the page. Through our qualitative survey, we identified the following themes: music, cinema, animals (dogs). After a pilot online survey among 37 Internet users, the preferred theme identified was “animals – dogs” (44.5%) that was considered for the final experiment. It is interesting to note that “animals” has been considered as a global-oriented humour topic by researchers ([Shifman, 2007](#); [Laineste & Voolaid, 2016](#)). The purpose of the Facebook page is the “exchange of all types of information on dogs”. To choose the name of the page, we used brainstorming with 6 Facebook users. Three names were proposed: “The dogs”; “A dog’s life”; and “Our friends the dogs”. An online survey with 40 other Internet users allowed us to choose the name “Our friends the dogs” (55% prefer this name). We then launched the page, which was animated by content in various formats (e.g., text, image, video) on the chosen theme, for a period of 45 days.

### Stimulus development

Four Facebook posts were developed: three with humour (full comedy, pun and aggressive humour) and one control version without humour. The sensitivity and appreciation of humour depend on the individual characteristics of the consumers ([Ruch & Hehl, 1993](#); [Cline, Altsech & Kellaris, 2003](#)). Varying the types of humour allows us to broaden the scope of proposed humour and target Facebook users of various sensitivities.

We have chosen the format “Funny photos” ([Shifman, 2007](#)), known today as memes (an image with a short text). Shifman describes this format as the most used in digital publications because of its simplicity and ease of production. Several studies have emphasized the efficiency of the visual elements of an Internet publication over textual or videographic elements ([Sabate et al., 2014](#); [Hoeffler & Schwartz, 2011](#)). This was confirmed by the interviewed experts as well, who argued that images generated more interaction than text or video in Tunisia.

We carried out a Google image search on the Internet, which allowed us to select 4 images representing dogs relating to the 4 experimental treatments. With the help of a computer graphics expert, we manipulated these images and added text. It should be noted that these

experimental stimuli were dominated by image, as the reduced textual content did not raise difficulties of understanding, nor of interpretation. In order to validate our choice of images, we asked a group of 35 Internet users to assign each of these images to one of the 4 types of treatment considered (non-humorous, Pun, aggressive humour, and full comedy humour). The classification confirmed the choice of images (significant  $X^2$  test conducted on this classification,  $X^2 = 359.827$ ; sig = 0.000). Subsequently, we integrated these images into the questionnaires.

### Questionnaire, data collection and participants

Once the FB page was launched, a community of nearly 1000 fans was formed throughout a period of 45 days of work to animate the content of the page. At the end of this period, we carried out the experimental study using a questionnaire administered to members of the community.

Four versions of the same questionnaire were developed. The only difference between them was the stimulus, which is the image contained in the questionnaire (funny photo). The instruction given to the respondents was that this photo is proposed to be posted on the Facebook page, "Our friends the dogs". So, respondents were asked to respond to the different questions. The questionnaire was administered online to the 1003 members of the page randomly assigned to four equal groups. Finally, we obtained 172 valid responses (45% men, 55% women), an average of 43 responses for each treatment.

## Measures

Intention to engage was measured through three variables (intention to like/comment/share). These dependent variables were carried out in the questionnaire immediately after exposure to the image of the Facebook post (Wetzel, 1977; Yeo *et al.*, 2020). All variables were scored on a 5-point Likert scale (strongly disagree to strongly agree). Scale items for assessing key constructs were adapted from prior studies' validated measures: perceived humour (Zhang 1996); Aad (Cline, Altsech & Kellaris, 2003); intention to engage (Oikarinen & Söderlund, 2016); and NFH (two dimensions, interior NFH and exterior NFH; Cline, Altsech & Kellaris, 2003). The details of measurement scales are presented in Appendix Table A3.

## Results

### Data analysis methods

We use a one-way Analysis of Variance (ANOVA) to assess the experimental manipulation and to test the effect of the four humour conditions (without humour; 3 types of humour) on the perceived humour of the Facebook posts. We applied Partial Least Squares (PLS) path modelling, a variance based, structural equation modelling (SEM) technique, to estimate and

analyze causal relationships between latent variables. PLS is suitable for structural measurement models and for testing and validating models. It is a more appropriate technique for small to medium sample sized, complex models, and is capable of modelling latent constructs under non-Normal conditions ([Chin & Newsted, 1999](#); [Hair, Howard & Nitzl, 2020](#); [Hair et al., 2014](#)). More recently, several researchers have recognized the value of PLS as an SEM technique ([Petter, 2018](#)). The minimum sample size requirements are met in the present study: as the maximum number of arrows pointing at a latent variable is six, we would need 60 observations, according to the 10-times rule ([Hair et al., 2014](#), p. 18).

As for analyzing the data, this research uses SmartPLS 3.0 software ([Ringle, Wende & Becker, 2015](#)). A two-step analytical approach is followed: first the outer measurement model is tested; then the inner structural model is estimated ([Hair et al., 2014](#)). Consequently, we will present, in the following sections, the measurement model validation, followed by the experimentation results and the tests of the hypotheses.

### Measurement model assessment

To establish the measurement scale's reliability and validity for each of the reflective measurement constructs, we ran the PLS algorithm followed by the standard bootstrap procedure with 500 bootstrap samples to establish statistical significance. Examining the results, we removed items that have low loadings (less than 0.708) ([Hair et al., 2014](#), p. 103) to meet the criteria of individual item reliability. In all, we deleted an item from each of the three customer engagement measure scales, and three items from each of the two NFH constructs. Table 1 summarizes the item loadings of the different measurement scales, as well as the reliability and validity coefficients of these scales. Results show an adequate internal consistency for the constructs, as Cronbach's alpha and composite reliability (CR) coefficients are above the threshold of 0.7 for each construct ([Bagozzi & Yi, 1988](#); [Hair, Howard & Nitzl, 2020](#)). Convergent validity was assessed using the average variance extracted (AVE). An AVE of 0.50 or above confirms convergent validity ([Hair, Howard & Nitzl, 2020](#)). The AVE of all reflective constructs achieved values between 0.60 and 0.830, confirming that all measures demonstrated satisfactory convergent validity. Discriminant validity is demonstrated when the shared variance within a construct (AVE) exceeds the shared variance between the constructs ([Fornell-Larcker, 1981](#)). Table 2 shows that the square root of the AVEs of all constructs is greater than the highest correlation value for other constructs. Discriminant validity is confirmed. Appendix Table A4 shows the cross-loadings of items, where item loadings for their own constructs are higher than loadings for the other constructs, confirming the discriminant validity of the latent variables.

**Table 1.** The measurement model: Item loadings and reliability of constructs

Construct	Item	Standardized Loading**	Cronbach's Alpha	Composite reliability (CR)	Average variance extracted (AVE)
Perceived humorousness	Hum1	0.862	0.836	0.901	0.753
	Hum2	0.845			
	Hum3	0.895			
Aad	Aad1	0.923	0.875	0.924	0.802
	Aad2	0.922			
	Aad3	0.839			
NFHI (Interior)	NFHI3	0.754	0.805	0.869	0.692
	NFHI4	0.960			
	NFHI5	0.765			
NFHE (Exterior)	NFHE2	0.814	0.749	0.854	0.660
	NFHE3	0.878			
	NFHE6	0.743			
Intention to like	Like1	0.936	0.807	0.911	0.836
	Like2	0.892			
Intention to comment	Comt1	0.899	0.796	0.907	0.830
	Comt2	0.923			
Intention to share	Share1	0.878	0.758	0.804	0.804
	Share2	0.915			

\*\* all the loadings are significant at  $p < 0.001$

**Table 2.** Discriminant validity of constructs

	Aad	Comment	Perceived humour	Like	NFHI	NFHE	Share
Aad	0.896						
Comment	0.436	0.911					
Perceived humour	0.688	0.509	0.868				
Like	0.600	0.489	0.535	0.914			
NFHI	0.067	0.187	0.137	0.176	0.832		
NFHE	0.025	0.038	-0.014	0.097	0.384	0.813	
Share	0.399	0.706	0.442	0.569	0.177	0.004	0.897

## Hypotheses testing

To test our hypotheses, we performed first a one-way ANOVA to establish the effect of humour condition treatments on the perceived humour of FB posts. Then, the inner structural model was assessed and the different variables' relationships estimated.

### Experiment manipulation check

To assess the experiment manipulation, we computed the mean score of the FB post perceived humour variable for the four groups (Table 3). A one-way ANOVA was conducted and showed that perceived humorousness was higher in the groups receiving the humorous versions of the message compared with the group who received the non-humorous version ( $F = 6.67$ ,  $p = 0.000$ ), thereby verifying the convergent validity of the manipulation (Perdue & Summers, 1988) (Table 4). A Scheffe Post Hoc test showed that each humorous funny image produced a significantly higher level of perceived humorousness than did the non-humorous image.

However, the Post Hoc test shows no significant difference in perceived humorousness between the three humorous versions (Table 4): thus, hypothesis H1 is supported.

**Table 3. Mean for the treatment groups (standard deviations in parentheses)**

Condition treatment	Non-humour	Aggressive humour	Full comedy humour	Pun humour
Mean (SD)	2.90 (0.99)	3.48 (0.98)	3.80 (0.86)	3.59 (0.97)
N	43	42	44	43

**Table 4. Facebook message perceived humour, mean scores(M) and Post Hoc test**

Message content (I)	Message content (J)	Means' difference (I-J)	ErrorStd	Sig.
Non-humour	Aggressive humour	-0.5772	0.2115	0.06
	Full comedy humour	-0.8961	0.2090	0.001
	Pun humour	-0.6822	0.2102	0.017
Aggressive humour	Full comedy humour	-0.3189	0.2103	0.514
	Pun humour	-0.1050	0.21152	0.970

## Structural model assessments

The first step is to examine the path coefficients of the developed relationships. Path coefficients indicate the strength of the relationships between the independent variables and dependent variable. Table 5 provides estimates of the structural model relationships along with the moderating variables and hypothesis testing. These latter are discussed in the following.

**Table 5. Path coefficients and hypothesis testing**

Hypothesis	Relationship	Beta	T value	P value	Results
H2	Perceived humour --> Aad	0.688	15.557	0.000	Supported
H4.1	Aad --> Like	0.600	8.810	0.000	Supported
H4.2	Aad --> Comment	0.436	6.447	0.000	Supported
H4.3	Aad --> Share	0.399	5.637	0.000	Supported
H3	NFHI*perceived humour --> Aad	0.009	0.829	0.408	Not supported
	NFHE*perceived humour --> Aad	0.052	0.722	0.471	Not supported

*Main effects:* Initially, Hypothesis 2 proposes that perceived humour impacts positively on Attitude towards the FB post (Aad). The results presented in Table 5 have revealed a significant positive relationship between perceived humour and Aad: the higher the perceived level of humour, the better the attitude towards FB posting. Hypothesis H2 is supported. The results also report a positive relationship between Aad and each of the three measures of engagement intentions. The three path coefficients are positive and significant, indicating that the more the attitude towards the post is favourable, the more the Facebook user will tend to like, comment and/or share. Table 5 also shows that the highest path coefficient is associated with the variable “intention to like the post” (beta = 0.600, p= 0.000). Hypotheses H4.1, H4.2 and H4.3 are supported.

*Moderation effect:* H3 proposes that NFH moderates the relationship between perceived humorousness and Aad. NFH is a continuous variable; consequently, we adopted the product indicator approach in PLS-SEM to detect and estimate the strength of the NFH moderating effect on the Attitude towards the FB post ([Kenny & Judd, 1984](#); [Henseler & Chin, 2010](#); [Hair et al., 2014](#)). The moderation test reported in Table 5 shows non-significant results. Path coefficients of the interaction terms relating to Internal NFHI (beta = 0.009; p = 0.408) and external NFHE (beta = 0.052; p = 0.471) are very low and non-significant. Hence, H3 is not supported for both dimensions of NFH. It should be noted that the average mean score for each of the two NFH dimensions is relatively high, indicating a high level of the Need for Humour among the Tunisian sample interviewed (Internal NFHI Mean = 3.79, SD = 0.769; External NFHE Mean = 4.239, SD = 0.534).

*Model validity:* Table 6 reports the inner model validity criteria. The most commonly used measure to evaluate the structural model is the coefficient of determination, R<sup>2</sup>, which is a measure of the model's predictive accuracy and exploratory power ([Hair et al., 2014](#)). This coefficient represents the exogenous latent variables' combined effects on the endogenous latent variable. Results suggest that 47% of the variation in Aad could be explained by the perceived humour of the FB post. On the other side, Aad helps to explain 36% of the variance of the intention to like the post, 19% of the intention to comment and 15.9% of the intention to share. Whereas it is difficult to provide rules of thumb for acceptable R<sup>2</sup> values, as they depend on the research discipline and the model complexity ([Hair et al., 2014](#)), values over 0.2 can be considered as having an acceptable predictive power in social sciences, since the lowest recommended level is 0.1 according to Falk & Miller ([1992](#)).

**Table 6. PLS inner model validity: R squared and cross redundancy (Q<sup>2</sup>)**

Dependent construct	R squared (R <sup>2</sup> )	Q <sup>2</sup> (cross redundancy)
Aad	0.473	0.373
Intention to like	0.360	0.121
Intention to comment	0.190	0.147
Intention to share	0.159	0.121

The Stone-Geisser Q<sup>2</sup> (cross validated redundancy test) is used to evaluate the model predictive relevance ([Geisser, 1974](#); [Stone, 1974](#)). The Q<sup>2</sup> values reported in Table 6 are above zero for all the dependent variables. This indicates that the endogenous constructs involved in this model have a strong predictive relevance. Moreover, Q<sup>2</sup> values above 0.35 indicate substantial predictive relevance for explaining the variable studied ([Henseler, Ringle & Sinkovics, 2009](#)).



## Discussion and Conclusion

Marketing on social media is different from traditional marketing and requires a rethinking of approaches and of the overall marketing mindset, shifting from an advertising to a conversational paradigm ([Ge & Gretzel, 2018](#)). In fact, the main characteristic of the Internet and social media is the interactivity allowed between companies and consumers and between users. Interactivity leads to a transition from a one-way communication in traditional advertising to an interactive communication, where consumers are active contributors to the effectiveness of marketing efforts.

Indeed, on social media platforms, one of the main criteria for measuring the effectiveness of the marketing effort is the user's engagement with posts and communications. Humour offers a way for a company to differentiate itself and to raise the interest of the social media user. While the effectiveness of humour in traditional media and in advertising has been relatively well studied, research on the use of humour in digital media is still limited. Recent studies on this subject have focused on the use of humour during the COVID-19 crisis ([Hussein & Aljamili, 2020](#)).

The purpose of this research is to study the effect of humorous content in Facebook posts on intention of users to engage with messages conveyed on social media. A qualitative study was carried out with digital communication professionals in Tunisia, followed by an experiment with fans of a Facebook page. The main results showed that:

- In the Tunisian context, humour is deeply rooted in the daily life of individuals and in their culture. The consumer would be particularly sensitive to humour and would use it for distraction, but also to escape from a monotonous and difficult everyday life. These results join those of Alharthi ([2014](#)), who describes humour as an essential element of the daily life of individuals in Arab countries, and those of Moalla ([2015](#)), who found that humour in Tunisia has been developed a lot, in particular on social networks, and since the 2011 revolution. She explains this development by the freedom of expression regained after the 2011 revolution, along with the role that humour plays in compensating for a feeling of uncertainty, confusion and lack of security. Other studies show that, when faced with psychological distress, the individual can use humour to compensate for stress ([Blank, 2013](#)). This stress can be generated in part by the ultra-information universe in which the individual now lives and where entertainment has become a real need. The search for fun and entertaining content by the Tunisian consumer, in particular with regard to the results of this qualitative and quantitative study, should be considered as an opportunity for brands to integrate the humorous dimension into their content and communicated messages in order to generate more reactions and therefore a better engagement rate.

- Regarding themes and types of humour, the qualitative study revealed that humour in marketing communication cannot tackle all themes, and that certain subjects remain taboo, such as religion. Certain types of humour are not appreciated by the Tunisian consumer, such as dark humour. In Tunisia, individuals are more focused on simple, light humour, rooted in their daily lives. Accordingly, the types of humour most frequently used in marketing communication are, according to experts, the full comedy, aggressive humour, and Pun or word games. However, these professionals believe that the effectiveness of humour is more dependent on the humour theme addressed than on the type of humour.
- The results of the experiment show that the presence of a humorous content (vs absence) in a Facebook post induces higher users' intention of engagement. This positive effect is the result of a mental process of perception and attitude formation. The higher the perception of humour is, the better the attitude towards the message (Aad) will be. This attitude then positively influences the intention of engagement in terms of intention to like, comment and share the FB post. Our results join those of previous research establishing the positive impact of humour in advertising on the attitude towards the advertisement ([Eisend, 2009](#); [Chung & Zaho, 2003](#); [Cline, Altsech & Kellaris, 2003](#); [Barry & Garcia, 2018](#)) and on the engagement of social media users ([Tafesse, 2015](#); [Ge & Gretzel, 2018](#); [Lee, Hosanagar & Nair, 2018](#)). By stimulating pleasure and inducing positive emotions, humour pushes the individual to interact, initiate social relationships and share their emotions and attitudes ([Eisend, 2011](#); [Berger & Milkman, 2012](#)). Social media has created a new paradigm, that of sharing opinions, experiences and interactions in a virtual space. It is the ability of humour to initiate social relationships that can make it a powerful tool in the context of social networks. Humour has been revealed in the literature as an element favouring positive reactions (memorization, perception, implication), even when it is used in "negative" situations of discomfort, violence, dissatisfaction or complaint ([Brown et al., 2010](#); [McGraw, Warren & Kan, 2015](#)).

The intention to like has been most impacted by humour. This is a rather expected result because of the simplicity of the mention "like" that makes it the most common interaction on Facebook and which corresponds to a capital attention and a sign of affinity ([Cordina & Fayon, 2013](#)).

- Our results do not allow us to establish the superiority of one type of humour over another in Tunisia. The level of humour perceived does not vary according to the type of humour but, rather, according to the absence or presence of humour. These results are in line with the findings of Barry & Garça ([2018](#)) that established that no significant differences were found in advertising attitude or generated comments of comic-wit humour when compared

to all others of Speck's types of humour. In the Tunisian context, our results can be explained by the idea developed by the experts interviewed, according to whom the effectiveness of a humorous communication would depend more on the chosen theme and the coherence of the message than on the type of humour. For some of these professionals, the question of typology of humour is more a theoretical problem of categorization than a managerial one. They also point out that, in practice, a communication message (video example) can contain several types of humour.

- Finally, our results show that the need for humour (NFH) as an individual characteristic does not moderate the effect of humour on attitude towards digital messages, unlike previous research ([Cline, Altsech & Kellaris, 2003](#); [Cline, Kellaris & Machleit, 2011](#)). This could be explained by the fairly high score of the NFH variable found in the sample of Tunisian Internet users, which could reduce the variance of this variable and therefore its effect. This explanation joins, on the one hand, the literature which establishes that humour, seen as a social phenomenon, is an integral part of the daily life of the individual in Arab countries and particularly in Tunisia ([Moalla, 2015](#); [Alharthi, 2014](#)), and ,on the other, the comments of professionals who recognize an important place of humour in the Tunisian experience and culture.

On the managerial level, our research shows the importance of humour and the positive effect of its use in digital communications, which makes it a good lever of action available to professionals. Humour induces a positive attitude and promotes interaction and sharing. Communication companies can use humour to generate membership by Internet users and to help spread their communication among them. Companies can organize games, contests and calls for co-creation of content that revolves around humour, for example. Other research has found humour to be a hallmark of mimetic videos (videos imitating other videos) on YouTube ([Shifman, 2012](#)). In addition, the use of several message formats in digital spaces (e.g., image, video) and the ease of their technical manipulation will give Internet users the opportunity to be more creative and to share publications that they may have manipulated or diverted by giving them a humorous aspect. The recent success of the TikTok social media network is a good example of the success of humorous videos and messages.

This research may have certain limits that constitute openings towards future research avenues. We considered a simple model, with only one moderator variable, when, in reality, the effectiveness of humour depends on several other variables related to the content of the message, its format or even other cognitive, affective or socio-demographic characteristics of respondents. A more in-depth study would allow a better understanding of the relationship that consumers have with humour on the Internet and on social media networks in particular. Indeed, the pre-survey that we conducted allowed us to see that it is a fairly complex subject,

and that certain cultural specificities are proved to be interesting to study. Considerations should be initiated to properly target and engage this hyper-connected Internet user everywhere and at any time. In addition, other formats for posting on Facebook can be tested in future research, including interactive formats that allow the user to create or co-create humorous situations. Indeed, the contemporary consumer is now endowed with significant power over networks and her/his involvement in the design of communication content represents a real opportunity for brands to build a close relationship with her/him and generate empathetic and more realistic messages.

In addition, the specificity of the digital context, marked by continuous and frequent technological innovations to which the user is now sensitive and receptive, requires that brands differentiate themselves by new communication formats that would better meet the ever-changing needs of the consumer (Dahlen & Rosengren, 2016). In this sense, tracking techniques and artificial intelligence could offer an interesting way to understand and anticipate consumers' responses and preferences for diverse humour message formats. Then, this study is mainly focused on reactions of Internet users to the different types of humour; it should also be interesting to extend these modalities and investigate the effectiveness of different levels of humour (low, medium, high).

This research also stopped at the study of the intentions of engagement of social media users in similar to but not real conditions of navigation. This limit may suggest continuing investigations to measure the real behaviour of Internet users exposed to humorous publications on Facebook, in terms of likes, with all the icons or smileys now offered by Facebook (laughter, sad, angry, etc.) to refine the expression of users' emotions, comments and sharing, recording the statistics on the page through an observational study. Beyond the statistics, a netnography of the comments would make it possible to analyze the reactions and behaviours of Internet users with humour, to better understand the tone of the exchanges as well as the motivations of Internet users' engagement.

## References

- Alden, D. L., Hoyer, W. D., & Lee, C. (1993). Identifying global and culture-specific dimensions of humor in advertising: A multinational analysis. *Journal of Marketing*, 57(2), 64–75. <https://doi.org/10.2307/1252027>
- Alharthi, A. (2014). Humor and culture. *International Journal of Humanities and Cultural Studies*, 1(3), 119–130. <https://doi.org/10.7592/EJHR2021.9.4.580>
- Bagozzi, R. P. & Yi, Y. (1988). On the evaluation of structural equation models. *Journal of the Academy of Marketing Science*, 16(1), 74–94. <https://doi.org/10.1007/BF02723327>

- Baldus, B. J., Voorhees, C., & Calantone, R. (2015). Online brand community engagement: Scale development and validation. *Journal of Business Research*, 68(5), 978–985. <https://doi.org/10.1016/j.jbusres.2014.09.035>
- Barry, J. M., & Graça, S. S. (2018). Humor effectiveness in social video engagement. *Journal of Marketing Theory and Practice*, 26(1-2), 158–180. <https://doi.org/10.1080/10696679.2017.1389247>
- Berger, J. & Milkman, K. L. (2012). What Makes Online Content Viral? *Journal of Marketing Research*, 49(2), 192–205. <https://doi.org/10.1509/jmr.10.0353>
- Blank, T. J. (2013). *The last laugh: Folk humor, celebrity culture, and mass-mediated disasters in the digital age*. University of Wisconsin Press. <https://uwpress.wisc.edu/books/5104.htm>
- Botha, E., & Reyneke, M. (2013). To share or not to share: the role of content and emotion in viral marketing. *Journal of Public Affairs*, 13(2), 160–171. <https://doi.org/10.1002/pa.1471>
- Brown, M. R., Bhadury, R. K., Nigel, K., & Pope, L. I. (2010). The impact of comedic violence on viral advertising effectiveness. *Journal of Advertising*, 39(1), 49–65. <https://doi.org/10.2753/JOA0091-3367390104>
- Burns, K. S., & Lutz, R. J. (2006). The Function of Format: Consumer Responses to Six On-Line Advertising Formats. *Journal of Advertising*, 35(1), 53–63. <https://doi.org/10.2753/JOA0091-3367350104>
- Catanescu, C., & Tom, G. (2001). Types of humor in television and magazine advertising. *Review of Business – Saint Johns University*, 22(1), 92–95. [https://scholar.google.com/scholar?hl=fr&as\\_sdt=0%2C5&q=catanescu+tom&oq=Catanescu](https://scholar.google.com/scholar?hl=fr&as_sdt=0%2C5&q=catanescu+tom&oq=Catanescu)
- Chin, W. W., & Newsted, P. R. (1999). Structural equation modelling analysis with small samples using partial least squares. In R. H. Hoyle (Ed.), *Statistical strategies for small sample research*, 307–341. Thousand Oaks, CA: Sage. <https://us.sagepub.com/en-us/nam/statistical-strategies-for-small-sample-research/book9183>
- Chung, H., & Zhao, X. (2003). Humor effect on memory and attitude: moderating role of product involvement. *International Journal of Advertising*, 22(1), 117–144. <https://doi.org/10.1080/02650487.2003.11072842>
- Cline, T. W., Altsech, M. B., & Kellaris, J. J. (2003). When does humor enhance or inhibit advertisement responses? The moderating role of the need for humor. *Journal of Advertising*, 32(3), 31–45. <https://doi.org/10.1080/00913367.2003.10639134>
- Cline, T. W., Kellaris, J. J., & Machleit, K. A. (2011). Consumers' need for levity in advertising communications. *Journal of Marketing Communications*, 17(1), 17–35. <https://doi.org/10.1080/13527260903090790>
- Cordina, P., & Fayon, D. (2013). *Community management: fédérer des communautés sur les médias sociaux*. Pearson Education France. <https://www.eyrolles.com/Entreprise/Livre/community-management-9782744065514/>

- Crawford, H. J., & Gregory, G. D. (2015). Humorous advertising that travels: A review and call for research. *Journal of Business Research*, 68(3), 569–577. <https://doi.org/10.1016/j.jbusres.2014.09.005>
- Dahlen, M., & Rosengren, S. (2016). If Advertising Won't Die, What Will It Be? Toward a Working Definition of Advertising. *Journal of Advertising*, 45(3), 334–345. <https://doi.org/10.1080/00913367.2016.1172387>
- De Oliveira Santini, F., Ladeira, W. J., Pinto, D. C., Herter, M. M., Sampaio, C. H., & Babin, B. J. (2020). Customer engagement in social media: a framework and meta-analysis. *Journal of the Academy of Marketing Science*, 48, 1211–1228. <https://doi.org/10.1016/j.jbusres.2019.12.023>.
- Dessart, L., Veloutsou, C., & Morgan-Thomas, A. (2015). Consumer engagement in online brand communities: a social media perspective. *Journal of Product and Brand Management*, 24(1), 28–42. <https://doi.org/10.1108/JPBM-06-2014-0635>
- Dobele, A., Lindgreen, A., Beverland, M., Vanhamme, J., & Van Wijk, R. (2007). Why pass on viral messages? Because they connect emotionally. *Business Horizons*, 50(4), 291–304. <https://doi.org/10.1016/j.bushor.2007.01.004>
- Dolan, R., Conduit, J., Frethey-Bentham, C., Fahy, J., & Goodman, S. (2019). Social media engagement behavior: A framework for engaging customers through social media content. *European Journal of Marketing*, 53(10), 2213–2243. <https://doi.org/10.1108/EJM-03-2017-0182>
- Edell, J. A., & Burke, M. C. (1987). The Power of Feelings in Understanding Advertising Effects. *Journal of Consumer Research*, 14(3), 421–433. <https://doi.org/10.1086/209124>
- Eisend, M. (2009). A meta-analysis of humor in advertising. *Journal of the Academy of Marketing Science*, 37(2), 191–203. <https://doi.org/10.1007/s11747-008-0096-y>
- Eisend, M. (2011). How humor in advertising works: A meta-analytic test of alternative models. *Marketing Letters*, 22(2), 115–132. <https://doi.org/10.1007/s11002-010-9116-z>
- E-marketer. (2021). <https://www.emarketer.com/content/facebook-still-accounts-quarter-of-us-digital-ad-spending>
- Falk, R. F., & Miller, N. B. (1992). *A primer for soft modeling*. University of Akron Press. <https://www.amazon.com/Primer-Soft-Modeling-Frank-Falk/dp/0962262846>
- Flaherty, K., Weinberger, M. G., & Gulas, C. S. (2004). The Impact of Perceived Humor, Product Type, and Humor Style in Radio Advertising. *Journal of Current Issues & Research in Advertising*, 26(1), 25–36. <https://doi.org/10.1080/10641734.2004.10505154>
- Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing*, 18(1), 39–50. <https://doi.org/10.1177/002224378101800104>
- Ge, J. (2019). Social media-based visual humour use in tourism marketing. *The European Journal of Humour Research*, 7(3), 6–25. <https://doi.org/10.7592/EJHR2019.7.3.ge>
- Ge, J., & Gretzel, U. (2018). Impact of humour on firm-initiated social media conversations. *Information Technology & Tourism*, 18(1), 61–83. <https://doi.org/10.1109/HICSS.2010.412>



- Geisser, S. (1974). A predictive approach to the random effects model. *Biometrika*, 61, 101–107. <https://doi.org/10.1093/biomet/61.1.101>
- Goldstein, J. H., & McGhee, P. E. (Eds) (1972). *The psychology of humor: theoretical perspectives and empirical issues*. New York: Academic Press, 269–282. <https://www.sciencedirect.com/book/9780122889509/the-psychology-of-humor>
- Gulas, C. S., & Weinberger, M. G. (2006). *Humor in advertising: A comprehensive analysis*. ME Sharpe. [https://books.google.tn/books/about/Humor\\_in\\_Advertising.html?id=DMFS2GsTdO4C&redir\\_esc=y](https://books.google.tn/books/about/Humor_in_Advertising.html?id=DMFS2GsTdO4C&redir_esc=y)
- Gummerus, J., Liljander, V., Weman, E. & Pihlström, M. (2012). Consumer engagement in a Facebook brand community. *Management Research Review*, 35(9), 857–877. <https://doi.org/10.1108/01409171211256578>
- Hatzithomas, L., Zotos, Y., & Boutsouki, C. (2011). Humor and cultural values in print advertising: a cross-cultural study. *International Marketing Review*, 28(1), 57–80. <https://doi.org/10.1108/02651331111107107>
- Hair, J. F., Sarstedt, M., Hopkins, L., & Kuppelwieser, V. G. (2014). Partial least squares structural equation modeling (PLS-SEM): An emerging tool in business research. *European business review*, 26(2), 106–121. <https://doi.org/10.1108/EBR-10-2013-0128>
- Hair, J. F., Howard, M. C., & Nitzl, C. (2020). Assessing measurement model quality in PLS-SEM using confirmatory composite analysis. *Journal of Business Research*, 109, 101–110. <https://doi.org/10.1016/j.jbusres.2019.11.069>
- Henseler, J., & Chin, W. W. (2010). A comparison of approaches for the analysis of interaction effects between latent variables using partial least squares path modeling. *Structural Equation Modeling: A Multidisciplinary Journal*, 17(1), 82–109. <https://doi.org/10.1080/10705510903439003>
- Henseler, J., Ringle, C. M., & Sinkovics, R. R. (2009). The use of partial least squares path modeling in international marketing. *Advances in International Marketing*, 20, 277–320. [https://doi.org/10.1108/S1474-7979\(2009\)0000020014](https://doi.org/10.1108/S1474-7979(2009)0000020014)
- Hoeffler, T. N., & Schwartz, R. N. (2011). Effects of pacing and cognitive style across dynamic and non-dynamic representations. *Computers & Education*, 57(2), 1716–1726. <https://doi.org/10.1016/j.compedu.2011.03.012>
- Hussein, A. T., & Aljamili, L. N. (2020). COVID-19 humor in Jordanian social media: A socio-semiotic approach. *Heliyon*, 6(12). <https://doi.org/10.1016/j.heliyon.2020.e05696>
- Kelly, J. P., & Solomon, P. J. (1975). Humor in television advertising. *Journal of Advertising*, 4(3), 31–35. <https://doi.org/10.1080/00913367.1975.10672594>
- Kenny, D. A., & Judd, C. M. (1984). Estimating the nonlinear and interactive effects of latent variables. *Psychological bulletin*, 96(1), 201–210. <https://doi.org/10.1037/0033-2909.96.1.201>
- Kuiper, N. A., Kazarian, S. S., Sine, J., & Bassil, M. (2010). The impact of humor in North American versus Middle East cultures. *Europe's Journal of Psychology*, 6(3), 149–173. <https://doi.org/10.5964/ejop.v6i3.212>

- Laineste, L., & Voolaid, P. (2016). Laughing across borders: Intertextuality of internet memes. *The European Journal of Humour Research*, 4(4), 26–49. <http://dx.doi.org/10.7592/EJHR2016.4.4.laineste>
- Lee, D., Hosanagar, K., & Nair, H. S. (2018). Advertising content and consumer engagement on social media: Evidence from Facebook. *Management Science*, 64(11). <https://doi.org/10.1287/mnsc.2017.2902>
- Lord, K. R., Lee, M. S., & Sauer, P. L. (1995). The combined influence hypothesis: Central and peripheral antecedents of attitude toward the Ad. *Journal of Advertising*, 24(1), 73–87. <https://doi.org/10.1080/00913367.1995.10673469>
- MacKenzie, S. B., & Lutz, R. J. (1989). An empirical examination of the structural antecedents of attitude toward the ad in an advertising pretesting context. *Journal of Marketing*, 53(2), 48–65. <https://doi.org/10.1177/002224298905300204>
- Madden, T. J., Allen, C. T., & Twible, J. L. (1988). Attitude toward the Ad: An assessment of diverse measurement indices under different processing sets. *Journal of Marketing Research*, 25(3), 242–252. <https://doi.org/10.1177/002224378802500302>
- Madden, T. J., & Weinberger, M. G. (1982). The effects of humor on attention in magazine advertising. *Journal of Advertising*, 11(3), 8–14. <https://doi.org/10.1080/00913367.1982.10672806>
- McGraw, A. P., Warren, C., & Kan, C. (2015). Humorous complaining. *Journal of Consumer Research*, 41(5), 1153–1171. <https://doi.org/10.1086/678904>
- Meyer, J. C. (2000). Humor as a Double-Edged Sword: Four Functions of Humor in Communication. *Communication Theory*, 10(3), 310–331. <https://doi.org/10.1111/j.1468-2885.2000.tb00194.x>
- Miles, M. B., & Huberman, A. M. (1994). *Qualitative data analysis: An expanded sourcebook*. Sage. <https://psycnet.apa.org/record/1995-97407-000>
- Moalla, A. (2015). Incongruity in the generation and perception of humor on Facebook in the aftermath of the Tunisian revolution, *Journal of Pragmatics*, 75, 44–52. <https://doi.org/10.1016/j.pragma.2014.10.008>
- Oikarinen, E. L., & Söderlund, M. (2016). The effects of humor in online recruitment advertising. *Australasian Marketing Journal*, 24(3), 180–186. <https://doi.org/10.1016/j.ausmj.2016.02.005>
- Petter, S. (2018). “Haters Gonna Hate”: PLS and information systems research. *ACM SIGMIS Database: The DATABASE for Advances in Information Systems*, 49(2), 10–13. <https://doi.org/10.1145/3229335.3229337>
- Perdue, B. C., & Summers, J. O. (1986). Checking the success of manipulations in marketing experiments. *Journal of Marketing Research*, 23(4), 317–326. <https://doi.org/10.1177/002224378602300401>
- Pezzuti, T., Leonhardt, J. M., & Warren, C. (2021). Certainty in language increases consumer engagement on social media. *Journal of Interactive Marketing*, 53(February), 32–46. <https://doi.org/10.1016/j.intmar.2020.06.005>
- Ringle, C. M., Wende, S., & Becker, J.-M. (2015). SmartPLS 3, SmartPLS GmbH, Boenningstedt. Available at <https://www.smartpls.com/>

- Ruch, W., & Hehl, F. J. (1993). Humor appreciation and needs: Evidence from questionnaire, self-, and peer-rating data. *Personality and Individual Differences*, 15(4), 433–445. [https://doi.org/10.1016/0191-8869\(93\)90071-A](https://doi.org/10.1016/0191-8869(93)90071-A)
- Sabate, F., Berbegal-Mirabent, J., Cañabate, A., & Lebherz, P. R. (2014). Factors influencing popularity of branded content in Facebook fan pages. *European Management Journal*, 32(6), 1001–1011. <https://doi.org/10.1016/j.emj.2014.05.001>
- Shifman, L. (2007). Humor in the age of digital reproduction: Continuity and change in internet-based comic texts. *International Journal of Communication*, 1(1), 187–209. <https://ijoc.org/index.php/ijoc/article/view/11>
- Shifman, L. (2012). An anatomy of a YouTube meme. *New Media & Society*, 14(2), 187–203. <https://doi.org/10.1177/1461444811412160>
- Shifman, L., & Blondheim, M. (2010). The medium is the joke: Online humor about and by networked computers. *New Media & Society*, 12(8), 1348–1367. <https://doi.org/10.1177/1461444810365311>
- Smith, A. N., Fischer, E., & Yongjian, C. (2012). How does brand-related user-generated content differ across YouTube, Facebook and Twitter? *Journal of Interactive Marketing*, 26(2), 102–113. <https://doi.org/10.1016/j.intmar.2012.01.002>
- Speck, P. S. (1987). *On humor and humor in advertising* (Volumes I and II). Texas Tech University. <https://www.proquest.com/openview/f4290e4bb8de6cb744b33906c43b3299/1?pq-origsite=gscholar&cbl=18750&diss=y>
- Speck, P. S. (1991). The humorous message taxonomy: A framework for the study of humorous ads. *Current Issues and Research in Advertising*, 13(1-2), 1–44. <https://doi.org/10.1080/01633392.1991.10504957>
- Statista. (2022a). <https://www.statista.com/statistics/269333/distribution-of-global-advertising-expenditure/> (Accessed 26 January 2022).
- Statista. (2022b). <https://www.statista.com/statistics/264810/number-of-monthly-active-facebook-users-worldwide/> (Accessed 26 January 2022).
- Stone, M. (1974). Cross-validatory choice and assessment of statistical predictions. *Journal of the Royal Statistical Society: Series B (Methodological)*, 36(2), 111–133. <https://doi.org/10.1111/j.2517-6161.1974.tb00994.x>
- Taecharungroj, V., & Nueangjamnong, P. (2015). Humour 2.0: Styles and types of humour and virality of memes on Facebook. *Journal of Creative Communications*, 10(3), 288–302. <https://doi.org/10.1177/0973258615614420>
- Tafesse, W. (2015). Content strategies and audience response on Facebook brand pages. *Marketing Intelligence & Planning*, 33(6), 927–943. <https://doi.org/10.1108/MIP-07-2014-0135>
- Warren, C., Barsky, A., & McGraw, A. P. (2018). Humor, comedy, and consumer behavior. *Journal of Consumer Research*, 45(3), 529–552. <https://doi.org/10.1093/jcr/ucy015>
- Weinberger, M. G., & Gulas, C. S. (1992). The impact of humor in advertising: A review. *Journal of Advertising*, 21(4), 35–59. <https://doi.org/10.1080/00913367.1992.10673384>

- Weinberger, M. G., & Gulas, C. S. (2019). The emergence of a half-century of research on humour in advertising: what have we learned? What do we still need to learn? *International Journal of Advertising*, 38(7), 911–956. <https://doi.org/10.1080/02650487.2019.1598831>
- Weller, L., Amitsour, E., & Pazzi, R. (1976). Reactions to absurd humor by Jews of eastern and western descent. *The Journal of Social Psychology*, 98(2), 159–163. <https://doi.org/10.1080/00224545.1976.9923386>
- Wetzel, C. G. (1977). Manipulation checks-reply. *Representative Research in Social Psychology*, 8(2), 88–93. [https://www.scopus.com/record/display.uri?eid=2-s2.0-33947378738&origin=inward&txGid=0565c81f5ea996e045d85c3c437f4ebb&feature=Toggles=FEATURE\\_NEW\\_DOC\\_DETAILS\\_EXPORT:1](https://www.scopus.com/record/display.uri?eid=2-s2.0-33947378738&origin=inward&txGid=0565c81f5ea996e045d85c3c437f4ebb&feature=Toggles=FEATURE_NEW_DOC_DETAILS_EXPORT:1)
- Yeo, S. K., Su, L. Y. F., Cacciatore, M. A., McKasy, M., & Qian, S. (2020). Predicting intentions to engage with scientific messages on Twitter: The roles of mirth and need for humor. *Science Communication*, 42(4), 481–507. <https://doi.org/10.1177/1075547020942512>
- Zhang, Y. (1996). Responses to humorous advertising: The moderating effect of need for cognition. *Journal of Advertising*, 25(1), 15–32. <https://doi.org/10.1080/00913367.1996.10673493>

## Appendix

Table A1. Humour taxonomies

Authors	Speck (1991)	Goldstein & McGhee (1972)	Kelly & Solomon (1975)
<b>Humour typology</b>	1- <i>Comic wit</i> (incongruity resolution, i.e., unexpected behaviour) 2- <i>Sentimental humour</i> (arousal-safety, i.e., taboos, childlike fantasies, naughtiness) 3- <i>Satire</i> (incongruity-resolution and disparagement) 4- <i>Sentimental comedy</i> (arousal-safety and incongruity-resolution) 5- <i>Full comedy</i> (rich form of humour, combination of satire and sentimental comedy)	1- <i>Aggressive humour</i> (provocative humour, to mock and ridicule) 2- <i>Sexual humour</i> 3- <i>Incongruous or nonsense humour</i>	1- <i>Pun</i> (Humorous use of words) 2- <i>Understatement</i> (representing something as less than is the case) 3- <i>Joke</i> (speaking or acting without seriousness) 4- <i>Ludicrous</i> (that which is laughable or ridiculous) 5- <i>Satire</i> (sarcasm used to expose vice or folly) 6- <i>Irony</i> (the use of words to express the opposite of what one really means; and what is most important) 7- <i>Intent</i> (perceived intent of advertiser to be humorous)

Table A2. Professional interviewees' profiles

Name	Gender	Age	Company and position	Years of experience in advertising
Haythem	Male	31	CEO of a Content creation agency	8 years
Rym	Female	39	Freelance Marketing communication consultant	12 years
Sarra	Female	26	Community manager at a digital marketing communication agency	4 years
Selim	Male	25	Media planner in a Tunisian office of a multinational communication marketing agency	3 years
Walid	Male	28	Digital manager in a Tunisian food company	4 years
Najla	Female	46	Head of an advertising consulting agency	15 years

Table A3. Variable measurement scales

Construct (source)	Indicators/Dimensions
Perceived humour (Zhang, 1996)	Hum1: Humorous Hum2: Funny Hum3: Amusing
Attitude toward Facebook post (Aad) (Cline, Altsech & Kellaris, 2003)	Aad1: Pleasant Aad2: Good Aad3: Favourable
Need for humour (NFH) (Cline, Altsech & Kellaris, 2003)	<i>Dimension 1: Internal NFHI</i> NFHI1: People expect me to say amusing things. NFHI2: I can crack people up with the things I say. NFHI3: I often come up with witty comments. NFHI4: I am good at thinking up jokes or funny stories. NFHI5: People tell me that I am quick-witted. NFHI6: I often feel the need to make other people laugh. <i>Dimension 2: External NFHE</i> NFHE1: I am a connoisseur of humour. NFHE2: I prefer situations where people are free to express their senses of humour. NFHE3: I enjoy being with people who tell jokes or funny stories. NFHE4: I often read jokes and funny stories. NFHE5: I enjoy being around quick-witted people. NFHE6: I need to be with people who have a sense of humour.
Intention to like  Intention to comment  Intention to share (Oikarinen&Söderlund, 2016)	Like1: It is probable that I like the FB post. Like2: It is possible that I like the FB post. Like3: It is most likely that I like the FB post. Comt1: It is probable that I comment on the FB post. Comt2: It is possible that I comment on the FB post. Comt3: It is most likely that I comment on the FB post. Share1: It is probable that I share the FB post. Share2: It is possible that I share the FB post. Share3: It is most likely that I share the FB post.

Table A4. Cross-loadings of the outer variable model

	<b>Aad</b>	<b>Comment</b>	<b>Perceived humour</b>	<b>Like</b>	<b>NFHI</b>	<b>NFHE</b>	<b>Share</b>
Comt1	0.371	0.899	0.439	0.393	0.189	0.040	0.642
Comt2	0.422	0.923	0.487	0.492	0.155	0.030	0.644
Hum1	0.584	0.398	0.862	0.406	0.182	-0.034	0.351
Hum2	0.533	0.450	0.845	0.491	0.016	-0.024	0.387
Hum3	0.662	0.476	0.895	0.496	0.147	0.015	0.411
Like1	0.610	0.450	0.530	0.936	0.214	0.066	0.549
Like2	0.473	0.445	0.439	0.892	0.093	0.119	0.487
NFHE2	0.019	0.058	0.025	0.118	0.275	0.814	-0.036
NFHE3	0.025	0.090	-0.028	0.087	0.358	0.878	0.052
NFHE6	0.015	-0.100	-0.033	0.019	0.300	0.743	-0.028
NFHI3	0.024	0.155	0.083	0.149	0.754	0.492	0.119
NFHI4_	0.080	0.169	0.137	0.177	0.960	0.287	0.163
NFHI5	0.029	0.161	0.108	0.097	0.765	0.351	0.167
Share1	0.326	0.613	0.397	0.445	0.156	-0.026	0.878
Share2	0.387	0.651	0.397	0.567	0.162	0.029	0.915
Aad1	0.923	0.397	0.608	0.555	0.145	0.007	0.364
Aad2	0.922	0.428	0.580	0.577	0.133	0.058	0.385
Aad3	0.839	0.345	0.663	0.476	-0.106	0.001	0.322