

Women's Reactions to Sexy Female Models

A Quantitative Study in an Online Apparel Retail Setting

This thesis explores how female sexual appeals in advertising affect female consumers. The effects on arousal levels as well as respondents' affective, cognitive and conative responses were examined. Two commonly used types of sexual appeals were studied: sexual movement and nudity. The effects of the two treatment conditions are examined separately and together through an experiment set in an online apparel retail context. Respondents were subjected to visual stimuli in the form of fictional product images, and their reactions were recorded through an online survey. It was hypothesised that increased sexual intensity would not have an effect on respondents' arousal levels, and affect advertising effectiveness negatively. The results were analysed and compared to previous studies on the subject. Findings conclude that women in the study perceived the manipulations of sexual appeals, but did not find the female model sexy. Moreover, they did not experience arousal from viewing increased sexual intensity. While sexual movement affected advertising effectiveness measures negatively, the effects of nudity were either dependent upon sexual movement, not significant, or positive. It is concluded that the widely used sexual appeals in marketing aimed at women might not have the intended effects. Practical implications for managers are suggested based on these findings.

Keywords: Sexual appeals, sex in advertising, sexual movement, nudity, online retail, product images.

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Table of Contents

1	Introduction.....	1
1.1	<i>Background to Sexual Appeal Advertising and Research</i>	1
1.2	<i>Problem Areas</i>	2
1.2.1	Model-Subject Gender Relationship.....	2
1.2.2	Target Audience Gender.....	2
1.2.3	Sexual Appeal Types	3
1.3	<i>Purpose</i>	4
1.4	<i>Expected Knowledge Contribution</i>	5
1.5	<i>Delimitations and Assumptions</i>	6
1.6	<i>Disposition</i>	7
2	Theory and Hypothesis Generation	8
2.1	<i>Consumer Responses</i>	8
2.2	<i>Human Models in Advertising</i>	8
2.3	<i>Types of Sexual Appeals</i>	9
2.4	<i>Responses to Sexual Appeals</i>	10
2.4.1	Arousal.....	10
2.4.2	Affective Responses	11
2.4.3	Cognitive Responses.....	12
2.4.4	Conative Responses to Sexual Appeals (E done)	13
2.5	<i>Attractiveness</i>	13
2.6	<i>Hypotheses</i>	14
3	Method.....	16
3.1	<i>Research Methodology</i>	16
3.2	<i>Research Design</i>	16
3.3	<i>Stimuli Design</i>	16
3.3.1	Product images.....	17
3.3.2	Online Apparel Retailing	17
3.3.3	Pre-study	18
3.3.4	Stimuli Manipulation	19
3.4	<i>Data Collection</i>	20
3.4.1	Pilot Study	20
3.4.2	Subjects.....	21
3.4.3	Survey Distribution.....	21
3.5	<i>The Survey</i>	21
3.5.1	Independent variables and Manipulation Control.....	22
3.5.2	Dependent variables (E done).....	22
4	Analysis.....	25
4.1	<i>Analysis Design</i>	25
4.1.1	One-way Analysis of Variance	25
4.1.2	Two-way Analysis of Variance	26
4.1.3	Analysis of Covariance.....	26
4.1.4	Regression Analysis.....	26
4.2	<i>Description of the Data</i>	27
4.3	<i>Purification of Measures</i>	28
4.4	<i>Manipulation Control</i>	29
4.5	<i>Testing of Hypotheses</i>	31
4.5.1	Use of a Human Model.....	31
4.5.2	Arousal.....	31

4.5.3	Model Attitude.....	32
4.5.4	Product Attitude.....	33
4.5.5	Brand Attitude	34
4.5.6	Cognitive Evaluation	35
4.5.7	Price Cognition	37
4.5.8	Behavioural Intention	38
4.6	<i>Analysis Summary</i>	39
5	Discussion	41
5.1	<i>Discussion of Results</i>	41
5.1.1	Perceived Sexual Appeals.....	41
5.1.2	Sexual Movement	42
5.1.3	Nudity	43
5.1.4	Interaction of Sexual Movement and Nudity.....	44
5.1.5	Attractiveness and Identification	44
5.1.6	Summary Discussion of Results	45
5.2	<i>Implications</i>	46
5.2.1	Theoretical implications	46
5.2.2	Managerial implications	47
5.2.3	Implications for Educators and Legislators	48
5.3	<i>Conclusion</i>	48
5.4	<i>Critique and Limitations</i>	49
5.4.1	Reliability	51
5.4.2	Validity	51
5.5	<i>Future Research</i>	53
	Bibliography	54
	Appendices.....	58
	Appendix A: <i>Pre-study stimuli</i>	58
	Appendix B: <i>The Survey</i>	59
	Appendix C: <i>Internal consistency of indexes</i>	63
	Appendix D: <i>Regression Analyses</i>	65
	Appendix E: <i>Sample-Descriptive Data</i>	66
	Appendix F: <i>Descriptive Results and Results from Analysing Effects of a Human Mode</i>	67
	Appendix G: <i>Results for Arousal</i>	68
	Appendix H: <i>Examples of overt ads</i>	69
	Appendix I: <i>2-way ANOVAs ('Sexual movement' & 'Nudity')</i>	70
	Appendix J: <i>2-way ANCOVA analyses (Attractiveness)</i>	80
	Appendix K: <i>Definitions</i>	Error! Bookmark not defined.

1 Introduction

The first part of this section gives an introduction to the area of sexual appeal advertising and research. This presentation is followed by the identification of some problem areas related to the usage of such appeals. A research question is then proposed based on the identified gaps in the existing body of research as well as the stated purpose of this study. The research question is aimed at contributing with relevant knowledge about sexual appeal advertising. These expected contributions are presented in section 1.4, followed by the delimitations of the study. Section 1 ends with a description of the disposition of the study.

1.1 Background to Sexual Appeal Advertising and Research

Research shows that the use of sexual appeals in advertising can grab attention and positively affect attitude formation (Lombardot, 2007). Sexually explicit ads are evaluated as more interesting, entertaining, favourable, likeable, dynamic and original than non-sexual ads (Severn, Belch, & Belch, 1990; Reichert, Heckler, & Jackson, 2001). Due to the perceived advantages of this type of advertising, sexual appeal messages are prevalent in advertising content (Ferguson, Kreshel, & Tinkham, 1990; Coltrane & Messineo, 2000). Studying trends from the 1960's onward, it is apparent sexual illustrations are becoming increasingly common, as well as more visual and overt (Reid & Soley, 1981; Soley & Kurzbard, 1986; Severn, Belch, & Belch, 1990). Reichert, Heckler, & Jackson (2001) provided the following definition:

“Sexual appeals can be broadly defined as messages, [...], that are associated with sexual information.” (p. 13)

The use of sexual appeals and sex role stereotypes in advertising has been studied for more than five decades (Baker, 1961). Reichert and Ramirez' (2000) attempt to define sexually oriented appeals in advertising resulted in four overarching types of sexual appeal: physical features of the model, sexual movement, intimacy between models, and camera effects. Advertising researchers have examined several aspects of sexual appeal advertising. The majority of studies have focused on content analysis of existing advertising (Ferguson, Kreshel, & Tinkham, 1990; Coltrane & Messineo, 2000; Plakoyiannaki & Zotos, 2009), emotional reactions to sexual appeal advertising (LaTour, Pitts, & Snook-Luther, 1990), or

effectiveness of sexual appeal advertising (Hyllegard, Ogle, & Yan, 2009; Dianoux & Linhart, 2010; Lombardot, 2007). Studies of attractiveness are a closely related area of research that often connects models' physical appearance to the sexual nature of the advertising message (Reichert & Ramirez, 2000; Baker & Churchill, 1977; Joseph, 1982).

1.2 Problem Areas

The use of sexual appeals in advertising is, however, not uncomplicated. The results from studies of consumer responses are inconclusive, and appear to vary based on several factors. Three important influencers of sexual appeal advertising effectiveness are the model-subject gender relationship, the sex of the target audience, and the type of sexual appeal used. The problems associated with these areas are discussed in more detail below.

1.2.1 Model-Subject Gender Relationship

For decades, there have been significantly more depictions of women than of men as sex objects (Coltrane & Messineo, 2000; Reid & Soley, 1981; Soley & Kurzbard, 1986). Findings from previous studies indicate sexual appeal advertising effectiveness depends on the gender relationship between the subject and the model. Specifically, sexual appeal advertising is more effective when the audience and the model are of opposite sex (Baker & Churchill, 1977; Lombardot, 2007). The majority of models depicted in sexual appeal advertising, including advertising targeting women, appear to be women. Women's body care, clothing and perfume are examples of product categories where marketers almost exclusively use female models and endorsers. It seems female sexual appeals are being used to target women, despite lack of theoretical foundation for doing so.

1.2.2 Target Audience Gender

When it comes to sexual stimuli, most studies agree on the absence of symmetry between reactions from men and women (LaTour, Pitts, & Snook-Luther, 1990; Reichert & Ramirez, 2000; Lombardot, 2007). In fact, the audience's gender is one of the key determinants of how these messages are received (Brumbaugh, 1993; Black, Organ, & Morton, 2010). Studies show men in general react positively to female sexual appeal in advertising while women react less favourably or even negatively, especially when ads feature high sexual intensity (Theodoridis, Kyrousi, Zotou, & Panigyrakis, 2013; Liu, Cheng, & Li, 2009). LaTour and

Henthorne (1994) studied reactions to ads featuring both male and female models in varying levels of sexual movement, and found overt sexual appeals were not well received by women. They also found women's awareness and general attitudes to sex role portrayals affect attitude formation; more sensitised women react more negatively to overt sexual appeals. Judd and Alexander (1983) contend advertisers must be acutely aware of the reactions of their target audience to the use of potentially controversial sexual appeals.

Several studies have examined male reactions to female sexual appeal in advertising. The results from this research support its positive effect on attention and recall (Baker S., 1961; Lombardot, 2007; Severn, Belch, & Belch, 1990) as well as ad impressions (Till & Busler, 2000; Reichert, LaTour, & Ford, 2011). Interestingly, when studying women the focus has almost exclusively been on their reactions to strong and overt appeals. Moreover, researchers have examined how women's general attitudes to female sex role portrayals are affected by nationality or belonging to political organisations (LaTour & Ford, 1993; Ford, LaTour, & Lundstrom, 1991; LaTour, Ford, & Honeycutt, Jr, 1997). It is argued most ads targeting women feature only mild to medium sexual intensity, and knowledge about the advertising effectiveness of more commonly used forms of female sexual appeals is lacking.

Another interesting aspect of female sexual appeals used to target women is the sexual relationship between the model and the subject. One common assumption in this area of research is that arousal sparked by a sexy model of the opposite sex plays a key role in a sexual appeal ad's attention-grabbing value. In fact, Reichert et al. (2001) make the following claim regarding sexual messages:

"[...] an important underlying conceptual commonality is that the information evokes sexual thoughts and/or feelings in the viewer." (p. 14)

Despite the ample body of research on men's emotional reactions to female sexual appeals, little is known about women's reactions. Researchers have not yet been able to determine the role played by sexual emotions in women's reactions to frequently used female sexual appeals.

1.2.3 Sexual Appeal Types

One of the most important factors in sexual appeal research is the type of sexual stimulus used. Many studies on sexual appeals' effectiveness compare the effects of visual images

containing higher or lower levels of sexual intensity. Many of these studies use one or more of the most common treatments: nudity, sexual movement and attractiveness. Nudity is manipulated by covering up more or less of the model's body, and attractiveness through choosing models that are considered more or less attractive. Sexual movement is related to the model's behaviour and pose (Reichert & Ramirez, 2000).

Some researchers have highlighted the need to isolate the effects of different types of sexual appeals (Lombardot, 2007; Joseph, 1982). While managers can manipulate nudity and sexual movement, attractiveness is to a large extent dependent on the model and the person evaluating the model's physical appearance. Hyllegard et al. (2009) let existing American Apparel ads represent different levels of sexual intensity. The ads showed different models in different positions and levels of nudity. Black et al. (2010) and Lombardot (2007) used the same male and female models but varied the level of nudity and sexual movement. Although all these studies rendered interesting results, the effects of nudity, sexual movement and attractiveness were not studied separately. As a result, the findings are difficult to translate into practical implications for managers.

1.3 Purpose

Despite the ample body of research on sexual appeal messages' effects on men, many questions remain regarding their effect on women. Little is known about the effects of the sexual appeals that are widely used in advertising targeted to women. Upon reviewing existing research on the subject, several questions were raised. What role do sexual emotional reactions play in a female model-female audience interaction? How effective are female sexual appeals in creating favourable female responses to advertising? What form of female sexual appeal has the greatest effect on advertising effectiveness? The aim of this study is to address the discussed gap in research by providing insights into this widely used but poorly understood area of marketing.

Since different types of sexual appeals are often used together, the effects of two types of sexual appeals were studied simultaneously: sexual movement and nudity. The rationale for studying these two aspects of sexual appeals was that they are easy to manipulate and widely used by both marketers and researchers (Lombardot, 2007; Hyllegard, Ogle, & Yan, 2009; Black, Organ, & Morton, 2010; LaTour, Pitts, & Snook-Luther, 1990; Dianoux & Linhart,

2010). An examination of the treatment conditions' separate as well as interaction effects is expected to contribute with relevant insights to this area of research.

Sexual appeals are commonly included in visual image advertising. Since visual image advertising allows for manipulation of the two treatment conditions, this form of market communication was the focus of the study.

The effects of sexual movement and nudity on different aspects of consumer responses relevant to marketers were studied. These included affective, cognitive and conative dimensions of consumer response. The main objective of this study is to determine the advertising effectiveness of female sexual appeals on a female audience. Hence, the aim of this study is to find an answer to the following research question:

RQ: How do female sexual movement and nudity impact women's affective, cognitive and conative responses to visual image advertising?

1.4 Expected Knowledge Contribution

By answering the stated research question this study is expected to contribute to a better understanding of what dimensions of sexy female models affect women. One aspects of this is to determine whether there is a need to isolate the effects of different sexual appeals. Results could potentially make visible new ways to approach sexuality in marketing research. It is moreover expected that further insights into the effects of different types of sexual appeals can explain some of the conflicting results from previous studies.

It is further expected this study will add to the existing body of research on women's reactions to female sexual appeals. One aspect of this is to study the importance of arousal in same-sex model-audience relationships. Another objective is to determine whether the frequent use of female sexuality in advertising to women is successful in stimulating the desired responses. The objective is also to provide managers with practical implications on how to best use female models when targeting women.

1.5 Delimitations and Assumptions

There are several restrictions put upon this study to make it possible to execute within the size and scope of a master's thesis. The sample was pulled from Swedish female residents because of the authors' knowledge of and access to this market. Due to the time constraints placed by the academic calendar on the production of a master's thesis and the inherent difficulty in attracting survey respondents, only one type of product and market were studied in order to limit the number of subject responses needed for statistical validity.

There are several types of sexual appeals not examined in this study, such as double entendres and sexual positioning of models in relation to each other. The choice to only study sexual movement and nudity was made to limit the number of manipulations and observations needed. Moreover, these two are likely the most commonly used sexual appeals that can be manipulated by theorists and managers. Attractiveness was not studied because of the difficulty to manipulate this aspect without using several models. This could result in unforeseen effects related to the person featured in the ad, which would have been impractical to measure and account for. Instead, the effects of the model's physical attractiveness were isolated from the effects of sexual movement and nudity in the analysis.

A limited number of consumer responses were studied. These were chosen based on their believed relevance to managers. An examination of the relationships between the responses was not included due to the need to limit the analysis and discussion of results. Therefore, the effect of emotions on formation of attitudes and cognition were not studied, nor were the effects of attitudes and cognition on behavioural intention. Moreover, because the study was based on self-reports, affective, cognitive and conative responses could not be translated into sales. However, measuring the effects on bottom line results would have been impractical, and created a myriad of issues regarding isolating the effects for the manipulation from interferences from the surrounding environment. To the best of the authors' knowledge, no such study has been performed in this area of research.

There are a multitude of other variables that potentially affect advertising effectiveness of female sexual appeals on women. Some of them are included in this study, but many are not. For example, respondents' personality, moral values and relationships to sex have been shown to affect attitude formation (Reichert, LaTour, & Ford, 2011; Black, Organ, & Morton, 2010; LaTour & Henthorne, 1994). These are interesting aspects to consider, however including them in this study would have been beyond the scope of a master's thesis.

Moreover, this area is quite well researched, and although there is evidence for the importance of individual characteristics it is hard to translate this into practical implications for managers.

Finally, a heterosexual sample is assumed. This assumption is based on the fact that a majority of the female population is heterosexual (Laumann, Gagnon, Michael, & Michaels, 1992). Respondents' sexual orientation is of importance in this study since the reactions to sexy female models might depend on the individual's general sexual relationship with women. Respondents are not asked about their sexual orientation to avoid offending them or discouraging them from participating in the study.

1.6 Disposition

The thesis consists of five chapters, each beginning with a short summary of the chapter's contents. This chapter has introduced the problem areas and the purpose and expected knowledge contribution of the thesis.

In the following chapter a review of the theory and literature used is presented. The main areas covered are consumer responses, use of models in advertising, sexual appeal theory and attractiveness. In the end of the chapter the hypotheses of the study are presented.

In chapter three, the method of the study is introduced. Some additional literature relevant to the method is reviewed, and the design of the study is presented. Chapter four contains descriptions of the data collected, followed by descriptions of the analyses conducted.

Finally, chapter five contains a discussion of the results obtained in the analyses and presents the implications of this study for theorists, managers and other stakeholders. The chapter ends with conclusions of the study, possible critiques and limitations, and suggestions for future research areas of interest.

2 Theory and Hypothesis Generation

In section 2, relevant consumer response and sexual appeal literature is reviewed. Hypotheses are then presented based on previous research, and designed to answer the research question.

2.1 Consumer Responses

A large part of previous research on sexual appeal has focused on examining its impact on advertising effectiveness. Studies have focused on several different consumer response levels to determine effects on areas important to researchers. In this study the choice of advertising effectiveness measures is based on the Hierarchy of Effects model (Lavidge & Steiner, 1961). The model proposes behaviour is composed of three dimensions: affection, cognition and conation. The affective dimension relates to developing feelings and attitudes, the cognitive component involves developing awareness and knowledge, and the conative dimension involves development of conviction or intention and actual behaviour. Generally, conative responses are an outcome of cognition and/or affect (Park, Stoel, & Lennon, 2008).

The dependent measures were chosen based on their believed importance to managers. The affective responses included in this survey were model attitude, product attitude and brand attitude. For cognitive measures the focus was on the product's congruency with sexual appeals, which has been shown to be important in how respondents receive sexual appeal messages (Baker & Churchill, 1977; Dianoux & Linhart, 2010). Moreover, the effects of sexual movement and nudity on perceived product price were examined. Price perception has been studied as part of cognition in previous research (Thomas & Morwitz, 2005). To respond to Holbrook and Hirschman's (1982) call for "softer" evaluation of conative responses that include more items than purchase intention, several behavioural intentions related to purchase as well as searching and spreading of information were included.

2.2 Human Models in Advertising

Several studies have shown consumers prefer pictures with human models compared to images displaying, for example, only a product. Marketers can include human models as decorative or functional elements of visual image advertising. Lo et al. (2013) found adding a human model to a product image can significantly improve attitudes and behavioural

intentions in an online bidding context. Moreover, Clow et al. (2006) found adding a model in an advertisement affects ad attitude indirectly through the perceived credibility associated with the model. Holzwarth et al. (2006) studied the use of avatars in an online retailing setting. They found that the use of web-based, computer-generated personalities increased attitudes to the retailer and product, as well as purchase intention. These findings lead us to theorise that adding a model to an image positively affects advertising effectiveness. This is an important assumption for the research of models and endorsers in advertising since, without it, marketers could maximize advertising effectiveness by simply displaying the product without any human models.

H1: Visual image advertising is more effective in terms of affective, cognitive and conative advertising effectiveness responses when there is a human model featured in the picture compared to when there is not.

2.3 Types of Sexual Appeals

Researchers have studied several aspects of sexual appeals. Managers and theorists in this area often work with variations of two model parameters: type of sexual appeal and level of sexual intensity.

Nudity, posture (Lombardot, 2007), attractiveness (Davies, Zhu, & Brantley, 2007), and positioning of male and female models in relation to each other (Black, Organ, & Morton, 2010; LaTour, Pitts, & Snook-Luther, 1990), are popular types of sexual appeals. Nudity has the advantage of objectivity since it can be determined in percentage of the body that is covered up. However, Reichert and Ramirez (2000) argue:

“Revealing displays of the body are clearly an important component of sexual arousal and sexual attraction, but limiting this domain to nudity neglects other, potentially more important, determinants of sexual attraction such as behaviour and physical interaction.” (p. 267)

The importance of these types of appeals, called sexual movement, is also supported by Bello et al. (1983), who tested the reactions from two commercials featuring fully clothed supermodel Brooke Shields in varying degrees of sexy positioning. Its importance is also

supported by Manceau and Tissier-Desbordes (1999), who found respondents reacted more strongly to public visual images displaying sexual movement than those containing nudity.

In spite of the importance of sexual movement, no researcher has, to the authors' knowledge, attempted to isolate its effects on perceived sexual intensity or advertising effectiveness. Black et al. (2010), for example, used images of men and women in different stances and degrees of nudity, but limited their analysis to comparing same-movement/varying nudity images with each other. Lombardot (2007) compared the surprise levels and effects of different nudity levels and poses, but did not separate the effect of the two appeals from each other. This confusion in moderating variables has been blamed for the inconclusive results seen in sexual appeal research (Lombardot, 2007; Joseph, 1982).

2.4 Responses to Sexual Appeals

It was theorised that increased levels of female sexual appeals would not have a positive effect on women similar to what has been found for men. In fact, previous research discussed below indicates that the effect on women's responses to sexual appeal advertising will be negative. There are five main reasons for this. First, women appear not to react to sexy female models with increased arousal, as men do. Second, most of the positive impact of sexual appeals on advertising effectiveness is only present when the model and subject are of opposite sex. Third, several studies show women react more negatively than men to strong female sexual appeals. Fourth, cognitive responses tend to be negatively affected by sexual appeals. Fifth, men's positive attitudes to female sexual appeals do not seem to translate into behavioural intentions. These aspects are discussed in more detail below.

2.4.1 Arousal

Emotional reactions have been shown to affect ad and brand attitude formation (Derbaix, 1995). Reichert et al. (2001) noted that an important objective of sexual appeal messages is to evoke sexual thoughts and feelings among the audience. Arousal, frequently referred to as activation, energy mobilization and excitation, is the release of energy in the various internal physiological systems in preparation for overt activity (Duffy, 1972). La Tour et al. (1990) manipulated varying degrees of nudity and sexual formulations in text to study the effect on men and women's arousal levels. They found that arousal has a substantial intervening effect in the relationship between nudity and ad impressions. Moreover, they discovered that

although male and female respondents perceived the level of nudity in a similar way, men responded with significantly higher levels of arousal. This research indicates two things. The first is that arousal is of importance in creating sexual appeal advertising effectiveness. Second, women are not aroused by female sexual appeal to the extent that men are. These results seem intuitively correct considering an assumed heterosexual female population who have weaker sexual relationships with other women compared to what men do.

H2: Female nudity and sexual movement in visual image advertising do not, separately or together, affect women's arousal levels.

2.4.2 Affective Responses

Lombardot (2007) used both a female and a male model when manipulating the level of nudity and sexual movement. He found that nudity positively affects attention getting and brand recall with female respondents. However, the effect was only present when the nude model featured in the ad was male. His findings thus supported those of Baker and Churchill (1977), who found women had significantly higher intention to purchase a product only when the model in the ad was male. These findings indicate that women will not be positively influenced by a female model.

In fact, previous research suggests female sexual appeals have a negative effect on women's attitude generation (LaTour & Henthorne, 1994). La Tour and Henthorne subjected respondents to one of two ads with mild, respectively high sexual content. The manipulation consisted of nudity and the positioning of opposite-sex models in relation to each other. They found women reacted more negatively than men to overt sexual appeals. Judd and Alexander (1983) found men reacted positively to nudity regardless of model gender, while women reacted negatively. Theoridis et al. (2013) found women are more negative to ads that portray women in stereotypical roles compared to more progressive ads. Moreover, Dianoux and Linhart (2010) found women were significantly more negative than men to a cell phone ad showing a bare breast. They determined the reactions were more negative when women saw the use of nudity as irrelevant to the advertised product. MacKay and Covell (1997) compared men and women's reactions to either a sexual or progressive ad. In their study, women rated the former as less appealing.

Some existing studies have shown results opposite to those mentioned above. For example, Hyllegard et al. (2009) used American Apparel ads with varying levels of sexual intensity. They found women reacted more positively than men to moderate and high levels of female sexual appeal. As discussed in section 1.2.2, there is a need to study women's responses beyond ad attitude. Moreover, the inconclusive results support the need for a deeper understanding of how different types of sexual appeals and levels of sexual intensity affect women's attitudes. Since the largest body of research supports that women react more negatively than men to female sexual appeals, it was theorised that female sexual appeals will have a negative effect on advertising targeting a female audience.

H3: Female nudity and sexual movement, separately and together, in visual image advertising negatively affect women's attitudes to the model, product and brand.

2.4.3 Cognitive Responses

Studies on both sexes show a higher level of sexual content is associated with lower cognitive evaluations of the ad. Severn, Belch & Belch (1990) subjected respondents to either an ad featuring a naked couple in a pose suggesting sexual intercourse, or an ad featuring only the product by itself. Included in the ad was either high or low product-related informational content. They found the sexual ad resulted in less product-related thoughts and copy-point recall. Moreover, Steadman (1969) found that brand names with sexual illustrations were less easily recalled by men than those with non-sexual illustrations. These findings indicate there is a negative relationship between increased sexual appeals and cognitive response for both sexes. Women would thus also have a lower cognitive response to higher levels of female sexual movement and nudity.

Peterson and Kerin (1977) studied the effects of varying levels of nudity in ads for body oil. They found that both male and female respondents rated perceived product quality lower when the model was nude compared to when she was dressed. Perceived quality, in turn, has been shown to affect perceived value of products (Chapman & Wahlen, 1999). It was therefore theorised that increased levels of sexual appeals will affect also price cognition negatively, with increased nudity and sexual movement leading respondents to cognise lower price of the product.

H4: Female nudity and sexual movement, separately and together, in visual image advertising negatively affect women's cognitive evaluations and price cognition.

2.4.4 Conative Responses

Generally, studies of sexual appeals show sexual ads are more successful in producing favourable attitudes towards the ad than they are in producing positive behavioural intentions (Baker S., 1961; Severn, Belch, & Belch, 1990). In fact, several studies have found effects of sexual ads on attitudes but not behavioural intentions for both sexes (Liu, Cheng, & Li, 2009; Bello, Pitts, & Etzel, 1983). However, some research supports a negative effect of female sexual appeal on women's behavioural intentions. For example, LaTour and Henthorne (1994) found women reacted more negatively than men to strong overt sexual appeals in terms of purchase intentions. Since it was hypothesised affective and cognitive responses will be negatively affected, and these in turn are believed to drive conative responses (Park, Stoel, & Lennon, 2008), it was hypothesised that sexual appeal will have a negative effect also on women's behavioural intentions.

H5: Female nudity and sexual movement, separately and together, in visual image advertising negatively affect women's behavioural intentions.

2.5 Attractiveness

Bello et al. (1983) argued that sexual attractiveness is widely accepted as a form of sexual appeal, and several studies use the terms attractiveness and sexual appeal interchangeably (Davies, Zhu, & Brantley, 2007; Baker & Churchill, 1977). Increased perceived attractiveness has been found to affect attitudes and intentions positively. Previous research also indicates this effect might be influenced by the increased perceived credibility associated with an attractive model (Baker & Churchill, 1977; Till & Busler, 2000; Lo, Chiu, & Hsieh, 2013).

As argued above, attractiveness is a quality dependent upon the model and the audience's subjective evaluation rather than the staging of the image. The importance of more clearly defined sexual appeals have been discussed by Joseph (1982) in his review of research on attractiveness. He argues researchers must distinguish between models that are pleasing in physical appearance and models that, regardless of their physical attractiveness, are erotic because of their clothing, posture, movement, or other cues. It is therefore important to isolate the effect of attractiveness from sexual appeals based on the model's pose or styling.

Previous findings of sexual appeals' effectiveness lead the authors to theorise nudity and sexual movement influence advertising effectiveness independent of attractiveness. Several studies have included manipulations of nudity and/or sexual movement for the same models and gotten significant results for attention getting (Lombardot, 2007) and ad evaluations (Baker & Churchill, 1977; Black, Organ, & Morton, 2010). Because the model used is the same, it can be argued that varying levels of attractiveness are not a key influence in these cases. It was therefore hypothesised that sexual movement and nudity affect advertising effectiveness without influence of perceived model attractiveness.

H6: Female nudity and sexual movement, separately and together, in visual image advertising negatively affect women's behavioural intentions regardless of the model's perceived attractiveness.

2.6 Hypotheses

The effect of sexual movement and nudity will be tested separately as well as together for all advertising effectiveness measures as well as for arousal. Moreover, the effects on the different affective, cognitive and conative responses measured in the study will be analysed. This leads to the introduction of a number of sub-hypotheses for H2 to H5. These are stated in Table 1.

Table 1: Hypotheses

Use of human model	H1: Visual image advertising is more effective in terms of affective, cognitive and conative scores when there is a human model featured in the picture compared to when there is not.			
Arousal	Sexual movement		H2a: Female sexual movement in visual image advertising does not affect women's arousal levels.	
	Nudity		H2b: Female nudity in visual image advertising does not affect women's arousal levels.	
	Interaction		H2c: Female sexual movement and nudity in visual image advertising do not affect women's arousal levels.	
Consumer response	Affective	Model attitude	Sexual movement	H3aa: Female sexual movement in visual image advertising negatively affects women's attitude to the model.
			Nudity	H3ba: Female nudity in visual image advertising negatively affects women's attitude to the model.
			Interaction	H3ca: Female sexual movement and nudity in visual image advertising negatively affect women's attitude to the model.
		Product attitude	Sexual movement	H3ab: Female sexual movement in visual image advertising negatively affects women's attitude to the product.
			Nudity	H3bb: Female nudity in visual image advertising negatively affects women's attitude to the product.
			Interaction	H3cb: Female sexual movement and nudity in visual image advertising negatively affect women's attitude to the product.
		Brand attitude	Sexual movement	H3ac: Female sexual movement in visual image advertising negatively affects women's attitude to the brand.
			Nudity	H3bc: Female nudity in visual image advertising negatively affects women's attitude to the brand.
			Interaction	H3cc: Female sexual movement and nudity in visual image advertising negatively affect women's attitude to the brand.
	Cognitive	Cognitive evaluation	Sexual movement	H4aa: Female sexual movement in visual image advertising negatively affects women's cognitive evaluation.
			Nudity	H4ba: Female nudity in visual image advertising negatively affects women's cognitive evaluation.
			Interaction	H4ca: Female sexual movement and nudity in visual image advertising negatively affect women's cognitive evaluation.
		Price cognition	Sexual movement	H4ab: Female sexual movement in visual image advertising negatively affects women's price cognition.
			Nudity	H4bb: Female nudity in visual image advertising negatively affects women's price cognition.
			Interaction	H4cb: Female sexual movement and nudity in visual image advertising negatively affect women's price cognition.
	Conative	Behavioural intention	Sexual movement	H5a: Female sexual movement in visual image advertising negatively affects women's behavioural intention.
			Nudity	H5b: Female nudity in visual image advertising negatively affects women's behavioural intention.
			Interaction	H5c: Female sexual movement and nudity in visual image advertising negatively affect women's behavioural intention.
Attractiveness	H6: Female nudity and sexual movement in visual image advertising, separately and together, negatively affect women's behavioural intentions regardless of the model's perceived attractiveness.			

Description: The table presents the generated hypotheses and sub-hypotheses specific to each type of affective, cognitive or conative measurement as well as the effect of sexual movement and nudity separate and together.

3 Method

Section 3 presents the course of action taken to answer the research question. It begins with stating the methodology behind the study, as well as how it was designed. Later, detailed descriptions of the stimuli used, the data collection, and the survey, follow.

3.1 Research Methodology

A deductive approach is taken to answer the research question. In section 2, several main and sub hypotheses based on existing theory were generated, which will be tested using different analytical methods. An abductive approach will later be taken to discuss results and find an explanation in existing theory for potential findings that do not support the hypotheses.

3.2 Research Design

To test the hypotheses, five groups of women were exposed to five different fictional product images; four containing varying levels of sexual movement and nudity, and one control image not featuring a model. The respondents were randomly assigned an image in order to ensure roughly equal shares of the survey takers were shown each image. The manipulation was based on insights from a qualitative pre-study of women's reactions to existing ads. The objective of the study was to see what effects sexual movement and nudity have on the respondents' affective, cognitive and conative responses. To measure these effects, the product image was followed by several sets of self-report items. A more detailed description of the stimulus, data collection and survey are given below.

3.3 Stimuli Design

The visual stimuli used in this study were framed as product images from an online apparel retail context. There are three main reasons for this. First, online apparel retail is an important and rapidly growing area (Corcoran, 2007). Second, images are highly important in an online context (Clow, James, Kranenburg, & Berry, 2006; Lo, Chiu, & Hsieh, 2013). Third, the apparel retail industry favours showing models on a white background with few distractions. This is a technical aspect that facilitates manipulation of the model's movement and clothing

without any distractions like for example scenery, which is used frequently when marketing some products, for example perfume.

3.3.1 Product images

Pictures are a large part of advertisements and an important basis for consumers' attitudes and decisions (Rossiter & Percy, 1980; Mukherjee, 2002; Paivio, 1969). The use of pictures is key to sexual appeal research, since the sexual information most often comes in a visual format (Bello, Pitts, & Etzel, 1983).

Pictures showcasing the product, so called product images, are especially important in contexts where the consumer cannot try or touch the product (Lo, Chiu, & Hsieh, 2013). In offline shopping experiences, consumers evaluate stores based on social and ambient environmental cues because they believe these cues offer reliable information about product-related attributes such as quality, price, and the overall shopping experience (Areni, Sparks, & Dunne, 1996; Baker, Parasuraman, & Voss, 2002). These cues are not present in the same way in an online context, which gives the consumer less to base her decisions on. A picture creates more favourable attitudes, because it gives the viewer more cues related to the product (Babin & Burns 1997; Then and DeLong, 1999).

Product images represent most of the communication between the retailer and consumer regarding the specific product. Moreover, they are frequently used outside the retailers' own websites, for example in pop-ups and banner ads. It is therefore argued that product images in online apparel retailing are an interesting area of knowledge to managers involved in this growing marketplace, and that these images resemble conventional apparel ads in the online retailing context.

3.3.2 Online Apparel Retailing

Sensory products, such as clothing, are experienced through one or more of the five senses. The consumer's ability to examine such merchandise before purchase is substantially limited in an online context because of the inability to, for example, feel the garment and see it on oneself (Kim & Kim, 2004). Apparel is one of the most popular product categories in online shopping (Corcoran, 2007; Statista.com, 2015). It is especially popular with women, who shop and browse for apparel online to a greater extent than men (Lee & Johnson, 2002; Seock & Bailey, 2008; Kim & Kim, 2004). Apparel can be sold online through brand and retailer

websites. The entity selling apparel online will from now on be referred to as the online retailer.

In the online apparel marketplace, functional models with a same-sex relationship to the intended audience are used frequently to showcase products. By including a model in the product image, online retailers give consumers more information about the product, for example about fit. Looking at these images, it is apparent they frequently contain female nudity and sexual movement.

3.3.3 Pre-study

As discussed above, nudity can be objectively manipulated by revealing greater or lesser proportions of the model's skin. Sexual movement, however, is more subjective and can be varied through infinite variations of poses and facial expressions. A qualitative pre-study was conducted in order to determine what aspects of female sexual movement women view as sexual. Seven women in the authors' networks were asked to evaluate five product images from major online retailers Asos.com and H&M. All the images showed models wearing a white top and black shorts¹. They were chosen so as to isolate potential effects from different clothing items, and shoes were cropped out of the pictures for the same reason.

The test subjects were asked to describe their perceptions of the images and the models featured in them. They were asked if they found the images sexy and elaborate on why/why not. Examples of the interviewees' descriptions of sexual poses included when the model had her mouth open, touched her hair, had a hand on her hip or arched her back. Moreover, they described aspects of the model's expression, such as an intense and/or flirty look in her eyes. The models were rated as sexier when the subjects thought they seemed confident and in control of the situation. Unsexy poses described included hands in pockets or behind the back. Turning the knees inward was also viewed as unsexy, as well as when the model looked insecure, weak, submissive or passive. These results correspond to Reichert and Ramirez's (2000) definition of sexual movement.

¹ Appendix A.

3.3.4 Stimuli Manipulation

The stimuli used in this study were fictional product images from an un-named online retailer. The product featured was a white, straight-line t-shirt. It is argued this product is potentially used by most consumers regardless of preferences in style or other clothing-related aspects.

Five photos simulating product images were taken. The choice of producing images exclusively for this study rather than using pre-existing images was motivated by a need to isolate the different variables studied. The model's pose and facial expression were directed based on findings from existing theory and the qualitative pre-study. The images featured a woman modelling the white t-shirt in varying levels of sexual intensity. A control picture of the t-shirt on a hanger was also included in the study in order to isolate the effects of using a human model. There was no brand information in terms of brand names, logos or taglines included in the stimuli subjected to respondents. This is motivated by a need to isolate the effects from the staging of the product images on brand attitudes. Moreover, product images in online apparel retail rarely include any brand information. To ensure high quality images that would be realistic representations of product images from an online retailer, a professional photographer in a fully equipped photography studio took the pictures.

Table 2: Fictional Product Images of a T-Shirt Acting as Stimuli in this Study

		Nudity		Sexual movement
		Jeans (lower)	Shorts (higher)	
Natural (lower)			Control group 	
	Provocative (higher)			

Description: This table presents the four manipulated product images and the control condition. There are two treatment conditions: sexual movement and nudity. The lower level of sexual movement is called “natural pose” and the higher “provocative pose”. The level of nudity is varied through the model wearing jeans or shorts.

3.4 Data Collection

3.4.1 Pilot Study

A pilot study with 22 subjects was conducted to test that the manipulations of pose and nudity were noticeable (Bryman & Bell, 2007, p. 273). The test study also provided the opportunity to receive feedback on any issues with the survey from this smaller group of respondents, before distributing it to a larger audience. Results from the pilot study showed the manipulations were successful.

3.4.2 Subjects

The decision to study a culturally homogeneous group was based on the need to limit the sample size. Heterogeneous samples must be larger because of the higher variations inherent to such samples (Bryman & Bell, 2007, s. 196). To minimize effects from potential variations in nationality and culture, subjects were pulled from one single country. Since the authors originate from and reside in Sweden, the choice was made to study Swedish residents. Previous research suggests nationality can affect women's responses to female sexual appeals (Theodoridis, Kyrousi, Zotou, & Panigyrakis, 2013; Ford, LaTour, & Honeycutt, Jr, 1997). Possible implications of this on the generalizability of the findings are discussed in section 5.4.

3.4.3 Survey Distribution

The respondents' gender was controlled by an introductory question in the survey, to prevent men from participating in the study. The final survey was spread in the authors' extended networks using Facebook as a medium. Thus only consumers with technical devices supporting the medium and active accounts on the social network could participate. The survey was in Swedish, and all included measurement items based on existing research were translated from English.

Targeting mainly to women in the authors' own network resulted in a convenience sample, the implications of which are discussed in section 5.4. The survey was open for responses for ten days in August 2014, until the desired sample size had been reached. To create an incentive for respondents to complete the survey, three gift certificates to online retailers in values of 500 SEK, 300 SEK and 200 SEK were raffled off amongst the participants. The winners were chosen using a random number generator and notified in March 2015.

3.5 The Survey

The different aspects studied are grouped into independent, dependent, covariate, and other variables.

3.5.1 Independent variables and Manipulation Control

Sexual movement and nudity of the model displayed in the fictional product images were manipulated for the sake of the study. To test the manipulation, respondents were asked to rate the model on three items measured on seven-point semantic differential scales: “Not sexy/Sexy”, “Undressed/Covered up” and “In a natural pose/In a provocative pose”.

3.5.2 Dependent variables

3.5.2.1 *Arousal*

Arousal can be measured in a strictly physical sense in order to see whether the respondent is experiencing any physical arousal or excitement, regardless of if they report viewing the ad as sexually appealing. This can for example be done using electro dermal (GSR) measurements (Belch et al., 1982). Other, less highly technological methods of measuring affect and arousal are based on self-report ratings of experienced emotions after being exposed to a certain stimulus. The usefulness of verbal measurements over non-verbal measurements in measuring emotional reactions has been shown by Derbaix (1995). Since this study was conducted in the form of an online survey, the choice was made to employ Thayer's (1978b) self-report tool, the Activation–Deactivation Adjective Checklist (AD-ACL). It has been reviewed and accepted as an accurate reflection of total body arousal (Purcell, 1982). LaTour et al. (1990) used the AD-ACL scale to examine the emotional responses to nudity in advertising. They determined arousal has a substantial intervening effect on the relationship between nudity and ad impression, showing that energy and calmness have direct positive effects on ad impressions while fatigue has a direct negative effect.

The AD-ACL scale measures four emotional dimensions consisting of 20 items²: High activation, General activation, General deactivation and Deactivation sleep. These four dimensions are not directly sexual in nature, but are the components of physical arousal. While increasing levels of energy produce more positive feelings and evaluations, higher levels of tension produce more negative feelings.

² Appendix C.

The 20-item shortlist was translated from English to its most accurate possible representation in Swedish³. For each AD-ACL item respondents were asked to rate how they felt at the present moment on a four-point scale ranging from “Definitely feel” to “Definitely do not feel”. This scale was used by LaTour et al. (1990) and proved relevant for measuring variations in affect and arousal. The respondents completed this part of the survey right after the first display of the image in order to receive the most accurate measurements of the respondents' energy levels.

3.5.2.2 Affective Responses

Respondents were asked to rate their perceptions of the product and brand. Moreover, respondents subjected to one of the four treatment images were asked to rate their perception of the model. All three types of attitudes were rated on several items measured on seven-point semantic differential scales. Items measuring model attitude included, for example, “Unattractive/Attractive”, “Unhealthy/Healthy” and “Not trustworthy/Trustworthy”. Items measuring product attitude included, for example, “Does not fit my style/Fits my style”, “Bad quality/Good quality” and “Simple/Complex”. Items measuring brand attitude included, for example, “Not fashion conscious/Fashion conscious”, “Cheap/Expensive” and “Traditional/Modern”. A three-item index measuring the respondents' general impression of the model, product and brand was also included. It consisted of the following three items: “Do not like/Like”, “Negative/Positive” and “Bad/Good”.

3.5.2.3 Cognitive Responses

Respondents were asked to assess if the display of the t-shirt was clear and informative on two seven-point Likert scales ranging from “Do not agree” to “Fully agree”. Respondents were also asked to assess the price of the t-shirt on a scale between 0 and 1000 SEK.

3.5.2.4 Conative Responses

Respondents' behavioural intentions were measured on several items of seven-point Likert scales ranging from “Not at all likely” to “Very likely” to perform a certain activity. These

³ Appendix B.

included, for example, “Buy the product”, “Read more about the product” and “Recommend the product to a friend”.

3.5.2.5 *Covariate Variable*

As discussed in section 2.4, perceived attractiveness was included in order to isolate its influence on sexual appeal advertising effectiveness. Respondents were asked to rate the model's physical appearance on a seven-point semantic differential scale ranging from “Not attractive” to “Attractive”.

3.5.2.6 *Other variables*

Some other possible influencers of advertising effectiveness relevant to an online retailing context were included in the survey. Although these factors are not of primary interest in this study, they represent potentially interesting influencers of sexual appeal advertising effectiveness. One aspect examined was the respondents' level of identification with, and aspiration to become more like, the model. Nichols and Schumann (2012) showed that aspirational models are preferred for “symbolic” products, while functional models are preferred for more practical products. Moreover, respondents' general attitudes towards sex role portrayals were measured using a shortened version of Lundstrom and Sciglimpaglia's (1977) 17-item scale⁴. Respondents were also asked to rate the likelihood of them purchasing a white t-shirt on a five-point Likert scale. This measurement represented product involvement, which has been shown to affect attitude formation to sexual ads (Liu, Cheng, & Li, 2009). Finally, questions about the respondents' shopping and online behaviours as well as demographical questions were included in the survey.

⁴ Appendix B.

4 Analysis

This section begins with a presentation of the analysis design and descriptions of the conducted statistical tests. It is followed by a description of the data, as well as a presentation of the methods used to purify the data⁵. The results from the manipulation control are then presented, followed by results from the testing of hypotheses. The findings are summarised in section 4.6.

4.1 Analysis Design

The collected data was the basis of several statistical tests designed to support or reject the stated hypotheses. A statistical significance level of 0.050 was used to reject the alternative null hypotheses and give support for the hypotheses generated in section 2. The mean values presented are in most cases on a scale of one to seven. Deviations from this are highlighted in the analysis. Below follows a description of the statistical tests conducted to test the hypotheses.

4.1.1 One-way Analysis of Variance

First, between groups, one-way analyses of variance (ANOVAs) were conducted to compare the results for key advertising effectiveness measurements for all five groups. The objective of this test was to examine the effects of including a human model in the product images. If there were significant differences in effectiveness measures between groups, and the control group had the lowest scores, H1 was supported.

Second, between groups, one-way ANOVAs were conducted to compare perceived model sexiness, undress and pose for the four treatment groups. This was done to control that the manipulation of nudity and sexual appeal had effects in the desired direction. If respondents who had been subjected to the more overt conditions report significantly higher levels of pose, undress and/or sexiness, the manipulation was considered as successful.

⁵ All quantitative analyses were conducted using SPSS 22.0.0.0.

4.1.2 Two-way Analysis of Variance

The effects of sexual movement and nudity on dependent measures were examined using two-way analyses of variance (ANOVA).⁶ Respondents were assigned a value of 1 or 2 for 'Sexual movement' and 'Nudity' respectively depending on what stimuli they were subjected to: a model in a natural/provocative pose and jeans/shorts. From now on, sexual movement refers to the construct examined, while 'Sexual movement' refers to the variable empirically studied. If the responses between groups were significantly different it was concluded sexual movement and/or nudity affected advertising effectiveness. If there was a significant interaction-effect between sexual movement and nudity the conclusion was that a combination of the two types of sexual appeals affected advertising effectiveness. In those cases where increased levels of sexual appeal lead to significantly lower results on dependent variables, H2-H5 were supported.

4.1.3 Analysis of Covariance

The two-way ANOVAs testing the effects of the two treatment conditions on advertising effectiveness were complemented by analysis of covariance (ANCOVA) to examine potential mediating effects of attractiveness. If the effects of sexual movement and nudity on advertising effectiveness measures were significant when attractiveness was included in the analysis, it was concluded that the measured effects were not a result of differences in perceived model attractiveness.

4.1.4 Regression Analysis⁷

Finally, several regression analyses were conducted to examine the effects of other variables on advertising effectiveness. The independent variables included were perceived model: 'Sexiness', 'Undress', 'Pose' and 'Attractiveness'. The respondents' self-reported levels of 'Identification'⁸ with, and 'Aspiration'⁹ to become more like the model were also included, as

⁶ Using a Type III model approach and Fisher's LSD comparison of main effects.

⁷ Appendix D.

⁸ "The model is similar to me" measured on a seven-point Likert scale anchored in the end-points with "Not at all agree" and "Strongly agree". (Mean = 2.685).

⁹ "I would like to be more like the model" measured on a seven-point Likert scale anchored in the end-points with "Not at all agree" and "Strongly agree". (Mean = 2.435).

was 'Product involvement'¹⁰. Moreover, respondents' 'General attitudes' to sexual appeal advertising was included¹¹. If the explanatory powers of the regression models were greater than the results for 'Sexual movement' and 'Nudity', the results from the regression analysis are presented and discussed.

4.2 Description of the Data

The respondents were randomly subjected to one of five fictional product images, including the control image. 398 respondents viewed the survey, however 104 of these completed less than 10 per cent of the questions and were eliminated from the sample. Many of these were men who were filtered out upon answering the initial gender control question. Another 39 respondents only completed between 10 and 79 per cent of the survey, and were thus not included in the final dataset. Respondents who completed 80 per cent or more of the survey were included in the final sample since they had answered all items measuring affective, cognitive and conative responses. The final dataset included 255 respondents. The results for online and shopping behaviours indicated these women are accustomed to the online apparel retailing setting. This increased the hope of making useful and interesting findings.

¹⁰ "How likely is it that you would buy a white t-shirt in the foreseeable future?" measured on a five-point Likert scale anchored in the end-points with "Not at all likely" to "Very likely". (Mean = 2.714).

¹¹ Measured using items from Lundstrom and Sciglimpaglia's (1977) 17-item scale.

Table 3: Demographic and Online Shopping Data

			<i>Frequency</i>	<i>%</i>
Demographics	Age (<i>n</i> =255)	18-25	60	23.5
		26-35	111	43.5
		36 or older	84	33.0
	Geographical residence (<i>n</i> =236)	Stockholm	188	79.7
		South Sweden	16	6.8
		West Sweden	15	6.4
		Central Sweden	12	5.1
		North Sweden	6	2.5
Online shopping behaviour	Percentage of disposable income spent on apparel (<i>n</i> =255)	0-25 per cent	189	74.1
		26-50 per cent	57	22.4
		51-75 per cent	9	3.5
		76-100 per cent	-	-
	Percentage of apparel shopping made online (<i>n</i> =218)	0-25 per cent	122	56.0
		26-50 per cent	57	26.1
		51-75 per cent	21	9.6
		76-100 per cent	18	8.3
	Visits to online apparel websites (<i>n</i> =232)	A few times per month	90	38.8
		Once per week	70	30.2
		Multiple times per week	57	24.6
		Every day	15	6.5
	Apparel purchases made online the last 6 months (<i>n</i> =177)	1-3 times	94	53.1
		4-6 times	54	30.5
		7 times or more	29	16.4

Description: The table presents some demographic data for respondents.¹² These were divided into age groups based on their birth dates, as well as geographical residence areas based on their postal area codes. Online shopping behaviour included the percentage of disposable income respondents spend on apparel, the percentage of apparel purchases respondents make online, how many visits respondents make to online apparel websites, and how many apparel purchases the respondents have made online the last six months. “Cannot answer” and “Would rather not say” answers were excluded from this table.

4.3 Purification of Measures

All measurements of advertising effectiveness consisted of several self-report items to ensure greater reliability of the dependent variables. Reliability analyses were conducted on all sets of items and the means of items that contributed to the internal consistency were used to create indexes. The resulting indexes all had Cronbach's Alpha values greater than 0.870, which is considered high enough to construct robust indexes (Kline, 2000, p. 13; Bryman &

¹² Appendix E.

Bell, 2007, p. 164). The dimensions for arousal were created according to Thayer's AD-ACL scale presented in section 3.5.2.1.

The resulting indexes included, for arousal, 'General activation', 'General deactivation', 'Deactivation sleep' and 'High activation'. The affective variables were 'Model attitude', 'Product attitude' and 'Brand attitude'. The cognitive variables were 'Cognitive evaluation' and 'Price cognition'. Lastly, the conative variable was 'Behavioural intention'.

4.4 Manipulation Control

Manipulation success was assessed by examining perceived 'Sexiness', 'Undress' and 'Pose'.

Table 4: Descriptive Results for Manipulation Control Variables

		'Sexiness'		'Undress'		'Pose'	
Source of variation		Mean	SD	Mean	SD	Mean	SD
'Sexual movement'	Natural (<i>n</i> =97)	3.670	1.344	1.897	1.141	1.619	1.045
	Provocative (<i>n</i> =103)	3.612	1.436	2.252	1.398	3.408	1.757
'Nudity'	Jeans (<i>n</i> =90)	3.689	1.403	1.489	0.864	2.311	1.605
	Shorts (<i>n</i> =110)	3.600	1.383	2.564	1.378	2.727	1.771

Description: This table presents the mean values and standard deviations for perceived model 'Sexiness', 'Undress' and 'Pose'. These three variables were measured on seven-point semantic differential scales. Sexual movement represents the pose manipulated in the stimuli and nudity the level of skin shown. Respondents saw either a natural or provocative pose as well as the model clad in jeans or shorts. 'Sexiness', 'Undress' and 'Pose' measure how respondents perceived these manipulations. The responses were recorded on seven-point semantic differential scales ranging between "Not sexy/Sexy", "Not undressed/Undressed" and "Not provocative posing/Provocative posing".

Table 5: Results from Manipulation Control Analysis of Treatment Conditions

	'Sexiness'		'Undress'		'Pose'	
	F	p	F	p	F	p
'Sexual movement'	0.019	0.891	3.398	0.067	72.953	0.000
'Nudity'	0.164	0.686	40.982	0.000	3.100	0.080
Interaction ('Sexual movement' x 'Nudity')	2.205	0.139	1.708	0.193	0.978	0.324

Description: This table summarises the results of a two-way ANOVA analysis of effects from sexual movement and nudity on perceived model sexiness, undress and pose. The F-statistics, P-value and partial eta squared are presented. The separate effects of sexual movement and nudity on 'Sexual movement' and 'Nudity' are displayed before the interaction effect of the two variables.

The analyses showed interesting results. Although respondents experienced the intended differences in the two treatment conditions, they did not find the model significantly more or less sexy. This is surprising considering the images were manipulated based on women's own reports of what is sexy. Moreover, the stimuli were similar to sexual appeals commonly used in this type of setting. These results indicate sexual movement and nudity do not evoke sexual thoughts in women, which is contradictory to definitions of sexual ads from some previous research (Reichert, Heckler, & Jackson, 2001).

The low total mean values for 'Undress' and 'Pose' (mean = 1.631 and 1.992 respectively) indicate the intensity of the manipulated sexual appeals was modest, which is argued as positive considering the setting of an online apparel retailing website. The model was seen as significantly more posing in the provocative condition (mean = 3.408) compared to the natural condition (mean = 1.619). Moreover, she was perceived as significantly more nude when she was in shorts (mean = 2.564) compared to jeans (mean = 1.489). The manipulation was thus considered successful.

4.5 Testing of Hypotheses

4.5.1 Use of a Human Model

The effect of including a human model in the product image was examined.¹³ If there is no positive effect on marketing effectiveness when such stimuli is included, it could be argued further research on the effectiveness of using models is redundant. One-way, between groups ANOVA analysis was conducted to check how responses differed between the four treatment groups and the control group.

The results showed significant differences between groups for 'Product attitude', 'Brand attitude' and 'Perceived price'. The mean values for the control group were consistently lower than for the groups subjected to an image with a model. The mean values between groups for 'Behavioural intention' were not significantly different, although they did show the same tendency as for the other dependent variables. It is concluded that the product images were more effective in terms of affective and cognitive responses when they featured a human model compared to when it did not. There is thus partial support for H1.

4.5.2 Arousal

Thayer's AD-ACL instrument for measuring arousal was used to examine the respondents' arousal levels upon viewing the product image.¹⁴ The results showed significant results only for the 'General deactivation' dimension, which included the following items: 'Placid', 'Calm', 'At rest' and 'Still'. The results were significantly lower when the model was in a provocative pose (mean = 2.587) compared to a natural pose (mean = 2.833). Respondents experienced higher emotional activation upon viewing higher levels of sexual movement. However, the lack of significant results for the rest of the dimensions in the AD-ACL tool means this result cannot be interpreted in terms of arousal (LaTour et al., 1990). The results from the analysis on the 'General deactivation' dimension for 'Sexual movement' indicate there was some negative emotional effect on respondents' calmness associated with subjection to more provocative posing. However, this was likely not associated with arousal

¹³ Results are summarised in Appendix F.

¹⁴ Results are summarised in Appendix G.

but with other emotional reactions. The results thus provide support for H2 and the sub-hypotheses connected to it.

4.5.3 Model Attitude

A two-way ANOVA for 'Model attitude' was conducted to examine the effects of 'Sexual movement' and 'Nudity' on this form of affective response.

Table 6: Effects of Sexual Movement and Nudity on Model Attitude

		'Model attitude'				
		Mean	SD	F	p	Partial Eta sq.
'Sexual movement'	Natural (<i>n</i> =97)	4.984	0.982	39.190	0.000*	0.167
	Provocative (<i>n</i> =103)	4.033	1.093			
'Nudity'	Jeans (<i>n</i> =90)	4.610	1.067	1.481	0.225	0.007
	Shorts (<i>n</i> =110)	4.399	1.197			
Interaction ('Sexual movement' x 'Nudity')				2.835	0.094	0.014

Description: This table summarises the results of a two-way ANOVA analysis of the effects of sexual movement and nudity on model attitude. The mean values, standard deviations, F-statistics, P-values and Partial Eta squared values are presented. 'Model attitude' is the mean of ten items measuring different aspects of attitude to the model on seven-point semantic differential scales (Cronbach's Alpha = 0,900). The separate effects of 'Sexual movement' and 'Nudity' on 'Model attitude' are displayed before the interaction effect of the two variables. * denotes statistical significance at the 0.050 level when 'Attractiveness' is included as a covariate.

Results show 'Sexual movement' had a significant negative effect on attitude to the model while 'Nudity' had no significant effect. The model was rated higher when she was in a natural pose (mean = 4.984) compared to a provocative pose (mean = 4.033). The interaction between the two treatment conditions was not significant, indicating the model's pose had an effect on 'Model attitude' regardless of her level of nudity. 'Sexual movement' explained 16.7 per cent of the variance in respondents' attitude to the model. This is argued as quite high considering all other aspects potentially affecting respondents' attitudes. H3a is thus partially supported. There is support for the sub-hypothesis H3aa, but not for H3ba or H3ca.

Other possible explanatory factors relevant to this study were entered into a regression analysis with model attitude as the dependent variable to identify other possible influencers of model attitude formation. The resulting model (Adj. $R^2 = 0.630$) indicated significant, positive effects of perceived 'Attractiveness' ($B = 0.446$) and 'Sexiness' ($B = 0.158$) on

‘Model attitude’.¹⁵ A significant negative effect of ‘Pose’ ($B = -0.183$) was also discovered, which is in line with findings from the ANOVA analysis. ‘Undress’, ‘Identification’, ‘Aspiration’, and ‘General attitudes’ to female sex role portrayal in advertising, did not have any significant explanatory power on ‘Model attitude’.¹⁶

4.5.4 Product Attitude

A two-way ANOVA for ‘Product attitude’ was conducted to examine the effects of ‘Sexual movement’ and ‘Nudity’ on this form of affective response. The ‘Product attitude’ mean value of 3.456 on a seven-point scale supports the choice of a white t-shirt as a neutral product.

Table 7: Effects of Sexual Movement and Nudity on Product Attitude

		‘Product attitude’				
		Mean	SD	F	p	Partial Eta sq.
‘Sexual movement’	Natural ($n=97$)	3.754	1.031	4.769	0.030*	0.024
	Provocative ($n=103$)	3.404	1.126			
‘Nudity’	Jeans ($n=90$)	3.600	1.014	0.052	0.819	0.000
	Shorts ($n=110$)	3.552	1.157			
Interaction (‘Sexual movement’ x ‘Nudity’)				0.607	0.437	0.003

Description: This table summarises the results of a two-way ANOVA analysis of the effects of ‘Sexual movement’ and ‘Nudity’ on ‘Product attitude’. The mean values, standard deviations, F-statistics, P-values and Partial Eta squared values are presented. ‘Product attitude’ is the mean of eight items measuring different aspects of attitude to the product on seven-point semantic differential scales (Cronbach’s Alpha = 0,870). The separate effects of ‘Sexual movement’ and ‘Nudity’ on ‘Product attitude’ are displayed before the interaction effect of the two variables. * denotes statistical significance at 0.050 when ‘Attractiveness’ is included as a covariate.

Results for ‘Product attitude’ were consistent with those for ‘Model attitude’. The t-shirt was rated more favourably on aspects such as likeability and quality when the model was displaying it in a natural pose (mean = 3.754) compared to a provocative pose (mean = 3.404). ‘Sexual movement’ had a weak (Part. Eta² = 0.024) but significant effect on

¹⁵ An explanation of these results is that, as a respondent’s self-reported evaluation of the attractiveness or sexiness of the model increases by one point on the seven-point scale, there is a positive effect on model attitude with 0.446 or 0.158 respectively.

¹⁶ Appendix D.

respondents' attitudes. There were no significant results for the effect of 'Nudity'. It is concluded that there is partial support for H3b. The results support the sub-hypothesis H3ba, but since there are no significant effects for 'Nudity' or the interaction between the two treatment conditions, H3bb and H3bc are not supported.

A regression analysis indicated 'Attractiveness' ($B = 0.280$) and 'Identification' ($B = 0.149$) help to explain what drives 'Product attitude' ($\text{Adj. } R^2 = 0.285$). This noticeably higher explanatory power indicates female sexual appeal has a small effect on women's attitude to the product, which is therefore likely better explained by other factors. There was no effect of perceived 'Pose', 'Undress' or 'Sexiness'. Moreover, there is no significant effect for 'Aspiration' or 'General attitudes'.¹⁷

4.5.5 Brand Attitude

A two-way ANOVA for 'Brand attitude' was conducted to examine the effects of 'Sexual movement' and 'Nudity' on this form of affective response.

Table 8: Effects of Sexual Movement and Nudity on Brand Attitude

		'Brand attitude'				
		Mean	SD	F	p	Partial Eta sq.
'Sexual movement'	Natural ($n=97$)	3.975	0.834	6.960	0.009 **	0.034
	Provocative ($n=103$)	3.607	1.061			
'Nudity'	Jeans ($n=90$)	3.789	0.944	0.002	0.966	0.000
	Shorts ($n=110$)	3.783	1.001			
Interaction ('Sexual movement' x 'Nudity')				0.313	0.576	0.002

Description: This table summarises the results of a two-way ANOVA analysis of the effects of 'Sexual movement' and 'Nudity' on 'Brand attitude'. The mean values, standard deviations, F-statistics, P-values and Partial Eta squared values are presented. 'Brand attitude' is the mean of eleven items measuring different aspects of attitude to the brand on seven-point semantic differential scales (Cronbach's Alpha = 0,905). The separate effects of 'Sexual movement' and 'Nudity' on 'Brand attitude' are displayed before the interaction effect of the two variables. ** denotes the results are not statistical significant at the 0.050 level when 'Attractiveness' is included as a covariate.

¹⁷ Appendix D.

'Sexual movement' had a significant effect on 'Brand attitude'. There was no separate effect of 'Nudity', nor any interaction effect between the two types of sexual appeals. Respondents rated the brand more favourably when the model was in a natural pose (mean = 3.975) compared to a provocative pose (mean = 3.607). Interestingly, the significant result for 'Sexual movement' disappeared when 'Attractiveness' was entered into the analysis as a covariate. This indicates a more provocative pose actually lowered perceived attractiveness, which in turn affected brand attitude. H3ca is thus supported since there was a significant negative effect of 'Sexual movement'. The results show no support for H3cb or H3cc, and H3c is thus only partially supported. H6, regarding attractiveness, is not supported.

The two-way analysis of variance showed sexual movement only explained 3.4 per cent of the variability in 'Brand attitude'. A regression model including four independent variables had an explanatory power (Adj. R^2) of 29.6 per cent, with 'Attractiveness' as the largest contributor to 'Brand attitude' ($B = 0.210$). This is in line with the findings discussed above. 'Product involvement', 'Identification' and 'Aspiration' also had small effects on 'Brand attitude' (B between 0.087 and 0.093). 'Pose', 'Undress', 'Sexiness' and 'General attitudes' did not influence this advertising effectiveness measure significantly.¹⁸

4.5.6 Cognitive Evaluation

The respondents were asked to rate how clear and informative the model in the product image displayed the t-shirt. A two-way ANOVA for 'Cognitive evaluation' was conducted to examine the effects of 'Sexual movement' and 'Nudity' on this form of cognitive response.

¹⁸ Appendix D.

Table 9: Effects of Sexual Movement and Nudity on Cognitive Evaluation

		'Cognitive evaluation'				
		Mean	SD	F	p	Partial Eta sq.
'Sexual movement'	Natural (<i>n</i> =97)	4.979	1.350	35.675	0.000*	0.154
	Provocative (<i>n</i> =103)	3.641	1.677			
'Nudity'	Jeans (<i>n</i> =90)	4.389	1.499	0.369	0.544	0.002
	Shorts (<i>n</i> =110)	4.209	1.791			
Interaction (‘Sexual movement’ x ‘Nudity’)				6.026	0.015	0.030
Jeans (natural vs. provocative)				5.633	0.019	0.028
Shorts (natural vs. provocative)				39.395	0.000	0.167

Description: This table summarises the results of a two-way ANOVA analysis of the effects of ‘Sexual movement’ and ‘Nudity’ on ‘Cognitive evaluation’. The mean values, standard deviations, F-statistics, P-values and Partial Eta squared values are presented. ‘Cognitive evaluation’ is the mean of two items measuring how clearly and informatively the model displays the t-shirt on seven-point Likert scales ranging from “Do not agree at all” to “Agree completely” (Cronbach’s Alpha = 0.870). The separate effects of ‘Sexual movement’ and ‘Nudity’ on ‘Cognitive evaluation’ are displayed before the interaction effect of the two variables. * denotes statistical significance at the 0.050 level when ‘Attractiveness’ is included as a covariate.

The two-way ANOVA conducted with the ‘Cognitive evaluation’ index as a dependent variable showed ‘Sexual movement’ had a significant effect on respondents’ ratings for how clearly and informatively the model displayed the t-shirt. The cognitive aspects were rated more positively when the model was in a natural pose (mean = 4.979) compared to a provocative pose (mean = 3.641). The pose explained 15.4 per cent of the variability in perceived clarity and information displayed by the model, which in the context of sexual appeals is perceived as quite high. Increased sexual movement thus appears to have an important role to play in respondents’ negative cognitive evaluation of the product image. These results are supported by a regression analysis, which gave ‘Pose’ the greatest importance for explaining ‘Cognitive evaluation’ out of all included independent variables ($B = -0.352$). The regression model ($\text{Adj. } R^2 = 0.249$) also gave importance to ‘Attractiveness’ ($B = 0.186$) and ‘Identification’ with the model ($B = 0.171$). The other variables did not have any significant effects on ‘Cognitive evaluation’.

The results also showed an interesting interaction-effect between ‘Sexual movement’ and ‘Nudity’. In the two conditions where the model was in a natural pose, the image with a higher level of nudity received the most positive feedback (mean = 5.164 versus 4.767). When the pose was changed to a more provocative one, however, the ratings for the picture with more nudity dropped below that of the model in jeans (mean = 3.353 versus 4.011). This

indicates nudity worked as an amplifier of the positive or negative effect of the model's pose on respondents' cognitive evaluation. Stated differently, in her natural pose, the model was seen as displaying the product significantly more clearly and informatively when she was wearing shorts compared to jeans. The opposite is true in the provocative condition; the shorts had a significant negative effect on the respondents' cognitive evaluations. H4a is thus partially supported, with full support for H4aa and H4ac but not for H4ab.

4.5.7 Price Cognition

The respondents were asked the question: "How much do you think the t-shirt costs?" A two-way ANOVA for 'Price cognition' was conducted to examine the effects of 'Sexual movement' and 'Nudity' on this form of cognitive response.

Table 10: Effects of Sexual Movement and Nudity on Price Cognition

		'Price cognition'				
		Mean	SD	F	p	Partial Eta sq.
'Sexual movement'	Natural (<i>n</i> =97)	173.557	75.921	0.101	0.751	0.001
	Provocative (<i>n</i> =103)	171.942	80.320			
'Nudity'	Jeans (<i>n</i> =90)	155.067	61.649	8.550	0.004*	0.042
	Shorts (<i>n</i> =110)	187.173	86.852			
Interaction (<i>'Sexual movement'</i> x <i>'Nudity'</i>)				0.831	0.363	0.004

Description: This table summarises the results of a two-way ANOVA analysis of the effects of 'Sexual movement' and 'Nudity' on 'Price cognition'. The mean values, standard deviations, F-statistics, P-values and Partial Eta squared values are presented. 'Price cognition' was entered in integer numbers and ranged from 1 to 1.000 SEK. The separate effects of 'Sexual movement' and 'Nudity' on 'Cognitive evaluation' are displayed before the interaction effect of the two variables. * denotes statistical significance at the 0.050 level when 'Attractiveness' is included as a covariate.

Results showed that the intensity of sexual appeals in the product image affected 'Price cognition'. Interestingly, these results did not correspond with those found when analysing other responses. In the case of perceived product price, 'Sexual movement' did not play a significant role. 'Nudity', however, did. When the model was wearing shorts together with the t-shirt, thus displaying more of her skin, respondents perceived the product as being significantly more expensive (mean = 187.173) than when she was more covered up (mean = 155.067). This can be interpreted as respondents associating higher levels of female nudity with more expensive products. There is thus no support H4b or any of its sub-hypotheses.

In the analysis of covariance, 'Nudity' only explained 4.2 per cent of the variability in perceived product price. A regression analysis showed both perceived 'Undress' ($B = 13.601$) and model 'Attractiveness' ($B = 10.136$) significantly impacts 'Price cognition'. However, the regression model also had low explanatory power ($\text{Adj } R^2 = 0.084$). This indicates other factors than those included in this study are more important influencers of how consumers perceive product price.

4.5.8 Behavioural Intention

The respondents were asked how likely it was that they would perform several activities related to the t-shirt in the product image. A two-way ANOVA for 'Behavioural Intention' was conducted to examine the effects of 'Sexual movement' and 'Nudity' on this form of conative response.

Table 11: Effects of Sexual Movement and Nudity on Behavioural Intention

		'Behavioural intention'				
		Mean	SD	F	p	Partial Eta sq.
'Sexual movement'	Natural ($n=97$)	2.193	1.357	2.936	0.088	0.015
	Provocative ($n=103$)	1.877	1.077			
'Nudity'	Jeans ($n=90$)	1.944	1.144	0.966	0.327	0.005
	Shorts ($n=110$)	2.100	1.294			
Interaction ('Sexual movement' x 'Nudity')				1.966	0.162	0.010

Description: This table summarises the results of a two-way ANOVA analysis of the effects of 'Sexual movement' and 'Nudity' on 'Behavioural intention'. The mean values, standard deviations, F-statistics, P-values and Partial Eta squared values are presented. 'Behavioural intention' is the mean of seven items measuring different behavioural intentions on seven-point Likert scales ranging from "Not likely" to "Very likely" to perform the behaviour (Cronbach's Alpha = 0.929). The separate effects of 'Sexual movement' and 'Nudity' on 'Behavioural intention' are displayed before the interaction effect of the two variables. * denotes statistical significance at the 0.050 level when 'Attractiveness' is included as a covariate.

There were no significant differences for 'Behavioural intention' between respondents subjected to different levels of 'Sexual movement' and 'Nudity'. There is thus no support for H5 or any of its sub-hypotheses. Looking at the mean values however, a similar tendency for sexual movement as that observed earlier was discovered. 'Sexual movement' and 'Nudity' were weak explanatory factors of 'Behavioural intention' (Part. $\text{Eta}^2 = 0.015$ and 0.005 respectively). The regression model had higher explanatory power ($\text{Adj. } R^2 = 0.253$). Unsurprisingly, 'Product involvement' had a positive impact on 'Behavioural intention' ($B =$

0.250). More interestingly, 'Identification' and 'Aspiration' also had a positive relationship with respondents' self-reported probability to learn more about, promote or buy the product ($B = 0.126$ and 0.221 respectively). 'Pose', 'Undress', 'Sexiness' or 'General attitudes' did not affect 'Behavioural intention' significantly.

4.6 Analysis Summary

Several interesting findings are made from the statistical analyses. The first, which was expected based on results from previous research, is that it was more effective to use a human model than a hanger to display the t-shirt. Further, the results from the manipulation control indicate that although women perceive female sexual appeal, they do not experience it in a sexual manner in terms of perceiving it as sexy. Moreover, the results showed no effect of female sexual movement and nudity on women's arousal. This is not surprising considering the non-existent effects on perceived sexiness. There was however a significant effect of sexual movement on how placid, calm, still and at rest respondents reported feeling. The results indicate women have a negative emotional reaction to provocative posing, which could affect attitude formation and cognitive evaluation of the ad.

The explanatory powers were all below 20 per cent. However, considering women did not appear to have sexual reactions to these images, values above 15 per cent are considered quite high. Sexual movement had greater explanatory power than nudity for most dependent variables. The former had the largest role to play in explaining variations in model attitude and cognitive evaluation. The effects of increased nudity were not exclusively negative, as was the case for increased sexual movement. Instead, nudity amplified the effects of sexual movement on cognitive evaluation, as well as raised perceived product price.

Results from the regression analyses showed other variables, in particular 'Attractiveness' and 'Identification', were important influencers of advertising effectiveness. In all cases but brand attitude, however, sexual movement had a significant effect on advertising effectiveness without any influence of attractiveness. The results thus give partial support to H6.

Table 12: Hypotheses and Summarised Results

Use of human model	H1 : Partially supported			
Arousal (H2)	Sexual movement		H2a : Supported	
	Nudity		H2b : Supported	
	Interaction		H2c : Supported	
Consumer response	Affective (H3)	Model attitude (H3a)	Sexual movement	H3aa : Supported
			Nudity	H3ab: Not supported*
			Interaction	H3ac: Not supported*
		Product attitude (H3b)	Sexual movement	H3ba : Supported
			Nudity	H3bb: Not supported*
			Interaction	H3bc: Not supported*
		Brand attitude (H3c)	Sexual movement	H3ca : Supported
			Nudity	H3cb: Not supported*
			Interaction	H3cc: Not supported*
	Cognitive (H4)	Cognitive evaluation (H4a)	Sexual movement	H4aa : Supported
			Nudity	H4ab: Not supported*
			Interaction	H4ac : Supported
		Price cognition (H4b)	Sexual movement	H4ba: Not supported*
			Nudity	H4bb: Not supported**
			Interaction	H4bc: Not supported*
	Conative (H5)	Behavioural intention	Sexual movement	H6a: Not supported*
			Nudity	H6b: Not supported*
			Interaction	H6c: Not supported*
Attractiveness	H6 : Partially supported			

Description: The table presents a summary of all hypotheses studied and whether or not they are supported. A significance level of 0.050 is required to conclude that data supports a hypothesis. * denotes there were no significant results. ** denotes significant results but in another direction than hypothesised. Bold font indicates the hypothesis was fully supported by the data, while bold italic font indicates there was partial support for that hypothesis.

5 Discussion

This section begins with a discussion of the results from section 4. The discussion ends with a summary of main findings. A conclusion is made with the objective to answer the stated research question. This section is followed by a presentation of possible implications, as well as a discussion of critique and limitations. The final section discusses possible areas of future research.

5.1 Discussion of Results

The objective of the discussion is to connect the different parts of the study, and through an abductive method find possible explanations for unexpected results. Moreover, an attempt is made to adapt the results to an academic, professional and social setting so that implications for important interest groups can be formulated.

5.1.1 Perceived Sexual Appeals

The results showed no effect of the two treatment conditions on the model's perceived sexiness. This was not entirely unexpected since the population is assumed to be heterosexual and might thus lack the sexual relationship to women found with men in previous research. It was however surprising considering the product images were manipulated based on women's evaluations of sexual appeals in existing product pictures. One reason for the discrepancy between reports in the pre-study and main study could be the way in which the questions were asked. In the pre-study, respondents were asked to discuss what was or was not sexy about an image based on the question: "Is this sexy?" and "Why/Why not?" In the main study, respondents were asked: "Do you find the model sexy?" which can be seen as more attached to the self compared to the first question. It may be the case that women interpreted the first question as broader and not specific to their own preferences, and thus upon answering it described what they believe is considered sexy by the society as a whole. For example, a respondent in the pre-study expressed that she did not find the image sexy but assumed that men would.

A distinction must be made between the independent variables studied in the regression analysis and the ANOVAs respectively since they are different in nature. In the ANOVAs,

'Sexual movement' and 'Nudity' were fixed through manipulation. In the regression analysis however, the self-reported 'Pose', 'Undress' and 'Sexiness' described the respondents' subjective evaluation of the treatment conditions. Both are interesting to study. The manipulations of sexual movement and nudity should capture the conscious and unconscious reactions to sexual appeals. The regression analyses show what, if any, effects perceived levels of pose and undress have on advertising effectiveness. In this case how sensitised women are to these types of appeals, as well as their general attitudes to the use of them in advertising, could influence reactions (LaTour & Henthorne, 1994). For the effectiveness measurements where 'Sexual movement' explain the most of the variability, model attitude and cognitive evaluation, regression analyses showed that perceived 'Pose' had significantly negative effects.

5.1.2 Sexual Movement

Results from the study showed women are more sensitive to varying degrees of sexual movement than nudity. This supports Manceau and Tissier-Desbordes's (1999) finding about consumers being more sensitive to suggestions of sex than to nudity.

The largest effects of sexual movement were found in the affective and cognitive dimensions. This corresponds to findings from previous research suggesting sexual appeals mainly influence aspects such as liking of the ad or understanding of the ad (Baker & Churchill, 1977; Bello, Pitts, & Etzel, 1983; Liu, Cheng, & Li, 2009; Severn, Belch, & Belch, 1990). The results thus support the theory that sexual appeals affect immediate responses to advertising rather than longer-term attitudes connected to the brand, or behavioural intentions.

The results for product attitudes were not as strong as expected based on findings from previous studies. The "halo effect" of female sexual appeal on men's product and brand attitudes (Baker and Churchill, 1977; Lombardot, 2007; Martin and Peters, 2005) appears to be weaker or non-existent for women. Researchers theorise that the positive effect on men's attitudes is influenced by their emotional response to the ad in terms of arousal (LaTour et al., 1990; Reichert et al., 2001). The findings from this study could thus be a result of women not having a sexual reaction to sexy, female advertising models.

The results raise the question why sexual movement explains more of the variability in model attitude and cognitive evaluation than of the other measurements. One possible explanation is

the importance of the model in forming these responses. For these two aspects respondents were asked to focus on the model. Model attitude included items relating to her likeability as well as personality and health. Cognitive evaluation consisted of rating how clearly and informatively the model displayed the t-shirt. For the other questions the respondents were not asked specifically to focus on the model. These results also indicate female consumers make inferences regarding the model's capacity based on her sexual movement in the image. It appears that the negative reaction to provocative posing is more connected to the model featured in the ad than the product or brand behind it. This further supports that women's reactions to female sexual appeal are of a social rather than sexual nature.

Neither nudity nor sexual movement appear to have any major effects on the behavioural intent of the respondents. This is congruent with previous findings showing sexual appeals have a larger impact on more immediate consumer responses to advertising. Unsurprisingly, the biggest explanatory value of behavioural intention was for product involvement. Overall, behavioural intent expressed by the respondents in this study was low. This may have been a result of the choice of product. The objective was to include a clothing item that would be as neutral as possible to trends and tastes, which could have resulted in a product that was not very interesting or exciting to the respondents.

5.1.3 Nudity

Findings from this study indicate the difference in reactions previously found between men and women are not a result of different responses to mild levels of nudity. The results showed women did not respond negatively to demure displays of female nudity. This supports researchers' arguments that consumers react stronger to displays of sex than nudity (Manceau & Tissier-Desbordes, 1999). Moreover, the results are in line with other researchers' claims that women are becoming desensitised to the use of nudity in marketing (Theodoridis, Kyrousi, Zotou, & Panigyrakis, 2013; Hyllegard, Ogle, & Yan, 2009).

One interesting aspect of nudity is the apparent association between it and premium products. The results indicate the model's pose does not have any effect on women's perception of product price, while nudity has a significant effect in the opposite direction of what was hypothesised; the model showing more skin was perceived as wearing a more expensive product. These results contradict the findings of Peterson and Kerin (1977). This is likely an effect of the lower levels of nudity in this study being viewed as more congruent with the

product compared to their study (Peterson & Kerin, 1977). The findings from this study might also be a result of some luxury brands using extreme nudity and sexual positioning in their visual image advertising. Examples are Dolce & Gabbana's "gang rape ad" from 2012 and Tom Ford's use of sex role portrayals combined with total female nudity.¹⁹

5.1.4 Interaction of Sexual Movement and Nudity

The only interaction effect found for sexual movement and nudity was for cognitive evaluation, where nudity amplified both positive and negative reactions to the model's pose. The lower level of cognition cannot be explained by respondents being distracted by arousal. This indicates that the use of nudity is defensible when the perceived objective of the image is to clearly display the product. However, if women recognise irrelevant use of sexual movement, nudity may be perceived as interfering with the display of the product even more. This finding supports Dianoux and Linhart's (2010) conclusions that consumers perceive irrelevant use of nudity negatively. Since cognition is self-reported by respondents, rating the model's display as less clear and informative could be a way of showing dislike. This would further support the existence of an emotional reaction sparking a social correctional response.

5.1.5 Attractiveness and Identification

Sexual movement and nudity were weak explanatory factors of variations in product attitude, brand attitude and behavioural intention. Results from the analyses of covariance and regression analyses indicate these advertising effectiveness aspects are better explained by other factors.

Attractiveness appears to be a more important influencer than sexual movement or nudity in brand attitude formation. The negative effects of the provocative pose seen in the other analyses does not spill over into brand attitude, indicating brand attitudes are not easily influenced and take longer to develop. The choice of model then becomes more important than how she is posed or styled. Research has found that consumers assume positive things about endorsers they find attractive, and that attractive endorsers in turn can have a large impact on brand image (Baker & Churchill, 1977; Till & Busler, 2000). This relationship

¹⁹ Appendix H.

could explain the role attractiveness plays in forming positive brand attitudes. The results from this study support other researchers' calls for studies isolating the effect of attractiveness from other sexual appeals, as valid.

Further, the degree to which respondents identify with the model significantly affects product and brand attitude as well as behavioural intention. This may be explained by the t-shirt being seen as practical enough to make respondents prefer a self-like model, and thus rate the product higher when they identified with her (Nichols & Schumann, 2012). This, again, indicates the choice of model may be more important than how she is posed when the target audience is female. This is especially important when the focus is product or brand attitude as well as consumers' behavioural intentions.

5.1.6 Summary Discussion of Results

Regarding the two types of sexual appeals studied, sexual movement appears to have a larger effect than nudity. The posing of the model appears to be most important when the focus is on responses more immediately related to the model. The "halo effect" of female sexual appeal on men that is believed to influence product and brand attitudes as well as behavioural intentions, is not found here. The model's characteristics, like her physical attractiveness, and the model-audience relationship, including identification and aspiration, explain more of these effectiveness measures.

Women appear to have a negative emotional reaction to increased sexual movement in advertising images. It is speculated this effect is of a social rather than a sexual nature since it is closely connected to women's evaluation of the female model's capacity. The question is whether these responses are a conscious reaction to the negative evaluation of a provocative model, or an unconscious reaction to the negative emotions experienced upon viewing female sexual movement. If the first is more correct than the other, the resulting negative self-reports relating to the model might possibly be some sort of socially corrective action taken by respondents who wish to show their dislike. In this case, already existing attitudes and sensitisations towards female sex role portrayals can play an important role in determining women's reactions to female sexual appeals. In the other scenario, the relationship between stimuli and reactions is of a more unconscious nature and might be influenced by the negative emotions from seeing a provocative pose. It would then be interesting to study in more detail what this negative feeling is.

Another interesting finding is that women do not find a provocatively posed female model sexy, even though she has been positioned based on other women's previous evaluations of female sexual appeals. This indicates women evaluate sexy female models based on the general attitudes of society rather than their own personal attitudes. Studying the marketplace, it is apparent these types of portrayals of women are common.

It appears sexual appeals used in advertising targeting women are designed according to society's idea of what is sexy, and this is based on men rather than women's preferences. There can be several explanations for this. One is that managers assume women aspire to be more like sexy female models, and are thus more likely to purchase products displayed by such a model. Another possible explanation is that managers are not sufficiently aware of how they use models in visual advertising. The posing of the model may be done without thought, by routine or based on the preferences of the photographer taking the picture. One possibility is that advertising targeted to women often is made by men or based on knowledge of men, rather than women.

5.2 Implications

Although, sexual movement appears to explain only up to 20 per cent of advertising effectiveness, it is argued the findings have relevant implications to several interest groups. The aim of this study is not to create a model that explains what drives advertising effectiveness, but rather to examine the possible effects of sexual appeals. Moreover, it is argued the findings are applicable to more areas of visual image advertising targeting women than the one studied. Findings should in particular be generalizable to other product categories where functional female models are used.

5.2.1 Theoretical implications

The results from this study support the importance of human models when studying commercial displays of clothing and related items, and thus also the need to examine related areas.

Further, it appears demure illustrations of female nudity do not generate major reactions from a female audience. Researchers who wish to continue study the effects of sexual appeals on emotional reactions or advertising effectiveness should therefore be cautious of using the same sexual appeals when studying women as when studying men. Other forms of stimuli

than nudity and sexual movement should be explored. If female sexual appeals that are perceived as sexy by women can be found, it might become relevant to revisit arousal as a possible influencer of effects.

5.2.2 Managerial implications

The most noteworthy finding is that female sexual appeal does not have a positive effect on advertising effectiveness. The effect of increased arousal, which is believed to stimulate men's attitude formations, was not found in this study. In fact, results show women react negatively to increased female sexual movement. This means the sexy poses often used in advertising and marketing with the presumed aim of attracting consumers may in fact have the opposite effect. The high prevalence of ineffective uses of sexual appeals is likely an effect of decisions being made based on the preferences of men, in both decision-making and creative positions in companies, despite having a female target audience. Managers need to apply other perspectives than the male gaze in order to effectively appeal to women.

Results from this study support the use of human models in an online apparel retail context. It is notable even large online retailers, such as H&M, do not have pictures with human models for all their products. While the cost of hiring a model may be prohibitive for smaller retailers, this should not be case for large multinationals. Therefore it comes down to insights about what is more effective in capturing the customers' interest. Based on this study it is clear online retailers should prioritise displaying garments on human models.

Product attitude, brand attitude and behavioural intentions are often the main focus of managers. Results from this study do not support the use of female sexual appeals to increase such aspects of advertising effectiveness when targeting women. The commonly used, mild depictions of nudity in advertising appear to have no serious effects on women's responses. Sexual movement, however, can lead to negative reactions. Managers who are targeting a female audience should shift their focus from sexual appeals to choosing the right model. She needs to be considered attractive by female consumers and be someone they can identify with and aspire to be more like. Increased knowledge about the target audience is thus needed. However, in an online retail context, the control over choice of model as well as styling and poses is often surrendered to a multi-brand retailer. Considering the effects of such decisions on customers' attitudes and perceptions, managers of clothing brands should try to negotiate guidelines for how their products are displayed when working with independent retailers.

Managers that use female sexual appeals should be especially cautious in four areas. First, results show the use of intense sexual movement can be particularly harmful when consumers are likely to focus on the model. An example is when well-known supermodels are used, as consumers will recognize the model and focus on her as a person. Second, the relevance of sex to the product presentation must also be considered. Female nudity does not generate the same negative effect in the viewer as long as it is seen as relevant to the product presentation. However, even the arguably small change from jeans to shorts had a noticeable, negative effect on cognitive evaluation in this study. Third, results from this study indicate women who are consciously aware of the appeals used might want to express their disapproval to the model featured in the image. If this is the case, managers might want to be aware of their target audience's general attitudes to displays of sexy women in advertising. Fourth, although using female nudity to signal a higher price point may be of interest to a company, a higher level of nudity may also signal other attitudes and values that are undesirable to certain actors and the image of their products.

5.2.3 Implications for Educators and Legislators

Educators of marketing aspects such as consumer response models should be aware men and women might not react similarly to marketing tactics that employ sexual appeals.

Negatively perceived sexual movement and unnecessary nudity are, to a certain extent, self-regulating in a well functioning market. Consumers can choose to not patronise businesses whose adverts they do not like. However the indication consumers' information processing and thereby ability to make informed decisions is negatively affected by sexual movement, may be of interest to legislators and consumer protection agencies.

5.3 Conclusion

The aim of this study is to answer the following research question: "How do female sexual movement and nudity impact women's affective, cognitive and conative responses to visual image advertising?" Results show that how managers stage product images appears to be important in explaining responses related to the model. Other advertising effectiveness measures, however, are better explained by the model's inherent characteristics.

Women appear to perceive commonly used female sexual appeals, but not find them sexy. They do not have an emotional response in terms of increased arousal. There is, however, an

emotional reaction in the form of disturbed calmness that might explain the negative effect of sexual movement on advertising effectiveness. What exactly this emotional reaction is cannot be determined within the scope of this thesis. It appears, however, to be connected to the model since it negatively affects the evaluation of her capacities. It is speculated this negative emotion is of a social nature rather than a sexual one, and it motivates respondents to express their dissatisfaction with the person in the picture rather than the company behind it. The lack of spill over effect from model attitude to product and brand attitudes supports this assumption (Derbaix, 1995).

Nudity and sexual movement appear to have separate effects on women, even though they are both a part of picture staging and often used together. The effect of increased sexual movement is, as hypothesised, negative. Nudity did not have major effects on consumer responses, but does appear to affect price perceptions positively. The interaction between sexual movement and nudity was only important for explaining the negative effects of increased sexual intensity on cognitive evaluations. Therefore, results support the importance of studying these two appeals separately.

Is female sexual appeal the most important influencer in formation of women's ad responses? It appears not. The positive effects found when studying men are not found for women. Moreover, the strong negative female reactions to nudity in previous research do not exist when the level of female nudity is demure rather than extreme. The results show managers should reconsider using provocative poses when designing images aimed at women. Moreover, model characteristics appear to be more important in explaining advertising effectiveness. In particular the relationship between the model and the audience needs to be considered when choosing models for visual advertising images.

5.4 Critique and Limitations

The results contribute interesting insights about women's responses to female sexual appeals used in advertising. However, there are some limitations to the study that affect the applicability and generalizability of the results. These are largely consequences of the delimitations and assumptions made.

This study is framed in an online context. The Internet is however only one of the mediums where women view female sexual appeals. They are arguably subjected to many sexual ads

featuring women while moving around in cities, reading magazines or watching television. Moreover, many conventional ads are not deliberately sought after by respondents in the way product images are. It is possible reactions differ between sexual appeals that women are randomly subjected to, and those that are seen as part of an active information search process. Conventional ads can also contain a lot of information not directly related to the model, for example scenic backgrounds, text and other models. Such aspects can have effects on the interpretation of, and reactions to, images.

The study uses a model in a product image setting. Models in product images are almost exclusively functional in that they display fit or function of a product. Sexy decorative models may generate stronger or weaker reactions due to the cognised relevance of using sexual appeals in these ads (Dianoux & Linhart, 2010). This relates to another limitation: the choice of a white t-shirt as the experiment product. It is probable that the use of sexual appeals to display another product would have been perceived as more or less appropriate, and that this would have affected the results. Another potential criticism of the experiment product is related to the time constraint of the study. Data was collected in August, which may have affected product involvement negatively since the weather in Sweden starts to get colder at that time of the year and consumers may not be looking for a short-sleeved t-shirt. Lower product involvement can in turn affect the attitudes to sexual appeal advertising (Liu, Cheng, & Li, 2009).

The relatively low intensity of sexual movement and nudity manipulated in the study could be another point of criticism. Considering the negative results on women's attitudes from high levels of nudity found in previous studies, the lack of similar results in this study are surprising. This indicates that critique regarding manipulation intensity would be valid. However, the level of nudity used is based on a need for the product images to be credible in the chosen setting. It is likely more overt female nudity is needed to generate significant results among women. This would however not have been an appropriate use of nudity in this particular study, nor relevant to a real online mass-market retail context.

Further, it is possible women react differently when approached by a study as opposed to when they in fact visit online apparel websites or view product images as, for example, pop-ups or banner ads. Attempts were made to make the testing conditions as natural as possible. Respondents were told in the initial part of the survey they should assume that they were viewing a product image on a website selling apparel. Moreover, the survey was Internet

based, ensuring respondents took the survey in the same medium as they normally use to shop online. Because the experiment environment is similar to that of real-life online shopping, it is argued it was favourable in producing relevant responses.

5.4.1 Reliability

Reliability refers to the consistency of measures, and includes stability and internal reliability (Bryman & Bell, 2007, p. 162-166).

Stability relates to the results' stability over time. If a stable survey were to be re-administered at a later time to the same respondents, there would be little variation in the results. The self-reported AD-ACL measure used in the study may suffer from a risk of fluctuation, due to respondents' activation and deactivation levels being influenced by their surroundings at the time of taking the survey. Due to the time limitations inherent in writing a master thesis, no tests of stability were performed. The use of the AD-ACL instrument as a stable indicator of arousal is supported by a study of LaTour et al. (1990).

Internal reliability can for example be applied to using sets of several items to measure responses. That approach was used in this study to record affective, cognitive and conative scores. In order to ensure internal reliability, all indexes had a Cronbach's alpha of 0.870 or higher. The study arguably has high reliability and should be replicable by using the method outlined in section 3.

5.4.2 Validity

Validity is concerned with the integrity of the conclusions that are generated in a study (Bryman & Bell, 2007, p. 41.) It can be divided into measurement, internal and external validity.

Measurement validity refers to whether a measure in fact measures the intended concept. The measures used in this study were either adopted from previous studies on similar subjects or developed in collaboration with thesis supervisor and distinguished consumer response researcher Magnus Söderlund, to ensure measurement validity.

Internal validity refers to the experiment being performed in such a way that outcomes can clearly be tied to the intended manipulations. Several precautions were taken to ensure internal validity. The images used in the study were photographed on a white studio

background in order to avoid any elements that could influence the viewers. The product used was chosen based on its believed neutrality in order to avoid evaluations based on fashion trends or styles. The manipulation control in the survey, as well as the rest of the questions, was tested on a small pilot group to ensure the manipulation was working, before the survey was released to a wider audience.

A possible weakness in the internal validity is the influence of the garments used to create the nude and dressed conditions, a pair of short, beige shorts and a pair of jeans, respectively. Jeans are believed to be widely used amongst the general public. They were chosen over, for example, slacks that would have created a dressier look. It is possible the viewers attached other meanings to the garment, such as jeans being a relatively cheap clothing item. Moreover, there is a possibility that the somewhat sporty nature of the shorts lead some respondents to associate this item with functional clothing, which is often made from more advanced materials and therefore commands a higher price point.

External validity is concerned with whether the results of the survey can be generalised beyond the context of the study at hand (Bryman & Bell, 2007, p. 42.). An issue regarding convenience sampling is that it leads to problems with generalising findings since one cannot be sure of what population the sample is representative (Bryman & Bell, 2007, p. 198.). The data contains findings from Swedish, well-educated women with high Internet usage. It is possible less educated women are less sensitised to female sexual appeals (Venkatesh, 1980; Ford, LaTour, & Lundstrom, 1991), and different responses would be recorded in such a sample. The closest generalisation of this sample is likely modern women. It is argued studies of a progressive population are of interest to both managers and theorists since they might represent current and future developments.

The largest issue of studying only one country is that online apparel websites, especially retailers, have international websites visited by consumers from several countries. These consumers might, because of differences in culture, have different reactions to sexual appeals (Theodoridis, Kyrousi, Zotou, & Panigyrakis, 2013; LaTour, Ford, & Honeycutt, Jr, 1997). Because a convenience sample is used, the data may not allow definitive findings, however it can provide a springboard for further research (Bryman & Bell, 2007, p. 198).

5.5 Future Research

Sexual appeal advertising effectiveness is an interesting area of research. There is a need for deeper and more nuanced knowledge of how women react to the female sexual appeals that are frequently used in marketing.

There is a need to examine if women have an emotional reaction to female sexual appeals and, if so, what that reaction consists of. The results from this study indicate the emotional response comes in a social rather than sexual form. It would therefore be interesting to further examine women's emotional reactions from this perspective. Moreover, there is a need for studies focusing on the role of emotions in the formation of women's attitudes to female sexual appeals.

It appears women do not perceive female sexual movement and nudity as sexy. Researchers should attempt to identify other types of sexual appeals that are more effective when targeting women. Double entendres and physical attractiveness are two examples that have not been sufficiently studied in female respondents. Moreover, the use of sexual appeals in ads for other product categories and settings are often more overt in terms of nudity and sexual movement than the stimuli used here. Further studies are needed to understand the effect of high female sexual intensity on advertising effectiveness in female audience.

A research area that is touched upon, but not the main subject of this study is the use of human models. The results show use of a human model is more effective, in terms of affective and cognitive responses, for displaying clothes to consumers. This raises the question: what type of model is seen as sufficiently "human." H&M has previously come under fire for using computer generated human-like models in their online retail channels (Goodson, 2011). Future research should explore what it is about a human model that is appealing to consumers and whether that can be replicated digitally for cost efficiency purposes.

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Appendices

Appendix A:

Pre-study stimuli



Appendix B: The Survey

Q41 Vi skriver just nu vår mastersuppsats på Handelshögskolan i Stockholm och undersöker hur kläder avbildas i reklam. Du kommer få se en bild på ett plagg och sedan få svara på frågor om det. Anta att du ser bilden under ett besök på en hemsida som säljer kläder. Dina svar är helt anonyma och kommer endast att användas i forskningssyfte. Vänligen fyll i din mejl-adress när du är klar för att vara med och tävla om presentkort från Asos, Topshop, Zalando, Bubbleroom eller Nelly.

1:a pris: 500 kr

2:a pris: 300 kr

3:e pris: 200 kr

Tack för hjälpen!

Emma Barrebo (21860@student.hhs.se) och Hanna Metsis (21740@student.hhs.se).

Q57 Vänligen ange ditt kön:

- Kvinna
- Man

Q14 Först skulle vi vilja veta hur troligt det är att du skulle köpa en vit t-shirt den närmaste tiden?

Vänligen uppskatta hur troligt det är att du skulle göra ett sådant köp.

- Inte alls troligt
- Inte särskilt troligt
- Varken eller
- Ganska troligt
- Mycket troligt

Q45 Vi kommer nu visa dig en produktbild av en vit t-shirt.

Q32 Hur känner du dig just nu? Vänligen svara på hur väl följande ord stämmer in på hur du känner dig just nu.

Känner absolut inte / Känner inte speciellt / Känner lite / Känner absolut

- | | |
|-------------|-------------|
| • Aktiv | • Darrig |
| • Energisk | • Intensiv |
| • Kraftfull | • Ängslig |
| • Livlig | • Ansträngd |
| • Fridfull | • Spänd |
| • Lugn | |
| • Vilande | |
| • Stilla | |
| • Tyst | |
| • Sömnig | |
| • Trött | |
| • Dåsig | |

Q33 Hur nöjd är du med ditt utseende just nu?

Vänligen svara på en skala från 1 till 7 där 1="Inte alls nöjd" och 7="Mycket nöjd".

- 1 - Inte alls nöjd
- 2
- 3
- 4
- 5
- 6
- 7 - Mycket nöjd

Q36 Hur skulle du beskriva ditt självförtroende just nu?

Vänligen svara på en skala från 1 till 7 där 1="Inte alls bra" och 7="Mycket bra".

- 1 - Inte alls bra
- 2
- 3
- 4
- 5
- 6
- 7 - Mycket bra

Q22 Hur väl stämmer följande in på din uppfattning av den kvinnliga modellen?

- Inte sexig / 2 / 3 / 4 / 5 / 6 / Sexig
- Inte avklädd / 2 / 3 / 4 / 5 / 6 / Avklädd
- Inte utmanande pose / 2 / 3 / 4 / 5 / 6 / Utmanande pose
- Inte attraktiv / 2 / 3 / 4 / 5 / 6 / Attraktiv
- Ohälsosam / 2 / 3 / 4 / 5 / 6 / Hälsosam
- Inte ungdomlig / 2 / 3 / 4 / 5 / 6 / Ungdomlig
- Inte glad / 2 / 3 / 4 / 5 / 6 / Glad
- Inte avslappnad / 2 / 3 / 4 / 5 / 6 / Avslappnad
- Passiv / 2 / 3 / 4 / 5 / 6 / Aktiv
- Inte trovärdig / 2 / 3 / 4 / 5 / 6 / Trovärdig
- Osympatisk / 2 / 3 / 4 / 5 / 6 / Sympatisk
- Gillar inte / 2 / 3 / 4 / 5 / 6 / Gillar
- Negativ / 2 / 3 / 4 / 5 / 6 / Positiv
- Dålig / 2 / 3 / 4 / 5 / 6 / Bra

Q43 Hur väl instämmer du i följande?

Vänligen svara på en skala från 1 till 7 där 1="Stämmer inte alls" och 7="Stämmer helt."

- Modellen visar produkten på ett tydligt sätt
- Modellen visar produkten på ett informativt sätt
- Modellen är lik mig
- Jag skulle vilja vara mer som modellen

Q48 Hur väl stämmer följande?

Vänligen svara på en skala från 1 till 7 där 1="Stämmer inte alls" och 7="Stämmer helt."

- Produkten skulle förbättra andras intryck av mig
- Produkten skulle göra ett gott intryck på andra människor
- Produkten är socialt accepterad
- Produkten skulle hjälpa mig att känna mig accepterad

Q24 Vad är din uppfattning om t-shirten på bilden?

- Passar inte min stil / 2 / 3 / 4 / 5 / 6 / Passar min stil
- Gillar inte / 2 / 3 / 4 / 5 / 6 / Gillar
- Dålig / 2 / 3 / 4 / 5 / 6 / Bra
- Negativ / 2 / 3 / 4 / 5 / 6 / Positiv
- Dålig kvalitet / 2 / 3 / 4 / 5 / 6 / Bra kvalitet
- Dåligt material / 2 / 3 / 4 / 5 / 6 / Bra material
- Låg komfort / 2 / 3 / 4 / 5 / 6 / Hög komfort
- Billig att framställa / 2 / 3 / 4 / 5 / 6 / Dyr att framställa
- Enkel / 2 / 3 / 4 / 5 / 6 / Komplicerad

Q47 Hur mycket uppskattar du att t-shirten kostar?

_____ SEK

Q46 Vad är ditt intryck av varumärket som står bakom produkten?

Vänligen beskriv intrycket du får av varumärket utifrån bilden.

- Gillar inte / 2 / 3 / 4 / 5 / 6 / Gillar
- Dålig / 2 / 3 / 4 / 5 / 6 / Bra
- Negativ / 2 / 3 / 4 / 5 / 6 / Positiv
- Billigt / 2 / 3 / 4 / 5 / 6 / Dyrt
- Inte modemedvetet / 2 / 3 / 4 / 5 / 6 / Modemedvetet
- Passar inte med min livsstil / 2 / 3 / 4 / 5 / 6 / Passar med min livsstil
- Inte miljövänligt / 2 / 3 / 4 / 5 / 6 / Miljövänligt
- Ohälsosamma värderingar / 2 / 3 / 4 / 5 / 6 / Hälsosamma värderingar
- Traditionellt / 2 / 3 / 4 / 5 / 6 / Modernt
- Opålitligt / 2 / 3 / 4 / 5 / 6 / Pålitligt
- Dåligt värde för pengarna / 2 / 3 / 4 / 5 / 6 / Bra värde för pengarna

Q25 Hur troligt är det att du skulle göra något av följande?

Vänligen ange på en skala från 1 till 7 där 1="Inte alls troligt" och 7="Mycket troligt".

- Köpa produkten
- Läs mer om produkten
- Titta närmare på produkten
- Prova produkten
- Skicka en produktmlänk till en vän
- Rekommendera produkten till en vän
- Berätta om produkten för en vän

Q55 Du är nu klar med huvuddelen av enkäten. Nu skulle vi vilja ställa lite frågor om dig.

Q9 Hur mycket av din disponibla inkomst lägger du på kläder varje månad?

Med disponibel inkomst menas den del av inkomsten du har kvar efter nödvändiga utgifter varje månad.

_____ Antal procent

Q10 Hur stor del av kläderna du köper handlar du på nätet?

Ange på ett ungefär hur stor andel.

_____ Antal procent

Q11 Hur ofta besöker du webb-butiker som säljer kläder?

- Någon enstaka gång (1-3 ggr per månad)
- En gång i veckan
- Flera gånger i veckan
- Varje dag eller oftare
- Vet ej/Vill ej uppge
- Aldrig

Q12 Hur många gånger det senaste halvåret (6 månaderna) har du köpt kläder online?

- 1-3 gånger
- 4-6 gånger
- 7 gånger eller mer (mer än en gång i månaden)
- Vet ej/Vill ej uppge
- Inte alls

Q35 Vi ber dig nu ta ställning till ett antal påståenden om reklam.

Vänligen svara på en skala från 1 till 7 där 1="Håller inte alls med" och 7="Håller med fullständigt".

- Reklam visar kvinnor som de verkligen är
- Reklam visar män som de verkligen är
- Reklam visar kvinnor huvudsakligen som sexuella objekt
- Reklam antyder att kvinnor inte gör viktiga saker
- Reklam antyder att kvinnors plats är i hemmet
- Jag tycker att hur kvinnor avbildas i reklam är stötande
- Jag tror att sättet som kvinnor avbildas på i reklam endast reflekterar det aktuella företags attityd gällande kvinnors roll i samhället

- Om en ny produkt introduceras med reklam som jag finner stötande, är det fortfarande möjligt att jag köper produkten om den har attraktiva produkttegenskaper
- Om en ny produkt eller tjänst som jag använder lanserar en reklamkampanj som jag finner stötande, skulle jag sluta använda den

Q3 Vilket år är du född?

Q4 Vad är ditt postnummer?

Vänligen ange ditt postnummer med 5 siffror utan mellanslag, t.ex. "12345".

Q6 Vilken är din huvudsakliga sysselsättning?

- Student
- Anställd
- Egenföretagare
- Arbetssökande
- Sjukskriven (5)
- Annat, nämligen: _____
- Vill ej uppge

Q5 Vilken är din högsta avslutade utbildning?

- Grundskola (Folkskola)
- Gymnasieutbildning kortare än 3 år
- Gymnasieutbildning 3 år eller längre
- Eftergymnasial utbildning upp till 3 år
- Eftergymnasial utbildning längre än 3 år
- Vill ej uppge

Q8 Vad har du för månadsinkomst före skatt?

- 12 500 kr eller lägre
- 12 501-20 000 kr
- 20 001-29 000 kr
- 29 001-38 000 kr
- 38 001-47 000 kr
- Över 47 000 kr
- Vet ej/Vill ej uppge

Q38 Vänligen uppge din mejl-adress nedan om du vill vara med i lottningen om presentkort.

Appendix C: Internal consistency of indexes

AD-ACL

Index	Cronbach's Alpha	Index	Cronbach's Alpha
General Activation (GA)	0,821	Deactivation Sleep (DS)	0,780
Active		Sleepy	
Energetic		Tired	
Vigorous		Drowsy	
Lively			
General Deactivation (GD)	0,799	High Activation (HA)	0,787
Placid		Fearful	
Calm		Clutched up	
At rest		Tense	
Still			

Model attitude

Index	Cronbach's Alpha
Model attitude (MODELATT)	0,900
Unhealthy – Healthy	
Unhappy – Happy	
Not relaxed – Relaxed	
Passive – Active	
Untrustworthy – Trustworthy	
Not likeable – Likeable	
Don't like – Like	
Negative – Positive	
Bad – Good	
Inelegant – Elegant	

Product attitude

Index	Cronbach's Alpha	Index	Cronbach's Alpha
Product attitude (PROD_ATT)	0,870	Product attitude (PROD_SOC)	0,792
"Doesn't fit my style – Fits my style"		"The product would improve others' impression of me"	
"Don't like – Like"		"The product would make a good impression on others"	
"Bad – Good"		"The product would help me become accepted"	
"Negative – Positive"			
"Bad quality – Good quality"			
"Bad material – Good material"			
"Low comfort – High comfort"			
"Easy to produce – Complicated to produce"			

Brand attitude

Index	Cronbach's Alpha
Brand attitude (BRAND_ATT)	0,905
Don't like – Like	
Negative – Positive	
Bad – Good	

Cheap – Expensive	
Not fashion conscious – Fashion conscious	
Doesn't fit my lifestyle – Fits my lifestyle	
Not environmentally friendly – Environmentally friendly	
Unhealthy values – Healthy values	

Unreliable – Reliable Bad value for money – Good value for money	
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Cognition (clear/informative)

Index	Cronbach's Alpha
Clear Informative	0,870

Behavioural intention

Index	Cronbach's Alpha
Behavioural intent (BEHAVIOR) “Buy the product” “Read information about the product” “Look closer at the product” “Try the product” “Send the product's link address to a friend” “Recommend the product to a friend” “Tell a friend about the product”	0,929

Appendix D: Regression Analyses

	Model statistics			Unstandard, coefficients		t	p	Tolerance
	Adj, R ²	SE of est,	F	B	SE			
Model attitude (<i>n</i> =188)	0,630	0,670	42,265*					
(Constant)				2,295	0,220	10,455	0,000	-
Sexy				0,158	0,045	3,535	0,001	0,685
Pose				-0,183	0,032	-5,643	0,000	0,886
Attractiveness				0,446	0,045	9,860	0,000	0,621
Product attitude (<i>n</i> =185)	0,285	0,812	37,590*					
(Constant)				1,676	0,211	7,950	0,000	-
Attractiveness				0,280	0,046	6,042	0,000	0,901
Identification				0,149	0,037	4,001	0,000	0,901
Brand attitude (<i>n</i> =171)	0,296	0,689	18,849*					
(Constant)				2,122	0,220	9,626	0,000	-
Product involvement				0,090	0,043	2,072	0,040	0,988
Attractiveness				0,210	0,045	4,722	0,000	0,770
Identification				0,087	0,036	2,406	0,017	0,834
Aspiration				0,093	0,039	2,399	0,018	0,802
Cognition (<i>n</i> =173)								
(Constant)	0,249	1,414	22,322*	3,879	0,436	8,895	0,000	-
Pose				-0,352	0,065	-5,426	0,000	0,914
Attractiveness				0,186	0,079	2,357	0,019	0,851
Identification				0,171	0,064	2,674	0,008	0,859
Price cognition (<i>n</i> =174)	0,084	64,442	8,911*					
(Constant)				93,386	19,946	4,682	0,000	-
Nude				13,601	4,124	3,298	0,001	0,999
Attractiveness				10,136	3,685	2,751	0,007	0,999
Behavioural intention (<i>n</i> =169)	0,253	0,874	19,942*					
(Constant)				0,397	0,208	1,908	0,058	-
Product involvement				0,250	0,058	4,326	0,000	0,982
Identification				0,126	0,044	2,828	0,005	0,919
Aspiration				0,221	0,048	4,629	0,000	0,932

Appendix E: Sample-Descriptive Data

			<i>Frequency</i>	<i>%</i>
Demographics	Age (<i>n</i> =255)	18-25	60	23.5
		26-35	111	43.5
		36 or older	84	33.0
	Live in (<i>n</i> =236)	Stockholm	188	79.7
		South Sweden	16	6.8
		West Sweden	15	6.4
		Central Sweden	12	5.1
		North Sweden	6	2.5
	Education (<i>n</i> =251)	High school less than 3 years	1	0.4
		High school 3 years or more	51	20.3
		Higher education 3 years or less	66	26.3
		Higher education more than 3 years	133	53.0
	Income (<i>n</i> =238)	12.500 SEK or less	39	16.4
		12.501-20.000 SEK	29	12.2
		20.001-29.000 SEK	57	23.9
		29.000-28.000 SEK	63	26.5
38.001-47.000 SEK		31	13.0	
Occupation (<i>n</i> =245)	Student	50	19.6	
	Employed	171	67.1	
	Self-employed	21	8.2	
	Other	3	1.2	
Online shopping behaviour	Percentage of disposable income spent on apparel (<i>n</i> =255)	0-25 per cent	189	74.1
		26-50 per cent	57	22.4
		51-75 per cent	9	3.5
		76-100 per cent	0	0.0
	Percentage of apparel shopping made online (<i>n</i> =218)	0-25 per cent	122	56.0
		26-50 per cent	57	26.1
		51-75 per cent	21	9.6
		76-100 per cent	18	8.3
	Visits to online apparel retailer websites (<i>n</i> =232)	A few times per month	90	38.8
		Once per week	70	30.2
		Multiple times per week	57	24.6
		Every day	15	6.5
	Apparel purchases made online the last 6 months (<i>n</i> =177)	1-3 times	94	53.1
		4-6 times	54	30.5
		7 times or more	29	16.4

Appendix F: Descriptive Results and Results from Analysing Effects of a Human Model

	Natural / jeans	Natural / shorts	Provoc- ative / jeans	Provoc- ative / shorts	Control		
<i>n</i>	45	52	45	58	55		
	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	F	p
'Product attitude'	3.708 (0.948)	3.793 (1.106)	3.492 (1.075)	3.336 (1.168)	3.030 (1.206)	3.978	0.004
'Brand attitude'	3.931 (0.771)	4.013 (0.891)	3.647 (1.080)	3.576 (1.055)	3.513 (1.183)	2.501	0.043
'Behavioural intention'	1.971 (1.169)	2.385 (1.486)	1.917 (1.131)	1.845 (1.042)	1.818 (1.080)	1.976	0.099
'Perceived price'	161.778 (64.824)	183.750 (83.642)	148.356 (58.252)	190.241 (90.250)	140.545 (90.999)	3.936	0.004

Description: This table summarises the results of a between groups, one-way ANOVA analysis of the effect of the manipulation on 'Product attitude', 'Brand attitude', 'Behavioural intention' and 'Perceived price'. The mean values, standard deviations, F-statistics and P-values are presented.

Appendix G: Results for Arousal

		‘General activation’		‘General deactivation’		‘Deactivation sleep’		‘High activation’	
Source of variation		Mean	SD	Mean	SD	Mean	SD	Mean	SD
‘Sexual movement’	Natural (<i>n</i> =97)	2.052	0.725	2.833	0.699	2.364	0.891	1.611	0.632
	Provocative (<i>n</i> =103)	1.871	0.667	2.587	0.744	2.375	0.832	1.748	0.757
‘Nudity’	Jeans (<i>n</i> =90)	1.950	0.718	2.750	0.713	2.489	0.857	1.689	0.722
	Shorts (<i>n</i> =110)	1.966	0.688	2.706	0.731	2.273	0.825	1.675	0.686

Description: This table presents the mean values and standard deviations for four dimensions of self-reported, post-exposure emotional response. The dimensions consist of the means of twelve items in Thayer’s AD-ACL scale (Cronbach’s Alpha between 0,780 and 0,821). “Full of pep” was excluded from the GA dimension, as was “Quiet” from the GD dimension since the two items decreased internal consistency.

		‘General activation’		‘General deactivation’		‘Deactivation sleep’		‘High activation’	
		F	Part, Eta sq. ²⁰	F	Part, Eta sq.	F	Part, Eta sq.	F	Part, Eta sq.
‘Sexual movement’		3.728	0.019	5.175* **	0.026	0.079	0.000	2.107	0.011
‘Nudity’		0.034	0.000	0.471	0.002	3.055	0.015	0.025	0.000
Interaction (‘Sexual movement’ x ‘Nudity’)		1.199	0.006	0.761	0.004	2.035	0.010	0.601	0.003

Description: This table summarises the results of a two-way ANOVA analysis of the effects of sexual movement and nudity on model attitude. The mean values, standard deviations, F-statistics, P-values and partial Eta squared values are presented. The separate effects of ‘Sexual movement’ and ‘Nudity’ on model attitude are displayed before the interaction effect of the two variables. * denotes statistical significance at the 0.050 level. ** denotes statistical significance at the 0.050 level when ‘Attractiveness’ is included as a covariate.

²⁰ Partial Eta Squared measures effect size and can be interpreted as the ratio of variance accounted for by an effect and that effect plus its associated error variance (Levine & Hullett, 2002).

Appendix H: Examples of overt ads

Dolce Gabbana's "gang rape ad"



Tom Ford ad



Appendix I: 2-way ANOVAs ('Sexual movement' & 'Nudity')

2-way ANOVA – GA (Arousal)

Between-Subjects Factors

	Value label	N
Sexual movement	Natural pose	97
	Provocative pose	103
Nudity	Jeans	90
	Shorts	110

Descriptive Statistics

Sexual movement		Mean	Std. Deviation	N
Natural pose	Jeans	2.100	0.756	45
	Shorts	2.010	0.702	52
	Total	2.052	0.725	97
Provocative pose	Jeans	1.800	0.652	45
	Shorts	1.927	0.679	58
	Total	1.871	0.667	103
Total	Jeans	1.950	0.718	90
	Shorts	1.966	0.688	110
	Total	1.959	0.700	200

Levene's Test of Equality of Error Variances

F	df1	df2	Sig.
0.820	3	196	0.484

Tests of Between-Subjects Effects

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	2.226 ^a	3	.742	1.527	0.209	0.023
Intercept	758.908	1	758.908	1561.698	0.000	0.888
SEXMOVE	1.812	1	1.812	3.728	0.055	0.019
UNDRESS	.016	1	.016	.034	0.855	0.000
SEXMOVE * UNDRESS	.583	1	.583	1.199	0.275	0.006
Error	95.246	196	.486			
Total	864.813	200				
Corrected Total	97.472	199				

a. R Squared = .023 (Adjusted R Squared = .008)

2-way ANOVA – GD (Arousal)

Between-Subjects Factors

	Value label	N
Sexual movement	Natural pose	97
	Provocative pose	103
Nudity	Jeans	90
	Shorts	110

Descriptive Statistics

Sexual movement		Mean	Std. Deviation	N
Natural pose	Jeans	2.822	0.696	45
	Shorts	2.841	0.709	52
	Total	2.832	0.699	97
Provocative pose	Jeans	2.678	0.730	45
	Shorts	2.517	0.753	58
	Total	2.587	0.744	103
Total	Jeans	2.750	0.713	90
	Shorts	2.670	0.747	110
	Total	2.706	0.731	200

Levene's Test of Equality of Error Variances

F	df1	df2	Sig.
0.309	3	196	0.819

Tests of Between-Subjects Effects

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	3.663 ^a	3	1.221	2.329	0.076	0.034
Intercept	1457.166	1	1457.166	2779.149	0.000	0.934
SEXMOVE	2.713	1	2.713	5.175	0.024	0.026
UNDRESS	0.247	1	0.247	0.471	0.493	0.002
SEXMOVE * UNDRESS	0.399	1	0.399	0.761	0.384	0.004
Error	102.767	196	0.524			
Total	1571.188	200				
Corrected Total	106.430	199				

a. R Squared = .034 (Adjusted R Squared = .020)

2-way ANOVA – DS (Arousal)

Between-Subjects Factors

	Value label	N
Sexual movement	Natural pose	97
	Provocative pose	103
Nudity	Jeans	90
	Shorts	110

Descriptive Statistics

Sexual movement		Mean	Std. Deviation	N
Natural pose	Jeans	2.385	0.791	45
	Shorts	2.346	0.977	52
	Total	2.364	0.891	97
Provocative pose	Jeans	2.593	0.915	45
	Shorts	2.207	0.725	58
	Total	2.375	0.832	103
Total	Jeans	2.489	0.857	90
	Shorts	2.273	0.852	110
	Total	2.370	0.859	200

Levene's Test of Equality of Error Variances

F	df1	df2	Sig.
2.605	3	196	0.053

Tests of Between-Subjects Effects

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	3.813 ^a	3	1.271	1.741	0.160	0.026
Intercept	1122.597	1	1122.597	1538.344	0.000	0.887
SEXMOVE	0.057	1	0.057	0.079	0.779	0.000
UNDRESS	2.229	1	2.229	3.055	0.082	0.015
SEXMOVE * UNDRESS	1.485	1	1.485	2.035	0.155	0.010
Error	143.030	196	0.730			
Total	1270.222	200				
Corrected Total	146.842	199				

a. R Squared = .026 (Adjusted R Squared = .011)

2-way ANOVA – HA (Arousal)

Between-Subjects Factors

	Value label	N
Sexual movement	Natural pose	97
	Provocative pose	103
Nudity	Jeans	90
	Shorts	110

Descriptive Statistics

Sexual movement		Mean	Std. Deviation	N
Natural pose	Jeans	1.578	0.644	45
	Shorts	1.639	0.627	52
	Total	1.611	0.632	97
Provocative pose	Jeans	1.800	0.784	45
	Shorts	1.707	0.739	58
	Total	1.748	0.757	103
Total	Jeans	1.689	0.722	90
	Shorts	1.675	0.686	110
	Total	1.681	0.701	200

Levene's Test of Equality of Error Variances

F	df1	df2	Sig.
2.013	3	196	0.113

Tests of Between-Subjects Effects

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	1.245 ^a	3	0.415	0.843	0.472	0.013
Intercept	558.767	1	558.767	1,134.943	0.000	0.853
SEXMOVE	1.037	1	1.037	2.107	0.148	0.011
UNDRESS	0.012	1	0.012	0.025	0.875	0.000
SEXMOVE * UNDRESS	0.296	1	0.296	0.601	0.439	0.003
Error	96.497	196	0.492			
Total	663.063	200				
Corrected Total	97.742	199				

a. R Squared = .013 (Adjusted R Squared = -.002)

2-way ANOVA – Model attitude

Between-Subjects Factors

	Value label	N
Sexual movement	Natural pose	97
	Provocative pose	103
Nudity	Jeans	90
	Shorts	110

Descriptive Statistics

Sexual movement		Mean	Std. Deviation	N
Natural pose	Jeans	4.947	0.844	45
	Shorts	5.015	1.095	52
	Total	4.984	0.982	97
Provocative pose	Jeans	4.273	1.165	45
	Shorts	3.847	1.004	58
	Total	4.033	1.093	103
Total	Jeans	4.610	1.067	90
	Shorts	4.399	1.197	110
	Total	4.494	1.142	200

Levene's Test of Equality of Error Variances

F	df1	df2	Sig.
1.267	3	196	0.287

Tests of Between-Subjects Effects

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	49.861 ^a	3	16.620	15.531	0.000	0.192
Intercept	4040.660	1	4040.660	3775.741	0.000	0.951
SEXMOVE	41.939	1	41.939	39.190	0.000	0.167
UNDRESS	1.584	1	1.584	1.481	0.225	0.007
SEXMOVE * UNDRESS	3.034	1	3.034	2.835	0.094	0.014
Error	209.752	196	1.070			
Total	4298.820	200				
Corrected Total	259.613	199				

a. R Squared = .192 (Adjusted R Squared = .180)

2-way ANOVA – Product attitude

Between-Subjects Factors

	Value label	N
Sexual movement	Natural pose	97
	Provocative pose	103
Nudity	Jeans	90
	Shorts	110

Descriptive Statistics

Sexual movement		Mean	Std. Deviation	N
Natural pose	Jeans	3.708	0.948	45
	Shorts	3.793	1.106	52
	Total	3.754	1.031	97
Provocative pose	Jeans	3.492	1.075	45
	Shorts	3.336	1.168	58
	Total	3.404	1.126	103
Total	Jeans	3.600	1.014	90
	Shorts	3.552	1.157	110
	Total	3.574	1.092	200

Levene's Test of Equality of Error Variances

F	df1	df2	Sig.
0.677	3	196	0.567

Tests of Between-Subjects Effects

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	6.897 ^a	3	2.299	1.954	0.122	0.029
Intercept	2537.599	1	2537.599	2157.349	0.000	0.917
SEXMOVE	5.610	1	5.610	4.769	0.030	0.024
UNDRESS	.061	1	.061	.052	0.819	0.000
SEXMOVE * UNDRESS	.714	1	.714	.607	0.437	0.003
Error	230.547	196	1.176			
Total	2791.781	200				
Corrected Total	237.443	199				

a. R Squared = .029 (Adjusted R Squared = .014)

2-way ANOVA – Brand attitude

Between-Subjects Factors

	Value label	N
Sexual movement	Natural pose	97
	Provocative pose	103
Nudity	Jeans	90
	Shorts	110

Descriptive Statistics

Sexual movement		Mean	Std. Deviation	N
Natural pose	Jeans	3.931	0.771	45
	Shorts	4.013	0.891	52
	Total	3.975	0.834	97
Provocative pose	Jeans	3.647	1.080	45
	Shorts	3.576	1.055	58
	Total	3.607	1.061	103
Total	Jeans	3.789	0.944	90
	Shorts	3.783	1.001	110
	Total	3.786	0.973	200

Levene's Test of Equality of Error Variances

F	df1	df2	Sig.
2.232	3	196	0.086

Tests of Between-Subjects Effects

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	7.073 ^a	3	2.358	2.547	0.057	0.038
Intercept	2842.939	1	2842.939	3071.157	0.000	0.940
SEXMOVE	6.443	1	6.443	6.960	0.009	0.034
UNDRESS	.002	1	.002	.002	0.966	0.000
SEXMOVE * UNDRESS	.290	1	.290	.313	0.576	0.002
Error	181.435	196	.926			
Total	3054.510	200				
Corrected Total	188.508	199				

a. R Squared = .038 (Adjusted R Squared = .023)

2-way ANOVA – Cognitive evaluation

Between-Subjects Factors

	Value label	N
Sexual movement	Natural pose	97
	Provocative pose	103
Nudity	Jeans	90
	Shorts	110

Descriptive Statistics

		Mean	Std. Deviation	N
Natural pose	Jeans	4.767	1.260	45
	Shorts	5.163	1.410	52
	Total	4.979	1.350	97
Provocative pose	Jeans	4.011	1.632	45
	Shorts	3.353	1.668	58
	Total	3.641	1.677	103
Total	Jeans	4.389	1.499	90
	Shorts	4.209	1.791	110
	Total	4.290	1.664	200

Levene's Test of Equality of Error Variances

F	df1	df2	Sig.
2.389	3	196	0.070

Tests of Between-Subjects Effects

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	104.271 ^a	3	34.757	15.243	0.000	0.189
Intercept	3696.476	1	3696.476	1621.155	0.000	0.892
SEXMOVE	81.345	1	81.345	35.675	0.000	0.154
UNDRESS	.841	1	.841	.369	0.544	0.002
SEXMOVE * UNDRESS	13.741	1	13.741	6.026	0.015	0.030
Error	446.909	196	2.280			
Total	4232.000	200				
Corrected Total	551.180	199				

a. R Squared = .189 (Adjusted R Squared = .177)

2-way ANOVA – Price cognition

Between-Subjects Factors

	Value label	N
Sexual movement	Natural pose	97
	Provocative pose	103
Nudity	Jeans	90
	Shorts	110

Descriptive Statistics

Sexual movement		Mean	Std. Deviation	N
Natural pose	Jeans	161.778	64.824	45
	Shorts	183.750	83.642	52
	Total	173.557	75.921	97
Provocative pose	Jeans	148.356	58.252	45
	Shorts	190.241	90.250	58
	Total	171.942	80.320	103
Total	Jeans	155.067	61.649	90
	Shorts	187.173	86.852	110
	Total	172.725	78.025	200

Levene's Test of Equality of Error Variances

F	df1	df2	Sig.
2.421	3	196	0.067

Tests of Between-Subjects Effects

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	56233.415 ^a	3	18744.472	3.180	0.025	0.046
Intercept	5784062.393	1	5784062.393	981.310	0.000	0.834
SEXMOVE	593.656	1	593.656	.101	0.751	0.001
UNDRESS	50395.721	1	50395.721	8.550	0.004	0.042
SEXMOVE * UNDRESS	4900.744	1	4900.744	.831	0.363	0.004
Error	1155268.460	196	5894.227			
Total	7178287.000	200				
Corrected Total	1211501.875	199				

a. R Squared = .046 (Adjusted R Squared = .032)

2-way ANOVA – Behavioural intention

Between-Subjects Factors

	Value label	N
Sexual movement	Natural pose	97
	Provocative pose	103
Nudity	Jeans	90
	Shorts	110

Descriptive Statistics

Sexual movement		Mean	Std. Deviation	N
Natural pose	Jeans	1.971	1.169	45
	Shorts	2.385	1.486	52
	Total	2.193	1.357	97
Provocative pose	Jeans	1.917	1.131	45
	Shorts	1.845	1.042	58
	Total	1.877	1.077	103
Total	Jeans	1.944	1.144	90
	Shorts	2.100	1.294	110
	Total	2.030	1.228	200

Levene's Test of Equality of Error Variances

F	df1	df2	Sig.
3.994	3	196	0.009

Tests of Between-Subjects Effects

Sources	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	9.252 ^a	3	3.084	2.078	0.104	0.031
Intercept	814.509	1	814.509	548.880	0.000	0.737
SEXMOVE	4.357	1	4.357	2.936	0.088	0.015
UNDRESS	1.433	1	1.433	.966	0.327	0.005
SEXMOVE * UNDRESS	2.917	1	2.917	1.966	0.162	0.010
Error	290.854	196	1.484			
Total	1124.286	200				
Corrected Total	300.106	199				

a. R Squared = .031 (Adjusted R Squared = .016)

Appendix J: 2-way ANCOVA analyses (Attractiveness)

2-way ANCOVA (Attractiveness) - GA

Levene's Test of Equality of Error Variances

F	df1	df2	Sig.
0.885	3	196	0.450

Tests of Between-Subjects Effects

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	3.002 ^a	4	0.751	1.549	0.190	.031
Intercept	48.687	1	48.687	100.497	0.000	.340
ATTRACTIVE	0.776	1	0.776	1.603	0.207	.008
SEXMOVE	1.041	1	1.041	2.149	0.144	.011
UNDRESS	0.022	1	0.022	0.045	0.832	.000
SEXMOVE * UNDRESS	0.711	1	0.711	1.467	0.227	.007
Error	94.470	195	0.484			
Total	864.813	200				

2-way ANCOVA (Attractiveness) - GD

Levene's Test of Equality of Error Variances

F	df1	df2	Sig.
0.331	3.000	196.000	0.803

Tests of Between-Subjects Effects

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	3.816a	4.000	0.954	1.813	0.128	.036
Intercept	109.499	1.000	109.499	208.084	0.000	.516
ATTRACTIVE	0.153	1.000	0.153	0.291	0.590	.001
SEXMOVE	2.115	1.000	2.115	4.020	0.046	.020
UNDRESS	0.238	1.000	0.238	0.453	0.502	.002
SEXMOVE * UNDRESS	0.350	1.000	0.350	0.666	0.416	.003
Error	102.614	195.000	0.526			
Total	1,571.188	200.000				

2-way ANCOVA (Attractiveness) - DS

Levene's Test of Equality of Error Variances

F	df1	df2	Sig.
2.603	3.000	196.000	0.053

Tests of Between-Subjects Effects

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	3.818a	4.000	0.955	1.301	0.271	0.026
Intercept	89.156	1.000	89.156	121.556	0.000	0.384
ATTRACTIVE	0.006	1.000	0.006	0.008	0.931	0.000
SEXMOVE	0.063	1.000	0.063	0.086	0.770	0.000
UNDRESS	2.223	1.000	2.223	3.031	0.083	0.015
SEXMOVE * UNDRESS	1.455	1.000	1.455	1.984	0.161	0.010
Error	143.024	195.000	0.733			
Total	1,270.222	200.000				

2-way ANCOVA (Attractiveness) - HA

Levene's Test of Equality of Error Variances

F	df1	df2	Sig.
2.017	3.000	196.000	0.113

Tests of Between-Subjects Effects

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	1.337a	4.000	0.334	0.676	0.609	0.014
Intercept	41.243	1.000	41.243	83.423	0.000	0.300
ATTRACTIVE	0.092	1.000	0.092	0.185	0.667	0.001
SEXMOVE	1.128	1.000	1.128	2.282	0.132	0.012
UNDRESS	0.011	1.000	0.011	0.022	0.883	0.000
SEXMOVE * UNDRESS	0.263	1.000	0.263	0.532	0.466	0.003
Error	96.405	195.000	0.494			
Total	663.063	200.000				

2-way ANCOVA (Attractiveness) – Model attitude

Levene's Test of Equality of Error Variances

F	df1	df2	Sig.
2.558	3.000	196.000	0.056

Tests of Between-Subjects Effects

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	138.285a	4.000	34.571	55.564	0.000	0.533
Intercept	81.604	1.000	81.604	131.155	0.000	0.402
ATTRACTIVE	88.424	1.000	88.424	142.117	0.000	0.422
SEXMOVE	11.311	1.000	11.311	18.179	0.000	0.085
UNDRESS	1.098	1.000	1.098	1.764	0.186	0.009
SEXMOVE * UNDRESS	0.717	1.000	0.717	1.152	0.284	0.006
Error	121.328	195.000	0.622			
Total	4,298.820	200.000				

2-way ANCOVA (Attractiveness) – Product attitude

Levene's Test of Equality of Error Variances

F	df1	df2	Sig.
0.608	3.000	196.000	0.610

Tests of Between-Subjects Effects

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	51.696a	4.000	12.924	13.568	0.000	0.218
Intercept	62.195	1.000	62.195	65.292	0.000	0.251
ATTRACTIVE	44.799	1.000	44.799	47.030	0.000	0.194
SEXMOVE	0.065	1.000	0.065	0.069	0.794	0.000
UNDRESS	0.010	1.000	0.010	0.010	0.920	0.000
SEXMOVE * UNDRESS	0.044	1.000	0.044	0.046	0.830	0.000
Error	185.748	195.000	0.953			
Total	2,791.781	200.000				

2-way ANCOVA (Attractiveness) – Brand attitude

Levene's Test of Equality of Error Variances

F	df1	df2	Sig.
0.516	3.000	196.000	0.672

Tests of Between-Subjects Effects

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	44.330a	4.000	11.082	14.989	0.000	0.235
Intercept	86.259	1.000	86.259	116.665	0.000	0.374
ATTRACTIVE	37.257	1.000	37.257	50.390	0.000	0.205
SEXMOVE	0.353	1.000	0.353	0.477	0.490	0.002
UNDRESS	0.031	1.000	0.031	0.043	0.837	0.000
SEXMOVE * UNDRESS	0.002	1.000	0.002	0.002	0.963	0.000
Error	144.178	195.000	0.739			
Total	3,054.510	200.000				

2-way ANCOVA (Attractiveness) – Cognitive evaluation

Levene's Test of Equality of Error Variances

F	df1	df2	Sig.
2.518	3.000	196.000	0.059

Tests of Between-Subjects Effects

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	117.610a	4.000	29.402	13.224	0.000	0.213
Intercept	189.393	1.000	189.393	85.180	0.000	0.304
ATTRACTIVE	13.339	1.000	13.339	5.999	0.015	0.030
SEXMOVE	56.425	1.000	56.425	25.377	0.000	0.115
UNDRESS	0.697	1.000	0.697	0.314	0.576	0.002
SEXMOVE * UNDRESS	11.193	1.000	11.193	5.034	0.026	0.025
Error	433.570	195.000	2.223			
Total	4,232.000	200.000				

2-way ANCOVA (Attractiveness) – Price cognition

Levene's Test of Equality of Error Variances

F	df1	df2	Sig.
2.549	3.000	196.000	0.057

Tests of Between-Subjects Effects

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	69345.908a	4.000	17,336.477	2.960	0.021	0.057
Intercept	328,459.403	1.000	328,459.403	56.078	0.000	0.223
ATTRACTIVE	13,112.492	1.000	13,112.492	2.239	0.136	0.011
SEXMOVE	121.917	1.000	121.917	0.021	0.885	0.000
UNDRESS	51,528.669	1.000	51,528.669	8.797	0.003	0.043
SEXMOVE * UNDRESS	6,480.248	1.000	6,480.248	1.106	0.294	0.006
Error	1,142,155.967	195.000	5,857.210			
Total	7,178,287.000	200.000				

2-way ANCOVA (Attractiveness) – Behavioural intention

Levene's Test of Equality of Error Variances

F	df1	df2	Sig.
5.023	3.000	196.000	0.002

Tests of Between-Subjects Effects

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	30.709a	4.000	7.677	5.557	0.000	0.102
Intercept	13.414	1.000	13.414	9.709	0.002	0.047
ATTRACTIVE	21.456	1.000	21.456	15.531	0.000	0.074
SEXMOVE	0.365	1.000	0.365	0.265	0.608	0.001
UNDRESS	1.692	1.000	1.692	1.225	0.270	0.006
SEXMOVE * UNDRESS	1.595	1.000	1.595	1.155	0.284	0.006
Error	269.397	195.000	1.382			
Total	1,124.286	200.000				

Appendix K: Definitions

Product image: an image displaying a product for commercial purposes.

Sex role portrayal: the portrayal of women's roles in commercial advertising.

Sexual appeal: a message that is associated with sexual information.

Sexual movement: behaviour and pose.