

Sex sells, But to Whom? Cultural and Gender Influences of Sexual Appeal Levels on Ad  
Attitude on Women

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**ABSTRACT**

This study examines how the degree of sexual appeal, the gender of the model, and nationality influence women's attitudes toward advertisements (Aad) in two culturally distinct countries: Bulgaria and the Netherlands. A 2 (low vs. high sexual appeal) × 2 (male vs. female model) × 2 (nationality) between-subject experimental design was employed, with individualism/collectivism as a covariate. A total of 261 valid responses were collected. The results showed that a lower degree of sexual appeal generated more positive Aad, particularly among Dutch participants, supporting prior findings that less explicit sexual content is more effective. While nationality significantly influenced Aad, the expected cultural differences did not fully align with hypotheses, and model gender had no statistically significant main effect. These findings highlight the importance of cultural sensitivity and moderation in using sexual appeal in advertising targeting women. The study adds to the literature on cross-cultural advertising and offers practical implications for marketers seeking culturally appropriate and ethical campaigns.

**KEYWORDS:** *sex appeal, women, attitude toward the advertisement, model gender, cultural dimensions*

### **List of abbreviations**

Aad	Attitude towards advertisement
ANCOVA	Analysis of covariance
N	Number of research units
M	Mean score
SD	Standard deviation
SE	Standard Error

## Table of Contents

ABSTRACT .....	2
List of abbreviations .....	3
1. Introduction .....	6
2. Theoretical framework .....	10
2.1. Attitude towards the advertisement .....	10
2.2. Sexual appeal .....	11
2.3. Cultural Dimensions and Countries .....	11
2.3.1. Hofstede's Cultural Framework .....	12
2.3.2. Culture at the Country Level.....	12
2.3.3. Culture at the Individual Level .....	13
2.4. Gender of the Model .....	14
2.5. Two-way interaction effect: degree of sexual appeal x country .....	15
2.6. Two-way Interaction effect 2: the degree of appeal x gender .....	16
2.7. Two-way interaction effect 3: gender and culture .....	16
2.8. Three-way interaction effect: the degree of appeal x gender x culture.....	17
3. Methodology .....	18
3.1. Methods choice .....	18
3.1.1. Sampling method & Sampling choice .....	18
3.1.2. Sample.....	20
3.2. Operationalization .....	21
3.3. Manipulation check.....	23
3.4. Control questions .....	24
3.5. Demographic Questions.....	24
3.6. Procedure .....	25
3.7. Materials .....	25
3.8. Pilot test .....	26
3.9. Validity and Reliability .....	27
3.10. Ethical considerations .....	28
4. Results .....	29
4.1. Data preparation .....	29
4.2. Control questions .....	29
4.3. Manipulation check.....	30

4.4.	Violation of assumptions .....	30
4.5.	Internal reliability test .....	32
4.6.	Principal component analysis .....	32
4.7.	Three-way ANCOVA .....	33
4.8.	Overview of accepted/rejected hypotheses: .....	35
5.	Discussion .....	36
5.1.	The Power of Sexual Appeal (H1, H2) .....	36
5.2.	The role of nationality and culture (H3, H4) .....	37
5.3.	The Complexity of Model's Gender (H5, H6, H8, H9) .....	39
5.4.	The Nonsignificance of Interaction Hypotheses .....	40
5.5.	Limitations .....	41
5.6.	Directions for future research .....	43
6.	Conclusion .....	44
	Reference list .....	47
	Appendix A .....	55
	Appendix B .....	58
	Appendix C .....	61
	Appendix D .....	71
	Appendix E .....	74
	Appendix F .....	86

## 1. Introduction

Kilbourne (1999, p. 26) famously observed that “women's bodies, and men's bodies too these days, are dismembered, packaged, and used to sell everything from chain to chewing gum”. Indeed, sex is widely used in advertising across nearly all industries as a means to attract customers' attention and influence their perception. This interest in sexual content in the marketing environment comes from the fact that sex is one of the strongest motivators driving humans (Garcia & Yang, 2006, p. 30).

Research shows that sexual appeal can enhance marketing effectiveness (Haryanto et al., 2015, p. 118) and positively affect consumers' attitudes towards the advertisement (Aad) (Sallam & Algammash, 2016, p. 511). Arousal and pleasure from seeing sexual advertisements interact with consumers' personal values shaping their attitude towards the displayed advertisement (Garcia & Yang, 2006, p. 32). Aad is a crucial indicator for marketing as it mediates and determines how effective the advertisement is (MacKenzie et al., 1986, pp. 131-133). Attitude towards the advertisement has as well been linked with better marketing outcomes (Ting & de Run, 2015, p. 83). This research will examine how different parameters can influence the Aad to achieve the most positive results.

This research will particularly focus on how *women* evaluate sexual appeal in advertisements as female attitudes are more complex and critical. Sengupta and Dahl (2008, pp. 72-73) exploring how gender shapes responses to sexualised advertising suggest that men generally respond more positively to sex appeal. They more often rely on affective processes - rather than cognitive - to evaluate such content. In contrast, women tend to adopt a more critical, cognitively driven perspective and are more likely to perceive such advertisements as unethical. It shows the nuanced and complex image of female Aad.

However, even though sexual appeal can be beneficial, its overt or excessive use can seem ethically problematic and may provoke negative audience reactions (LaTour & Henthorne, 1993, p. 25). But a more subtle version of it is perceived more positively (Peterson & Kerin, 1977, p. 61). To test this correlation, this study will employ two different degrees of sexual appeal - lower and higher - to test their effect on women's Aad.

The attitude towards the advertisement with sexual appeal as well depends on the cultural values of the audience and the gender of the model (Garcia & Yang, 2006, p. 44). Sengupta and Dahl (2008, p. 73) note that despite this generally low level of approval of sexual content, women with more liberal cultural values tend to react more favorably to sex-based advertising. For this reason, this research compares women's Aad in two culturally

different countries - the liberal and individualistic Netherlands and conservative, collectivist Bulgaria (Lawrence et al., 2021, p. 709).

Lastly, the gender of the model can play a role in how women shape their attitudes towards the advertisement (LaTour & Nenthorn, 1993, p. 28). There are contradicting theories described further that argue for male or female nudity being more favoured by women (Lanseng, 2016, p. 9; Trivedi & Teichert, 2021, p. 830). Therefore, there are two potential lines of reasoning that require additional empirical research.

Therefore, in order to investigate the multi-dimensional effect of nationality, gender of the model, and a degree of sexual appeal, a 2 (the Netherlands, Bulgaria) x 2 (male/female model) x 2 (higher/lower degree of sexual appeal) between-subject experimental research will be conducted. The following research questions can be formulated: *To what extent do nationality, the degree of sexual appeal, and gender of the model in an advertisement influence the attitude towards the advertisement among women in Bulgaria and in the Netherlands?*

This study contributes to the academic literature in three ways. Firstly, although research on sexual appeal in advertising is thorough, cross-cultural perspectives remain relatively underexplored (Garcia & Yang, 2006, p. 32). To help address this gap, the present study compares two culturally different countries with different cultural values- the Netherlands and Bulgaria. In doing so, it investigates culture as a potential influence that shapes women's attitudes toward sexualised advertisements.

Secondly, this research addresses the contradictions in the previous research on how women react to different genders of models in the ads. According to a homophily effect proposed by Lazarsfeld and Merton (1954, p. 18), people with similar demographic characteristics tend to associate with each other (as cited in Trivedi & Teichert, 2021, p. 825). The research by Buunk and Dijkstra (2011, p. 967) as well shows that females evaluate the images depicting females more positively. Women associate with and approve of other women more, including ones depicted in advertisements. Conversely, Simpson et al. (1996, p. 261) propose the opposite-sex effect suggesting that females respond more favourably to the ads depicting males. Their research notes that the degree of nudity is a deciding factor for women: they prefer some degree of nudity but react negatively to the full nude. These contradictory findings indicate the need for further research, especially considering its cross-

cultural additional lens.

Thirdly, this research is academically relevant due to its timeliness. Trivedi and Teichert (2021, p. 820) call for more research on female attitudes towards sex in advertisements because the core works in the field are outdated. Larger social changes, such as acceptance of homosexuality or spread of feminism, affect societal beliefs towards sexual and gender-related matters. Dianoux and Linhart (2008, p. 563) as well point out that the attitudes of women towards nudity have democratised since the research by Ford et al. (1991). This research set up in a modern setting can help to capture these shifts and see if they vary across countries.

This research has managerial relevance as well. It can be beneficial for businesses when developing content for international markets. Digout and Tayeh (2015, p. 53) call for aligning marketing strategies with target audiences. Their research on sexual advertisements in Lebanon calls for customised advertisements that are aligned with the present social and cultural environment. This current research focusing on two different cultures can demonstrate the different attitudes towards different sexualised advertisements providing marketing experts with more guidelines on advertising content. In addition, the study by Simpson et al. (1996, p. 261) points out that marketers should pay more attention towards the degree of nudity and the gender of the models in particular. Accounting for these variables can contribute to more positive consumers' attitude and benefit the brands. This research will utilise different degrees of sexual explicitness and different genders to see what women prefer to see.

Additionally, women are a significant and growing force in the modern Western economy. By 2028 women are expected to contribute to 75% of discretionary spending (Betterton & Wilkins, 2023). Therefore, it is crucial for companies to know how to appeal to female customers in particular. Women's role in the modern Western economy should not be underestimated and their preferences should not be ignored. Sengupta and Dahl (2008, p. 73) claim that women's preferences in sex-related ads differ from men's. Therefore, using the same content for male and female audiences might not lead to similarly successful marketing outcomes. Since women are gaining their economic power only in the last decades, many marketing strategies might still not take this shift into consideration.

Moving on to societal relevance, this research aims to bridge the gender gap in marketing and consumer psychology discussion by focusing solely on women. As women contribute to the economy greater than ever, understanding their preferences is not only

economically beneficial but also socially important. By targeting female audiences and testing the effect of both male and female models, this research challenges traditional advertising norms in which women are often objectified through the lens of the male gaze. By showing male models, it contributes to inclusive and diverse representation in media meaning “women and men appeal equally and are depicted in similar ways” (Eisend et al., 2022, p. 2). Since traditional gender portrayals are more ill-perceived by women than men (Eisend et al., 2022, p. 2) there is a need for more inclusive media representation of all genders. This study explores women's responses to male and female models, and their potential preference for equal and non-stereotypical representation in advertising.

Moreover, this research elaborates on consumer well-being. Women might feel objectified or shocked while watching ads with sexual content. The audience is exposed to objectification online when models' sexual body parts are highlighted or models are featured in suggestive poses or clothing. Such objectification online has been found to lead to negative mood, body dissatisfaction, and appearance comparison (Prichard et al., 2023, p. 353 as cited in Pounders et al., 2024, p. 44). Sexual content in the advertisements can as well shock and disturb the audience. Sex-related sensitive content can provoke negative feelings, especially among the audience that already is hostile to advertising (Manceau & Tissier-Desbordes, 2006, p. 22). This research contributes to the discussion of making marketing more ethical and consumer-friendly by investigating which type of sexual content contributes to the most positive attitudes and does not evoke negative feelings.

This thesis consists of six chapters. Following the introduction, the existing literature and main concepts will be introduced. Further on, the methodology section will present the 2x2x2 experimental design for this thesis as well as other methodological aspects of the conducted research. It will be followed by the results sections where all the hypotheses will be answered. Lastly, the discussion and the conclusion of the research will be discussed focusing on the interpretations of the results and answering the research question.

## **2. Theoretical framework**

In this chapter, the main theoretical concepts will be introduced. Each sub-section will be devoted to a new concept followed by derived hypotheses. This chapter is divided into the following topics: attitude towards the advertisement, sexual appeal, Hofstede's cultural framework and culture on a country level, and gender of the model. It will be followed by the presentation of the interaction of these concepts.

### **2.1. Attitude towards the advertisement**

The aim of advertising is to create awareness of the product and provide information that assists consumers in making an informed decision about a purchase (Ting & de Run, 2015, p. 91). To achieve this goal, advertising must not only inform but also resonate with consumers on an emotional and cognitive level, which is reflected in their attitude toward the advertisement. Attitude towards the ad can be defined as a predisposition to respond in a (un)favorable way to an advertisement during a moment of exposure (Lutz, 1985, p. 46 as cited in MacKenzie et al., 1986, p. 130). Aad is crucial for marketing as it mediates how effective the advertisement is (MacKenzie et al., 1986, pp. 131-133) and majorly affects purchase intention and behaviour (Mehta, 2000, p. 71 as cited in Ting & de Run, 2015, p. 83).

Marketing managers always look for something to catch the audience's attention as a first step in consumers' decision-making. Ting and de Run (2015, p. 92) suggest that using advertising with "right ideas and ...messages" that resonate with the audience helps to stimulate interest in the product. One of the factors these messages can be based on is consumers' personal values. They provide the reflection of one's behaviour and decisions-making process that are intertwined with the attitude towards advertisements (Ting & de Run, 2015, pp. 83-84).

Besides the consumers' values, culture and societal changes can impact audiences' attitudes towards the advertisement as well (Ting & de Run, 2015, p. 92). Garcia and Yang (2006, pp. 32-33) show that more individualist and feminine cultures overall react better to advertisements because they respond better to emotional and hedonic content. Furthermore, societal changes can alter people's value orientation and views of different content, including media and advertising (Trivedi and Teichert, 2021, p. 820). Together, these factors highlight the importance of considering cultural context when evaluating consumers' Aad.

## 2.2. Sexual appeal

Reichert et al. (2001, p. 14) define sexual appeal as messages, either in the form of brand information or persuasive appeals in marketing contexts, associated with sexual information. The authors notice that it often implies the use of erotic images, nudity, or sexual suggestiveness aiming to evoke sexual feelings or thoughts. Sexual appeal has been proven to positively impact marketing communication objectives, including enhancing message recall, evoking emotional responses, and increasing persuasion and buying intention (Anabila, 2015, p. 38).

However, Garcia and Yang (2006, p. 45) argue that Aad can be affected not only by the presence of sexual content in the ad but also by its degree: a lower sexual appeal is associated with more positive attitudes. Additionally, Reichert et al. (2001, p. 14) suggest that the Aad can depend on the explicitness of arousal, alongside its relevance to the product and gender of the consumers. Peterson and Kerin (1977, p. 60) describe three levels of nudity of the model corresponding with the levels of sexual content used in the ads: a nude model, a seductive model, and a demure model. The authors explain that a demure model is associated with the ads with no sexual component, a seductive model is partially nude while a nude model is (almost) nude. Therefore, the seductive model can be associated with a lower degree of sexual appeal while the nude model represents a higher degree. The research has shown that seductiveness evokes the most positive attitude while nudity has caused the most negative one (Peterson & Kerin, 1977, p. 61). Therefore, based on these findings, the following hypothesis can be proposed:

*Hypothesis 1: The degree of sexual appeal in the advertisement has an influence on the attitude towards the advertisement among women.*

*Hypothesis 2: Advertisements with a lower degree of sexual appeal lead to more positive attitudes towards the advertisement among women than those with a higher degree of sexual appeal.*

## 2.3. Cultural Dimensions and Countries

Hofstede et al. (2010, p. 5) define culture as a collective pattern of thinking, feeling, and acting that constitutes “a collective programming of the mind,” distinguishing one group from another. Culture encompasses unique values, norms, ideologies, and belief systems and

has a pivotal role in shaping consumer behavior (Alexandra, 2018, p. 63). Understanding cultural context is essential for developing effective advertising strategies as it partially shapes and, thus, can explain people's behaviour development (Griffith et al., 2000, p. 304). This study integrates cultural analysis into marketing research by examining the influence of both national culture and individual cultural affiliation women's attitudes toward the advertisement.

### 2.3.1. Hofstede's Cultural Framework

To operationalize culture, this study adopts Hofstede's cultural dimensions, focusing specifically on the individualism/collectivism dimension. This framework has been extensively used to understand cross-cultural differences in advertising response (Taylor, 2005, p. 13 as cited in Garcia & Yang, 2006, p. 32). The individualism/collectivism dimension reflects the degree to which individuals are integrated into groups: in individualistic societies, people prioritize personal autonomy and identity, while in collectivist cultures, people value loyalty, social harmony, and group belonging (Hofstede et al., 2010, p. 92).

These cultural orientations affect broader societal attitudes toward concepts like sexuality, personal expression, and social conformity, all of which can shape reactions to advertising content. For instance, individuals in collectivist societies may react negatively to sexualized advertisements as those deviates from traditional values or group norms (Gregory & Munch, 1997, p. 100). Conversely, members of individualistic societies may be more tolerant or supportive of such ads, viewing them as expressions of personal freedom or empowerment (Robinson, 2012, p. 327).

### 2.3.2. Culture at the Country Level

This study uses the country as a proxy for cultural norms, reflecting how advertising works. Marketing strategies are commonly deployed by national markets rather than by nuanced cultural affiliations (de Mooij & Hofstede, 2010, p. 99).

Hofstede's (2010, p. 95–97) theory places the Netherlands among the most individualistic societies, with a score of 80/100, while Bulgaria scores 30/100, showing a more collectivist orientation. This distinction is grounded in deeper historical and ideological developments: Western European countries like the Netherlands have undergone strong

liberalizing processes, including secularization, individualization, and increased tolerance toward sexuality and nonconformity (Halman & Luijkx, 2008, p. 2). In contrast, Bulgaria's socio-cultural legacy of communism promoted values of group embeddedness, hierarchy, and conservatism (Garvanova, 2017, p. 471).

In terms of sexuality, Bulgaria, as a collectivist country, has strong traditional and conservative values leading to the lower acceptance of vulgarity and nudity (Hofstede et al., 2010, p. 157). Collectivism cherishes chastity and modesty in women, which is expected to be respected and followed in society (Hofstede et al., 2010, p. 100). Overly sexualised ads can be seen as inappropriate especially if viewed by women who were taught to be modest themselves. On the other side, sex is less of a taboo topic in countries, like the Netherlands (Hofstede et al., 2010, p. 157). That potentially may lead to higher acceptance of sexualised content as it is a more normalised and less controversial topic.

Gregory and Munch (1997, p. 100) argue that cultural norms shape distinct marketing environments, influencing both marketing strategies and advertising messages. Therefore, the authors argue, ads reflecting certain values are more likely to be perceived positively by the audience. As Davidson et al. (1976, p. 11) suggest, collectivist societies prioritize conformity to established values, which in turn shapes behavioral intentions. As for Bulgaria, this suggests that ad messages aligned with more traditional norms are more likely to be perceived positively. Overlay transgressive or extravagant ads may provoke disapproval.

A similar argument can be made for the Netherlands, where there is a stronger emphasis on personal freedom and self-expression (Robinson, 2012, p. 327). Therefore, advertisements that highlight non-conformity and individuality are likely to be better received. These notions lead to the following hypothesis:

*Hypothesis 3: The type of the country has an influence on the attitude towards the advertisement among women.*

*Hypothesis 4: Women in the Netherlands have more positive attitudes towards the advertisement than women in Bulgaria.*

### 2.3.3. Culture at the Individual Level

Cultural identity is not homogeneous and individuals within the same nation can vary significantly in their orientation toward collectivist or individualist values. To check this within-group variation, the study incorporates the individualism/collectivism cultural score as a covariate in the ANCOVA analysis. This approach allows statistical control for cultural

orientation at the individual level—without formulating a separate hypothesis—and tests whether observed country-level differences are influenced by underlying cultural values.

#### 2.4. Gender of the Model

Advertising literature provides much evidence of consumer-model gender effect in communication and marketing contexts (Trivedi & Teichert, 2021, p. 820). Several studies have been done on the gendered stimuli' effect on female consumers. The results are contradictory. On one hand, studies, such as (Trivedi & Teichert, 2021, p. 829) show more negative reactions towards male nudity than female among female consumers due to a strong homophily effect. McPherson et al. (2001, p. 417) explain that the homophily effect implies that people with the same sociodemographic, behavioral, and intrapersonal characteristics tend to connect with each other more than with outsiders. It leads to more homogeneous networks and relations and exemplifies the proverb “birds of a feather flock together” McPherson et al. (2001, p. 418). Therefore, women would psychologically react better to female models as they are the same gender.

Moreover, Lanseng's (2016, pp. 8–9) study of a skin-protection cream advertisement shows that female viewers react more negatively than males to opposite-sex sexual cues. The author emphasizes that women in committed relationships judge male nudity in ads especially unfavourably in particular. For them, suggestive content conflicts with their commitment-related thoughts (Lanseng, 2016, p. 9).

However, there are studies showing the opposite results. For example, Latusi et al. (2018, p. 126) conclude that women exhibit a better attitude towards the advertisement when exposed to male models in the ad. The research explains it by the opposite sex effect: women and men react better when the opposite gender is used in the advertisement. Nevertheless, according to Lanseng (2016, p. 9), single women prefer male stimuli over the female ones. The favourable attitudes towards male models are explained by the fact that single women are attracted to the image of “potentially healthy” men with possible “nurturing abilities” (Lanseng, 2016, p. 9). However, these results are achieved by accounting for women's relationship status and the psychological reaction behind it.

As there is more robust evidence suggesting the positive effect of female models on female consumers (Trivedi & Teichert, p. 825) the following hypothesis can be proposed:

*Hypothesis 5: The gender of the model has an influence on the attitude towards the advertisement among women.*

*Hypothesis 6: Advertisements featuring female models lead to more positive attitudes towards the advertisement among women than those featuring male models.*

#### 2.5. Two-way interaction effect: degree of sexual appeal x country

Hofstede et al. (2010, p. 110) claim that collectivist countries are shame countries: if a person does not conform to the established norms, they will be shamed. Seeing overly naked models in advertisements would go against the accepted norms of modesty. Therefore, collectivist and more conservative countries with traditional values would interpret vulgar advertisements as deviance from the norm and, therefore, offensive and morally wrong (Henthorne & LaTour, 1995, p. 30).

On the contrary, individualistic countries are guilt cultures (Hofstede et al., 2010, p. 110). If a person who does not obey the established rules will not be shamed by others but rather by his own conscience (Hofstede et al., 2010, p. 110). Therefore, it can be assumed that the consumers will not see nudity in the ad as socially inappropriate or shameful. Furthermore, Herrmann and Heitmann (2006, p. 11) found that consumers in an individualistic society value self-expression and freedom more and, therefore, are more accepting of diverse marketing techniques and unordinary marketing elements, including extravagant nudity. It is supported by the argument of Garcia and Yang (2006, p. 34) that cultural norms influence the responses to sexual appeals. As values affect one's behaviour and decision-making patterns (Ting & de Run, 2015, p. 84) appealing to certain values might trigger more positive responses among the consumers. In that case, culture could as well influence the attitude towards the advertisement with the sexual appeal in it.

However, Sengupta and Dahl (2008, p. 63) argue that the degree of sexual appeal must remain within certain lower limits to generate a positive attitude among consumers. Therefore, even for the individualist Netherlands with more open and accepting attitudes, sexual appeal should be lower and more demure rather than overly explicit. Based on it, a following hypothesis can be proposed:

*Hypothesis 7: The positive effect of a lower degree of sexual appeal on the attitude towards the advertisement among women is stronger in the Netherlands than in Bulgaria.*

## 2.6. Two-way Interaction effect 2: the degree of appeal x gender

While sexual content is often assumed to evoke positive feelings and affect Aad (Dahl et al., 2009, p. 227 as cited in Trivedi & Teichert, 2021, p. 821), this effect is not universal. The degree of nudity and gender of the model can affect this relation.

Marketing literature emphasizes the importance of the gender of the model as a variable determining consumers' attitudes and purchase intentions. Trivedi and Teichert (2021, p. 829) show that no degree of sexual appeal generates a positive response when showing male models. It strongly suggests female preference for the same-sex models in sexual advertising. It is aligned with Lanseng's findings (2016, p. 9), where women, particularly in committed relationships, respond negatively to opposite-sex nudity. A possible explanation is a homophily effect discussed earlier: individuals prefer content depicting models demographically similar to them.

The gender of the model was found to interact with a degree of sexual appeal affecting consumers' responses as well (Trivedi & Teichert, 2021, p. 829). Dianoux and Linhart (2010, p. 574) conclude that partial and tasteful nudity generates more positive responses and attitudes among female participants. Women may consider overly-sexual ads not only offensive but also less informative and convincing (Dianoux and Linhart, 2010, p. 574). Trivedi and Teichert (2021, p. 825) refer to Baumeister (2000) to claim women's sex drive and sexuality, unlike the ones of men, have always been controlled by cultural, social, and situational factors. As a result, the authors argue, women find nudity acceptable only if it is used moderately and considerately. Therefore, the most positive effect on the women's Aad can be expected from the combination of a lower degree of sexual appeal and a female model:

*Hypothesis 8: The positive effect of female models on the attitude towards the advertisement among women is stronger in the Netherlands than in Bulgaria.*

## 2.7. Two-way interaction effect 3: gender and culture

Concerning gender, as was discussed, women in Bulgaria or the Netherlands prefer to see sexual advertisements depicting women over men (Trivedi & Teichert, 2021, p. 829). However, the national context might influence how this effect works. In collectivist cultures like Bulgaria, where group harmony and traditional norms are highly valued, the homophily effect may be moderated by cultural expectations of modesty and female sexuality. According to Buss (1989, p. 111), female chastity is more strongly emphasized in collectivist

societies. It may lead women to evaluate sexualized portrayals of female models more critically, even if the models are of the same gender. Thus, while Bulgarian women may relate to female models, the homophily effect is weakened when the ad includes sexual content that conflicts with prevailing moral or social norms.

Contrary, in individualist cultures like the Netherlands, cultural norms are generally more open-minded and valuing personal expression and equality (Knibbe & Bartelink, 2019, p. 125). As previously discussed, individualism is more permissive towards sexuality and sexual content in advertising as it is not considered deviancy (Herrmann and Heitmann, 2006, p. 11). Moreover, women in the Netherlands are more likely to have a feminist perspective seeing female sexuality, nudity, and empowerment (Knibbe & Bartelink, 2019, p. 125). According to Dianoux and Linhart (2009, p. 573), women with feminist values perceive female sexuality as the power that can be translated into their attitude towards advertisements depicting female models:

*Hypothesis 9: The positive effect of a lower degree of sexual appeal on the attitude towards the advertisement among women is stronger when the advertisement features a female model than when it features a male model.*

#### 2.8. Three-way interaction effect: the degree of appeal x gender x culture

The three-way interaction effect majorly relies on the arguments explained earlier. According to Trivedi and Teichert (2021, p. 829), lower sexual appeal advertisements are perceived overall better than the ones depicting a higher degree of sexualised content and nudity. This effect is stronger if a model is female due to the homophily effect (Trivedi & Teichert, 2021, p. 829).

Building on that, women in the Netherlands are expected to have a more positive attitude towards sexualised advertisements than in Bulgaria. They prefer to see female nudity displayed as it speaks of freedom from judgement towards women and self-expression (Robinson, 2012, p. 327), while collectivist societies, like Bulgaria, condemn explicit female nudity. Therefore, the final hypothesis can be introduced:

*Hypothesis 10: The combination of a lower degree of sexual appeal and the use of female models leads to more positive attitudes towards the advertisement among women in the Netherlands than among women in Bulgaria.*

### **3. Methodology**

In this chapter, the methodology of the research will be presented. Firstly, the method choice, sampling method, and sampling size will be explained. Furthermore, the materials used as stimuli and the main terms used as measurements will be presented. The procedure of the study will be explained in detail as well. This chapter will end with a discussion of validity and reliability of the research, as well as its ethical considerations.

#### 3.1. Methods choice

##### 3.1.1. Sampling method & Sampling choice

A quantitative experimental survey with a 2x2x2 between-subjects design was chosen for this research. This method allows systematisation and quantification of the attitudes of a group with the possibility to generalise them for the wider societal scale (Babbie, 2016, p. 303). It is especially useful for a cross-cultural analysis as it allows to interpret the results or extend the research in similar cultural settings that go beyond the used sample (Pfundmair, 2017, p. 2).

Additionally, the experiment is a suitable choice for this research as it helps to “infer causal relationships” (Malhotra & Birks, 2007, p. 302). As this research uses different degrees of sexual appeal that are manipulated beforehand to see how it affects the attitude towards the ad, it will provide a clear cause-to-effect connection between these variables. It as well helps to interpret the importance of the factors, such as nationality and the gender of the model, and produce a meaningful research contribution.

Lastly, the impersonal nature of the experimental survey makes it less susceptible to bias as participants are ensured their anonymity and do not feel pressure to “appear socially acceptable” (Larson, 2019, p. 535). It is helpful, especially since the research focuses on the topic of sex and nudity that some participants may find sensitive.

This research utilises a between-subject design. According to Charness et al. (2012, pp. 1-2), in such a design the results are obtained through comparing the behaviour of the participants in two different conditions. The authors notice that exposure to only one condition lowers the risk of a demand effect or the cues a participant understands to match the expectations of the researcher and adjust their answers. After seeing all four images, participants could have realised the aim of the research and changed their answers that would affect the research.

This research targets adult Bulgarian and Dutch women. According to Methodological Guidelines for Thesis Research for Media Studies in Erasmus University Rotterdam (Janssen & Verboord, 2024, p.13), at least 30 participants per each group are required for experimental research. Therefore, this study requires at least 240 participants based on 8 conditions.

Non-probability convenience sampling in combination with snowball sampling is used for this research. Convenience sampling implies that the researcher relies on the participants readily and easily available to them. The researcher creates inclusion criteria and approaches the fitting members who are available (Golzar et al., 2022, p. 74). In this case, the participants were targeted via Instagram stories, Reddit communities for the Netherlands and Bulgaria, and WhatsApp groups for friends, studies, and housing. Moreover, Erasmus University Rotterdam employees were targeted via email. The list of the academic employees was created manually based on the information provided on the EUR website and the email was forwarded to them. Furthermore, girls at Erasmus University Rotterdam buildings were approached and, if they fit the nationality and age criteria, asked to participate in the survey by scanning the QR code. Furthermore, the roommates of the researcher and women at the attended party that fit the sampling criteria were asked to participate in the study. A local Bulgarian supermarket was targeted as well as a place to recruit Bulgarian participants among the employees. Lastly, the platform Prolific was used to gather the responses from Bulgarian women as they were harder to find. 38 respondents were recruited but only 31 responses were used. The remaining 7 were gathered after May 26, 2025 when the data was already exported into SPSS and cleaned. The proof of use of Prolific and the list of answers can be found in Appendix A.

Convenience sampling is considered a cost-effective way to find the responders (Rahi, 2017, p. 3). Using social media, email, and social connections is free. The researcher has free access to the university facilities as a student as well. Prolific was deemed to be a necessary step in the later stages of gathering the data as the other channels were nearly exhausted.

Convenience sampling is also commonly used in research examining people's attitudes when researchers require accessible data collection methods (Golzar et al., 2022, p. 73). It is a low-effort method that helps to find participants willing to participate and share their opinions.

However, convenience sampling is susceptible to non-coverage and self-selection biases (Golzar et al., 2022, p. 74). It might lead to the exclusion of certain population

segments, such as people without social media and Internet access or without knowledge of English language. Voluntary participation might create self-selection bias where individuals with certain opinions are represented more than the others (Golzar et al., 2022, p. 74). It might lower the generalizability of the study and should be taken into consideration.

This study relies on snowball sampling as well. According to Etikan and Bala (2017, p. 216), in this method, each participant from the initial pool is asked to further distribute the survey within the targeted population. In this case, the recruited participants were verbally or in a message on the given channel (Reddit post, Instagram story, etc.) asked to share the link with the survey to the people who fit the sampling criteria. Furthermore, people who did not meet the criteria (men or people of other nationalities) were asked to share the link with people who do.

Dusek et al. (2015, p. 281) claim that snowball type of sampling is advantageous as it can operate with limited funds and a time frame suitable for students. It requires the researcher to find the initial smaller target group without spending additional time reaching out to a larger audience. Dusek et al. (2015, p. 281) argue that snowball sampling is particularly useful when the researcher deals with a cross-country analysis and hard-to-reach target groups. In this case, as the researcher lives in the Netherlands, a sufficient number of Bulgarian women was harder to reach. Therefore, it was especially effective to reach out to Bulgarian women in the initial circle asking to send the survey further. It helped to find enough Bulgarian participants without the necessity of being geographically present there or knowing an extensive number of Bulgarian women.

However, the disadvantage of this method is that it can cause sample biases as the choice of further participants depends on the first chosen participants (Etikan & Bala, 2017, p. 216). The researcher cannot ensure that the initial participants were inclusive or selective when spreading the survey further. It can alter the representativity of the results and as well should be taken into consideration as a limitation.

### 3.1.2. Sample

A total of  $N = 486$  answers were collected but only  $N = 261$  were considered valid. The rest had to be deleted because the participants did not complete the survey fully, did not meet all of the necessary criteria or pass manipulation check or control questions. A detailed description of the data cleaning process will be presented further in the next chapter.

Of the total, 133 participants were Dutch (51%) and 128 participants were Bulgarian (49%). The age varied between 18 and 61 with the average age being 26.25 ( $SD = 8.93$ ). An average age for Dutch participants was 26.28 ( $SD = 9.88$ ) varying from 18 to 61. For Bulgarian participants, the average age was 26.21 ( $SD = 7.86$ ) with represented age being between 18 and 60. A detailed distribution of the participants per conditions can be found in Appendix C, Table C.1.

Across the conditions, two groups of 33 Dutch responders were exposed to the stimulus with a female model and a lower degree of sexual appeal. 34 Bulgarian women and 37 Dutch women were shown the stimulus with the female model and a higher level of sexual appeal. 31 Bulgarian responders and 30 Dutch responders were exposed to the ad of a man with a higher level of sexual appeal. The ad with the woman and the lower degree of sexual appeal was shown to 33 Bulgarian women while 30 Bulgarians saw the ad with the man and a lower degree of sexual appeal.

### 3.2. Operationalization

Nationality, sexual appeal, and gender of the model are independent variables, with the attitude towards the advertisement as the dependent variable and individualism/collectivism score (cultural norms) as a covariate. Cultural norms and sexual appeal will be measured using scales, while sexual appeal and gender will be manipulated into two categories (lower/higher). Nationality was a sampling criterion.

*The attitude towards the advertisement:* it is measured using a scale adapted from Garcia and Yang (2006, p. 40), which was developed based on earlier works by Burton and Lichtenstein (1988), Cox and Cox (1988), Dröge (1989), Kilbourne et al. (1985), Pethroshius and Crocker (1989), and Zinkhan and Zinkhan (1985). This scale consists of 7 items, each assessed on a 5-point Likert scale (Likert, 1932) (Cronbach's  $\alpha = .87$ ) (Garcia & Yang, 2006, p. 40). Sample statements include: "I think this ad is good," "I like this ad," "I think this ad is persuasive," "I think this ad is effective," "I think this ad is impressive," "I think this ad is attractive," and "I think this ad is eye-catching." Participants were asked to show their agreement with these statements, with Likert scale (Likert, 1932) points ranging from 1 (*Strongly agree*) to 5 (*Strongly disagree*) (see Appendix E).

*The degree of sexual appeal:* the research will utilise two degrees of sexual appeal (a lower and higher one) adopted from the research by Reichert (2003, p. 14) and Garcia and Yang (2006, p. 37) (see Appendix D). The degrees will be determined by Reichert's

categories of sexual content. Reichert's categories include nudity, sexual behaviour, physical attractiveness, sexual referents, and sexual embeds (Reichert, 2003, p. 14). However, this research primarily utilises nudity as it is a component that is manipulated between the conditions.

Garcia and Yang (2006, p. 37) describe lower sexual appeal as the one showing subtle gestures and partial nudity. Models' clothes should be "suggestive: "open blouses...tight-fitting clothes that accentuates the body, and mini-skirts" (Reichert, 2003, p. 16). The higher degree of sexual appeal will be communicated through partial-to-full nudity (Reichert, 2003, p. 14-16). More detailed descriptions of the stimuli will be provided further.

*Gender of the model:* The created stimuli depict either a male or a female model (see Appendix D). The stimuli aim to follow the traditional expectations of both genders: the male model is a muscular male with wide shoulders and facial hair (Hargreaves & Tiggemann, 2009, p. 110), while a female model is a slim young woman with long hair and feminine facial features (Mckay et al., 2018, p. 1).

*Cultural dimensions:* As a covariate, it is used to account for individual-level variation in cultural values, rather than assuming uniform national affiliations. According to Pallant (2020, p. 297), analysis of covariance allows us to explore the differences between groups while controlling an additional variable. In this case, it helps determine whether individual cultural orientations can explain part of the variance in attitudes toward advertising, beyond the effect of nationality alone.

Cultural dimensions will be measured using the CVSCALE scale provided by Yoo et al. (2011, p.1) that is based on Hofstede's theory of cultural dimensions. The CVSCALE is a five-dimensional (following presented earlier Hofstede's theory on cultural dimensions) Likert scale (Likert, 1932) that includes 26 items (Yoo et al., 2011, p. 17). However, for the purpose of this research that focuses solely on individualism/collectivism only items about this dimension will be used. The items include the following 6 statements (Cronbach's alpha = .76) (Yoo, et al., 2011, p. 6). The items were anchored from 1(*Strongly disagree*) to 5 (*Strongly agree*) (see Appendix E). A higher score means stronger affiliation with collectivism. The statements of the scale go as follows:

1. "Individuals should sacrifice self-interest for the group."
2. "Individuals should stick with the group even through difficulties"
3. "Group welfare is more important than individual rewards"

4. “Group success is more important than individual success’
5. “Individuals should only pursue their goals after considering the welfare of the group”
6. “Group loyalty should be encouraged even if individual goals suffer’

*Nationality:* Nationality is measured as a categorical independent variable. This study uses Bulgaria representing a collectivist country and the Netherlands as an individualistic country. Participants will be asked to fill in their nationality as one of the survey questions (see Appendix E). It helps to capture the nationally-wide cultural dimensions and its trends. The countries were chosen based of Hofstede’s cultural theory (Hofstede et al., 2010, p. 95–97) that places the Netherlands to the individualistic side, while Bulgaria represents a strongly collectivist society.

### 3.3. Manipulation check

According to Hauser et al. (2018, p. 2), a manipulation check allows a researcher to see if the manipulation worked correctly. To ensure that the participants perceive different degrees of sexual appeal and a model’s gender as planned several follow-up questions are introduced after the stimuli. All of them can be found in the survey in Appendix E. First of all, the participants will be asked to describe the demonstrated advertisement in detail. They are expected to mention the appearance of the model, preferably focusing on the clothes, at least and preferably the settings and the model’s gender. Moreover, the participants were asked who was shown in the advertisement (a female/male/ both). It is done through a multiple-choice question “Who was shown in the advertisement?”. This question checks if the gender of the model as a manipulation was perceived. In case a participant did not mention the gender of the model in the description but chose a correct answer in this question, they still will be allowed for further analysis. In case a participant fails to answer the question and/or describe the image adequately, they will be excluded from further data analysis.

Lastly, the participants are asked “How sexually suggestive this advertisement is?” in order to evaluate their perception of the stimuli. The question will be measured on a 5-point Likert scale (Likert, 1932) with items going from 1 (*Strongly disagree*) to 5 (*Strongly agree*). Since this research does not have a pre-test, this question will be used in the analysis to

ensure that the manipulation worked. Specifically, the perceived sexual appeal will be compared between the experimental conditions and against a neutral midpoint on the scale of 3. According to Chyung et al. (2017, p. 3), a midpoint in a scale represents a neutral meaning that divides two sides of a measurement. In this case, the value of 3 (*Neither disagree or agree*) divides the sexual appeal in the advertisement as high and low. If the mean scores for the conditions do not fall significantly above and below this midpoint, it would not be appropriate to label the stimuli as representing “high” and “low” sexual appeal, but rather as “higher” and “lower” levels.

#### 3.4. Control questions

Kung et al. (2018, p. 264) stress out the importance of control questions as they help to detect the participants who were not paying attention to the survey’s instructions and procedure. It will benefit the quality of the data gathered. According to Leung (2015, p. 2), control questions as well can increase the reliability of the study.

There is one control question in this experimental survey. The question is the following: “What product was advertised?”. It is a multiple-choice question with possible answers being clothes, perfume, and furniture (see Appendix E). This question aims to test if a participant paid enough attention to the advertisement. The participants who gave wrong answers will be excluded from data analysis.

#### 3.5. Demographic Questions

All participants will be asked to fill in demographic information, including age, gender, and nationality (see Appendix E). According to Hughes et al. (2016, p. 138), demographic questions help to determine whether participants’ identity causes specific attitudes or behaviour. They as well help to assess the representativeness of the findings and serve as a basis for drawing conclusions.

The demographic questions will be asked at the end of the survey to seem less invasive, potentially pushing people to withdraw from the survey (Matthew & Ross, 2010, p. 212). In this study, demographic questions about gender and nationality also serve a role of sampling criteria as this research focuses solely on Dutch and Bulgarian women. Therefore, responses that do not meet these criteria will be identified, and any non-conforming data will be excluded before further analysis.

### 3.6.Procedure

Platform Qualtrics is used to conduct this experiment. The participants are briefly informed about the goal of the research, warned about potential sexually explicit content, and provided the contact details of the researcher. They are informed about voluntary withdrawal from the survey at any time. Participants' anonymity is ensured and they are asked to provide their consent to participate. After that, they are randomly assigned to view one of the conditions (higher/lower sexual appeal and male/female model). Before seeing the advertisement, the participants are told to take a thorough look at the ad as they will have to answer questions about it afterwards. They then answer the questions about the attitude towards the seen advertisement and cultural norms questions. Afterwards, the participants are asked to describe the seen advertisement as a part of the manipulation check. The text gives guidelines on what could be mentioned: clothes, the appearance of the model, text, settings. Directly after that, the participants are asked "How sexually suggestive this advertisement is?". The multiple-choice questions about the advertised product and the gender of the model are presented further.

Afterward, participants are asked to provide demographic information, such as age, gender, and nationality. Lastly, they are offered to leave any comments. After the survey, the participants are thanked for their participation and debriefed about the purpose of the study. The full experiment can be found in the Appendix E.

### 3.7.Materials

Four ads were generated via the AI-generative tool Sora. All images imitate an ad for a perfume with a fake brand name and a made-up text. New images are generated, instead of using already existing campaigns, to prevent any biases within the participants and to ensure that the images connote the chosen levels of sexual appeal and look as similar to each other as possible besides a degree of nudity. The idea to use a perfume as an advertised product is borrowed from the articles by Sengupta and Dahl (2008, p. 63) and LaTour and Henthorne (1993, p. 26). It represents a gratuitous sex appeal. According to Sengupta and Dahl (2008, p. 73), gratuitous sex appeal triggers more controversial reactions within the audience than the appropriate sex appeal. Therefore, it is more insightful to explore gratuitous sex appeal to see which factors can positively affect women's attitudes towards it.

On Sora, prompts were made to create the most possibly identical images simulating a perfume advertisement. Used prompts can be found in Appendix B. A made-up perfume

“Arousal” in a bottle can be seen on the bottom of the images together with the slogan “Undress Your Senses”. The name and the slogan of the perfume are meant to carry sexual meaning as well. Each of the images corresponded with one of the conditions (higher/lower sexual appeal, male/female model). See Appendix D for the created stimuli materials. The detailed descriptions of the images are presented below:

1. *Strong sexual appeal with a male model*: A young white muscular man with dark hair and slight facial hair. The model is shirtless and has underwear on. The model looks directly at the camera, his body is turned towards the viewers, his legs are spread. The model sits on the bed leaning backwards.
2. *Weak sexual appeal with a male model*: A young white muscular man with dark hair and slight facial hair. The model has an unbuttoned shirt and tight pants. The model looks directly at the camera, his body is turned towards the viewers, his legs are spread. The model sits on the bed.
3. *Strong sexual appeal with a female model*: A young slim white woman. She has long dark hair. The model is wearing a lingerie set. The model looks directly at the camera, her body is turned towards the viewers. The model sits on the bed leaning backwards. She has a subtle smile. She has red lipstick on.
4. *Weak sexual appeal with a female model*: A young slim white woman. She has long dark hair. The model is wearing a black bodysuit with a beige unbuttoned blouse. The model looks directly at the camera, her body is turned towards the viewers. The model sits on the bed. She has a subtle smile.

### 3.8. Pilot test

Before the survey was published, a pilot test was run to check the survey's flow and quality.  $N = 11$  people participated in the pilot study. One spelling mistake was detected as well as a technical issue with the survey flow on Qualtrics.

A pilot test was also used to check significant differences between the sexual appeal conditions and against the neutral value 3. An independent-samples t-test was conducted. There was a significant difference found between a higher degree of sexual appeal ( $M = 4.80$ ,  $SD = 0.48$ ) and a lower degree of sexual appeal ( $M = 3.33$ ,  $SD = 1.21$ ):  $t(128) = 2.17$ ,  $p = .030$  (see Appendix C, Table C.8.1).

The mean scores of the conditions were run against the neutral value 3 as well. Two one-sample t-tests revealed a significant difference between the higher degree of sexual

appeal ( $M = 4.80$ ,  $SD = 0.48$ ) and a neutral value 3:  $t(4) = 9.00$ ,  $p = .001$  (see Appendix C, Table C.9). On the other hand, a lower degree of sexual appeal ( $M = 3.33$ ,  $SD = 1.21$ ) was found not to be significantly different from 3:  $t(5) = 0.67$ ,  $p = .530$  (see Appendix C, Table C.8.2). As there is no significant difference from the neutral midpoint and the mean is above 3, the latter condition cannot be considered sexually non-suggestive or low. Given the significant difference between the two conditions, in this research they will be referred to as higher and *lower* levels of sexual appeal. However, a larger sample size is required to determine whether the conditions statistically fall on opposite sides of the neutral midpoint.

### 3.9. Validity and Reliability

The validity of the research shows if the used research tools actually measure what they aim to measure (Matthews & Ross, 2010, p. 216). In other words, it reflects the accuracy of the measurements' tools for the research purposes. High validity ensures that the study assesses the concepts it claims to examine.

A pilot test and manipulation check were performed as a way to increase internal validity. These procedures help determine whether the experimental conditions produce the intended effects (Neuman, 2014, 304). A pilot run helps to see if the experimental procedure has any flaws, such as spelling mistakes or vague questions.

As was discussed above, this experimental research utilised a between-subject design preventing demand characteristics. According to Neuman (2014, p. 302), it can be a threat to internal validity of the research. By assigning different participants to separate conditions, the between-subjects design reduces participants' ability to guess the study's purpose, thereby protecting the validity of the data.

According to Leung (2015, p. 2), reliability means that the study can be replicated in the future. The author notices that for a study to be considered reliable, the data must be clear and consistent. In this research, all participants' responses were reviewed to ensure completeness and compliance with both a control question and the manipulation checks. This process contributes to the reliability of the findings by ensuring that only valid and thoughtful responses are analyzed.

Furthermore, Vargas et al. (2017, p. 101) mention that running a pilot test strengthens the reliability of the research. Trying the experiment before publishing it ensures that the experimental stimuli worked as intended. Successful results of it means that other researchers can replicate the experiment and obtain insightful data.

Lastly, Vargas et al. (2017, p. 104) highlight that the use of well-established measures accepted by the academic field often leads to higher reliability and validity of the research. This research uses the scale by Burton and Lichtenstein (1988), Cox and Cox (1988), Dröge (1989), Kilbourne et al. (1985), Pethroshius and Crocker (1989), and Zinkhan and Zinkhan (1985) found in the research done by Garcia and Yang (2006, p. 40). This research also relies on the CVSCALE scale to measure people's position within cultural dimensions based on Hofstede's theory of cultural dimensions. The Aad scale has a Cronbach's alpha of .87 (Garcia & Yang, 2006, p. 40) and CVSCALE scale - a Cronbach's alpha of .76 (Yoo et al., 2011, p. 3) which shows solid internal consistency of the measurements. The Cronbach's alphas are again tested further, prior to the analysis for this research as well. Using these validated scales ensures that the used constructs are measured consistently and accurately across the sample.

### 3.10. Ethical considerations

This research does not raise any major ethical concerns in terms of the procedure and the participants. All the participants are adults and have to provide their consent to participate in the research. Their answers are treated anonymously, no personal information (their names, addresses or contact details) were gathered, and the recorded data is not distributed to third parties.

The participants as well were informed about the voluntary nature of their participation and an opportunity to withdraw from the research at any point. This was done to reinforce ethical compliance. See Appendix E for the survey and its introduction text.

According to Neuman (2014, p. 309), it is crucial to take precautions if putting participants in an embarrassing or anxiety-inducing situation. For this reason, the participants were informed about possibly sexually explicit and disturbing content. They were as well informed that if they were uncomfortable with being exposed to such content they can withdraw from the survey. The fact that it is emphasized that the study aims for people above 18 years old aims to protect minors from being exposed to sexually explicit content that would raise ethical concerns.

## 4. Results

This chapter presents the results of the conducted experiment, including data preparation, assumption checks, and descriptive statistics. It also reports the outcomes of validity and reliability tests, principal component analysis, and a three-way ANCOVA to assess group differences.

### 4.1. Data preparation

The survey was published on May 1, 2025 and the data was collected until May 26, 2025. After the data was collected, it was exported into IBM SPSS Statistics (version 26) for analysis. The initial number of participants was 486. The data was later cleaned to ensure all responses are fully and correctly filled. 143 answers were deleted as they were not completed fully. 7 responses had to be removed as the completion time was deemed inadequate (for example, 84543 seconds that equals 23 hours). Read et al. (2020, p. 2) call such respondents inattentive: they usually participate in the survey while being distracted and focusing on other tasks. Even though it was accounted for that participants might take longer to answer it is logically assumed that participants could not spend 23 hours on it. It is likely that those participants stopped and continued the survey later. In this case, they would not put enough consistent cognitive effort and attention into the survey questions and stimuli. Therefore, their responses were deleted to ensure higher validity.

Furthermore, 1 participant was removed as they did not fit the age criteria being below 18 years old while 5 responders did not fit the gender criteria. 11 responders did not pass the manipulation check wrongly answering the question “What product was advertised?” while only 1 participant did not answer the control question correctly that led to his removal. 19 responders did not fit the nationality criteria of being from Bulgaria or the Netherlands. Lastly, 38 responses had to be deleted as they did not pass the manipulation check that required providing a description of the viewed advertisement.

### 4.2. Control questions

One control question was asked in a form of multiple-choice to see if the participants acknowledged what type of product was advertised (see Appendix E). Control questions aim to ensure participants paid enough attention to the instructions and content of the survey

(Kung et al., 2018, p. 265). All the participants who did not answer correctly, were cleared out for further data analysis.

#### 4.3. Manipulation check

Similarly with the control question, participants who did not answer correctly to the questions about the gender of the model or did not manage to adequately describe the ad mentioning the model's clothes were excluded (see Appendix E).

As this research did not have a pretest, it was decided to run an independent sample t-test to ensure that the conditions (lower and higher degree of sexual appeal) were perceived significantly differently. The answers were gathered through "How sexually suggestive is this advertisement?" question. A significant difference between the conditions was found. Participants in the high sexual appeal condition ( $M = 4.14$ ,  $SD = 0.80$ ) rated the ad as more sexually suggestive than those in the low appeal condition ( $M = 3.91$ ,  $SD = 0.90$ ),  $t(259) = 2.17$ ,  $p = .031$  (see Appendix C, Table C.6.1).

However, both mean scores are above 3 and an additional one-sample t-test was run to ensure a significant difference between the mean scores and a neutral point 3. It was shown that the middle point 3 is significantly lower than the higher sexual appeal ( $t(131) = 16.39$ ,  $p < .001$ ) (see Appendix C, Table C.6.2). Value 3 is as well significantly lower than the lower sexual appeal:  $t(128) = 11.52$ ,  $p < .001$  (see Appendix C, Table C.6.2). These results were consistent with the pilot tests' assumptions and suggest that both conditions were perceived as sexually suggestive while the high sexual appeal condition was rated as more so. Therefore, it would not be statistically correct to identify the used sexual appeal levels and high and low but rather *higher* and *lower*. Therefore, the terms used in this research were adjusted to the latter to avoid wrongful assumptions.

#### 4.4. Violation of assumptions

According to Pallant (2020, p. 205), there are five assumptions for parametric techniques, such as ANCOVA: the levels of measurements, random sampling, independence of observations, normal distributions, and homogeneity of variance. The research by Pallant suggests that the violation of them can undermine validity and reliability of the research.

Firstly, for the levels of measurements, Pallant emphasizes the importance of using continuous scale of dependent variables (2020, p. 205). In this research, the dependent

variable is an attitude toward an ad and is measured on a Likert scale. See Chapter 3, section 3.2 Operationalisation for the questions measuring Aad.

Secondly, this research utilised non-random sampling. However, according to Pallant (2020, p. 206), violating this assumption does not significantly impact the results of the study as full randomization of the sampling can be challenging. The independence of observations was not violated. The survey has been spread via multiple channels ensuring the participants were not overly concentrated and interacting with each other.

Thirdly, Pallant (2020, p. 206) emphasizes that the observations in the data have to be independent from each other. This assumption can be violated if the participants belong to one group setting or interact with each other. Participants for this research have been recruited from a great variety of sources, such as social media, Prolific, and via email. The chance of the participants belonging to the same narrow social circle or a family is low due to their scarcity. Participants that were recruited at the campus of the Erasmus University Rotterdam were approached in different locations and at different times. Therefore, this assumption was not violated.

Fourthly, for parametric techniques, the populations from where the samples are taken should be normally distributed. However, if the research has at least 30 participants per experimental condition, the analysis is robust to this violation (Pallant, 2020, p. 206). This research has minimum 30 people in each of the experimental groups meaning this violation does not decrease validity or reliability or affect the results (see Appendix C, Table C.1).

Lastly, the experimental groups have to be equal in size not to violate the assumption of homogeneity of variance. The inequality of the sample groups can lead to the decreased validity of the research and issues of the homogeneity of variance (Pallant, 2020, p. 206). In this research the sample was not equally distributed between conditions (groups varying from 30 to 37 participants) (see Appendix C, Table C.1). As suggested by Pallant (2020, p. 207), Levene's test of equality of error variances was performed to see if the variance of the dependent variable scores were similar across the conditions. The model found to be significant ( $F(2, 253) = 2.67, p = .011$ ) (see Appendix C, Table C.9). According to Pallant (2020, p. 207), the model should be insignificant for the variances for the groups were equal. However, significant results do not cause major violation of the homogeneity of variance if the size of the groups is reasonably similar. According to Stevens (1996, p. 249), the proportion between the largest and the smallest groups has to be below 1.5 so the analysis will remain robust. In this case, the proportion between the largest group (37 participants) to

the smallest (30 participants) is 1.23 which is within the limit. Therefore, the results of the analysis can be interpreted without any major concerns.

#### 4.5. Internal reliability test

Pallant (2020, p. 102) emphasizes that a reliable score should have a Cronbach's Alpha higher than .7 to be considered reliable. Even though two scales used in the survey were taken from literature, the reliability test has been run again to ensure the reliability. After the reliability analysis was run the Aad scale adapted from Garcia and Yang (2006, p. 40) was found to be reliable with Cronbach alpha .91 ( $\alpha = .91$ ) (see Appendix C, Table C.2.1). The Cronbach Alpha for the individualism/collectivism scale - CVSCALE - was .83 ( $\alpha = .83$ ) making the scale reliable as well (see Appendix C, Table C.2.2). No items can be removed to improve the internal consistency.

#### 4.6. Principal component analysis

Principal component analysis (PCA) with direct oblimin rotation based on eigenvalues ( $> 1.00$ ) was utilized to explore 7 and 6 items measured on a Likert scale (Likert, 1932) from CVSCALE and Aad scale. Likert scale values went from 1 (*Strongly disagree*) to 5 (*Strongly agree*).

For the Aad scale, The Kaiser-Meyer-Olkin value (KMO) equalled .88 showing sampling adequacy for the analysis (Kaiser, 1970, 1974) (see Appendix C, Table C.3.1). Bartlett's Test of Sphericity (Bartlett, 1954) was significant,  $\chi^2(21) = 1231.96, p < .001$ , thereby indicating the significance of the results. The model consisted of seven factors, which together explained 65.7% of the variance (see Appendix C, Table C.3.1).

For the individualism/collectivism scale, The Kaiser-Meyer-Olkin value (KMO) was found to be .83 showing the sampling adequacy for the analysis (Kaiser, 1970, 1974) (see Appendix C, Table C.3.2). Bartlett's Test of Sphericity (Bartlett, 1954) was significant,  $\chi^2(15) = 529.92, p < .001$ , thereby indicating the significance of the results (see Appendix C, Table C.4). The model consisted of six factors, which together explained 54.1% of the variance (see Appendix C, Table C.3.2).

There was no rotation performed as only one factor was extracted for each of the scales (see Appendix C, Table C.3.1, Table C.3.2) .

#### 4.7. Three-way ANCOVA

Three-way ANCOVAs were conducted to see the interaction between the variables. An attitude towards the advertisement was a dependent variable, gender of the model, a level of sexual appeal, and the participants' nationality were independent variables and the cultural dimension as a covariate. The detailed SPSS output of the ANCOVA analysis that is discussed further can be found in the Appendix C, Table 7.

##### Hypothesis 1 & 2: degree of appeal:

Three-way ANCOVA revealed that H1 has been supported:  $F(1, 252) = 6.80, p = .010$ , partial  $\eta^2 = .03$ . It means that the degree of sexual appeal has an influence on Aad among women. Furthermore, it was also revealed that women exhibit a more positive Aad towards a lower degree of sexual appeal ( $M = 18.90$ ) in advertisements than towards a higher level of sexual appeal ( $M = 21.01$ ), supporting H2 ( $F(1, 252) = 6.80, p = .010$ , partial  $\eta^2 = .03$ ).

##### Hypothesis 3 & 4: nationality

Moving on to H3, the analysis has shown that the country indeed has an influence on the women's Aad:  $F(1, 252) = 5.24, p = .023$ , partial  $\eta^2 = .02$ . Therefore, H3 was supported. However, H4 was rejected as it showed that women in the Netherlands ( $M = 19.01$ ) do not have a more positive attitude towards the advertisement towards the given advertisements than women in Bulgaria ( $M = 20.90$ ):  $F(1, 252) = 5.24, p = .023$ , partial  $\eta^2 = .02$ .

This analysis has as well examined cultural score as a covariate. After conducting the three-way ANCOVA, it was found that individualism/collectivism has a marginally significant effect on the attitude:  $F(1, 252) = 3.79, p = .054$ , partial  $\eta^2 = .02$ .

##### Hypothesis 5 & 6: gender

H5 that explored if the gender of the model has an influence on the women's attitude towards the advertisement was rejected:  $F(1, 252) = 2.21, p = .138$ , partial  $\eta^2 = .01$ . While The Estimated Marginal Means revealed that women have a more positive attitude towards a male model ( $M = 20.59$ ) than towards a female model ( $M = 19.35$ ), these results are not significant due to  $p$ -value above 0.05 Therefore, H6 is rejected:  $F(1, 252) = 2.21, p = .138$ , partial  $\eta^2 = .01$ .

#### Hypothesis 7: degree of appeal x nationality

Three-way ANCOVA was as well used to explore the interaction effects between the variables. The analysis revealed there is no significant effect between a degree of sexual appeal and a country of the Aad of women:  $F(1, 252) = .05, p = .825$ , partial  $\eta^2 = .00$ .

Therefore, H7 is rejected. Furthermore, the Estimated Marginal Means has shown no stronger positive effect of the lower degree of sexual appeal on the women in the Netherlands ( $M = 20.15, SE = 0.81$ ) compared to women in Bulgaria ( $M = 21.87, SE = 0.83$ ).

#### Hypothesis 8: gender x nationality

In the interaction between the gender of the model and the country of the participants, no significant result was found ( $F(1, 252) = .021, p < .885$ , partial  $\eta^2 = .00$ ), therefore rejecting hypothesis 8. The Estimated Marginal Means do not show a trending positive effect of the female model (on the attitude towards the ad within Dutch women ( $M = 18.34, SE = 0.77$ ) compared to Bulgarian women ( $M = 20.39, SE = 0.80$ ).

#### Hypothesis 9: degree of appeal x gender

Furthermore, a significant interaction effect was found between a degree of sexual appeal and the model's gender ( $F(1, 252) = .007, p < .934$ , partial  $\eta^2 = .00$ ), that rejects H9. Similarly with other interaction hypotheses, no trend of the low sexual appeal positively influencing ad attitude among women when featuring female models was found.

The Estimated Marginal Means showed no stronger positive effect of the lower degree of sexual appeal in advertisements featuring female models ( $M = 20.38, SE = 0.80$ ) compared to those featuring male models ( $M = 21.65, SE = .83$ ).

#### Hypothesis 10: degree of appeal x gender x nationality

Lastly, three-way interaction was explored through three-way ANCOVA. The hypothesis stated that the combination of low sexual appeal and the use of female models leads to the most positive Aad among Dutch women than among Bulgarian women. However, this interaction was found not to be significant:  $F(1, 252) = 0.32, p < .572$ , partial  $\eta^2 = .00$ .

#### 4.8. Overview of accepted/rejected hypotheses:

Hypothesis 1: The degree of sexual appeal in the advertisement has an influence on the attitude towards the advertisement among women. → supported

Hypothesis 2: Advertisements with a lower degree of sexual appeal lead to more positive attitudes towards the advertisement among women than those with a higher degree of sexual appeal. → supported

Hypothesis 3: The type of the country has an influence on the attitude towards the advertisement among women. → supported

Hypothesis 4: Women in the Netherlands have more positive attitudes towards the advertisement than women in Bulgaria. → rejected

Hypothesis 5: The gender of the model has an influence on the attitude towards the advertisement among women. → rejected

Hypothesis 6: Advertisements featuring female models lead to more positive attitudes towards the advertisement among women than those featuring male models. → rejected

Hypothesis 7: The positive effect of a lower degree of sexual appeal on the attitude towards the advertisement among women is stronger in the Netherlands than in Bulgaria. → rejected

Hypothesis 8: The positive effect of female models on the attitude towards the advertisement among women is stronger in the Netherlands than in Bulgaria. → rejected

Hypothesis 9: The positive effect of a lower degree of sexual appeal on the attitude towards the advertisement among women is stronger when the advertisement features a female model than when it features a male model. → rejected

Hypothesis 10: The combination of a lower degree of sexual appeal and the use of female models leads to more positive attitudes towards the advertisement among women in the Netherlands than among women in Bulgaria. → rejected

## 5. Discussion

This study aimed to answer the research question: *To what extent do nationality, the degree of sexual appeal, and gender of the model in an advertisement influence the attitude towards an advertisement among women in Bulgaria and in the Netherlands?* The three-way ANCOVA analysis was conducted to see the relations between these variables and their effects. This chapter will elaborate on the interpretation of the results. As some interaction hypotheses rely on the same argumentation, to avoid repetition this chapter will not be structured by each hypothesis. Instead, it will focus on the main themes: the role of sexual appeal, the role of nationality, the complexity of gender, and the nonsignificance of interaction hypotheses.

### 5.1. The Power of Sexual Appeal (H1, H2)

This research has found the influence of sexual appeal on Aad among women. This effect can possibly be explained by the psychological mechanisms behind it. Generally, it has been proven that any sexual information evokes certain emotional and psychological responses. Sexual appeals are attention inducing and arousing (Reichert et al., 2001, p. 13). According to Sivulka (2014, p. 44), any successful ad creates a connection between the product and a need or a desire, rational or emotional. Sivulka notices that emotional appeal can be based on sex - a basic human instinct and interest. The grabbing value of sex comes from the fact that it is the second strongest psychological appeal, besides self-preservation (Taflinger, 1996, p. 10 as cited in Liu et al., 2009, p. 503). Solomon and DeJong (1986, p. 311) claim that people are motivated by what they want (sexual pleasure, status are among the common desires) rather than negative consequences (as cited in Reichert, 2001, p. 15). Since sex is a primal human interest, it would be logical for them to be interested in and react to the advertisements with sexual elements in them. Such advertisements cause ad-induced arousal and a sense of pleasure among consumers (Garcia & Yang, 2006, p. 34). Nudity and sexual name of the perfume (“Arousal”) connote the sexual meaning appealing to consumers’ desires. Furthermore, the ad slogan “Undress your senses” appeals emotionally to women’s desire to be intimate with someone (see Appendix D).

However, this analysis showed that it is a lower degree of appeal specifically that evokes the most positive attitude among women. This hypothesis supports the research by Dahl and Sengupta (2008, p. 73) and by LaTour and Henthorn (1993, p.28). Overly explicit use of sexual images can be deemed unethical and manipulative (Dahl & Sengupta, 2008, p.

73). It feels like a marketing strategy where the naked human body is a displayed product. It might feel that way especially for women as they are already more skeptical towards sex and sexualised content (Sengupta & Dahl, 2008, p. 64). A perfume ad does not necessarily require an image of a body, especially a naked body, like a bikini advertisement would. The perfume's name "Arousal" and the slogan "Undress your senses" adds to the unnecessariness of the sexual referencing (see Appendix D).

Moreover, regardless of cultural norms, nudity (to a different extent) is considered taboo (Manceau & Tissier-Desbordes, 2006, p. 9). Taboo is associated with something sacred, forbidden, or dangerous that is not supposed to be shown or seen. Freud (1928, p. 223) suggests that in Christian cultures, erotic taboos are strong and, thus, sexual relations and nudity are kept as a secret and often not shown or represented (as cited in Manceau & Tissier-Desbordes, 2006, p. 11). Both Bulgaria and the Netherlands are Christian countries. Even though the role of religion is declining, the impact of it on the culture remains significant (Inglehart, 2021, p. 6). Some participants might be guided by religious beliefs more strongly associating nudity with a private matter that should not be explicitly shown. Moreover, Manceau and Tissier-Desbordes (2006, p. 27) concluded that women react especially negatively to the use of sex-related taboos in advertising. It happens due to the process of socialization when girls are taught to be more nurturing and submissive (Åkestam et al., 2017, p. 796). Female nurturing position can be seen as the opposite of being sexually liberated. Therefore, the over-explicitness of sexual content is associated with taboo and its unethicity is stronger, creating a more positive attitude towards lower sexual appeal.

## 5.2.The role of nationality and culture (H3, H4)

The analysis revealed that nationality has a significant impact on female attitudes towards sexualised advertisements. This is aligned with the research by Liu et al (2009, p. 504) suggesting that national differences affect the perception of sexualised advertisements. They draw on Herrmann and Heitmann (2006), suggesting that consumers in individualistic countries prefer more stimulating advertising seeking variety and emotional response. Sexual appeal nowadays is becoming more explicit and stimulating and appealing more to individualist countries (Liu et al., 2009, p. 504).

This observation has important marketing implications. It shows that standardization of marketing per country/culture, even though it is prominent (Nelson & Paek, 2007, p. 64), may not satisfy customers in different countries the same way. Different audiences might

prefer more or less stimulating and extravagant advertisements to become interested in the product.

Interestingly,  $H_4$ , contrary to the expectations, was rejected: Dutch women *do not* react to sexualised advertisements better than Bulgarian women. One of the possible explanations lies in shifting cultural dynamics and heightened awareness of objectification issues by Dutch women. Zimmerman and Dahlberg (2008, p. 72) argue that attitudes towards advertising can be correlated with the changes occurring in feminism. This research denies the argument proposed by Choi et al. (2016, p. 828) that contemporary third-wave feminists see female sexuality as empowerment contributing to more positive ad responses. It is evident from the analysis that the participants are more associated with the second wave of feminism that sees female nudity as objectification (Choi et al., 2016, p. 828). The spread of pornography and sexually explicit content in social and mass media can contribute to normalisation of objectification (Willis et al., 2022, p. 1298) but as well as strong negative reactions to it. It is worth mentioning that objectification is not limited to women and male bodies are subjected to it as well (Trivedi & Teichert, 2021, p. 829). In the current climate, especially in the countries in Western Europe (Knibbe & Bertelink, 2019, p. 8), women are becoming more aware and reflective about their representation online and commodification of nudity. Sexualisation of the naked body in advertising is seen as objectification rather than empowerment. As a result, more women become strongly negative about the sexualisation of advertising, especially in the Netherlands.

Conversely, Garvanova (2017, p. 472) argues that Bulgaria is witnessing a value transition from collectivism and conservatism to a democratic society with individualistic values, especially among the younger generation. The author notices that Bulgaria is going through its modernization process when such values as freedom of choice and personal moral responsibility are becoming more prominent. It means that the attitudes towards sexualised advertising can tend to be more liberal and positive. This shift could explain why Bulgarian women did not show strongly negative reactions as expected. It is also possible that Bulgarian women are greatly influenced by Western media that promotes Western individualistic ideas. In the decades after the communist order fell Western European investors entered the media market introducing Eastern Europe to its media programs and narratives (Boshnakova & Dankova, 2023, p. 175). It is a plausible influence, especially considering the young average age of the sample ( $M = 26.21$ ) (see Appendix C, Table C.1). Younger generations in Bulgaria have not experienced the uniform communist regime with

its conservatism and collectivism. Rather, they are influenced by the current influx of Western media and social media trends.

Lastly, this non-significant directional effect might bring to light a downside of Hofstede's cultural dimensions theory that oversimplifies cultural values and dynamics. As McSweeney's critique of Hofstede's theory argues, Hofstede's dimensions are only a "rough indication of tendencies" in the rich and complex cultural values (Williamson, 2002, p. 1381). Culture is too complex and fluid to be reduced to and explained by bipolar dimensions and nationalities. Culture is a construct that cannot be directly measured and Hofstede's dimensions provide only an "approximation for complexities" of culture (Williamson, 2002, pp. 1384-1388). One bipolar dimension, especially not sex-related, cannot capture people's values.

### 5.3. The Complexity of Model's Gender (H5, H6, H8, H9)

Concerning the role of the model's gender and its interaction with nationality or a degree of appeal, no significant effect was found. It is peculiar to see that neither homophily effect (Trivedi & Teichert, 2021, p. 829) or an opposite-sex effect (Simpson et al., 1996, p. 258) worked as predicted. In Chapter 1. Introduction, the controversy between these two theories in previous research has been discussed. The homophily effect might not have been prominent enough when it concerns gender models in advertising.

Kossinets and Watts (2009, p. 406) emphasise that the homophily effect is most observed in social settings when individuals form new social ties. The gender-based connection between the consumers and the model might not be strong enough to influence the Aad through homophily effect as they are more strong factors in play.

One of the possible reasons is that the Aad can be influenced by other factors, such as personal preferences of women. The advertisements were created using the Sora AI-application and relying on general Western beauty standards (Hargreaves & Tiggemann, 2009, p. 110, McKay et al., 2018, p.1): the models were young, white, fit, and able, the male model was muscular and the female model was slim and feminine (see Appendix D). However, women can prefer other body types, ethnicities or looks. For example, research by Hwang (2012, p.31) shows that people of different ethnicities find people of the same ethnicity more attractive than the outsiders. There was no data gathered on participants' ethnicities to correlate these two factors and, thus, it cannot be eliminated as a factor. As sex

appeal is based on sexual arousal and attraction having models that would evoke these feelings is crucial for marketing strategies.

Moreover, from the objectification theory perspective, women tend to reject the ads with sexualised female bodies. According to Wollast et al. (2018, p. 69), the appearance industry relies on sexualised, idealised, and stereotyped images of women contributing to their objectification. The authors argue that it contributes to dehumanization: women get less described in terms of their morality and personality becoming less agentic that triggers negative reactions among women.

Moreover, the ads with female models might get a less positive attitude as they raise concerns about unrealistic body image and (self) body shame (Wollast et al., 2018, p. 70). According to the mechanisms of social comparison, female participants who were exposed to a female model could compare themselves to her causing negative self-perception and less positive attitude (Martin & Gentry, 1997, p. 20). In this sense, provocative sexual appeals increase attention by evoking strong emotions and shocking the audience due to their ambiguity in social norms (Manceau & Tissier-Desbordes, 2006, p. 15). However, although increasing attention to ad and a brand, sexual appeal might lead to rejection of the ad due to its objectification power (Manceau & Tissier-Desbordes, 2006, p. 15; Wallast et al., 2018, p. 69).

#### 5.4. The Nonsignificance of Interaction Hypotheses

None of the interaction hypotheses were supported challenging the assumption that national context or model's gender would augment the influence of a degree of sexual appeal on Aad.

Firstly, individual differences might blur the assumed national differences contributing to the absence of significant interaction effects. Participants' cultural values might be shaped by a variety of other factors, including "institutional influences, social structures, and economic conditions" (Williamson, 2002, p. 1383). Hofstede's theory has been criticized for being too deterministic: it assumes that (national) culture is applied to all nation's members (Williamson, 2002, p. 1381). In contrast, the findings of this study suggest that individual differences, formed by outside factors, such as media, education, and personal experiences, may dilute proposed cultural expectations. It decreases the power of nationality-based interactions reducing the significant effects.

Secondly, the interaction hypotheses in this study were based on previous research conducted under different gender and cultural contexts. For example, Dahl and Sengupta (2008, p.69) and LaTour and Henthorn (1993, p.26) recruited participants from universities in a single country not accounting for cultural differences. Many studies used male and female participants (Liu et al., 2009, p.509; Sengupta & Dahl, 2008, p.69) while this research focuses solely on women. These differences in sample and cultural setting may explain why the predicted interactions—between sexual appeal, nationality, and model gender—did not emerge. Those findings may not generalize to the present study because other research' samples imply other unique sets of values and behavioural patterns that might be significant for the results. It is also possible that there are other variables that affect or moderate these relations and the expected effects. Garcia and Yang (2006, p. 45) notice that many research projects do not take into consideration gender-based differences in responding to sexual appeal. Indeed, the lack of attention to female consumers in previous research might limit its applicability.

Furthermore, as was mentioned, the cultural shifts in both Bulgaria and the Netherlands might affect how they react to sexual appeal, especially when interacting with other variables. For example, Mitev and Kovacheva (2014, p. 54) found out that young Bulgarians significantly prioritise individual self-expression signalling cultural and social changes. On the other hand, Dutch women could be more affected by equality and feminist tendencies in Western Europe that makes them more critical of gender representation, especially representation of female models.

While low sexual appeal has been found to be a significant influence of female attitudes, this influence can be not strong enough to influence more complex models. The use of gratuitous sex appeal may also have contributed to negative responses across the board. According to Sengupta and Dahl (2008, pp. 72-73), gratuitous sex appeal in advertisements is perceived negatively by women on a general level. It is possible that this distorts the perception of variables (such as, the gender of the model) and, therefore, changes the attitude among women in a different way. Same as with individual preference, it disturbs the consistency of the finding.

### 5.5.Limitations

This research faces several limitations. Firstly, according to Cacciattolo (2015, p. 70), there are many other variables that can affect the ways people perceive social phenomena.

Political and social ideologies, sexual orientation, religion, background shape the ways people “think and perform”. According to Oppenheimer's research on the values amongst Dutch teenagers and adolescents (2004, pp. 341-345), the cultural dimensions of society (such as, horizontal and vertical individualism and collectivism), are not fixed within a society but rather change and adjust according to evolving individual and societal demands. The way people perceive society depends on their personal experience, as well as socialization processes: parenting, friendship, school (Oppenheimer, 2004, p. 345). This research did not ask for participants’ personal information, besides age and nationality and gender (that were necessary sampling criteria) (see Appendix E). Other variables this study does not take into consideration that might impact the results.

One of the other limitations is the lack of a pretest. Since the stimuli were aimed to be identical besides one element (clothes) a pre-test was not deemed as necessary. However, a pretest could increase reliability and validity of the study by detecting selection bias: a situation when experimental groups are priori different with regard to the dependent variable (Neuman, 2014, p. 298). Furthermore, a pretest could have potentially detected the lack of significant difference between the mean score of a lower degree of sexual appeal and the neutral point 3 (see Appendix C, Tables C.6.1, C.6.2). Thus, the stimulus could have been edited to be significantly lower than the midpoint representing a low sexual appeal. A more drastic difference between two stimuli could potentially bring different results to the research.

Furthermore, external validity could be decreased due to a limited and specific sample. The sample primarily consisted of young females (see Appendix C, Table C.1). The results might not translate to a broader and more diverse sample. For example, young audiences could be more tolerant and open in the questions of sexuality and nudity but it does not necessarily translate to a nation-wide scale.

While using cultural affiliation towards individualism/collectivism added depth and nuances, it was the only dimension measured. This might oversimplify the complex cultural image that consists of many other dimensions or ignore insightful data. Hofstede et al. (2010, pp. 135-187) as well discuss other dimensions, such as femininity/masculinity and uncertainty avoidance scale that could be used to integrate into a cross-cultural analysis. Nevertheless, even using other cultural dimensions would not fully explore the concept of culture. As was discussed, culture is a complex construct that can hardly be defined by bipolar dimensions (Williamson, 2002, p. 1381). It can be a reductionist approach that ignores important aspects of a cultural environment.

Lastly, the CVSCALE scale assesses only beliefs about community and society relations and does not explicitly focus on the attitude towards sexuality, gender norms, or gender expectations. Therefore, it might have only a limited ability to explain the influence of sexualised content.

#### 5.6.Directions for future research

This research could be further extended to more countries and broader samples as well as it would benefit from gathering more demographic and personal data. An inclusion of non-Western countries (such as China, the U.S. or Saudi Arabia) would bring more insights and possible different outcomes. These cultures have different media exposure, religion, and cultural beliefs that would significantly affect their opinions about sexuality and nudity. Religion, education, and sexual orientation (Cacciattolo, 2015, p. 70) might influence women's perception of the stimuli and affect their cultural affiliation as well. Asking participants for more personal and demographic data will help to interpret the results and explain the outcomes.

Furthermore, it would be insightful to utilise other dimensions of Hofstede's theory, such as femininity/masculinity or uncertainty avoidance scales. They as well could be applicable (Garcia & Yang, 2006, p. 33) to the advertising and might explain the results. Fusing multiple dimensions or relying on additional theories might help to grasp the complexity of culture. It would be insightful to rely on other methods, such as interviews, to gain a more in-depth perspective of how women's Aad are shaped and how culture affects it.

Extending the cultural score's role in the research from a covariate to an independent variable or a moderator would be helpful as well. It would add details and depth to the research and show how an ad attitude changes depending on the individualism/collectivism level and its interaction with other variables.

## 6. Conclusion

This research aimed to investigate *to what extent nationality, the degree of sexual appeal, and gender of the model in an advertisement influence the attitude towards the advertisement among women in Bulgaria and in the Netherlands*. Using a 2 (low and high sexual appeal) x 2 (female and male model) x 2 (country: Bulgaria and the Netherlands) experimental design with cultural affiliation (individualism and collectivism) as a covariate, several findings emerged.

This research started with the quote by Kilbourne (1999, p. 26) that women's and men's bodies these days are used to sell any product. This raises the fundamental question that was aimed to be answered in this research: does sexual appeal in advertising work?

The analysis has shown that a lower degree of sexual appeal generally contributed to a more positive Aad that is consistent with prior literature on that issue (Sengupta & Dahl, 2009, p. 72). The model's gender, as well the interaction between model gender and sexual appeal, did not significantly affect the female Aad. Furthermore, a significant effect of nationality on attitude towards the advertisement was found, supported by the marginally significant effect of cultural affiliation. However, contrary to expectations, Dutch women were not accepting sexualised advertisements better than Bulgarian women, possibly due to strong social awareness of objectification and prominence of feminist beliefs and the modernization of Bulgarian cultural and social scene. In light of Kilbourne's critique, this study reinforces the notion that the commodification of bodies in advertising is not only ethically problematic but also strategically harmful.

The marginal effect of individualism/collectivism score on the ad attitude shows a moderate effect of cultural values on advertisement attitudes. Including it as a covariate helps to account for individual-level variation in cultural orientation. Hofstede's cultural dimensions should also not be used rigidly to describe a national culture and more attention should be paid to individual differences in cultural norms.

In its academic relevance, firstly, this study contributes to cross-cultural analysis of the effect of sexual appeal. It attempts to fill the gap identified earlier by Garcia and Yang (2006, p. 32) by conducting research between different countries while assessing participants' cultural affiliation. This research uses two countries located in Europe yet representing individualism and collectivism. None of the used articles (Anabila, 2015, p. 40; Garcia & Yang, 2006, p. 34; Liu et al., 2009, p.509) have used two European countries with different cultural affiliation. Moreover, this research explores the previous contradictory findings on

the effect on model's gender on female Aad. This study examines both homophily and the opposite-sex effect. It brings a new perspective denying both effects and calling for more contemporary and nuanced research in this field. Lastly, this research provides an up-to-date view of female Aad and its interaction with a degree of sexual appeal, nationality, and model's gender. The study managed to shed light on important social and cultural trends, namely the rise of feminism, awareness of objectification, and modernization of Bulgaria's cultural views. This is crucial not to underestimate the impact of these changes as they showed their effect on women's Aad.

From a managerial perspective, by including participants in different countries/cultures, this research shows the importance of tailoring marketing for different countries and cultures instead of using a standardized strategy. It as well provides evidence that can be used in the marketing strategies that women indeed better perceive a lower degree of nudity. There are still many advertisements that include almost-full nudity (such as the Kelvin Klein ad for its perfume "Obsession" in 2008 featuring Eva Mendes). Even though sexual appeals are beneficial as they are attention grabbing and stand out in a saturated media environment (Reichert et al., 2001, p. 15) the degree of it is crucial. This research has shown that the more nudity the better does not work. This research can be helpful for advertising and marketing experts as a guide to tone down a degree of nudity and sexual explicitness to appeal to (at least) female customers. Knowing that is especially crucial nowadays because, as was mentioned earlier, women are becoming a driving force of the Western economy. Therefore, these findings contribute to more gender-sensitive marketing.

From a societal perspective, this research aims to help close the gender gap by focusing exclusively on women. As vital contributors to the modern economy and equal members of society, women deserve greater representation and attention in academic studies. Moreover, this research aims to promote an inclusive and culturally sensitive marketing approach. As was shown, overly explicit advertising leads to less successful marketing outcomes and detrimental effects on mental health (Stafford & Pounders, 2021, p. 489).

The results of this study can be partially generalized to young adult women in European contexts, especially to the countries with similar individualism/collectivism score according to Hofstede's cultural theory (2010, p. 135). However, more global generalisation should be avoided as many groups of a population were not represented (Babbie, 2017, pp. 195-196). A broader and more generalisable sample would require a more diverse national context and demographic variables (such as, urban/rural residence, education, and religion).

This study did not raise any ethical concerns. Appendix E presents the whole survey to follow. It included informed consent, anonymity and data privacy, and a debriefing statement. The survey also targeted only adult women above 18 years old. Moreover, prior to the survey, the participants were informed about potential sexually explicit content and about a possibility of withdrawal from the survey. The participants were debriefed and provided contact details of the researcher. By the end of this research, no participants reached out with any ethical concerns or regarding other issues.

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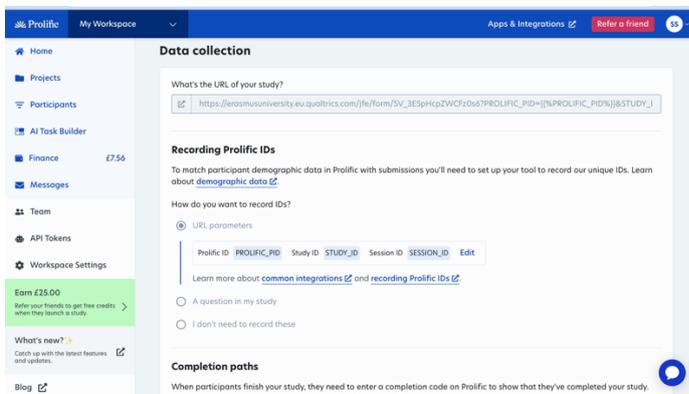
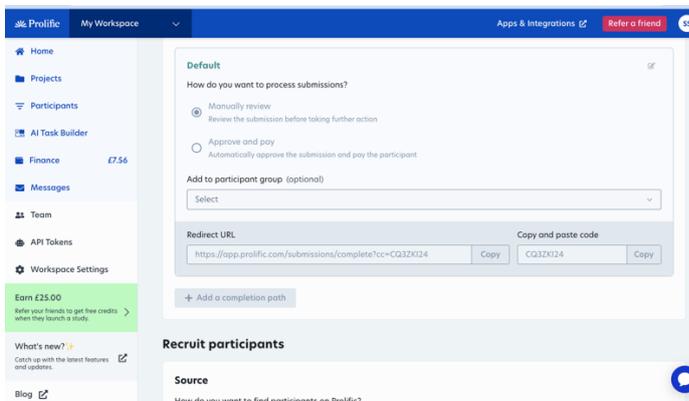
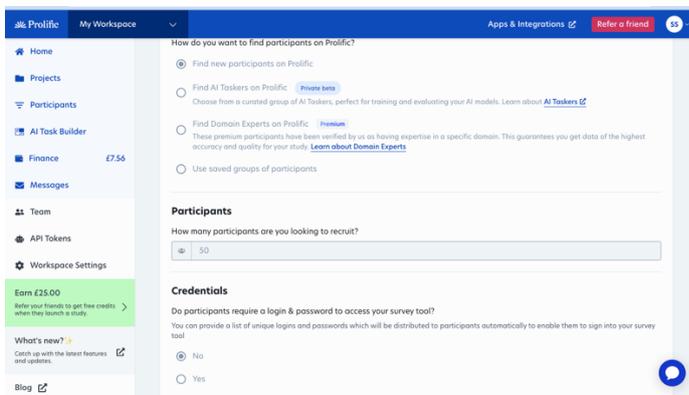
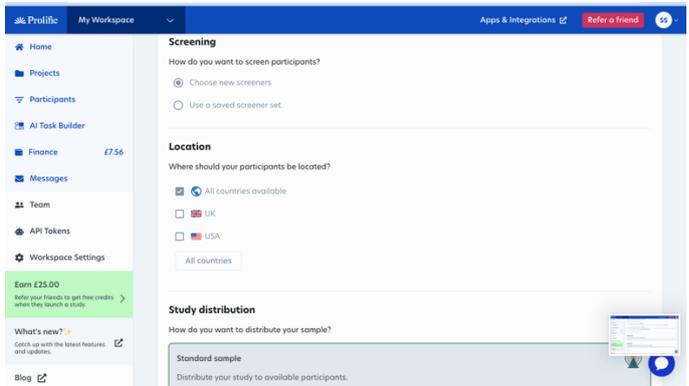
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# Appendix A

## Proof of the use of Prolific



**Device requirements**

Which devices can participants use to take your study?

Mobile
  Tablet
  Desktop

Does your study require any of the following? (optional)

Audio
  Camera
  Microphone
  Software download

The devices and tool options will be displayed to participants on their study preview. These options don't screen participants. To screen participants use the **Prescreen participants** option in the **Recruit participants** section. [Learn more about device compatibility](#)

**Labels**

Content warning (optional)

Select a content warning to display to participants. [Learn more about content warnings](#)

None
  Exposure to explicit or disturbing content
  Sensitive topics

**Study details**

Study name:

Internal study name (optional):

Study description: Describe what participants will be doing in this study. [Read our tips](#)

*For my master thesis, I am studying how explicit advertising with partial nudity impact female consumers from the Netherlands and Bulgaria.*

**Data collection type**

Study label: Select a study label to display to participants.

Survey
  Writing
  Annotation
  Interview
  AI task
  None

Approved (38) Timed-out (4)

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Approve (0)
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Approved (38) Timed-out (4)

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Approve (0)
  Message (0)
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Profile My Workspace Apps & Integrations Refer a friend 55

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Finance £7.56

Messages

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API Tokens

Workspace Settings

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Approved (38) Timed-out (4)

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<input type="checkbox"/> 58d11954d06c000120786d	20 May 2025, 16:03	00:02:33	NO CODE	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/> 669a8392a977a53353a45d0	20 May 2025, 16:07	00:16:36	NO CODE	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/> 67747d0ae3f619a084022a	20 May 2025, 16:15	00:03:59	NO CODE	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/> 5c5a212bae69900079c7e7a	20 May 2025, 17:29	00:07:11	NO CODE	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/> 66d78a0796f311e47b6d56fa	20 May 2025, 17:40	00:05:16	NO CODE	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/> 574c1935ba49801020a080	20 May 2025, 18:00	00:03:00	NO CODE	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/> 6605a228821c835943bcfae	20 May 2025, 18:01	00:02:42	NO CODE	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/> 669525476e009f6a0c109d3	20 May 2025, 18:24	00:06:54	NO CODE	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Approve (0)  Message (0)  Bonus pay (0) Messages 7

Profile My Workspace Apps & Integrations Refer a friend 55

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Projects

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Messages

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Workspace Settings

Earn £25.00  
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What's new?  
Catch up with the latest features and updates.

Blog

**Prescreen participants**  
Find the right participants for your study using our 300+ screeners.

**Nationality**  
Bulgaria View

**Sex**  
Female View

We've found 90 matching participants who have been active in the past 90 days.

**Submissions**  
Total times a participant can complete your study

Once

Multiple  
Allow participants to complete your study multiple times.

## Appendix B

Prompts used to create stimuli:

### B.1. Male model, a higher degree of sexual appeal

“Male Model – Confident & Alluring

Male model wears dark-blue tight fitted shorts, looks directly at the camera. He is topless. He has brown hair, a slight beard, brown eyes.

His body is towards the viewers, and he is positioned on a stylish bed. The bedsheets are beige. The bed is unmade. There are pillows around. He is leaning backwards.

The lighting is soft and moody, creating an intimate atmosphere. The lighting is warm. The walls are vague and beige.

The image is an advertisement for a perfume. On the bottom on left side, the image has a slogan on the front that reads: "Undress Your Senses" The font is Helvetica. All letters are capitals.

The text under says “new edition”. All letters are small.

The text under says “new edition”. All letters are small. The font is Helvetica

On the right side of the image there is the identical bottle of the advertised perfume. The bottle is still made from glass. It is still rectangular in shape and light blue in colour. On the bottle, in the middle, there is the same name “Arousal”. All the letters are capital. The font is helvetica. Under it, there is text " perfume for men". All the letters are small.”

### B.2. Male model, a lower degree of sexual appeal

“The exactly same male model now wears dark- blue tight fitted pants and looks directly at the camera. He is wearing a shirt now. The shirt is tight-fitted and unbuttoned on the top and on the bottom. He has brown hair, a slight beard, brown eyes.

His body is still towards the viewers, and he is positioned on the identical stylish bed. The identical bedsheets are beige. The bed is unmade. There are pillows around. He is leaning backwards.

The lighting remains soft and moody, creating an intimate atmosphere. The lighting is warm. The walls are vague and beige. The settings are all the same.

The image is an advertisement for the same perfume. On the bottom on the left side, the image has a slogan on the front that reads: "Undress Your Senses" The font is Helvetica. All the letters are capitals.

The text under says “new edition”. All letters are small. The font is Helvetica

On the right side of the image there is the identical bottle of the advertised perfume. The bottle is still made from glass. It is still rectangular in shape and light blue in colour. On the bottle, in the middle, there is the same name "Arousal". All the letters are capital. The font is helvetica. Under it, there is text "perfume for men". All the letters are small.

### B.3. Female model, a higher degree of sexual appeal

#### "Female Model – Elegant & Alluring

The female model wears an elegant, form-fitting dark-blue bralette and tight dark blue shorts. She has long brunette hair, brown eyes. She looks directly at the camera. Her body is positioned directly to the camera. Her stomach and legs are exposed.

Her posture highlights the graceful lines of her attire while she is leaning backwards. She is on the bed. The bed is beige. There are pillows around and in the background.

The atmosphere is enhanced by soft, dim lighting. The walls are vague and beige. The lighting is warm.

The image is an advertisement for the same perfume. On the bottom on the left side, the image has a slogan on the front that reads: "Undress Your Senses" The font is Helvetica. All the letters are capitals.

The text under says "new edition". All letters are small. The font is Helvetica

On the right side of the image there is the identical bottle of the advertised perfume. The bottle is still made from glass. It is still rectangular in shape and light blue in colour. On the bottle, in the middle, there is the same name "Arousal". All the letters are capital. The font is helvetica. Under it, there is text "perfume for women". All the letters are small.

### B.4. Female model, a lower degree of sexual appeal

#### Female Model – Refined & Confident

The model is dressed in a stylish tight blouse and a tailored mini skirt, embodying sophistication. She has long brunette hair, brown eyes. She looks directly at the camera. Her body is positioned directly to the camera. Her stomach and legs are exposed.

Her posture highlights the graceful lines of her attire while she is leaning backwards. She is on the bed. The bed is beige. There are pillows around and in the background.

The atmosphere is enhanced by soft, dim lighting. The walls are vague and beige. The lighting is warm.

**The image is an** advertisement for the same perfume. On the bottom on the left side, the image has a slogan on the front that reads: "Undress Your Senses" The font is Helvetica. All the letters are capitals.

The text under says "new edition". All letters are small. The font is Helvetica

On the right side of the image there is the identical bottle of the advertised perfume. The bottle is still made from glass. It is still rectangular in shape and light blue in colour. On the bottle, in the middle, there is the same name "Arousal". All the letters are capital. The font is helvetica. Under it, there is text " perfume for women". All the letters are small.

## Appendix C

### SPSS Output

Note: some of the variables were recoded and new variables were computed. Below the numbers used in the analysis are explained:

Nationality: 1 = Bulgaria, 2 = the Netherlands

Degrees of sexual appeal: 1 = a higher degree of sexual appeal, 2 = a lower degree of sexual appeal

Gender: 1 = female, 2 = male

Conditions: 1 = a higher degree of sexual appeal, female model, 2 = a higher degree of sexual appeal, male model, 3 = a lower degree of sexual appeal, female model, 4 = a lower degree of sexual appeal, male model

Table C.1 Descriptive Statistics

**What is your nationality? \* all\_conditions Crosstabulation**

Count

		all_conditions				Total
		1.00	2.00	3.00	4.00	
What is your nationality?	Bulgaria	34	31	33	30	128
	Netherlands	37	30	33	33	133
Total		71	61	66	63	261

### Descriptives

Descriptive Statistics						
all_conditions	nationality	N	Minimum	Maximum	Mean	Std. Deviation
1.00	1.00 What is your age (e.g. 20)?	34	18	43	25.68	6.949
	Valid N (listwise)	34				
	2.00 What is your age (e.g. 20)?	37	19	61	28.05	11.225
	Valid N (listwise)	37				
2.00	1.00 What is your age (e.g. 20)?	31	20	60	27.16	8.626
	Valid N (listwise)	31				
	2.00 What is your age (e.g. 20)?	30	18	51	25.00	6.297
	Valid N (listwise)	30				
3.00	1.00 What is your age (e.g. 20)?	33	19	54	25.48	7.450
	Valid N (listwise)	33				
	2.00 What is your age (e.g. 20)?	33	18	60	24.94	9.769
	Valid N (listwise)	33				
4.00	1.00 What is your age (e.g. 20)?	30	20	51	26.63	8.656
	Valid N (listwise)	30				
	2.00 What is your age (e.g. 20)?	33	18	59	26.79	11.048
	Valid N (listwise)	33				

-----  
**What is your nationality?**

all_conditions	N	Valid	Missing
1.00	71	71	0
2.00	61	61	0
3.00	66	66	0
4.00	63	63	0

**What is your nationality?**

all_conditions		Frequency	Percent	Valid Percent	Cumulative Percent
1.00	Valid	Bulgaria	34	47.9	47.9
		Netherlands	37	52.1	52.1
		Total	71	100.0	100.0
2.00	Valid	Bulgaria	31	50.8	50.8
		Netherlands	30	49.2	49.2
		Total	61	100.0	100.0
3.00	Valid	Bulgaria	33	50.0	50.0
		Netherlands	33	50.0	50.0
		Total	66	100.0	100.0
4.00	Valid	Bulgaria	30	47.6	47.6
		Netherlands	33	52.4	52.4
		Total	63	100.0	100.0

► **Descriptives**

**Descriptive Statistics**

all_conditions		N	Minimum	Maximum	Mean	Std. Deviation
1.00	What is your age (e.g. 20)?	71	18	61	26.92	9.434
	Valid N (listwise)	71				
2.00	What is your age (e.g. 20)?	61	18	60	26.10	7.587
	Valid N (listwise)	61				
3.00	What is your age (e.g. 20)?	66	18	60	25.21	8.625
	Valid N (listwise)	66				
4.00	What is your age (e.g. 20)?	63	18	59	26.71	9.902
	Valid N (listwise)	63				

**Descriptives**

**Descriptive Statistics**

	N	Minimum	Maximum	Mean	Std. Deviation
What is your age (e.g. 20)?	261	18	61	26.25	8.926
Valid N (listwise)	261				

Table C.2 Reliability analysis

Table C.2.1 Cronbach's Alpha for the Aad scale (Garcia & Yang, 2006, p. 40)

### Reliability Statistics

Cronbach's Alpha	N of Items
.910	7

Table C.2.1.2 Cronbach's Alpha for the CVSCALE scale (Yoo et al., 2011, p. 3)

### Reliability Statistics

Cronbach's Alpha	N of Items
.828	6

Table C.3. KMO and Barlett's Test for the scales

Table C.3.1. KMO and Barlett's Test for the Aad scale (Garcia & Yang, 2006, p. 40)

### KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.880
Bartlett's Test of Sphericity	Approx. Chi-Square	1231.963
	df	21
	Sig.	.000

Table C.3.1. KMO and Barlett's Test for the CVSCALE scale (Yoo et al., 2011, p. 3)

### KMO and Bartlett's Test

Kaiser–Meyer–Olkin Measure of Sampling Adequacy.		.827
Bartlett's Test of Sphericity	Approx. Chi-Square	529.916
	df	15
	Sig.	.000

Table C.4. Exploratory Factor Analysis for the scales

Table C.4.1 Exploratory Factor Analysis for the Aad scale (Garcia & Yang, 2006, p. 40)

### Total Variance Explained

Component	Total	Initial Eigenvalues		Extraction Sums of Squared Loadings		
		% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.601	65.723	65.723	4.601	65.723	65.723
2	.703	10.041	75.764			
3	.602	8.601	84.365			
4	.372	5.320	89.685			
5	.307	4.390	94.075			
6	.285	4.065	98.139			
7	.130	1.861	100.000			

Extraction Method: Principal Component Analysis.

### Component Matrix<sup>a</sup>

	Component 1
Rate how strongly you agree with following statements: - "I think this ad is good"	.874
Rate how strongly you agree with following statements: - "I like this advertisement"	.866
Rate how strongly you agree with following statements: - "I think this advertisement is persuasive"	.767
Rate how strongly you agree with following statements: - "I think this advertisement is effective"	.831
Rate how strongly you agree with following statements: - "I think this advertisement is impressive"	.821
Rate how strongly you agree with following statements: - "I think this advertisement is attractive"	.822
Rate how strongly you agree with following statements: - "I think this advertisement is eye-catching"	.678

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

Table C.4.2 Exploratory Factor Analysis for the CVSCALE scale (Yoo et al., 2011, p. 3)

<b>Total Variance Explained</b>						
Component	Total	Initial Eigenvalues		Extraction Sums of Squared Loadings		
		% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.243	54.052	54.052	3.243	54.052	54.052
2	.837	13.944	67.996			
3	.660	10.994	78.989			
4	.514	8.573	87.563			
5	.402	6.707	94.270			
6	.344	5.730	100.000			

Extraction Method: Principal Component Analysis.

<b>Component Matrix<sup>a</sup></b>	
	Component 1
Rate how strongly you agree with following statements: – "Individuals should sacrifice self-interest for the group"	.729
Rate how strongly you agree with following statements: – "Individuals should stick with the group even through difficulties"	.616
Rate how strongly you agree with following statements: – "Group welfare is more important than individual rewards"	.809
Rate how strongly you agree with following statements: – "Group success is more important than individual success"	.766
Rate how strongly you agree with following statements: – "Individuals should only pursue their goals after considering the welfare of the group"	.745
Rate how strongly you agree with following statements: – "Group loyalty should be encouraged even if individual goals suffer"	.733

Extraction Method: Principal Component Analysis.  
a. 1 components extracted.

Table C.5 Independent samples t-test for cultural norms covariate

**T-Test**

[DataSet1] /Users/sofasamova/Desktop/SPSS OUTPUT/WORKING FINAL copy.sav

Group Statistics					
	nationality	N	Mean	Std. Deviation	Std. Error Mean
culture_score	1.00	128	19.4141	4.84326	.42809
	2.00	133	17.3459	4.69372	.40700

Independent Samples Test										
		Levene's Test for Equality of Variances			t-test for Equality of Means					
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
culture_score	Equal variances assumed	.012	.914	3.503	259	.001	2.06820	.59033	.90575	3.23065
	Equal variances not assumed			3.501	257.744	.001	2.06820	.59068	.90502	3.23138

Table C.6 T-tests for the manipulation check: How sexually suggestive is the advertisement?

Table C.6.1 Independent sample t-test

**T-Test**

Group Statistics					
	levels_of_appeal	N	Mean	Std. Deviation	Std. Error Mean
How sexually suggestive this advertisement is?	1.00	132	4.14	.802	.070
	2.00	129	3.91	.902	.079

Independent Samples Test										
		Levene's Test for Equality of Variances			t-test for Equality of Means					
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
How sexually suggestive this advertisement is?	Equal variances assumed	.014	.906	2.171	259	.031	.229	.106	.021	.437
	Equal variances not assumed			2.168	254.058	.031	.229	.106	.021	.437

Table C.6.2 One sample t-test

```
GET
FILE=' /Users/sofasanova/Desktop/SPSS OUTPUT/WORKING WORKING.sav'.
DATASET NAME DataSet1 WINDOW=FRONT.
SORT CASES BY levels_of_appeal.
SPLIT FILE LAYERED BY levels_of_appeal.
T-TEST
/TTESTVAL=3
/MISSING=ANALYSIS
/VARIABLES=Q4
/CRITERIA=CI(.95).
```

**T-Test**

[DataSet1] /Users/sofasanova/Desktop/SPSS OUTPUT/WORKING WORKING.sav

One-Sample Statistics					
levels_of_appeal		N	Mean	Std. Deviation	Std. Error Mean
1.00	How sexually suggestive this advertisement is?	132	4.14	.802	.070
2.00	How sexually suggestive this advertisement is?	129	3.91	.902	.079

One-Sample Test						
Test Value = 3						
levels_of_appeal		t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference Lower Upper
1.00	How sexually suggestive this advertisement is?	16.387	131	.000	1.144	1.01 1.28
2.00	How sexually suggestive this advertisement is?	11.522	128	.000	.915	.76 1.07

Table C.7. ANCOVA

**Tests of Between-Subjects Effects**

Dependent Variable: attitude

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	958.581 <sup>a</sup>	8	119.823	2.815	.005	.082
Intercept	4493.258	1	4493.258	105.554	.000	.295
culture_score	159.983	1	159.983	3.758	.054	.015
gender	94.211	1	94.211	2.213	.138	.009
levels_of_appeal	289.449	1	289.449	6.800	.010	.026
nationality	222.942	1	222.942	5.237	.023	.020
gender * levels_of_appeal	.296	1	.296	.007	.934	.000
gender * nationality	.886	1	.886	.021	.885	.000
levels_of_appeal * nationality	2.087	1	2.087	.049	.825	.000
gender * levels_of_appeal * nationality	13.605	1	13.605	.320	.572	.001
Error	10727.197	252	42.568			
Total	114929.000	261				
Corrected Total	11685.778	260				

## Estimated Marginal Means

### 1. gender

Dependent Variable: attitude

gender	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
1.00	19.351 <sup>a</sup>	.559	18.250	20.451
2.00	20.558 <sup>a</sup>	.587	19.402	21.715

a. Covariates appearing in the model are evaluated at the following values: culture\_score = 18.3602.

### 2. levels\_of\_appeal

Dependent Variable: attitude

levels_of_appeal	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
1.00	18.896 <sup>a</sup>	.571	17.772	20.019
2.00	21.013 <sup>a</sup>	.576	19.879	22.147

a. Covariates appearing in the model are evaluated at the following values: culture\_score = 18.3602.

### 3. nationality

Dependent Variable: attitude

nationality	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
1.00	20.903 <sup>a</sup>	.585	19.752	22.054
2.00	19.006 <sup>a</sup>	.574	17.876	20.136

a. Covariates appearing in the model are evaluated at the following values: culture\_score = 18.3602.

### 4. gender \* levels\_of\_appeal

Dependent Variable: attitude

gender	levels_of_appeal	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
1.00	1.00	18.326 <sup>a</sup>	.777	16.795	19.856
	2.00	20.376 <sup>a</sup>	.803	18.794	21.957
2.00	1.00	19.466 <sup>a</sup>	.835	17.820	21.111
	2.00	21.651 <sup>a</sup>	.826	20.024	23.277

a. Covariates appearing in the model are evaluated at the following values: culture\_score = 18.3602.

### 5. gender \* nationality

Dependent Variable: attitude

gender	nationality	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
1.00	1.00	20.358 <sup>a</sup>	.803	18.776	21.940
	2.00	18.344 <sup>a</sup>	.796	16.776	19.912
2.00	1.00	21.448 <sup>a</sup>	.840	19.794	23.102
	2.00	19.668 <sup>a</sup>	.823	18.047	21.290

a. Covariates appearing in the model are evaluated at the following values: culture\_score = 18.3602.

### 6. levels\_of\_appeal \* nationality

Dependent Variable: attitude

levels_of_appeal	nationality	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
1.00	1.00	19.934 <sup>a</sup>	.812	18.335	21.532
	2.00	17.858 <sup>a</sup>	.809	16.265	19.451
2.00	1.00	21.872 <sup>a</sup>	.834	20.230	23.513
	2.00	20.154 <sup>a</sup>	.806	18.568	21.741

Table C.8 T-tests for the pilot test

Table C.8.1 Independent samples t-test for the pilot test

**T-Test**

Group Statistics					
	appeal	N	Mean	Std. Deviation	Std. Error Mean
How sexually suggestive this advertisement is?	1.00	5	4.80	.447	.200
	2.00	6	3.33	1.211	.494

Independent Samples Test										
		Levene's Test for Equality of Variances			t-test for Equality of Means				95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
How sexually suggestive this advertisement is?	Equal variances assumed	7.000	.027	2.548	9	.031	1.467	.576	.164	2.769
	Equal variances not assumed			2.750	6.551	.030	1.467	.533	.188	2.746

Table C.8.2 One sample t-test for the pilot test

One-Sample Statistics					
appeal		N	Mean	Std. Deviation	Std. Error Mean
1.00	How sexually suggestive this advertisement is?	5	4.80	.447	.200
2.00	How sexually suggestive this advertisement is?	6	3.33	1.211	.494

One-Sample Test							
Test Value = 3							
appeal		t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
						Lower	Upper
1.00	How sexually suggestive this advertisement is?	9.000	4	.001	1.800	1.24	2.36
2.00	How sexually suggestive this advertisement is?	.674	5	.530	.333	-.94	1.60

Table C.9 Levene's Test of Equality of Error variances

Levene's Test of Equality of Error Variances <sup>a</sup>			
Dependent Variable: attitude			
F	df1	df2	Sig.
2.672	7	253	.011

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.

<sup>a</sup> Design: Intercent + culture score

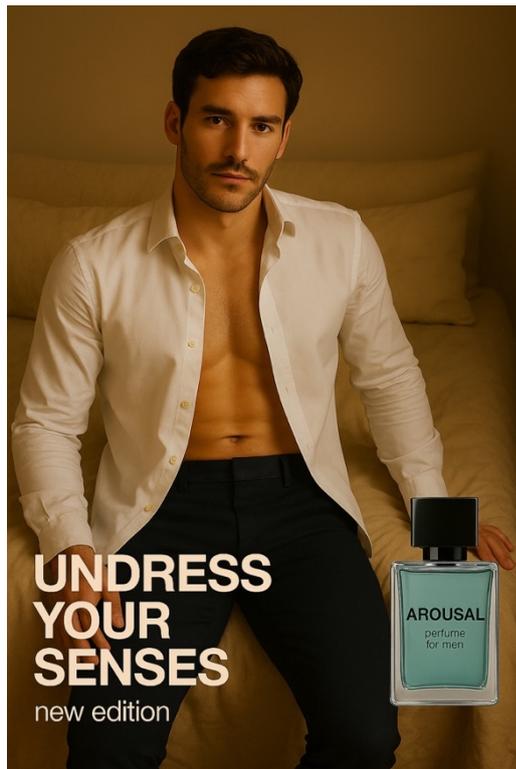
## Appendix D

Stimuli used in the experiment

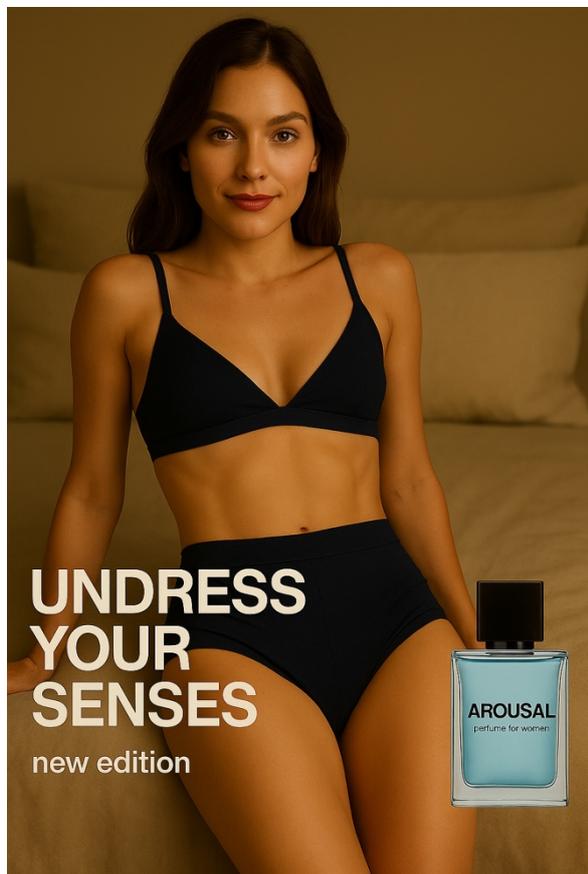
A higher degree of sexual appeal – male model



A lower degree of sexual appeal – male model



A higher degree of sexual appeal – female model



A lower degree of sexual appeal – female model



## Appendix E

Survey flow and survey questions

**Standard: Introduction (1 Question)**

**Standard: Informed Consent (1 Question)**

**Branch: New Branch**

**If**

**If Informed Consent By selecting "I agree" box, you indicate that you understand the purpose of this... I do not agree Is Selected**

**EndSurvey: Default**

**Standard: Before condition (1 Question)**

**BlockRandomizer: 1 - Evenly Present Elements**

**Group: strong female**

**EmbeddedData**  
**strong female = 1**

**Block: condition 1: Dutch - strong - female (1 Question)**

**Group: strong male**

**EmbeddedData**  
**strong male = 2**

**Standard: condition 2: dutch - strong - male (1 Question)**

**Group: weak female**

**EmbeddedData**  
**weak female = 3**

**Standard: Condition 3: dutch - weak - female (1 Question)**

**Group: weak male**

**EmbeddedData**  
**weak male = 4**

**Standard: condition 4: dutch - weak - male (1 Question)**

**Block: Survey (1 Question)**

**Block: Survey 2 (1 Question)**

**Standard: Manipulation check (2 Questions)**

**Standard: Control question (2 Questions)**

**Standard: Demographic (3 Questions)**

**Standard: Comments (1 Question)**

**EndSurvey: Default**

Page Break

---

## Start of Block: Introduction

### Introduction

**Hello and thank you for participating in this research study!** The purpose of this study is to explore how sexual advertising influences female viewers' attitudes toward advertisements in the Netherlands and Bulgaria.

**Confidentiality of Data:** Your participation is completely voluntary, and your responses will remain anonymous. No personally identifiable information will be collected, and the data will be used only for academic purposes.

**Voluntary Participation:** The survey will take approximately 7 minutes to complete. You may exit the survey at any time without penalty. Be aware that the survey contains sexually explicit content that might be triggering. You have to be above 18 years old to participate. Consider it before participating and remember that it is possible to exit the survey at any moment.

**Further Questions:** If you have any questions or concerns, feel free to reach out to Sofia Shamova via [725977ss@eur.nl](mailto:725977ss@eur.nl) Thank you again for your time and input!

## End of Block: Introduction

---

## Start of Block: Informed Consent

**Informed Consent** By selecting "I agree" box, you indicate that you understand the purpose of this study and agree to participate. Note that by selecting "I do not agree" box, you will be automatically withdrawn from the survey. Do you agree to participate in the survey?

I agree (1)

I do not agree (2)

## End of Block: Informed Consent

---

## Start of Block: Before condition

You will be shown a perfume advertisement. Take **a thorough look** at it and then, answer the following questions about it.

**End of Block: Before condition**

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**Start of Block: condition 1: Dutch - strong - female**

**End of Block: condition 1: Dutch - strong - female**

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**Start of Block: condition 2: dutch - strong - male**

**End of Block: condition 2: dutch - strong - male**

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**Start of Block: Condition 3: dutch - weak - female**

**End of Block: Condition 3: dutch - weak - female**

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**Start of Block: condition 4: dutch - weak - male**

**End of Block: condition 4: dutch - weak - male**

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## Start of Block: Survey



Q1 Rate how strongly you agree with following statements:

	Strongly disagree (1)	Somewhat disagree (2)	Neither disagree nor agree (3)	Somewhat agree (4)	Strongly agree (5)
"I think this ad is good" (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
"I like this advertisement" (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
"I think this advertisement is persuasive" (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
"I think this advertisement is effective" (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
"I think this advertisement is impressive" (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
"I think this advertisement is attractive" (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
"I think this advertisement is eye-catching" (7)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**End of Block: Survey**

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**Start of Block: Survey 2**



Q2 Rate how strongly you agree with following statements:

	Strongly disagree (1)	Somewhat disagree (2)	Neither disagree nor agree (3)	Somewhat agree (4)	Strongly agree (5)
“Individuals should sacrifice self-interest for the group” (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
“Individuals should stick with the group even through difficulties” (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
“Group welfare is more important than individual rewards” (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
“Group success is more important than individual success” (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

“Individuals should only pursue their goals after considering the welfare of the group”

(6)

“Group loyalty should be encouraged even if individual goals suffer”

(7)

**End of Block: Survey 2**

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**Start of Block: Manipulation check**

Q3 Please describe the given advertisement in details (e.g. the appearance and the clothes of the model, the background, the text, etc.)

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Page Break

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X→

Q4 How sexually suggestive this advertisement is?

- Very non-suggestive (1)
- Somewhat non-suggestive (2)
- Neither non-suggestive or suggestive (3)
- Somewhat suggestive (4)
- Very suggestive (5)

**End of Block: Manipulation check**

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**Start of Block: Control question**

X→

Q5 What product was advertised?

- Clothes (1)
  - Perfume (2)
  - Furniture (3)
- 

X→

Q6 Who was shown in the advertisement?

- A female (1)
- A male (2)
- Both a female and a male (3)
- Other (4) \_\_\_\_\_

**End of Block: Control question**

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**Start of Block: Demographic**

Q7 What is your age (e.g. 20)?

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Q8 What is your gender?

Male (1)

Female (2)

Non-binary (3)

Prefer not to say (4)

Other (5) \_\_\_\_\_

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Q9 What is your nationality?

▼ 4 (4) ... Zimbabwe (200)

**End of Block: Demographic**

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**Start of Block: Comments**

If you have any additional comments or questions, feel free to leave them here!

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**End of Block: Comments**

## Appendix F

Declaration Page: Use of Generative AI Tools in Thesis

### Student Information

Name: Sofia Shamova

Student ID: 725977

Course Name: Master Thesis CM5000

Supervisor Name: P. M. A. Tenbült

Date: 26.06.2025

Declaration:

### Acknowledgment of Generative AI Tools

I acknowledge that I am aware of the existence and functionality of generative artificial intelligence (AI) tools, which are capable of producing content such as text, images, and other creative works autonomously.

GenAI use would include, but not limited to:

- Generated content (e.g., ChatGPT, Quillbot) limited strictly to content that is not assessed (e.g., thesis title).
- ~~Writing improvements, including~~ grammar and spelling corrections (e.g., Grammarly)
- Language translation (e.g., DeepL), without generative AI alterations/improvements.
- Research task assistance (e.g., finding survey scales, qualitative coding verification, debugging code)
- Using GenAI as a search engine tool to find academic articles or books (e.g.,

I declare that I have used generative AI tools, specifically Sora in the process of creating parts or components of my thesis. The purpose of using these tools was to aid in generating content or assisting with specific aspects of thesis work.

I declare that I have NOT used any generative AI tools and that the assignment concerned is my original work.

Signature: [digital signature]

Date of Signature: [Date of Submission]

### **Extent of AI Usage**

I confirm that while I utilized generative AI tools to aid in content creation, the majority of the intellectual effort, creative input, and decision-making involved in completing the thesis were undertaken by me. I have enclosed the prompts/logging of the GenAI tool use in an appendix.

### **Ethical and Academic Integrity**

I understand the ethical implications and academic integrity concerns related to the use of AI tools in coursework. I assure that the AI-generated content was used responsibly, and any content derived from these tools has been appropriately cited and attributed according to the guidelines provided by the instructor and the course. I have taken necessary steps to distinguish between my original work and the AI-generated contributions. Any direct quotations, paraphrased content, or other forms of AI-generated material have been properly referenced in accordance with academic conventions.

By signing this declaration, I affirm that this declaration is accurate and truthful. I take full responsibility for the integrity of my assignment and am prepared to discuss and explain the role of generative AI tools in my creative process if required by the instructor or the Examination Board. I further affirm that I have used generative AI tools in accordance with ethical standards and academic integrity expectations.

Signature:

A handwritten signature in black ink, consisting of several loops and a long horizontal stroke extending to the right.

Date of Signature: 26.06.2025