

From Humor to Strategy: An Experimental Survey on Internet Memes in Social Media Marketing

Mateusz Kiljańczyk

Faculty of Management, University of Warsaw, Poland
<https://orcid.org/0000-0002-1740-9131>

Agnieszka Kacprzak

Faculty of Management, University of Warsaw, Poland
<https://orcid.org/0000-0003-1949-9131>

Submitted: 05.07.2023 | Accepted: 23.11.2023

Abstract

Purpose: The paper addresses the issue of the use of Internet memes as a marketing communication tool in social media. The effectiveness of this type of communication is an important issue due to the large role of memes in digital culture, and at the same time the small number of studies on the use of memes in marketing communication.

Design/methodology/approach: To verify the research hypotheses, a survey with an experimental design was conducted among 153 respondents. For the purposes of the study, effectiveness was understood as the ability of a message to induce the passage of the recipient through all stages of perception of the persuasive message, with the last stage being the acceptance of the sender's outlook.

Findings: The results of the study allowed us to draw conclusions about greater effectiveness of marketing communication using Internet memes in comparison to marketing communication without memes. The level of consumer interest in Internet memes turned out to be a differentiating factor in the perception of the form of marketing communication.

Research limitations/implications: The main limitation of the study is the non-representativeness of the research sample. The practical implications of the study include guidance on the use of memes when conducting marketing communication on the Internet, taking into account preferences of the target group.

Originality/value: This paper not only contributes importantly to the limited literature on Internet memes in marketing activities, but also turns the spotlight onto the characteristics of consumers who are the potential target group of such communication.

Keywords: Internet meme, marketing communication, social media, consumer behavior, brand personality.

JEL: M31, M37

Correspondence address: Faculty of Management, University of Warsaw, 1/3 Szturmowa, 02-678 Warsaw, Poland; e-mail address: mm.kiljanczyk@student.uw.edu.pl, akacprzak@wz.uw.edu.pl.

Suggested Citation: Kiljańczyk, M., & Kacprzak, A. (2023). From Humor to Strategy: An Experimental Survey on Internet Memes in Social Media Marketing. *European Management Studies*, 21(4), 4–29. <https://doi.org/10.7172/2956-7602.102.1>.

Od humoru do strategii, czyli eksperymentalne badanie ankietowe nad wykorzystywaniem memów internetowych w mediach społecznościowych marketingu

Streszczenie

Cel: artykuł porusza problem wykorzystywania memów internetowych jako narzędzia komunikacji marketingowej w mediach społecznościowych. Skuteczność tego typu komunikacji jest ważną kwestią ze względu na dużą rolę memów w kulturze cyfrowej i jednocześnie niewielką liczbę badań dotyczących wykorzystania memów w komunikacji marketingowej.

Projekt/metodologia/podejście: w celu zweryfikowania hipotez badawczych, przeprowadzono eksperymentalne badanie ankietowe na próbie 153 respondentów. Skuteczność w badaniu zdefiniowano jako zdolność przekazu do spowodowania przejścia odbiorcy przez wszystkie etapy percepcji przekazu perswazyjnego, gdzie ostatnim etapem jest akceptacja punktu widzenia nadawcy.

Wyniki: wyniki badania pozwalają wysunąć wnioski o większej skuteczności komunikacji marketingowej wykorzystującej memy w porównaniu z komunikacją marketingową, która ich nie wykorzystuje. Czynnikiem różnicującym postrzeganie tej formy komunikacji marketingowej okazał się poziom zainteresowania konsumentów memami internetowymi.

Ograniczenia/implikacje: głównym ograniczeniem badania jest niereprezentatywność próby badawczej. Praktyczne implikacje badania obejmują wskazówki dotyczące wykorzystywania memów podczas prowadzenia komunikacji marketingowej w Internecie z uwzględnieniem preferencji grupy docelowej.

Oryginalność/wartość: niniejszy artykuł nie tylko wnosi istotny wkład do ograniczonej literatury na temat wykorzystywania memów internetowych w działaniach marketingowych, lecz także zwraca uwagę na cechy konsumentów, którzy są potencjalną grupą docelową takiej komunikacji.

Słowa kluczowe: mem internetowy, komunikacja marketingowa, media społecznościowe, zachowania konsumenckie, osobowość marki.

1. Introduction

The aim of the study was to answer the question about the effectiveness of marketing communication using Internet memes, taking into account the impact of the type of communication on attitude towards brand and its personality.

Internet memes are usually humorous pieces of culture transmitted online (Davison, 2012). Memes are said to be the fastest spreading content in the Internet and an important form of Internet users' generativity (Walkiewicz, 2012; Juza, 2013). The combination of text and image is described in the literature as the first form of the Internet meme (Nowak, 2013). Despite the fact that now the term "Internet meme" designates a wider range of virtual objects, the mentioned understating still seems to be prevailing (Jemielniak, 2019; Juza, 2013).

Majority of the studies on Internet memes are placed in the field of cultural and media studies. The issue of their use in marketing communication still deserves further development. So far, the research conducted on the

effectiveness of this type of communication has not considered the specific characteristics of the messages. The impact of memes on brand personality has so far been studied at a general level, without taking into account distinctive features of the personality. Research on consumer attitudes towards using Internet memes as a form of communication has primarily relied on self-report measures which may not accurately reflect the attitudes of those who do not already have a preconceived opinion on the matter (Aronson, 1997). In addition, the marketing and cultural studies literature and the work of Internet users seem to provide conflicting information regarding the public perception of the use of Internet memes by companies.

The literature provides a wide range of information on the use of memes in marketing activities or the consequences for a brand which becomes the subject of memes created by Internet users (Bury, 2016; Hallgren, Sigurbjörnsson & Black Jr., 2018; Toustrup, 2017; Yang & Hayashi, 2021). However, the authors of the paper could not locate studies that specifically measured the impact of brand-created memes, which combine an image and a text, on the declared attitude towards the brand and on particular personal traits associated with the brand. Additionally, none of the studies identified by the authors attempted to compare marketing communication using memes to traditional marketing communication, considering the unique attributes of messages that determine their effectiveness. The present work is probably the first of its kind to consider the level of consumer interest in memes as a potential variable differentiating the effectiveness of communication using memes.

Considering the function of persuasion in marketing communication and the prevalence of Internet memes in marketing communication, the study aims to determine the effectiveness of promotion strategies utilizing Internet memes. Addressing the question is crucial, given the existing research offers mixed responses on the topic. While in the literature we can find encouragement to reach for humor in marketing communication (Iwańska, 2013) or Internet memes themselves (Bury, 2016; Yang & Hayashi, 2021), there are also available research results presenting ambiguous attitudes of consumers towards marketing communication using memes (Toustrup, 2017).

2. Literature Review

2.1. Internet Memes – Definition and Characteristics

The concept of the meme, which gave rise to memetics, the science devoted to the concept, was introduced by Richard Dawkins (Jemielniak, 2019; Kowalczyk-Purol, 2018). The term was introduced as an analogy to the gene, aiming at applying Darwinism to the analysis of cultural evolution (Dawkins, 2021). In the work of Dobrosława Wężowicz-Ziółkowska (2008, pp. 67), we can find a succinct definition of a meme as “the smallest

indivisible unit of cultural inheritance”. Examples of memes include melodies, but also ways of making pipkins or ideas (Dawkins, 2021). The literature offers voices pointing to the applicability of Dawkins’ theory, also in business activities (Kwade, 2014; Levison, 2011; Masłowski, 2014; Wolek-Kocur, 2014).

While some authors still analyze Internet memes through the lens of memetics, many believe that contemporary understanding of memes has become detached from Dawkins’ original definition (Juza, 2013; Nowak, 2013; Walkiewicz, 2012). For the purpose of the study the Davison’s (2012) definition of meme would be used. It states that an Internet meme is a “piece of culture, typically a joke, which gains influence through online transmission”. Due to the broadness of the mentioned definition, the study focused only on memes consisting of an image and a text, which is an essential form of the Internet meme (Jemielniak, 2019; Juza, 2013).

Due to its huge popularity, the Internet meme is regarded as a symbol of Internet culture (Kamińska, 2011). The prominence of Internet memes may be shown referring to the data provided by GWI which says that 56% of Gen Z consumers saw a meme on the Internet in the week before the survey, and 52% of them shared a meme with friends or family members (Smith, 2022). Analogously did 45% and 42% of consumers of the Y generation (Smith, 2022). According to Ypulse (2019) 30% of the consumers between 15 and 35 years old send memes every day.

What enabled memes gain popularity, was their humorous nature (Walkiewicz, 2012). Basically, memes are created and shared primarily for the purpose of entertainment (Nowak, 2013). The literature also draws attention to the role of Internet memes in the online unification of groups of consumers and cultural producers, or the possibility of using them as a tool for social criticism (Jemielniak, 2019; Juza, 2013; Nowak, 2013).

As it was mentioned previously, memes are said to be the fastest spreading content in the Internet and an important form of Internet users’ generativity (Juza, 2013; Walkiewicz, 2012). In the literature it is emphasized that Internet memes spread virally, meaning by means of being send from one recipient to another (Kasprowicz & Veltzé, 2020).

The combination of text and image is considered to be the first form of Internet meme (Nowak, 2013). Although the initial interpretation of memes has evolved and they should now be understood in a broader context, references to the original form persist in literature, suggesting it remains a dominant perspective (Jemielniak, 2019; Juza, 2013; Nowak, 2013). According to Kamińska (2017), other important characteristics related to the form of Internet memes are unprofessionalism (e.g. low quality of the used picture) and usage of elements of language distinctive for the Internet culture.

Another significant features of Internet memes are anonymity of their authors and the way of their distribution (Juza, 2013; Kamińska, 2011).

Sometimes it is pointed out that a meme can be called “meme” as long as it is created by an anonymous author and distributed through the Internet by Internet users who do not do it for financial profit. From this point of view, a meme used for advertising purposes should not be regarded as a meme (Kamińska, 2011). Although some authors assert that the subversive nature of Internet memes hinders their commercial use, yet the literature also presents more favorable perspectives on employing memes in marketing (Kamińska, 2017; Grębosz et al., 2016).

2.2. Memes in Marketing Communication

Marketing communication is defined as a “system or process of transmitting information (symbolic content) between an enterprise (sender) and its environment (receiver, stakeholders) through a specific channel and means of communication” (Wiktor, 2013, p. 15). Various researchers identify distinct components that constitute the process (Rothwell, 2016; Wiktor, 2013). Among the elements, Wiktor (2013) lists: participants (sender, receiver), message, channel of transmission, interference, feedback and context. The message itself contains the sender’s intentions encoded using symbols (such as words, images, gestures) (Hajduk, 2019). The criterion for the effectiveness of communication is the conformity of the receiver’s response to the sender’s intentions (Hajduk, 2019). The effectiveness depends i.a. on the choice of appropriate symbols and form, consideration of limitations, attractiveness and originality of the message, and the degree to which the message attracts attention and becomes memorable (Hajduk, 2019; Wiktor, 2013).

The related instruments and forms of promotion constitute a marketing communication system, which fulfills several functions across three distinct layers (Wiktor, 2013). The main function of the entire system (first layer) is to build awareness of the organization and its offerings (Wiktor, 2013). The next layer is formed by “core” functions: informational, persuasive and competitive. Functions specific to individual promotional tools, such as personal promotion, advertising, sales promotion, and public relations, make up the final layer¹ (Wiktor, 2013). The elements should be viewed in a holistic manner, aligning with the concept of integrated marketing communication. It encompasses integration both in the organization’s activities and the tools employed (Hajduk, 2019; Keller, 2016; Wiktor, 2013).

One of the functions of the marketing communication system is persuasion (Wiktor, 2013). Persuasion, according to Trojanowski (2019 p. 46), is “(...) the art of convincing our views, the purpose of which is to influence the specific attitudes of the audience – their opinions, beliefs and behavior”. For successful persuasion, the message recipient must navigate five stages: taking part in the discourse, understanding the object of persuasion, accepting the argument, reinforcing acquired beliefs, and acting (McGuire, 1973; cited in Stochniatek-Mulas, 2012). To achieve a lasting shift in the recipient’s attitude, the change should follow the central route of persuasion, implying

a meticulous analysis of the message (Stochniałek-Mulas, 2012; Wojciszke, 2004). The change in attitude which takes place through the central route of persuasion is permanent and causes a change in the recipient's behavior (Wojciszke, 2004). On the contrary, a change in attitude that takes place through the peripheral route of persuasion is caused by secondary factors (e.g. the authority of the sender of the message), does not cause a change in the recipient behavior and has a temporary nature (Wojciszke, 2004). Changing an attitude through the central route of persuasion depends on the following conditions: motivation, the ability to process the message and the way of approaching the content of the message (Stochniałek-Mulas, 2012). The last mentioned condition seems to be a particularly important variable. From the psychological point of view, people look for arguments to support their emotional reaction to a phenomenon, rather than create the reaction on the basis of collected arguments (Kahneman, 2012).

The Internet has become the primary channel for communicating with audiences, in which advertising, profiles and sites in social media are among the most important communication tools (Hajduk, 2019). Numerous authors recognize the possibility of building brand image with use of social media (Grębosz et al., 2016; Hajduk, 2019; Kaczorowska-Spychalska, 2011; Sanak, 2011).

Several studies delve into the potential effects of incorporation memes into marketing communication. Firstly, memes have been demonstrated to capture consumer attention. Grębosz et al. (2016) identified several factors contributing to the appeal of memes as a social media marketing tool, including their graphic design, simplicity, low production cost and humorous nature. Humorous marketing messages align with consumer preferences for entertainment, and have been shown to enhance attention, generate empathy, and reduce resistance to content (Grębosz et al., 2016; Iwańska, 2013; Sutherland & Sylvester, 2003). Bury (2016) further noted that memes can effectively attract attention of target audience groups, as well as stimulate interest in the broader topics that they refer to.

In addition, research has shown that memes can enhance customer engagement. Bury (2016) found that Internet memes serve as a means to promote consumer engagement. Yang and Hayashi (2021) corroborated the findings, demonstrating higher audience engagement in posts featuring memes (in the form of graphics and text combinations), as compared to those without. Further analysis revealed that susceptibility to meme-based communication varies with age, with audiences under 40 exhibiting a greater preference for meme-laden posts.

Thirdly, research has indicated that advertising memes can influence brand image. Sigurbjörnsson and Black Jr. (2018) conducted a study that demonstrated the effect of brand-related memes (consisting of pictures with text) created by internet users on participants' brand associations. However, it should be noted that the study did not confirm the authors'

hypotheses regarding the impact of such memes on awareness, perceived quality, and brand loyalty.

Finally, researchers have investigated how consumers perceive marketing communication that utilizes memes. Toustrup (2017) conducted a survey to examine consumer opinions on companies' use of online memes in marketing activities. The survey revealed that meme marketing is perceived by participants as humorous (63%) and amateurish (59%), but also as a reason to stop following a company on social media (4%) or to dislike a company (7%). Additionally, more respondents indicated that meme marketing does not make them follow a company on social media than declared the positive effect. Moreover, more participants denied liking the company more due to this form of marketing than confirmed it. The author concluded that meme marketing cannot be guaranteed to be successful, but noted that the method of data collection limits confidence in the sample's representativeness of the wider population.

Based on the relevant literature, it is hypothesized that messages incorporating Internet memes are more effective in achieving the goal of persuasion than marketing communication not utilizing Internet memes. This hypothesis is supported by several factors, including the criterion of communication effectiveness (Hajduk, 2019), the compatibility of the criterion with the purpose of persuasion (Trojanowski, 2019), and the ability of humorous messages, like Internet memes, to attract and entertain consumers (Sutherland & Sylvester, 2003). Additionally, previous research has shown that posts containing Internet memes have a higher level of user engagement compared to those without memes (Yang & Hayashi, 2021). Overall, it is believed that messages utilizing Internet memes may be more effective in influencing the recipient's attitudes and behaviors, as compared to marketing communication without Internet memes. Therefore, the following research hypothesis was formulated:

H1: Marketing communication using Internet memes is more effective than marketing communication without memes.

2.3. Factors Influencing the Perception of Memes as Marketing Tool

Consumer knowledge can create internal noise during the process of marketing communication, leading to the identification of inaccuracies in the message (Stochniałek-Mulas, 2012). Furthermore, the use of memes by companies to younger target audiences is often viewed unfavorably by them and can be perceived as a "cringeworthy misunderstanding of meme culture (...)" (knowyourmeme.com, 2022), which suggests an awareness of meme culture norms among meme enthusiasts. It highlights the need for a more critical approach to marketing communication utilizing Internet memes by the individuals, supporting the formulation of the following research hypothesis:

H2: Perception of marketing communication using Internet memes depends on the level of consumer interest in Internet memes.

2.4. Memes Influence Brand Attitude and Brand Personality

When making a choice, consumers may be guided by purely economic criteria, but the reason for purchasing a product is often not its function, but its symbolism, which is closely related to the role of the brand (Rudnicki, 2012; Solomon, 2006). Brands are one of the most valuable intangible assets of a company, making a significant contribution to its value and, thanks to certain symbolic baggage (such as its image), enable a product to stand out from others created to satisfy the same need (Keller, 2016; Kotler & Keller, 2012).

Marketing communication plays a significant role in building brand equity by supporting the development of brand awareness, liking, loyalty, and desirable associations (Keller, 2016). The use of humor in marketing communication is expected by consumers, what creates a possibility for building brand equity through such communication (Iwańska, 2013). Internet memes are a form of marketing communication and they are humorous in their nature (Nowak, 2013). Thus, it is reasonable to hypothesize that the use of Internet memes in marketing communication can have a positive effect on the attitude towards the brand. Therefore, based on the above analysis, the following research hypothesis has been formulated:

H3: Using Internet memes in marketing communication has a positive effect on attitude towards the brand.

Brand personality, according to Gorbaniuk (2011), is the sum of personal associations that individuals hold towards a brand. Aaker's (1997) work aimed at developing a standardized measure for the personality traits of brands. Five unique dimensions of brand personality were identified: sincerity, excitement, competence, sophistication and ruggedness. Each dimension encompasses multiple facets, totaling 42 personality traits (Aaker, 1997).

Advertising plays a pivotal role in molding brand personality, influencing the personality traits ascribed to the brand via the emotional reactions it evokes (Keller, 2016). Social media marketing communication can also contribute to brand personification (Sanak, 2011). Internet memes are predominantly humorous (Nowak, 2013). Given the ability of advertising to shape brand personality and the emotions a message can evoke, it's reasonable to suggest a positive impact of using Internet memes on brand personality. Therefore, the following hypothesis has been proposed:

H4: Using Internet memes in marketing communication positively influences brand personality.

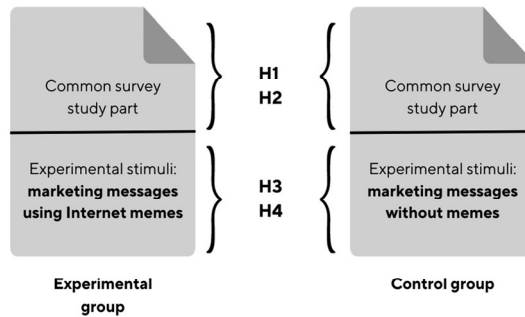
3. Research Methods

3.1. Research Procedure

Due to the fact that two of the four research hypotheses assumed causal relationships, a survey study with experimental design was conducted (Babbie, 2009). The first two hypotheses were verified with the use of survey study with a descriptive purpose (Babbie, 2008). In order to conduct the experimental part of the study, two versions of the questionnaire were prepared: one for the control group and another for the experimental group. Content of the both questionnaires was schematically presented in Figure 1.

Figure 1

Schematic presentation of the content of the questionnaires used in the study



In order to verify hypothesis number three the classical experiment was used (Babbie, 2009). It means that the respondents were divided into two groups – the experimental and control one (Babbie, 2008). In both groups a pretest and a posttest were conducted, in order to capture the impact of the independent variable (marketing communication type – using Internet memes or not using Internet memes) on the dependent variable (attitude towards brand) (Babbie, 2008). The adopted variances of the independent variable differ from those adopted as a rule (presence or absence) (Babbie, 2008). However, using the mentioned standard variances (presence/absence of the marketing messages using Internet memes) would not allow to assure that the change of the dependent variable was not caused by marketing communication per se.

To verify hypothesis number four, an experiment with an omission of pretest was used (Babbie, 2009). According to Campbell and Stanley (1963) it is not necessary to conduct a pretest when randomized selection of the groups is applied. Contrary to the attitude towards brands, the brands' personalities were measured by asking the respondents multiple questions.

The survey took form of the CAWI (computer assisted web interviews). The survey was conducted between February 15 and March 6, 2022. The request to participate in the study was sent to 223 people, while 155 people participated, giving a 69% response rate.

3.2. Experimental Stimuli

The type of marketing communication was the independent variable, and it aimed at measuring its effect on both the attitude towards the brand and the associated personality traits.

As it was mentioned, two versions of the questionnaire were prepared – one for the experimental, and one for the control group. Both of them started with a pretest – respondents were asked to rate their attitude towards the brands for which marketing messages were presented in the survey, on a scale of 1 to 10. Participants unfamiliar with the brand were asked to mark the answer “0”. Survey participants were then asked to take a look at six pairs of marketing messages from the brands’ Polish-language Facebook, Instagram and Twitter profiles.

In order to choose messages with similar appeal, the actual study was preceded with a pilot study conducted among 10 consumers. A set of messages not using Internet memes and messages using Internet memes were selected for the InPost, Zalando, McDonald’s and Pracuj.pl brands. The brands were chosen because of the fact that they combine humorous and traditional themes in their marketing communication. A total of 35 messages were selected, including 18 that used memes. The mentioned messages were then shown to the participants of the pilot study who were asked to rate them on the scale of 1 to 5. Based on the average ratings of each message, two pairs of messages were selected for each brand. Pairs consisted of a marketing message without memes and a message using Internet memes. The criterion for selecting the pairs was a common or similar average rating. A pair with a higher rating was selected if there were more pairs with similar ratings. To select three brands, the standard deviation was calculated for each pair. The brand with the highest summed standard deviations of the two pairs was discarded (Pracuj.pl – summed standard deviation = 0.2).

After presenting the messages to the participants, a posttest was performed. The experimental group declared again their attitude towards the brand after looking at pairs of marketing messages using Internet memes (an example – see: Figure 2). The control group did it after looking at the marketing messages without Internet memes (an example – see: Figure 3).

In the case of measuring the influence of messages using memes on personality traits attributed to the brand, the pretest was omitted. However, analogously to the attitude towards brand measurement, the experimental group rated personality of presented brands after looking at the pairs of marketing messages using Internet memes. The control group rated personality of brands after looking at the marketing messages without Internet memes.

Figure 2

Explanatory pair of marketing messages using Internet memes used in the study



Source: McDonald's. (n.d.). *Photos* [Facebook page]. Facebook. https://www.facebook.com/McDonaldsPolska/?locale=pl_PL (13.09.2023).

Figure 3

Explanatory pair of marketing messages without memes used in the study



Source: McDonald's. (n.d.). *Photos* [Facebook page]. Facebook. https://www.facebook.com/McDonaldsPolska/?locale=pl_PL (13.09.2023)

3.3. Measures

In order to capture the overall impact of the use of Internet memes on **brand personality**, respondents were asked to rate on a scale of 1 to 5 to what extent the brand might be described by selected personality traits. The mentioned traits were selected out of 15 facets of brand personality described by Aaker (1997), basing on their potential to be influenced by brands' usage of Internet memes in marketing communication. The traits together formed the **brand personality scale**.

To measure marketing **messages effectiveness**, after each pair of messages, respondents were asked to rate, on a scale of 1 to 5, how much the

messages could be described by several characteristics. The characteristics operationalized the capacity of marketing messages to guide the recipient through every step leading to succumbing to persuasion and the potential of changing the recipient's attitude through the central route of persuasion. Thus, the ability of the message to invite the recipient into the discourse corresponded to the characteristic "interesting". The possibility of being understood was described by the characteristics "for people like me" and "understandable" and ability to weaken resistance by "nice" (appeal to emotion) and "factual" (persuasion by the value of the content) (McGuire, 1973; Stochniałek-Mulas, 2012). The last step, before taking action, is the confirmation of acquired beliefs. Bearing in mind the fact that consumers expect entertainment from marketing communication with a particular emphasis on humor (Iwańska, 2013) it was assumed that the sender's probable intention was for the message to be perceived as a source of entertainment and humor. It was described by such message characteristics as "amusing" and "entertaining". The conditions of changing recipient's attitude through the central route of persuasion were operationalized by following message characteristics: trait "engaging" described the ability to arouse motivation and the previously-used trait "understandable" described the ability of the message to be processed by the recipient. Together, the above-mentioned characteristics formed a **message effectiveness scale** (Stochniałek-Mulas, 2012).

Consumers' **attitudes toward marketing communication using Internet memes** were verified using five questions placed at the end of the questionnaire. Consumers were asked to rate on a scale of 1 to 5 their attitude towards: attempts by marketing communication to amuse them, the use of Internet memes in marketing communication and liking towards humorous marketing messages. Together, the questions formed a **Meme Advertisements' Likability Scale (the "MALS")**.

The questionnaire also included questions allowing to group respondents by their level of interest in Internet memes – participants were asked about their affiliation to and activity in humorous groups on Facebook.

In order to assess reliability of the scales, Cronbach's α scale reliability index was calculated for each scale (Wieczorkowska & Wierzbiński, 2007). Results of the study indicate that the brand personality scale produced high levels of internal consistency, with scores of 0.915, 0.923, and 0.930 for the InPost, Zalando, and McDonald's brands, respectively. Similarly, the message effectiveness scale demonstrated high levels of internal consistency, with scores of 0.943 and 0.915 for the InPost brand's meme and messages without memes, respectively, and scores of 0.939 and 0.896 for the Zalando brand, and scores of 0.945 and 0.921 for the McDonald's brand. The MALS scale yielded a score of 0.847. The results are summarized in Table 1.

Table 1
Reliability of the scales used

	Scale	α
Brand personality scale	InPost	0.915
	Zalando	0.923
	McDonald's	0.930
Scale of message effectiveness	InPost memes	0.943
	InPost messages without memes	0.915
	Zalando memes	0.939
	Zalando messages without memes	0.896
	McDonald's memes	0.945
	McDonald's messages without memes	0.921
Meme Advertisements' Likability Scale		0.847

3.4. Research Sample

Participants in the study were selected with the use of quota and purposive sampling to include respondents of different age, gender and the level of interests towards Internet memes. To guarantee comparability of the experimental and control groups, randomization was used in assigning participants to the groups (Babbie, 2009).

The experimental group consisted of 72 participants among whom 56.94% were women and 43.06% were men. 86.11% of the group consisted of people born between 1997 and 2006, while 13.89% were born between 1975 and 1996 (see Table 2). The division by age is equivalent to the division into generation Z and earlier generations (Kotler, Kartajaya, & Setiawan, 2021). 76.39% of the participants of the experimental group declared affiliation to humorous groups on Facebook (see Table 2). 96.36% participants of the experimental group belonging to humorous groups (n=55) declared going over content in the groups, 30.91% commenting on the content and 7.27% posting (see Table 3).

The control group consisted of 81 participants among whom 51.85% were women and 48.15% were men. 90.12% of the group consisted of people born between 1997 and 2006, while 9.88% were born between 1970 and 1996 (Table 1). 72.84% of the participants of the control group declared affiliation to humorous groups on Facebook (see Table 2). 98.31% participants of the control group belonging to humorous groups (n=59) declared going over content in the groups, 32.20% commenting on the content and 16.95% posting (see Table 3).

The total research sample consisted of 153 participants among whom 54.25% were women and 45.75% were men. 88.23% of the sample consisted of people born between 1997 and 2006, while 11.77% were born between 1970 and 1996 (see Table 2). 74.51% of the total research sample declared affiliation to humorous groups on Facebook (see Table 2). 97.37% participants of the total research sample belonging to humorous groups (n=114) declared going over content in the groups, 31.58% commenting and 12.28% posting (see Table 3).

Table 2
Diversity of research samples

Variable		Experimental sample (n=72)		Control sample (n=81)		Total research sample (n=153)	
		Number of respondents (NoR)	Percentage (%)	NoR	%	NoR	%
Gender	Female	41	56.94	42	51.85	83	54.25
	Male	31	43.06	39	48.15	70	45.75
Age group	1997–2006	62	86.11	73	90.12	135	88.23
	1970–1996	10	13.89	8	9.88	18	11.77
Affiliation to humorous groups	Yes	55	76.39	59	72.84	114	74.51
	No	17	23.61	22	27.16	39	24.49

Table 3
Activity in humorous groups on Facebook among members of research samples

Activity in humorous groups	Experimental sample (n=55)		Control sample (n=59)		Total research sample (n=114)	
	NoR	%	NoR	%	NoR	%
Going over content	53	96.36	58	98.31	111	97.37
Commenting	17	30.91	19	32.20	36	31.58
Posting	4	7.27	10	16.95	14	12.28

3.5. Statistical Procedures

SPSS was employed to conduct a series of statistical tests to confirm the research hypotheses. The first hypothesis was tested using independent samples t-test. The procedure of the H1 testing was schematically presented in the Figure 4. The testing of the first hypothesis was accompanied with the complementary Pearson’s correlation coefficient analysis to determine the linear relationship between variables. The procedure of the complementary analysis was schematically presented in the Figure 5. The second hypothesis was also tested using independent samples t-test. The procedure of the H2 testing was schematically presented in the Figure 6 (Wieczorkowska & Wierzbński, 2007).

Figure 4
Procedure of testing H1

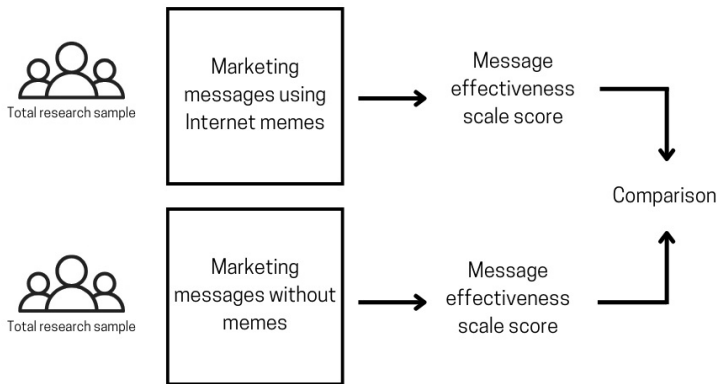


Figure 5
Procedure of the complementary analysis accompanying testing H1

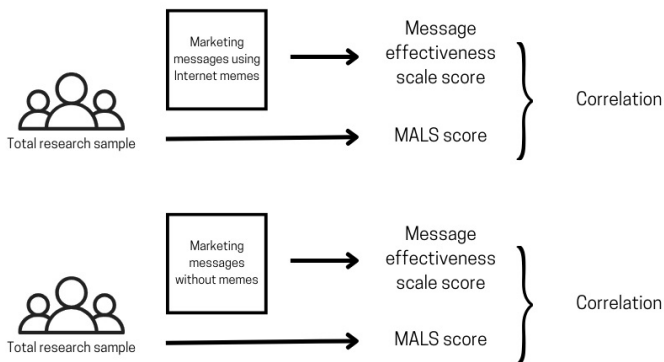
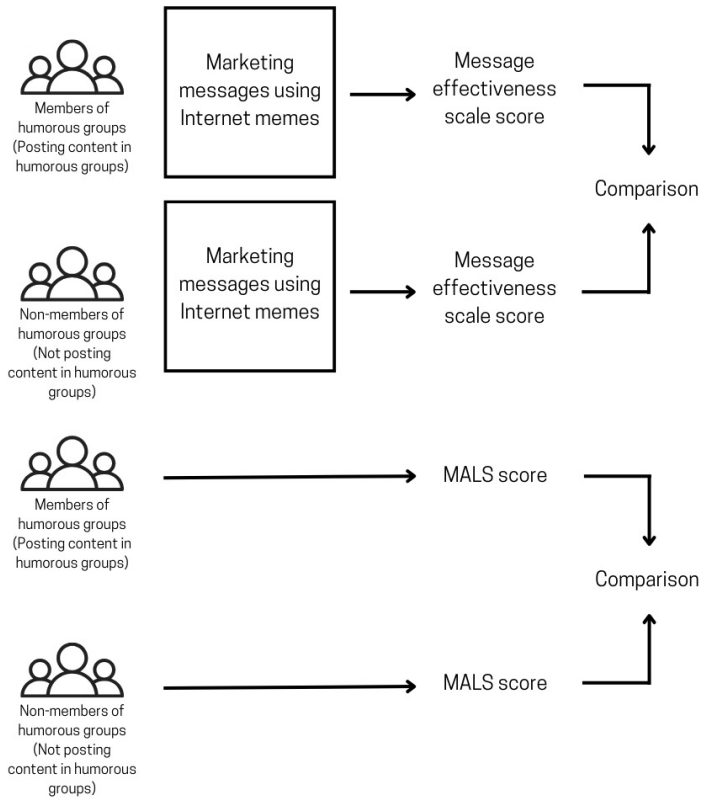


Figure 6
 Procedure of testing H2



The third hypothesis was tested using the dependent samples t-test to assess significant differences between the means of pretest and posttest scores and the independent samples t-test to compare the differences between the experimental and the control group. The procedure of testing H3 was schematically presented in Figure 7. The fourth hypothesis was tested using independent samples t-test. The procedure of testing H4 was schematically presented in Figure 8 (Wieczorkowska & Wierzbiński, 2007).

Figure 7
Procedure of testing H3

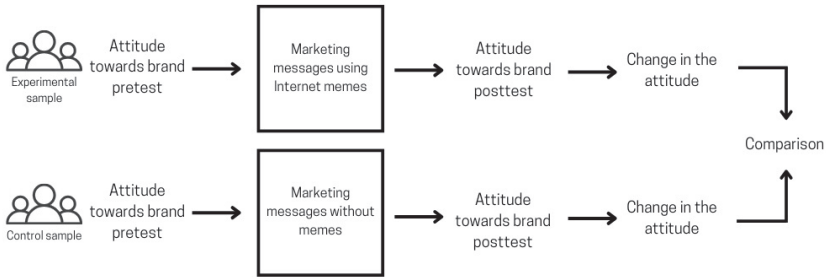
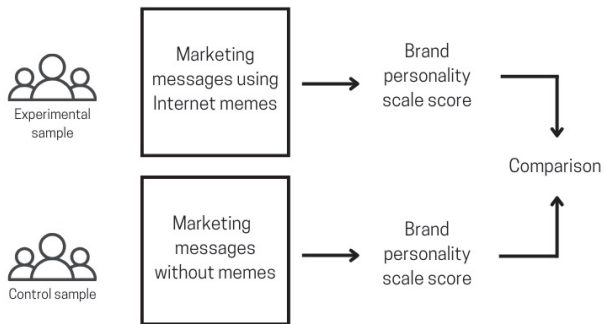


Figure 8
Procedure of testing H4



4. Results

The average effectiveness of messages using Internet memes was found to be higher for each of the three brands. Differences were statistically significant for the InPost and Zalando brands. Detailed results are presented in Table 4.

For both brands, Pearson's correlation coefficient was calculated for the message effectiveness scale scores and the scale of Meme Advertisements' Likability Scale scores. The coefficient was calculated both for the messages using Internet memes and the messages not using Internet memes. Verification of the statistical significance of the correlations was also calculated.

For both brands, attitude towards advertising memes positively correlates with the effectiveness of both marketing messages using Internet memes and messages without memes. Correlations are statistically significant. However, it should be noted that for the messages using Internet memes the correlation is moderate, while in the case of messages without memes it is only weak. Detailed results are shown in Table 5.

Messages using Internet memes are marked by higher effectiveness. Nevertheless, higher effectiveness may be caused by the stronger preference of the surveyed consumers for the form of communication. However, it is not a sufficient basis for not recognizing the fact that higher effectiveness is achieved by marketing messages using memes. *Thus, the H1 statement about marketing communication using Internet memes being more effective than marketing communication without memes was supported.*

For each brand, the average rating of messages using memes was higher among members of humorous groups. All differences were statistically significant. In contrast, there were no statistically significant differences between posting and non-posting members of those groups. Detailed results are presented in Table 4. The average MALS score for members of humorous groups was higher than for non-members. The difference was statistically significant. The average MALS score for publishing members was higher than for not publishing. The difference was statistically significant. Detailed results are presented in Table 6.

The relationship between the level of interest in Internet memes and the perception of marketing communication using Internet memes turned out to be positive, contrary to what was assumed on the basis of the literature. *Hypothesis number two was therefore rejected.*

Table 4

Differences in message effectiveness scale score depending on grouping criterion

Brand	Grouping criteria	Effectiveness scale score	t	df	p
InPost	Messages using memes	3.3124	3.324	304	≤.001
	Messages without memes	2.9439			
Zalando	Messages using memes	3.1510	4.341	304	≤.001
	Messages without memes	2.6773			
McDonald's	Messages using memes	3.1891	0.503	304	0.615
	Messages without memes	3.1330			
InPost	Members of humorous groups	3.5121	4.431	151	≤.001
	Non-members of humorous groups	2.7212			
Zalando	Members of humorous groups	3.2621	2.379	151	0.019
	Non-members of humorous groups	2.8173			

Table 4 cont.

Brand	Grouping criteria	Effectiveness scale score	t	df	p
McDonald's	Members of humorous groups	3.3684	3.923	151	≤.001
	Non-members of humorous groups	2.6571			
InPost	Posting content in humorous groups	3.5089	-0.013	112	0.990
	Not posting content in humorous groups	3.5125			
Zalando	Posting content in humorous groups	2.9643	-1.186	112	0.238
	Not posting content in humorous groups	3.3038			
McDonald's	Posting content in humorous groups	3.4107	0.173	112	0.863
	Not posting content in humorous groups	3.3625			

Table 5

Correlation between message effectiveness scale score and Meme Advertisements' Likability Scale score

Type of message	Brand	r	p
Using memes	InPost	0.462	<.001
	Zalando	0.458	<0.001
Without memes	InPost	0,231	0.004
	Zalando	0.251	0.002

Table 6

Differences in Meme Advertisements' Likability Scale (MALS) score between groups

Group	MALS score	t	df	p
Members of humorous groups	4.1351	2.410	151	0.017
Non-members of humorous groups	3.7744			
Posting in humorous groups	4.5887	2.533	112	0.013
Not posting in humorous groups	4.0720			

Dependent samples t-test showed that familiarization with marketing messages worsened attitudes towards brands, but only for the InPost brand the difference was statistically significant. The test did not take into account those who declared unfamiliarity with the brand in the pretest. Detailed results are presented in Table 7.

The average likability score for the InPost brand worsened after looking at both messages using Internet memes and messages not using Internet memes. Although the average decrease in brand liking was lower for messages using memes, differences were not statistically significant. Thus, *hypothesis number three was rejected*. Detailed results are shown in Table 8.

Table 7

Differences between attitude towards brands before and after showing the marketing messages to the respondents

Brand	Pretest	Posttest	t	df	p
InPost	8.4305	8.0530	3.540	150	≤.001
Zalando	7.4420	7.3333	0.831	137	0.407
McDonald's	7.0783	7.0654	0.089	152	0.929

Table 8

Change in attitude towards InPost brand in the experimental and control group before and after showing to the respondents the marketing messages

Brand	Group	Change in attitude towards brand	t	df	p
InPost	Experimental group	-0.2286	1.301	149	0.195
	Control group	-0.6062			

The average personality scale score was higher for each brand in the experimental group. However, the differences were not statistically significant. In the case of individual personality traits, they together formed the brand personality scale, statistically significant differences were found only for the Zalando brand: the traits “imaginative” and “intelligent” were rated higher on the basis of the messages using memes. Thus, *hypothesis number four was rejected*. Detailed results are presented in Table 9.

Table 9
*Differences between personality scale scores for each brand
 in the experimental and control group*

Brand	Group	Personality scale score	t	df	p
InPost	Experimental group	3.5754	0.700	151	0.485
	Control group	3.4709			
Zalando	Experimental group	3.4107	1.388	151	0.167
	Control group	3.1975			
McDonald's	Experimental group	3.2897	0.555	151	0.580
	Control group	3.2011			

5. Discussion

The aim of the study was to answer the question about effectiveness of marketing communication using Internet memes. The goal was achieved by verifying four research hypotheses.

H1 assumed higher effectiveness of marketing communication using Internet memes, as compared to marketing communication without memes. The hypothesis was accepted. For two of the three brands, effectiveness of messages using Internet memes was higher at a statistically significant level. The outcome aligns with expectations grounded in prior literature. The anticipated higher effectiveness of marketing messages utilizing Internet memes stems from several key findings: the greater ability to attract attention of humorous messages (Sutherland & Sylvester, 2003); the humorous nature of Internet memes (Nowak, 2013); the expectation of consumers to be entertained by marketing communication (Iwańska, 2013); and the ability of posts containing Internet memes to build greater user engagement (Yang & Hayashi, 2021). An alternative interpretation of the results could be attributed to the affect heuristic, which highlights an enhanced acknowledgement of arguments supporting favored subjects (Kahneman, 2013). The observed correlation between scores on the “liking towards advertising memes” scale and the effectiveness scale bolsters the alternative view, especially given the more pronounced correlation for messages incorporating memes.

H2 postulated that perception of marketing communication using Internet memes depends on the level of consumer’s interest in Internet memes. It was assumed that as interest in memes intensifies, perception of communication utilizing memes deteriorates. The hypothesis was rejected. Marketing messages employing memes exhibited significantly higher effectiveness among respondents belonging to humorous FB groups. Liking towards

advertising memes was also higher at a statistically significant level among the group. Furthermore, members of humorous groups who actively post in them demonstrated a statistically significant preference for advertising memes, as compared to non-publishing members. The result we get is exactly the opposite of what was assumed on the basis of the literature. It was assumed that the consumers' knowledge, which constitutes internal noise in the communication process (Stochniatek-Mulas, 2012), combined with their acknowledged skepticism towards advertising memes within meme culture (knowyourmeme.com, 2022), would lead to a potential aversion to this form of communication among those with a higher interest in Internet memes. The result was exactly the opposite. A possible explanation for the result obtained would be to recognize that the skepticism towards advertising memes is not a view shared among the majority of people interested in Internet memes.

H3 posited that the use of Internet memes in marketing communication positively affects attitude towards the brand. The hypothesis was rejected, as there was no statistically significant difference in attitude towards brands between the group exposed to the experimental stimulus in the form of a meme and the control group. The obtained results contradict what was assumed based on the literature. Namely, it was assumed that satisfying consumers' ludic needs by means of memes, the nature of which is humorous, would result in improved brand liking (Iwańska, 2013; Nowak, 2013). A possible explanation of the fact is that the study used widely known brands. Consumers were likely to be familiar with the brands and have strong opinions about them. The messages presented in the survey might have been an insufficient stimulus to change the attitude towards the brands.

H4 proposed that the use of Internet memes in marketing communication positively influences brand personality. The hypothesis was rejected. Despite the fact that the average personality scale score was higher for each brand in the experimental group, the differences were not statistically significant. The obtained result contradicts the assumptions drawn from the literature. Specifically, considering the inherently humorous nature of Internet memes, it was expected that they would effectively convey brand personality, primarily through the emotions evoked by the advertising message (Keller, 2016; Nowak, 2013). A possible explanation of this would be to consider that advertising memes do not evoke sufficiently strong emotions.

The results obtained should also be discussed in terms of internal and external validity of the research. Despite the fact, that the real aim of the study was undisclosed, it was probably possible for the respondents to conjecture it while filling in the questionnaire (Babbie, 2008). Although this problem refers to experiments, it seems to be reasonable to assume, that it could also affect the survey part of the study due to the fact, that the respondents were asked to answer the same question multiple times, based on different marketing messages (Babbie, 2008). The mentioned fact poses a risk that the respondents might have been guided by what they

thought they should think (Babbie, 2008). However, the fact that only one of the four hypotheses was confirmed seems to indicate reliability, in this regard, of the results obtained. Regarding others factors affecting internal validity, the authors believe that applied procedures, as e.g. randomization, guarantee a high level of reliability of the results.

In spite of the fact that hypotheses assuming casual relationships were not confirmed, external validity of the experimental part of the study should also be commented (McDonald, 2005). As it was mentioned previously, one of the elements of the process of communication is its context (Wiktor, 2013). The questionnaire obviously differed from social media interfaces, where the messages used in the study were originally placed. There is no certainty that the assumed causal relationship does not occur in the natural context of such type of marketing communication.

6. Conclusions

The main issue in the paper was to answer the question about effectiveness of marketing communication using Internet memes. Addressing the question was significant because the literature encourages incorporation of humor or Internet memes in marketing communication, but it also includes critical perspectives, including those voiced by consumers themselves.

In order to answer the main question in the paper, four research hypotheses were formulated. The analysis of the results of the conducted study led to the rejection of the assumptions about the influence of Internet memes on attitude towards brand and brand personality. However, the high potential of Internet memes as marketing messages was recognized. Internet memes proved to be more effective than marketing messages without memes. The level of consumer interest in Internet memes proved to be a differentiating factor of the effectiveness of the type of marketing communication – Internet memes used as the marketing messages are perceived better by consumers who are assumed to be more interested in Internet memes.

The results of the study seem to make an important contribution to the rather limited literature on the subject of the use of Internet memes in marketing activities. The paper turns the spotlight onto the characteristics of consumers who are the potential target group of the type of communication. Contrary to what was assumed based on the literature, the potential target group seems to be wide. Interestingly, the influence of consumers' level of interest in Internet memes on their perception of marketing communication using Internet memes turned out to be positive. In the light of the finding, the study results suggest that the voices criticizing advertising memes may not reflect the majority of consumer opinions.

The paper provides valuable insights for practitioners, equipping them with the knowledge needed to enhance the efficiency of their marketing

communication efforts. According to the results obtained, comparing to the marketing communication without memes, marketing messages using Internet memes are more effective in social media environment, where consumers expect to be entertained (Iwańska, 2013). For this reason using Internet memes should be considered while pursuing marketing communication in social media. The results should encourage social media managers to use Internet memes especially when the target group is interested in them. However, considering the fact that a few Internet memes seems to be an insufficient stimulus to improve attitude towards brand or its personality, using them in marketing communication should only be a part of a larger promotional strategy.

Important limitations of the study should also be noted. The main limitation of the study is the fact that participants of the study were selected using non random sampling, which can be treated as a statement of the unrepresentativeness of the research sample. Despite the authors' efforts, it was also not possible to maintain equal sex ratios between the control and experimental group. Moreover, the vast majority of the respondents were born between 1997 and 2006.

The study could be an inspiration for those interested in the topic of Internet memes and the possibility of using them in marketing activities. An interesting direction of research could be a reconduct of the study using prepared marketing messages of fictional brands, so that it would eliminate the influence of the opinions already held by the consumers on their declarations about their attitude towards brand. In order to ensure greater external validity, the experimental part of the study could also be repeated using simulated social media interfaces. Qualitative study would also be an interesting direction for future studies. The study could be conducted with the participation of members of the above-mentioned Facebook group or active members of knowyourmeme.com. It would allow better understanding of the communities criticizing the use of Internet memes by brands. The other interesting direction would be answering the question of what characteristics an advertising meme should have in order to maximize its effectiveness as a marketing message. An attempt to answer the question of how to manage a situation in which a brand becomes the subject of memes created by Internet users, both negative and positive, also seems to be an important and interesting direction.

Acknowledgements

The authors would like to thank Julia Platek, a student of English philology, for the basic linguistic proofreading of the article.

Declaration of Conflicting Interests

The authors declared no potential conflicts of interest with respect to the research, authorship, and publication of this article.

Endnotes

- ¹ In the literature it is often pointed out the existence of one more instrument of promotion, namely direct marketing (Hajduk, 2019). However, Jan W. Wiktor (2013) claims that the functioning way of understanding the concept makes it more a part of the problem of the distribution.

References

- Aaker, J.L. (1997). Dimensions of Brand Personality. *Journal of Marketing Research*, 34(3), 347–356. <https://doi.org/10.1177/002224379703400304>
- Aronson, E. (1997). *Człowiek – istota społeczna*. Wydawnictwo Naukowe PWN.
- Babbie, E. (2008). *Podstawy badań społecznych*. Wydawnictwo Naukowe PWN.
- Babbie, E. (2009). *Podstawy badań społecznych*. Wydawnictwo Naukowe PWN.
- Bury, B. (2016). Creative Use of Internet Memes in Advertising. *World Scientific News*, 57, 33–41.
- Campbell, D., & Stanley, J. (1963). *Experimental and Quasi-Experimental Designs for Research*. Rand McNally.
- Davison, P. (2012). The language of internet memes. In M. Medinberg (Ed.), *The Social Media Reader* (120–134). NYU Press. <https://doi.org/10.18574/nyu/9780814763025.003.0013>
- Dawkins, R. (2021). *Samolubny Gen*. Prószyński Media Sp. z o.o.
- Gorbaniuk, O. (2011). *Personifikacja marki: perspektywa psychologiczna i marketingowa*. Wydawnictwo KUL.
- Grębosz, M., Siuda, D., & Szymański, G. (2016). *Social media marketing*. Wydawnictwo Politechniki Łódzkiej.
- Hajduk, G. (2019). *Zarządzanie komunikacją marketingową*. Poltex Sp. z o.o.
- Hallgren, J., Sigurbjörnsson, K., & Black Jr., T. (2018). *The Relationship Between Brand Related UGC and CBBE: An Internet Meme Experiment* [Bachelor thesis, Linnaeus University]. DiVA. <http://www.diva-portal.org/smash/record.jsf?pid=diva2%3A1219455anddswid=7079>
- Iwańska, M. (2013). Czy żart reklamy wart? – perspektywa odbioru reklam humorystycznych. *Konteksty Kultury*, 10(1+2), 214–226.
- Jemieliński, D. (2019). *Socjologia Internetu*. Wydawnictwo Naukowe Scholar.
- Juza, M. (2013). Memy internetowe – tworzenie, rozpowszechnianie, znaczenie społeczne. *Studia Medioznawcze*, 55(4), 49–60.
- Kaczorowska-Spychalska, D. (2011). Portale społecznościowe w strategii komunikacji. In Z. Waśkowski (Ed.), *Komunikacja rynkowa: kultura, perswazja, technologia* (pp. 11–20). Wydawnictwo Uniwersytetu Ekonomicznego w Poznaniu.
- Kahneman, D. (2012). *Pułapki myślenia: o myśleniu szybkim i wolnym*. Media Rodzina.
- Kamińska, M. (2011). *Nieczne memy. Dwanaście wykładów o kulturze internetu*. Galeria Miejska Arsenal.
- Kamińska, M. (2017). *Memosfera. Wprowadzenie do cyberkulturoznawstwa*. Galeria Miejska Arsenal.
- Kasprowicz, D., & Veltzé, K. (2020). Badania nad memami internetowymi w świetle wiedzy o nowych mediach – wyzwania metodologiczne. *Studia de Cultura*, 12(3), 4–12. <https://doi.org/10.24917/20837275.12.3.1>
- Keller, K.L. (2016). *Strategiczne zarządzanie marką. Kapitał marki – budowanie, mierzenie i zarządzanie*. Wydawnictwo Nieoczywiste.
- Knowyourmeme.com. (2021). *Memes in advertising/corporate memes*. Knowyourmeme.com. <https://knowyourmeme.com/memes/memes-in-advertising-corporate-memes> (15.03.2022).
- Kotler, P., & Keller, K.L. (2012). *Marketing*. Dom Wydawniczy REBIS Sp. z o.o.
- Kotler, P., Waya, H., & Setiawan, I. (2021). *Marketing 5.0*. MT Biznes Sp. z o.o.

- Kowalczyk-Purol, K. (2018). Teoretyczne trudności memetyki. *Diametros*, (58), 65–86. 10.13153/diam.1285.
- Kwade, E. (2014). O, Memo! Recenzja artykułu Marty Juzy, Memy internetowe – tworzenie, rozpowszechnianie, znaczenie społeczne. *Studia medjoznawcze*, 4(15), 171–175.
- Levison, J.C. (2011). *Marketing Partyzancki*. Wolters Kluwer Polska Sp. z o.o.
- Masłowski, S. (2014). Inżynieria memetyczna wobec komunikacji reklamowej. *Teksty z Ulicy. Zeszyt memetyczny*, (15), 99–114.
- McDonald, M.P. (2005). Validity, Data Sources. In K. Kempf-Leonard (Ed.), *Encyclopedia of Social Measurement. Vol. 3, P–Y* (pp. 939–948). Elsevier. <https://doi.org/10.1016/B0-12-369398-5/00046-3>
- McGuire, W.J. (1973). Persuasion, Resistance Attitude Change. In I. de Sola Pool (Ed.), *Handbook of Communicatons*. Rand McNally College Pub. Co.
- Nowak, J. (2013). Memy internetowe: teksty (cyfrowej) kultury językiem krytyki społecznej. In I. Hofman and D. Kepa-Figura (Eds.), *Współczesne media. Język mediów* (pp. 239–256). Wydawnictwo Uniwersytetu Marii Curie-Skłodowskiej.
- Rothwell, J.D. (2016). *In the company of others: an introduction to communication*. Oxford University Press.
- Rudnicki, L. (2012). *Zachowania konsumentów na rynku*. Polskie Wydawnictwo Ekonomiczne.
- Sanak, K. (2011). Serwisy społecznościowe w służbie budowania wizerunku marki. In Z. Waškowski (Ed.), *Komunikacja rynkowa: kultura, perswazja, technologia* (pp. 61–71). Wydawnictwo Uniwersytetu Ekonomicznego w Poznaniu.
- Smith, M. (2022, December 2). *Are memes right for your marketing?* GWI. <https://blog.gwi.com/marketing/memes-in-marketing/>
- Solomon, M.R. (2006). *Zachowania i zwyczaje konsumentów*. Helion S.A.
- Stochniałek-Mulas, K. (2012). Percepcja przekazów marketingowych jako element procesu komunikacji. *Zarządzanie i Finanse*, 10(2 part 2), 151–163.
- Sutherland, M., & Sylvester, A.K. (2003). *Reklama a umysł konsumenta: co działa, co nie działa i dlaczego*. Wydawnictwo Naukowe PWN.
- Toustrup, S.S. (2017). *Memetic Marketing in Theory and Practice*. [Master thesis, Copenhagen Business School]. CBS Repository. <https://research.cbs.dk/da/studentProjects/e60884e7-8c02-4783-9711-914f33bc1fb5>
- Trojanowski, M. (2019). *Prezentacje i wystąpienia w biznesie*. Wydawnictwo Naukowe PWN.
- Walkiewicz, A. (2012). Czym są memy internetowe? Rozważania z perspektywy memetycznej. *Teksty z Ulicy. Zeszyt memetyczny*, (14), 49–69.
- Wężowicz-Ziółkowska, D. (2008). *Moc narrativum: idee biologii we współczesnym dyskursie humanistycznym*. Wydawnictwo Uniwersytetu Śląskiego.
- Wieczorkowska, G., & Wierzbński, J. (2007). *Statystyka: analiza badań społecznych*. Wydawnictwo Naukowe Scholar.
- Wiktor, J.W. (2013). *Komunikacja marketingowa*. Wydawnictwo Naukowe PWN.
- Wojciszke, B. (2004). *Człowiek wśród ludzi. Zarys psychologii społecznej*. Wydawnictwo Naukowe Scholar.
- Wolek-Kocur, B. (2014). Like! Kilka uwag o perypetiach pewnego memu. *Teksty z Ulicy. Zeszyt memetyczny* (15), 135–146.
- Yang, X., & Hayashi, T. (2021). Exploring the Effects of Internet Memes in Social Media Marketing through A/B Testing. *2021 IEEE 23rd Conference on Business Informatics (CBI), Italy*, 97–106. <https://doi.org/10.1109/CBI52690.2021.10060>
- Ypulse. (2019, March 5). *3 Stats That Show What Memes Mean to Gen Z and Millennials*. <https://www.ypulse.com/article/2019/03/05/3-stats-that-show-what-memes-mean-to-gen-z-millennials/>