

EROTIC APPEALS IN ADVERTISING: VISUAL ATTENTION AND PERCEIVED APPROPRIATENESS

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ABSTRACT *Erotic appeals in advertising are sometimes considered unethical or provocative. This study addresses how consumers perceive advertisements with erotic appeals regarding eye movement and subjective appropriateness. This study is methodologically based on eye-tracking to capture the participants' visual attention and semi-structured interviews to obtain further in-depth information on the perceived appropriateness of erotic appeal in a particular advertisement from the respondent's perspective. The results show a difference in how consumers look at advertising according to their perceived appropriateness of an erotic appeal and indicate the importance of a suitably chosen protagonist concerning the target group. Concerning the chosen protagonist, marketers must pay attention to the strength and congruence of the erotic appeal.*

KEY WORDS

EROTIC APPEALS, ADVERTISING, EYE-TRACKING, INTERVIEWS, APPROPRIATENESS, VISUAL ATTENTION

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INTRODUCTION

Advertising is a popular marketing tool, which reaches a broad audience. Moreover, it allows various media to acquire financial resources to survive by selling media space (Anderson & Gabszewicz, 2006). Therefore, understanding how consumers respond to advertising emotional appeals is essential for advertising and media agencies, advertisers and media. Neuromarketing research (such as eye-tracking) is a popular methodological approach in marketing science and consumer behaviour research. According to Renvoisé and Morin (2007), neuromarketing research may contribute to testing advertising effectiveness and ensuring its efficiency. According to Micu and Plummer (2010), results based only on respondents' self-reporting can be considered subjective. According to Georges et al. (2013), respondents' reports may be biased in sensitive topics such as sex, money and gambling. This is not always caused by respondents lying or concealing sensitive or private information but because they are not usually aware of their brain reactions, emotions and mental processes (see, e.g., Fugate, 2007). Such bias may be eliminated by using neuromarketing techniques, which can help measure unconscious responses (Venkatraman et al., 2015) and the effects of particular stimuli (Nilashi et al., 2020) as erotic stimuli.

Erotic appeals are frequently used in advertising due to their ability to attract consumers' attention, prompt emotional response and increase ad recall (Grazer & Keesling, 1995; Percy & Rossiter, 1992; Wirtz et al., 2018). On the other hand, the use of erotic appeals is frequently discussed by the academic community and is considered unethical, provocative and even disgraceful and sexist (Blair et al., 2006; LaTour & Henthorne, 2003; Maciejewski, 2004). According to the study "Czechs and advertising" ("Češi a reklama") by Vysekalová (2017), 42% of respondents supported legal restriction on advertising with erotic and sexual stimuli, while 31% supported an official ban on such advertising.

Erotic appeals in static advertisements have been studied more in-depth (see, e.g. Fidelis et al., 2017; Henthorne and LaTour, 1995; Kelsmark et al., 2011; Reichert et al., 2012) than erotic appeals in audio-visual advertising (Furnham & Hiranandani, 2009; Panda, 2005; Thiyagarajan et al., 2012). Audio-visual ads are aired in traditional media such as television and online media such as YouTube, websites, social media and others. According to Belch et al. (1987) and Reichert et al. (2001), advertising containing erotic appeals attracts more attention, but more to the appeal, not always to a brand or product. The reason is that attention resources are limited: thus, the more attention given to erotic appeals, the fewer attention resources remain for focusing on brands and products (Belch et al., 1987; Reichert, 2002).

Some authors highlight that attitudes toward advertising and evaluation differ between males and females (Cartocci et al., 2016; Shaouf et al., 2016; Vecchiato et al., 2014). Several studies (e.g., LaTour, 1990; Reichert et al., 2007; Simpson et al., 1996) highlight that the evaluation, perception and attitude toward erotic depiction may depend on the sex of the leading ad character, the sex of the respondents and relevance to a brand. Wan et al. (2014), e.g., reveal that females have a less positive attitude to advertising containing

nudity of the opposite sex than males. Brunel and Nelson (2003) show that males and females have different advertising responses because of different values and processing information. According to Lykins et al. (2008), males dedicate visual attention to the characters of the opposite sex for longer than females. Sarlo and Buodo (2017) found that females react to the characters of different sexes in the same way, while males' reactions differ according to the sex of the character in advertising. Moreover, the response to advertising erotic stimuli depends on sexual orientation (Hicks, 2003). To address this issue, we ensured that all respondents in the sample claimed they were heterosexual.

According to Mehta (2000) and Evans et al. (2011), consumers' response to advertising may be influenced by selective attention toward the advertising due to their specific predisposition, values, preferences, interests and motivation. Duffy (2013) mentions that a particular generation may be viewed as a homogeneous group because consumers are conditioned by the period they were born, grew up and lived in. Thus, according to Beekman (2011), different generations have diverse values, motivations and attitudes.

Empirical studies on Generation Y (or millennials') psychology and consumer behaviour consider millennials a specific group or segment of consumers (Smith, 2011; Valentine and Powers, 2013; Wolburg and Pokrywczynski, 2001). Generation Y is considered to have more positive attitudes to advertising and emotional appeals in advertising in comparison, e.g., with Generation X (Coulter et al., 2001). The effect of erotic stimuli varies depending on the viewers' age and is considered the strongest in relation to a sexually active audience (Bryła & Gruczyńska, 2018; Gould, 2003). Therefore, the consumer segment that is nowadays appropriate for erotic appeals is Generation Y (1980–2000) and Generation X (1960–1980). In this respect, millennials are the expedient age category of respondents for the testing perception of erotic appeals. As the growing numbers of ethical misconducts are discussed in society, the ethics standards of different parts of society have to be investigated in time to understand normative conformity in selected target groups better.

The initial premise is that a) millennials are a specific consumer segment that can be studied isolated; that b) erotic stimuli can draw consumers' attention away from the promoted product while watching the advertisement; that c) consumers' perception or response to erotic appeals vary according to the sex of the viewer and the sex of the leading ad character(s). Hence, the purpose of this study is to find out how millennials perceive erotic appeals in audio-visual advertising. To fulfil the aim of the study, we conducted empirical research to assess eye-tracking of the response to advertisements featuring visual erotic appeals and the subsequent respondents' self-report. We tested three actual advertisements with a diverse erotic appeal, which differed in the sex of the main character.

This study provides some theoretical contributions and practical implications. First, it addresses the issue of the positive and negative perceptions of erotic appeals. Several previous papers have examined the attitude and response to advertising erotic appeals so that this study may contribute to current theoretical knowledge in this field. Second,

the results of this study highlight the ability of visual erotic stimuli to draw attention away from the product. The results improve the understanding of how erotic appeals work and their impact on the perception of the leading advertising message, which is highly relevant to advertisers. The study also provides insights for advertising production professionals regarding the physical and contextual features of models. Third, the study provides evidence of the importance of the different sexes regarding advertising perception among Generation Y consumers. Such results provide practitioners with information about the erotic appeal (in)appropriateness and discussion and which sex-related products should use erotic appeals in their advertising message.

EROTIC APPEALS IN ADVERTISING AND VISUAL ATTENTION

Emotional appeals in advertising are used to attract and increase attention from viewers. It is generally accepted that emotionally meaningful appeals (evoking negative or positive emotion) attract more attention than neutral stimuli (e.g., Calvo & Lang, 2004). Advertisements with the emotional appeal can bring a brand into the centre of consumers' attention and, in this way, distinguish it from other brands, as shown by Punniyamoorthy and Arulmoli (2019) in the case of instore attention. These are just a few reasons for adding emotional appeals to advertisements. However, an emotional appeal in advertising on consumers' attention can also be reversed. For instance, two strands of theories are mentioned regarding negative emotional appeals (e.g., fear appeals), as pointed out by Kemp et al. (2019). First, the so-called "dimensional emotion theories" are based on negative emotional appeals. The authors assume that negative emotional appeals catch viewers' attention. By contrast, the second strand consists of the "discrete emotion theories" that build upon the premise that negative appeals (elicitors) lead to viewers' lower attention. Similarly, the sexual stimulus may evoke negative emotions and influence the level of attention. Notably, Morandini et al. (2019, p. 1373) highlight that some "sex-related stimuli can be strong elicitors of disgust", especially certain parts of the body and bodily excretions.

However, this is not the only possible way to interpret the effect of sexual appeals on attention. Erotic appeals in advertisements can have both a positive and negative effect on visual attention. For research focusing on erotic appeals in advertisements, Sameer's (2018) distinction is recommended. He distinguishes two groups of sexual appeals: 1. "favour sex appeals advertisement" with a positive impact on visual attention and 2. "against sex appeals advertisement" with a negative impact. According to Sameer, this negative effect can be explained by neglecting the message of the advertisement or the brand while focusing consumers' attention on sex stimuli. This negative effect is sometimes called a "vampire effect" (Kuvita & Karlíček, 2014).

Moreover, this phenomenon is characteristic of grabbing viewers' attention away from the product or brand in an advertisement. Attention-grabbing advertisements could succeed in consumers' perception of the advertising message (Pieters & Wedel,

2004). However, the advertisement message cannot be superimposed by mere sexual or erotic appeal to be successful.

One way to explore viewers' attention to certain stimuli is through visual attention. Visual attention is often measured by eye-tracking equipment that records eye movements and refers to the time of fixation on particular stimuli and can also include effects of visual saliency (e.g. colour, size and shape) displayed stimulus (Orquin et al., 2018). Lykins et al. (2008, p. 220) claimed that visual attention appears to be an essential component in "cognitive processing of information". Perception of erotic appeals influences gaze behaviour and could be affected by, e.g. ethnicity (Ganesan et al., 2020; Wang and Spark, 2014), implied social presence (Milani et al., 2019), the amount of testosterone in the case of men (Palmer-Hague et al., 2017) and sexual preferences in terms of sexual orientation (Vásquez-Amézquita et al., 2019). The time of looking at an erotic appeal may be defined as an indicator of "sex interest" (Morandini et al., 2019). Fromberger et al. (2012) found that individuals gazed longer at the stimulus they considered attractive, and people tended to look longer at the stimuli they preferred.

EROTIC APPEALS IN ADVERTISING: VISUAL ATTENTION AND SEX DIFFERENCES

Males and females have different visual perceptions (Vanston and Strother, 2017), leading to different gaze patterns (Sammaknejad et al., 2017). According to Sargezeh et al. (2019), eye movements in free-viewing conditions (without emotional appeals) are dependent on the sex of the participants, stating that longer saccades and longer scan paths distinguish the female gaze. This finding complies with the earlier observations of Lykins et al. (2008, p. 227) that focus on the sexual visual stimulus that a woman's gaze shows a "more general scan pattern of the entire scene". In contrast, males tend to fixate on images more locally (Sargezeh et al., 2019), i.e., they generally focus on a more specific region no matter if the images are erotic or non-erotic (Lykins et al., 2008). Erotic content may be cognitively and visually processed differently (and articulated by different viewing patterns) depending on the sex of the respondent (Lykins et al., 2006; Lykins et al., 2008).

As these findings demonstrate, the viewing patterns towards ads with erotic appeals and the respondents' preferences are dependent on sex and sexual orientation. As highlighted by Hall et al. (2014), notably, a man's gaze is powered by sexual preferences. According to Vásquez-Amézquita et al. (2019), viewers' gaze (e.g., eye fixation duration) reflects their sexual orientation. Morandini et al. (2020) indicated differences in the visual perception of erotic images among bisexual, homosexual and heterosexual individuals. Their study revealed that heterosexual men look at pictures with women longer than at pictures with men (Lykins et al., 2008), and the gaze of homosexual men shows reverse patterns, i.e., they fixate more on pictures with men than with women (Vásquez-Amézquita et al., 2019). Regardless of erotic or non-erotic visualisation, heterosexual men visually focus (more than women) on opposite-sex figures and show a strong attention preference for opposite-sex figures than same sex figures. However, on the other hand, as Lykins et al.

(2008) showed, women divided their visual attention more evenly (than men) across male and female figures. Different preferences could cause different viewing patterns based on the sex of the viewers. This might lead to greater visual attention toward erotic appeals at the expense of other advertising messages.

The main goal of the paper was to explore the effects of erotic appeals in advertising in terms of consumers' visual attention and perceived appropriateness. Specifically, we investigated how heterosexual Czech business students perceive advertisements with erotic appeals regarding visual attention and subjective appropriateness. Based on the delineated theoretical background, this study aims to answer the following research questions concerning the effects of erotic appeals primarily on visual attention in advertisements:

RQ1: How does the sex of the protagonist representing the erotic appeal affect visual attention in terms of the "vampire effect" in television advertisements?

RQ2: How does the perceived appropriateness of erotic appeals affect visual attention in terms of the "vampire effect" in television advertisements?

RQ3: How does the viewer's sex affect visual attention in terms of the "vampire effect" within television advertisements with different types of erotic appeals?

DATA AND METHODS

This study was conducted in the form of eye-tracking experiments and semi-structured interviews. The eye-tracking approach was used to capture the participants' visual attention (e.g. total fixation duration for a particular stimulus in advertisements). In line with the previous research (e.g. Lykins et al., 2006; Lykins et al., 2008; Milani et al., 2019; Morandini et al., 2019), we used eye-tracking measurement to determine visual attention towards the predefined stimulus. The semi-structured interviews were employed to obtain further in-depth information on the perceived appropriateness of the erotic appeal in a particular advertisement from the respondent's perspective (RQ2). Data collected from the interviews were coded manually.

The stimuli used in this study were advertisements with erotic appeals. The sample of ads was selected from advertisements broadcast in the Czech Republic. To answer RQ3 and following the findings of Sargezeh et al. (2019), Lykins et al. (2006, 2008), who revealed differences in gaze behaviour between men and women, we investigated visual responses to sexual appeals in advertising with the focus on sex of the respondent. In pursuit of our goal, we selected three video ads (either with female models or male models or both at the same time). First, Mrož ice-cream advertising with nudity in the form of the exposed upper body of male models. Second, Lidl Esmara underwear with nudity presented in the form of female models in their underwear. Third, Magnesia mineral water with a naked male-female couple.

PARTICIPANTS' SAMPLE AND RESEARCH PROCEDURE

The snowball method was chosen for selecting a sample of 20 participants (aged 20–24 years old; ten males and ten females). All participants were students of the Faculty of Management, Prague University of Economics and Business and fell into the category of Millennials and had healthy vision. All were Caucasians and in terms of culture raised within the Central European culture. The social status of participants was not investigated. The participants first provided informed consent about participation in the study. They were seated in front of the monitor with eye-tracking equipment. The distance between the participants and the monitor was set at 50–60 cm, and the equipment was calibrated. Calibration was through Gazepoint Control software, which consists of five-point calibration. Our prerequisite was that the calibration is successful if the Gazepoint Control five-point calibration results reports showed a success calibrating 5 of 5 points for both eyes (as recommended in the software manual). This was followed by a display of three video ads in random order. The eye gazes of the participants were measured by the desktop eye tracker GP3. The sampling rate was 60 Hz, and the stated accuracy was 0.5–1 degrees. An interview with the respondent was conducted immediately after the eye-tracking part. Each experiment lasted 15–30 minutes.

DATA ANALYSIS

The eye-tracking data was analysed using Gazepoint analysis (UX Edition) software. Before the analysis and statistical testing of differences in visual attention, we generated heatmaps (as one way to visualise eye-tracking data) for the complex overview of respondent's visual attention. In the context of data analysis, we defined the areas of interest (AOIs) in each advertisement that generally included erotic appeals and brands/products. To analyse visual attention towards the predefined areas of interest, we used the eye-tracking metric Total Fixation Duration (TFD) within AOI's because this metric is most commonly used in the research of visual attention as well as sex differences in visual attention in connection with erotic appeals (e.g. Lykins et al., 2008). Total fixation duration (gaze time) determines the number of milliseconds of the viewer's attention on a particular area of interest, and this metric is used to indicate the amount of time that viewers pay attention to a given stimulus. We proceeded from the premise that longer fixation duration may suggest more substantial interest in an object (Franěk et al., 2018), and the time of looking at a particular erotic appeal can be an indicator of sex interest (Morandini et al., 2019). The effects of erotic appeals on visual attention were analysed by box plots and statistical analyses, which were performed using the paired t-tests (or by nonparametric alternative, paired Wilcoxon test) and one-way ANOVA (or by nonparametric alternative, Kruskal-Wallis test) applying a significance level of 0.05.

LIMITATIONS AND THE METHODOLOGICAL CHALLENGES

It is appropriate to mention two limitations to our research particularly. The first concerns the methodology, the second relates to the samples, meaning both the respondents and ad samples. Regarding methodology, the visual saliency of stimulus in advertisements has not been taken into consideration. In respect to the sample, the study examined only a particular type of erotic appeal in ads. Although we investigated the relationship between the effects of erotic appeals and the sex of the viewer (gender was not investigated), only heterosexual respondents were included in the sample, which leaves other sexual orientations unexamined. Moreover, along with our sample's characteristics (be it ads or respondents), its size was limited, which does not allow for the generalisation of our findings. However, we believe that our work could be the basis for future research in visual attention to advertising containing erotic appeals and can support greater use of eye-tracking for ad testing to reveal more profound aspects of anticipated consumer behaviour.

RESULTS

The purpose of this study is to find how heterosexual Czech business students perceive advertisements with erotic appeals in terms of visual attention and subjective appropriateness. In doing so, the research questions are focused on the effects of erotic appeals on the distribution of visual attention between product/brand and erotic appeals, the influence of perceived appropriateness on visual attention and the differences between the sex of the viewers were defined.

First, AOs (brand/product and erotic appeal) were defined in each advertisement to detect how long participants look at stimuli (expressed by the Total Fixation Duration (TFD) eye-tracking metric). The TFD values were recalculated into the relative share of attention to stimuli for comparison with each other across all ads and respondents. The relative share of attention was calculated as the difference in the total exposure duration (sec) of stimulus in advertisement (see Table 1) and eye fixation duration (sec). These variables were used in the following analysis within each of the research questions.

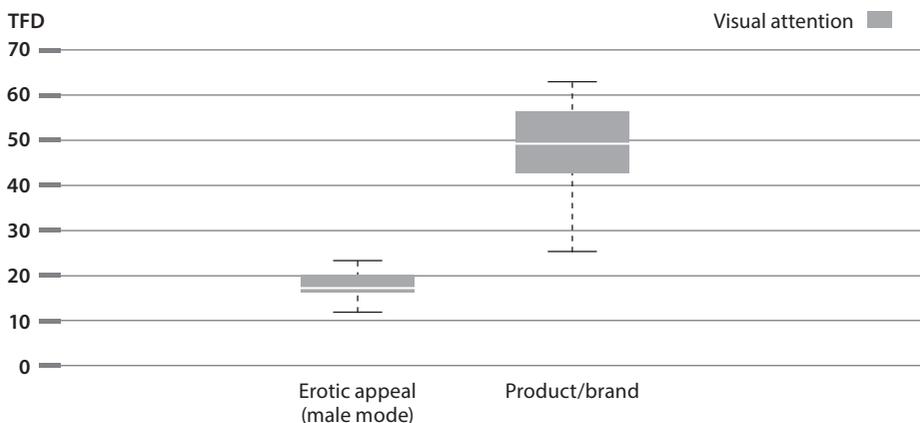
Table 1. The exposure time of AOs in selected advertisements

Advertisement	Form of erotic appeal	Exposure time of erotic appeal (sec)	Exposure time of product/brand (sec)
Mrož	male models	11.5	9.2
Lidl	female models	29.1	27.9
Magnesia	male-female couple	25.2	4.1

EFFECTS OF EROTIC APPEALS

The first question aimed to determine which effects of visual attention dominate in advertisements with different forms of erotic appeals (male, female, male-female). This part of the study specifically aimed to find out whether the erotic appeals can be seen as the “vampire effect” in advertisements (i.e. the viewers tend to look predominantly at erotic appeal more than at a brand/product in the advertisements with different erotic appeals).

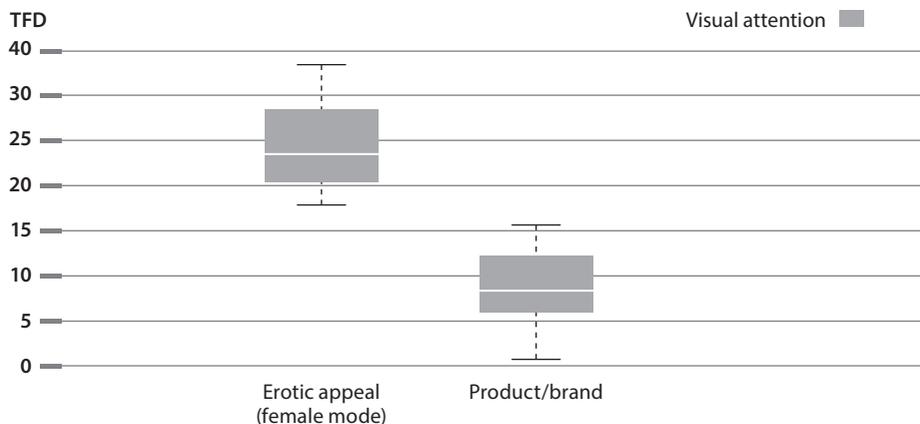
The visualisation of the gaze behaviour (based on the heat maps) in the advertisement with erotic appeal in the form of the exposed upper body of male models (the Mrož advertisement) showed some differences in the amount of visual attention for erotic appeal and the product. Specifically, the heatmaps showed that respondents tend to look more at the product and brand. The significance of these differences was tested using paired t-test (the assumptions of the paired t-test were fulfilled for both variables (TFD on erotic appeal and TFD on the product)). Results of paired t-test show a significant difference between the time of looking at an erotic appeal (male) and product (p -value < 0.01). These results and Figure 1 show that the respondents’ visual attention was significantly higher toward brand/product than toward male erotic appeal.



▲ Figure 1.
Differences between the Total Fixation Duration on erotic appeal (male) and brand/product (Mrož advertisement)

For the advertisement with erotic appeal with female models in their underwear (the Lidl advertisement), heatmaps showed some differences in the visual attention too. Visualisation of eye-tracking data indicated a higher level of visual attention of respondents

toward erotic appeal than brand. The significance of these differences was tested using the Wilcoxon paired test (the assumptions of the paired t-test were not fulfilled). Based on the Wilcoxon paired test (p -value $< 0,01$) and Figure 2, it can be concluded that the TFD on brand/product was significantly lower than the TFD on female erotic appeal.



▲ Figure 2.
Differences between Total Fixation Durations on erotic appeal (female) and brand/product (Lidl advertisement)

Visualisations of the respondents' gaze behaviour did not show any differences in the amount of visual attention toward erotic appeal and brand in the advertisement with the erotic appeal represented by a naked male-female couple (the Magnesia advertisement). At the same time, based on the paired t-test (the assumptions of the paired t-test were fulfilled for both variables), we rejected the null hypothesis about no difference between mean in the groups. We found no differences between eye fixation duration on erotic appeal (male-female couple) and product.

The results showed that respondents tend to look predominantly at brand/product (compared to visual attention toward the erotic appeal) in the advertisements with the erotic appeal in the form of semi-naked male models. However, erotic appeal in the semi-naked female form caused the lower visual attention of respondents toward the product (compared to visual attention toward the erotic appeal). These findings indicate that the use of erotic appeal in the form of female models in their underwear can lead to the "vampire effect". That is, the heterosexual Czech business students tend to look predominantly at erotic appeal (which is represented by the female models in their underwear) more than a brand/product in the advertisements.

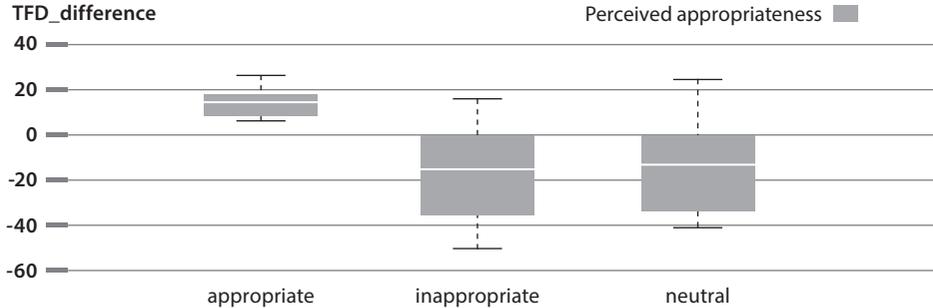
INFLUENCE OF PERCEIVED APPROPRIATENESS ON VISUAL ATTENTION

For research question 1, the results show that there are differences between the time of looking at the product/brand and erotic appeal depending on the form of erotic appeal (male, female, couple). However, the visual form of erotic appeal is not necessarily the only factor determining the mentioned distribution of visual attention. The second question aimed to determine how the perceived appropriateness of erotic appeal in an advertisement influenced the visual attention (viewers' tendency to look predominantly at brand/product or erotic appeal in the advertisements). For this purpose, the variable 'TFD_difference' was calculated as the difference of relative share of attention to product/brand and relative share of attention to erotic appeal, whereas the negative variance means that the respondents look longer at the product/brand and vice versa. The perceived appropriateness of erotic appeals in each advertisement was indicated based on interviews and was coded into three categories (appropriate, inappropriate and neutral).

The results showed that there are some respondents who perceived the erotic appeals in advertising as appropriate. R01 (male): "I think it is a part of it now that all those ads have been so elegant, nicely done". R02 (female): "Yeah, definitely appropriate. As I said, I think that's pretty fitting. [...] I love to watch". Some respondents expressed their neutral perceptions. R10 (male): "From my point of view, it certainly catches your eye, but I don't know whether it's entirely appropriate. Personally, I'm not offended". R11 (female): "I'm kind of neutral about it, I don't think it's directly necessary for the brand, but somehow I don't mind even associating the brand with those muscular men". The others perceived erotic appeals negatively. R07 (female): "Well, like, the nudity isn't very good to put in an ad. Everything has its limits. This was too much for me". R18 (male): "I think it is probably not appropriate. I think there's definitely another way to show it". The results do not indicate that the perceived appropriateness of the erotic appeals is related to the sex of the respondent, nor the sex of the protagonist, or the type of promoted product. Thus, we used the perception of appropriateness as a different independent variable and studied its relationship with visual attention.

The effect of the perceived appropriateness of erotic appeal in advertisements on differences in the distribution of visual attention toward brand/product and the erotic appeal was detected by box plot, and the significance of these differences was tested using the Kruskal-Wallis test (as a nonparametric alternative of the one-way ANOVA) due to rejected normality data. Based on the Kruskal-Wallis test, there is evidence to conclude that the difference in the distribution of respondent's visual attention exists for three predefined levels of perceived suitability of erotic appeal in ads (Kruskal-Wallis chi-squared = 18.45, $df = 2$, p -value = 0.00009857). This statistical testing indicated the significant relationship between the time of looking at the product/brand and erotic appeal and the perceived appropriateness of erotic appeal in advertisements.

As shown in Figure 3, the erotic appeal, which is perceived as appropriate, drew attention to itself to the detriment of the product/brand, while inappropriate or neutral erotic appeals caused viewers to pay more visual attention to the product than erotic appeal. The Wilcoxon test confirmed the significance of the mentioned effects (see Table 2).



▲ Figure 3. Differences between Total Fixation Durations on erotic appeals and brand/product, based on the perceived appropriateness of erotic appeals in all advertisements
Source: Authors

Table 2. Results of Wilcoxon test (testing the significance of differences in TFD among perceived categories)

Wilcoxon test	W	p-value	Hypothesis verification
TFD_appropriate ~ TFD_inappropriate	349	0.00002	H0 is rejected
TFD_appropriate ~ TFD_neutral	322	0.00067	H0 is rejected
TFD_neutral ~ TFD_inappropriate	179	0.58310	H0 is not rejected

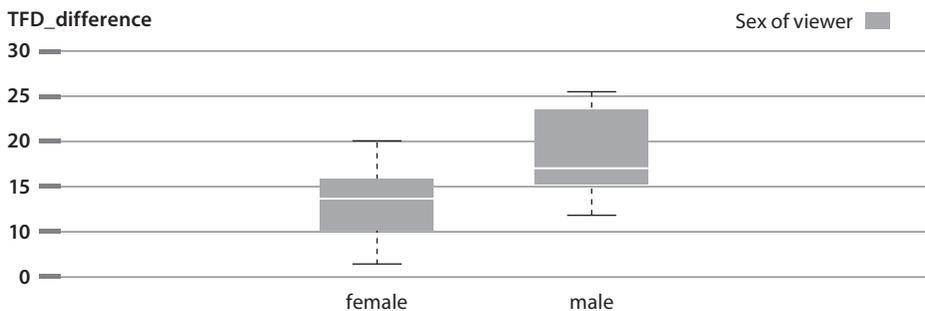
Source: Authors

The RQ1 results showed that visual attention is unevenly distributed into product/brand and erotic appeal in advertisements, and this effect could be dependent on the form of erotic appeal (male, female, male-female couple). In this part of the research, participants paid more visual attention to erotic appeal in the advertisement with the female model. However, the results for RQ2 showed that uneven distribution of visual attention might be caused by the perceived appropriateness of erotic appeal. Specifically, when the respondents perceived the erotic appeal as appropriate in the advertisement, they paid more visual attention to the erotic appeal than the product or brand. This effect was reversed when respondents perceived the erotic appeal as inappropriate or neutral for the advertisement.

DIFFERENCES BETWEEN SEXES

The last question is aimed to determine whether the effects of erotic appeals in advertisements, connected with the distribution of visual attention toward brand/product and erotic appeal, depend on the sex of the viewers. The independent variable was defined by the sex of the respondents. Differences in the distribution of visual attention toward brand/product and erotic appeal depending on the sex of the respondents were detected by box plot, and the significance of these differences was tested using one-way ANOVA (the assumption about normal distribution was fulfilled in all metrics).

According to the sex of the respondents, one-way ANOVA indicates that there are no significant differences in the distribution of visual attention in relation to male models (advertisement Mrož: $F = 1.1245$, $p\text{-value} = 0.3034$) and a male-female couple (advertisement Magnesia: $F = 1.0878$, $p\text{-value} = 0.3108$). On the other hand, if the erotic appeal is connected with the female model, there are significant differences in the distribution of visual attention toward the product/brand and product depending on the sex of the respondent (advertisement Lidl: $F = 7.3956$, $p\text{-value} = 0.01414$). As shown in Figure 4, both (male and female respondents) pay more attention to erotic appeal (female model) than to the product/brand in the advertisement. However, as is evident from the following box plot distribution, males attributed more attention on erotic appeal than females.



▲ *Figure 4.*
Differences between Total Fixation Durations on erotic appeals and brand/product, based on the perceived appropriateness of erotic appeals in advertisements (Lidl advertisement with erotic appeal in the form of the female model)

DISCUSSION AND CONCLUSION

The main goal of the paper was to explore the effects of erotic appeals in advertising in terms of consumers' visual attention and perceived appropriateness. Specifically, we investigated how heterosexual Czech business students perceive advertisements with erotic appeals in terms of visual attention and subjective appropriateness. The respondents watched three audio-visual ads with the erotic appeal, and we recorded data about their gaze behaviour through eye-tracking equipment. The first ad featured male protagonists, the second had female protagonists, and the third one contained a male-female couple. We tested ads for the presence of the "vampire effect" which is characterised by the viewers paying more attention to the erotic appeals in the ad appeal rather than to the brand or product in advertisement (Kuvita and Karlíček, 2014).

We established that if an erotic appeal is portrayed by a male protagonist, the respondents pay more attention to the product or brand. If an erotic appeal is portrayed by a female protagonist, the respondents pay more attention to the erotic appeal. If an erotic appeal is portrayed by a male-female couple, there was no significant difference in the proportion of attention between an erotic appeal and a product. These findings indicate that the use of erotic appeal in the form of female models in their underwear can lead to the "vampire effect". That is, the heterosexual Czech business students tend to look predominantly at erotic appeal (which is represented by the female models in their underwear) more than at a brand/product in the advertisement.

In the second step, we attempted to determine if the respondents' perceived appropriateness towards erotic appeals affects their visual attention. We established that if respondents perceive an erotic appeal as appropriate, their visual attention focuses more on the erotic appeal. On the other hand, if respondents perceive an erotic appeal as neutral or inappropriate, their visual attention focuses more on the product. These results indicate the importance of the congruence and strength of the chosen erotic appeal. According to our results, marketers should be aware of the target audience's perceived appropriateness.

In the third step, we attempted to determine if there are significant differences in visual attention towards the erotic appeal or the product/brand based on the respondents' sex. We found no differences in relation to male protagonists or a male-female couple. However, when the protagonists were female, the heterosexual men paid more attention than women to the erotic appeal rather than the product. It follows that, for the respondents included in the study, if a female protagonist represents the erotic appeal in the ad, the degree of the "vampire effect" is higher for male viewers than female viewers. This finding supports Lykins et al. (2008) findings that heterosexual men look at pictures with women longer than pictures with men, and women divided their visual attention more evenly than men across male and female figures. These findings suggest that if marketers want to use erotic appeals in their advertising, it is essential to know whether males or females represent the target audience.

The results of our research contribute to the study of the phenomenon called the “vampire effect”. We investigate how the presence/strength of this effect is affected by the sex of the protagonist representing the erotic appeal, the perceived appropriateness of the appeal in the advertisement and the sex of the viewer within a specific consumer group (heterosexual Czech business students). At the same time, our results can provide a methodological guide for marketers to minimise the “vampire effect”, when trying to create an advertisement containing an erotic appeal.

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EROTSKI SADRŽAJI U OGLAŠAVANJU: VIZUALNA PAŽNJA I PERCEPCIJA PRIMJERENOSTI

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SAŽETAK Erotski se sadržaji u oglašavanju ponekad smatraju neetičnima ili provokativnima. U ovom se radu istražuje kako konzumenti percipiraju erotske sadržaje u oglašavanju s obzirom na pokret oka i subjektivni doživljaj primjerenosti. U radu se koristi metoda praćenja očiju za mjerenje vizualne pažnje ispitanika, a podaci o subjektivnoj percepciji primjerenosti erotskih sadržaja odabranih reklama prikupljeni su polustrukturiranim intervjuima. Rezultati ukazuju na to da postoji razlika između načina na koji konzumenti gledaju reklame ovisno o percepciji primjerenosti. Ističe se važnost pažljivog odabira protagonista s obzirom na ciljnu skupinu. Oglašivači bi također trebali obratiti pozornost na jačinu i sklad erotskog sadržaja u odnosu na odabranog protagonista.

KLJUČNE RIJEČI

EROTSKI SADRŽAJI, OGLAŠAVANJE, METODA PRAĆENJA OČIJU, INTERVJU, PRIMJERENOST, VIZUALNA PAŽNJA

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