

THE ROLE OF SEXUAL DESIRE ON ADVERTISING ATTRACTIVENESS AND ONLINE PURCHASE INTENTION: EVIDENCE FROM FRAGRANCE VIDEO COMMERCIALS

DOI: 10.17261/Pressacademia.2025.2019

JMML- V.12-ISS.2-2025(5)-p.88-101

Mohammad Karami¹, Sarvenaz Safavi², Nasim Ahmadzadeh Nobari Azar³

¹Near East University, Department of Business Administration, Cyprus.

mohammad.karami@neu.edu.tr, ORCID: 0000-0003-1903-828X

²Near East University, Department of Public Relations and Advertising, Cyprus.

Sarvenaz.safavi@neu.edu.tr, ORCID: 0000-0001-7948-4893

³Near East University, Department of Computer Information Systems, Cyprus.

Nasim.ahmadzadeh@neu.edu.tr, ORCID: 0009-0004-7674-9277

Date Received: September 11, 2025

Date Accepted: December 18, 2025



To cite this document

Karami, M., Safavi, S., Azar, N.A.N., (2025). The role of sexual desire on advertising attractiveness and online purchase intention: evidence from fragrance video commercials. *Journal of Management, Marketing and Logistics (JMML)*, 12(2), 88-101.

Permanent link to this document: <http://doi.org/10.17261/Pressacademia.2025.2019>

Copyright: Published by PressAcademia and limited licensed re-use rights only.

ABSTRACT

Purpose- This study was conducted to examine the relationship between signs used in voluptuous video commercials, customer perceived attractiveness, and online purchase intention. Additionally, this study analyzed the role of individual sexual desire as a moderator in hypothesized relationships.

Methodology- The data were collected in two phases using convenience sampling technique and judgmental sampling technique. In total, 373 valid data, collected from respondents with previous online purchasing experiences, were analyzed using structural equation modeling (SEM).

Findings- The results revealed that signs positively influenced the customers' perception of advertisement attractiveness ($\beta = 0.412$, $p < 0.001$). Furthermore, the outcomes demonstrated the positive effect of perceived advertisement attractiveness on online intention to purchase ($\beta = 0.126$, $p < 0.05$). In addition, the indices indicated the positive moderating role of self-sexual desire on the relationships between signs-perceived advertisement attractiveness and perceived advertisement attractiveness-online purchase intention ($\beta = 0.751$, $p < 0.001$; $\beta = 0.218$, $p < 0.05$).

Conclusion- Despite the limitations in this study, the findings provide suggestions to practitioners and commercial designers in the perfume industry on how to create attractive advertisements to have the desired impact on customers, focusing on the customers' emotions and sexual desires. The outcomes of this study contribute to the literature on advertising and online customer purchase intention.

Keywords: Online purchase intention, semiotics, fragrances, sexual desire, Source Attractiveness Theory.

JEL Codes: M31, M37, D91

1. INTRODUCTION

Despite many obstacles, the rapid growth of online purchasing has been highlighted in many industries as a new approach to increase profitability (Jones et al., 2022). One of the main obstacles to online shopping is still the inability to physically inspect products on a computer screen (Lee & Park, 2014; Overmars & Poels, 2015). In the context of online purchasing, it was highlighted that the inability of a customer to physically access an advertised product causes the process of persuading the audience to purchase more challenging (Flavián et al., 2017). The actual functions and performance of the majority of products are possible to be observed through/in an advertisement; however, it is a challenging process for many products.

In the perfume industry, scent is undoubtedly the primary factor considered by customers when choosing a perfume. Unfortunately, due to technological limitations, the scent of a perfume cannot be smelled/felt via an advertisement, which makes the online purchase decision for customers more difficult (Mahdavi et al., 2020). A scientific report explained that the part of the human brain that process motivation, memory, and emotions (olfactory cortex) is also the part that detects smell (Herz, 2007; Mensing, 2023). For this reason, fragrance commercials make a great effort to create an attractive advertisement to manipulate and influence the audiences' feelings by featuring fantasies, sex, and desire using erotic signs in advertising (Reichert et al., 2011; Gramazio et al., 2021). A significant amount of studies have been conducted to determine the effects of different signs in advertisements on the customer perception of advertising attractiveness (e.g., Chen et al., 2005; Abdolreza Oboudi et al., 2022; Adomaitis et al., 2024), which consequently affects the customers' intention to purchase (Till & Busler, 2000; Liu et al., 2007; Gramazio et al., 2021; Kim & Park, 2023). However, no previous studies have examined the

relationships between voluptuous commercials' signs, perceived attractiveness of advertisements, and customer online purchase intention for online perfume shopping. Therefore, the primary aim of this study is to understand the degree of advertisement attractiveness from the customer's points of view given the advertisement signs and examine the effect of perceived attractiveness on customers' intentions to purchase perfume online.

Remarkably, it was noted that a specific type of advertising appeal influences the degree to which customers feel that they are connected to an advertisement (Bush et al., 1999). Marketing researchers, for instance, have found that buyers who have a generally favorable opinion of an advertisement's appeal are significantly more likely to buy the products advertised in that advertisement (Phelps & Thorson, 1991). According to Fabrigar and Petty (1999), advertisements that attempt to "match" the consumer in some manner, either through appearance, personality, or both, are also believed to have a greater chance of persuading them. It was investigated whether vivid information in the form of sexual appeal in advertising increases the degree of customer perception of attractiveness, which affects their purchase intention (Reichert et al., 2011; Gramazio et al., 2021; Kim & Park, 2023). To the best of our knowledge, no previous study has been conducted to explore the theory that semiotics in erotic advertisements may have a higher or lower influence on customers' perception level of advertisement attractiveness in different circumstances. In addition, a lack of research investigating the factors that may affect the perceived advertising attractiveness on customers' online purchase intention has been found in the relevant literature. As a secondary aim, to address these gaps, this study suggests that customers' perception of attractiveness in relation to signs in erotic video commercials may depend on the degree of individual sexual desire. Additionally, this study assumed that a customer's intention to purchase online depends on the level of the customer's sexual desire.

To examine the proposed relationships in this study, a total of 373 valid empirical data collected from audiences were analyzed. The respondents were asked to complete a self-administrative survey according to their perceptions towards the erotic Tom Ford video commercials launched in 2020 in which a new perfume was introduced.

The rest of the paper is comprised of a review of previous studies, hypotheses development, methodology, results, discussion and the limitations of the current study.

2. LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

2.1. Online purchase intention

The development of the internet has led to rapid changes in society and people's lifestyles. From a business perspective, for example, most people used traditional methods when they were shopping in the past. Recently, the internet has affected customers' preferences, encouraging them to attempt purchasing online (Arief et al., 2023). Online shopping can be done without any face-to-face interaction between the seller/provider and buyer/user (Dahnil et al., 2014; Ha et al., 2015; Arief, 2021). Therefore, researches have indicated that online shopping has reshaped the buying process for a business by reducing the risk of carrying out the transaction process; however, it probably gives customers a feeling of uncertainty when making the decision regarding whether to order/shop online (Arief et al., 2023). The sources of such likely feelings might be customers' concerns about differences that may exist between the actual function, appearance or quality of what is virtualized online (Joseph Cronin & Morris, 1989; S. H. Chang et al., 2016) as well as concerns about the personal information confidentiality (Zhong, 2019). These reasons undoubtedly impact the customer's decision as to whether to make an online purchase and conversely, affect the company's shopping rate negatively. Therefore, creating trust has been suggested as a preventative action that can increase the confidence of customers in online shopping (Dai et al., 2013; Lim et al., 2016). However, it is believed that trust cannot be easily formed virtually in online platforms (Arief et al., 2023). Hence, there is an argument that, before making the decision to purchase, customers seek and evaluate the advertising's appeal (Munnukka et al., 2016; Kergoat et al., 2017), follow influencers who support or offer an advertised product (Audrezet et al., 2020; Asan, 2022) or review existing catalogs (Senecal & Nantel, 2004; Lee & Shin, 2014; Ha et al., 2015). All these actions are conducted by customers to increase their trust and assess the integrity of a product offered online (Mukherjee & Nath, 2007). The current study focuses on studying advertising and online purchase decisions.

2.2. Signs in advertising

Visual design is known as one of the most effective aspects or language used for communication purposes (Figl et al., 2010). Signs in visual design comprise vivid information that can help the customer understand/feel products better and change their attitude by putting them closer to a actual experience (Nowlis et al., 2004). It is recommended that signs are used in advertising as an effective communication tool (Pieters et al., 2010; Solík, 2014). The main purpose of advertising is to promote the product or service via textual or virtual to persuade the target audiences to purchase and relatively increase selling growth (Torresi, 2008). Therefore, signs in advertising are perceived as crucial tools in designing effective advertising to create a bridge between customers and communicators to increase the efficiency of communication and influence the customer persuasion (Şerban, 2014; Oputa et al., 2019).

According to existing literature, signs can be divided into verbal (linguistics) and non-verbal (non-linguistic) (Andhika Dhananjaya et al., 2019; Dewi et al., 2021; Simarmata et al., 2022). Signs are also explained in terms of verbal (linguistics) and visual signs (non-linguistic) (Eynullaeva & Woodward-Smith, 2012; Agustia & Karmini, 2020). Signs such as verbal and written language used in commercials are categorized as linguistics signs, while music, objects, and body language are in the category of non-linguistic signs. Both linguistic and non-linguistics signs have been determined to be influential elements for advertising attractiveness. For example, the results of neuromarketing studies indicated that the behavioral responses and attitudes of audiences about attractiveness are effected by the human voice (Casado-Aranda et al., 2017; Belin, 2021), color (Lynn & Shurgot, 1984; Oboudi et al., 2022), body shape (Del Zotto & Pegna, 2017; Del Zotto et al., 2020), and music (Peretz & Zatorre, 2012). More specifically, it was shown that erotic signs in advertising affected the attractiveness perception evaluated by audiences (Tanyildizi et al., 2020; Adomaitis et al., 2024).

A sign is possible to be viewed from different perspectives, and therefore, the interpretation of viewers can vary according to their cultural background, personalities or social norms (Şerban, 2014). Therefore, understanding the viewers' perception towards signs in advertising is crucial to attract the customers' attention and increase the perceived advertisement attractiveness (Chang et al., 2016; Kim & Park, 2023); therefore, this needs to be explored further. Hence, this study attempts to determine the relationship between signs and advertising attractiveness in sexually oriented advertising. Therefore, the following hypothesis is proposed:

H1: Signs have a positive impact on advertising attractiveness

2.3. Perceived Advertising Attractiveness

Attractiveness affects human behavior in individuals' everyday lives (Mulford et al., 1998; Langlois et al., 2000; Takahashi et al., 2006; Wilson & Eckel, 2006). In the context of marketing, the attractiveness of a product, service or commercial was shown to be influential in customers' behavioral intentions (Furaji et al., 2013). It was indicated that advertising attractiveness is correlated to the ability to communicate (DeShields et al., 1996; Phau & Lum, 2000), behavior (Van de Sompel & Vermeir, 2016), and body shape (Bower, 2001). The degree to which an advertisement can astound or hold the interest of its audience is referred to as its attractiveness or power of impression (Sufa & Munas, 2012). Attractiveness to the target audience is necessary for advertising messages to be displayed in a way that can stir, evoke, and keep consumers' memories of the products on offer. The attractiveness of advertising is extremely important due to its role in improving and enhancing the success of communications with target audiences (Ikawati et al., 2021). Due to the fact that there are differences in human beings' perceptions, the concept of attractiveness varies among individuals based on their personal judgment (Horton, 2003), which is also a concern for markets to understand customers' perceptions towards and create attractive advertising.

The degree and intensity of perceived attractiveness can be explained by the theory of source attractiveness (Petty et al., 1997). The source attractiveness theory is founded on the basis of three aspects, namely similarity, familiarity and likability (Petty et al., 1997). Similarity is when audiences consider the commercial content/features like them; as a result, they find this commercial more attractive. Familiarity describes the level of audiences' knowledge about the advertised product, which means that more awareness about the product positively affects the audience's perceived attractiveness about the advertisement. Likability is the reflection of emotional affection towards physical appearance, behaviors, or other personal traits in an advertisement (Kiecker & Cowles, 2002; Sanders, 2005).

The desire of consumers to purchase fashion products is significantly influenced by aesthetic design and attractiveness (Eckman & Wagner, 1994; Seifert & Chattaraman, 2017). For example, using the fMRI image processing technique, neuron marketing studies have indicated that advertising attractiveness is a significant factor affecting customers' intention to purchase (H. J. J. Chang et al., 2016). Additionally, research findings have revealed that the attractiveness of commercials from a customer perspective has a significant influence on their decision to buy (Guido et al., 2011; Gramazio et al., 2021). Due to the lack of research in an online purchasing context, this study aims to understand the effect of overall customers' perception of erotic advertising attractiveness on their decision to purchase online. Hence, it is hypothesized that:

H2: Perceived advertising attractiveness has a positive impact on online purchase intention.

2.4. Self-Sexual Desire as Moderator

Sexual desire is described as a drive, wish, or motivation to engage or participate in sexual activity or achieve sexual intimacy (Levine, 1987; Basson, 2000). The inclination of a person to act toward or away from sexual behavior depends on a number of forces (Levine, 2003; Mark et al., 2014). People's sexual desires are a reflection of their aesthetic preferences indicating how an individual feels and thinks about beauty in terms of age, race, and physical characteristics (Levine, 2002). The object of sexual desire can differ greatly depending on the individual (Mark et al., 2014). Sexual desire has been highlighted as a strong human behavior motivator, which consequently affects subsequent thoughts and behaviors (Sternberg, 1988). Sexual desire was suggested as the source of dispositional responses (include affective responses, informational responses, and fantasy responses) among individuals (White & Kelley, 1988). Erotophobia and erotophilia are the two main categories of

sexual dispositions, which are dispositional reactions to sexual stimuli along a positive-negative dimension of affect and evaluation (White & Kelley, 1988). People who identify as erotophilic are more likely to discuss sex, educate themselves about sexual matters, take precautions against STDs (Sexually Transmitted Diseases), and comprehend material that is sexually explicit in the media. Conversely, erotophobics exhibit a more conservative reaction to sexual stimuli and refuse to learn about sexually oriented contents. More precisely, erotophilic people are more likely than erotophobics to access and manipulate external sexual images internally (White & Kelley, 1988). Therefore, individuals with higher levels of positive sexual cognition are more likely to perceive sexually explicit content in product advertisements as a standard component of advertising, whereas individuals with higher levels of negative sexual cognition are more likely to have negative attitudes toward sexual stimuli and to react critically to sexually explicit advertising (Pan, 2014).

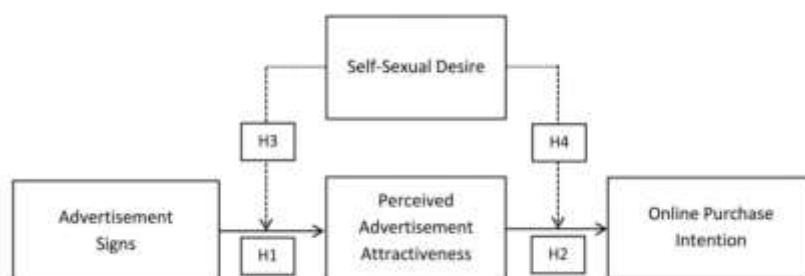
According to the concept of attractiveness similarity, consumers prefer products that match their personality (Aguirre-Rodriguez et al., 2012; Bekk et al., 2016). Findings indicate that similarity leads to liking and attraction, and conversely, dissimilarity causes ignorance (Byrne et al., 1986). For example, people like other people who have similar personality characteristics (Feingold, 1988; Shaw Taylor et al., 2011). We argue that customers perceive attraction towards erotic commercials based on their self-sexual desire and this also affects their intention to purchase online. This study therefore attempts to investigate whether individuals' sexual desire has a moderating role in customers' decision whether to purchase advertised perfume online. Therefore, this study suggests that the degree to which signs affect advertising attractiveness might be influenced by individual sexual desire. Additionally, it is suggested that individual sexual desire influences the impact of advertising attractiveness on customers' intention to purchase online. Hence, it is hypothesized that:

H3: Self-sexual desire moderates the relationship between semiotic signs and advertising attractiveness.

H4: Self-sexual desire moderates the relationship between advertising attractiveness and purchase intention.

On the basis of reviewed literature and hypothesis development, this study proposes the following research framework (Figure 1).

Figure 1: Conceptual Framework



3. DATA AND METHODOLOGY

3.1. Sign Extraction

According to the objective of this study, a voluptuous video commercial of a Tom Ford fragrance released in 2020 was chosen for analysis (<https://www.youtube.com/watch?v=CoTU5GSKzyY>). With the assistance of semiotics scholars, the signs were extracted, and they formed a multi-sign system consisting of both linguistic and non-linguistic signs. All linguistic and non-linguistic signs were considered important and were categorized into four groups as follows:

- Body shape (belly, breast, shoulder, waistline, eye, lips, biting, rubbing)
- Voice/noise (spoken person-music)
- Color (peachy, pink, black, red, yellow)
- Physical features (skin, peach, grapefruit, wood, peach core, water, sweats)

These categories were used to create the construction of signs in the survey questionnaires.

3.2. Data Collection

To collect the primary quantitative data, a self-administered questionnaire was distributed in February 2025. Using the convenience sampling technique, a form consisting of a filter question and a request for the recipient's email address was distributed to 500 respondents. Given the results of previous studies, students were shown to be interested in experiencing online shopping (e.g., Harahap & Amanah, 2018; Syahiman Ghazalle & Abdul Lasi, 2021). Hence, the sample of the study consisted of college/university students in Nicosia, Cyprus, due to the large number of available universities and students.

Given the results of the filter question, 93 respondents were eliminated from the rest of the data collection process due to not having experience in online purchasing. Therefore, a total of 407 respondents who had experienced online purchasing were listed with their email addresses. Using the judgmental sampling technique (non-probability) in the form of a Google survey, the questionnaire, including demographic and construct sections, was distributed to those on the email list. A voluptuous fragrance commercial of Tom Ford released in 2020 was attached to the online survey, and the respondents were asked to respond to each question according to their perception of the video commercial. A pilot study was conducted based on 30 participants to ensure the validity and reliability of the research instruments. According to the results, several corrections were made to the questions in terms of length, clarity, format, and the sequence of the items. After sharing the survey, a total of 373 responses were returned, indicating a satisfactory response rate of 91.67%. Therefore, 373 data were used for the data analysis process. All participants signed a term of free, informed consent, which was separated from the research protocol to ensure data anonymity. No incentives or rewards were provided to the participants.

3.3. Questionnaire Construct

The survey included two parts. The first was the demographics part, including questions on age, income, marital status, level of education, frequency of visiting the salon, and a filter question. The second part comprised the constructions and items of the survey questionnaire. The demographic data of the respondents is presented in Table 1.

Table 1: Respondents' Demographic Profile

Measure	Item	Frequency (N=373)	(%)
Gender	Male	104	27.88
	Female	269	72.17
Age	18-22	68	18.23
	23 - 27	114	30.56
	28- 32	73	19.57
	33- 37	45	12.06
	38- 43	48	12.87
	43- above	26	6.97
Education level	Bachelor student	254	68.18
	Master student	96	25.71
	Ph.D. student	23	6.17
Marital status	Single	311	83.35
	Married	52	13.94
	Divorced	10	2.68

The results showed that a majority of participants were female (72.17%), and in terms of age, most of them were between 23-27 years old (30.56%). According to the education level, most of the respondents were students at the bachelor level (68.18), while a smaller proportion were Ph.D. students (6.17). Furthermore, a majority of the participants were single (83.35%). The statistics indicated that most of the students had experienced online shopping before, were single bachelor students, in the 23-27 age range, and female.

3.4. Research instrument

Items for each of the proposed research constructs in the questionnaire were modified from earlier studies in the relevant literature to ensure content validity. Each of the constructions was given a minor adjustment to bring them into line with the purpose of the study. The dimensions of signs such as color (3items), voice/noise (7items), body shape (3items), and physical features (2items) were measured by items adopted from Kodžoman et al. (2022), F. Chen et al. (2022), Zoghaib (2017), Anglada-Tort et al. (2021) and van der Walt et al. (2007). In addition, items used to assess the perceived attractiveness were adopted from W. Kim & Cha (2021) (5items), while online purchase intention was evaluated using the items adopted from Al-Adwan et al. (2022) and Tilahun et al. (2023) (5items). For construct measurement, five-point Likert-type questions were employed (1 reflected "strongly disagree" and 5 reflected "strongly agree"). Table 2 shows the example item for each construct.

Table 2: Question Examples

Signs	Example
Color	The color of the XXX commercial was hot (black, red, and pink)
Voice/Noise	The music perfectly gives the feeling that the perfume is voluptuous.
Body shape	An advertisement with an attractive body shape grabs my attention.
Physical feature	The bitter peach perfectly gave me the feeling that the perfume is voluptuous.

Advertising Attractiveness	I think the XXX advertisement is attractive.
Online Purchase Intention	I am excited to purchase the product shown in the XXX advertisement.

Self-sexual desire was measured with the Self-Sexual Schema (SSS) survey questionnaire developed by Andersen & Cyranowski (1994). Self-Sexual Schema is a construct used in studies dealing with sexual reaction/behavior towards advertising (Reichert et al., 2011) in which participants are asked to accurately describe themselves using a seven-point scale ranging from zero ("not at all descriptive of me") to six ("very much descriptive of me"). This survey has been designed in the form of two versions: one scale for males and one for females. In the female scale, 26 adjectives are measured and categorized based on the overall scores into three dimensions consisting of two positive ("passionate-romantic" and "open-direct") and one negative dimension ("embarrassed-conservative"). According to previous research, the SSS female scores ranged from – 4 (negative) to 111 (positive; $M = 60.37$, Std. Dev. = 17.35). The reliability of the construct was tested using Cronbach's alpha and reported as 0.82 and 0.72 as a result of two different attempts (Andersen & Cyranowski, 1994; Wiederman & Hurst, 1997). On the other hand, the male version of SSS is evaluated based on 27 adjectives in categories of three dimensions, including "passionate-loving", "powerful-aggressive", and "open-minded-liberal". In the male version, the scores range from 52 to 162 ($M=106-304$, Std. Dev. =19.21). The alpha values of the construct also were reported to be 0.86, 0.75, and 0.77 in three different researches (Andersen & Cyranowski, 1994; Schover et al., 2002; Sibley & Wilson, 2004). The SSS scale evaluates the same concept for both males and females; therefore, one scale can be used for data collection and the results can be evaluated based on the individual distance to the mean of the specific gender (Reichert et al., 2011).

3.5. Data Analysis

The data were analyzed using the valid statistical tools SPSS and AMOS (v.24). The values of Cronbach's α , composite reliability (CR), average variance extracted (AVE), and confirmatory factor analysis were checked in order to assess the construct validity and reliability. The constructs' relationships were examined using SEM multivariate analysis.

4. DATA ANALYSIS AND RESULTS

4.1. Reliability and Validity

As a prior step, common method bias (CMB) was checked to ensure the data were free of any CMB. The results of Harman's single-factor test indicated that the first factor explained 40.17% of the total variance, which is less than the accepted limit, suggesting no common method bias in the data (Podsakoff et al., 2003). To assess the internal consistency, Cronbach's α and composite reliability (CR) indices were checked. The outcomes of the Cronbach's alpha and CR analyses revealed that all values were higher than the acceptable limit of 0.7 (Fornell & Larcker, 1981; Nunnally, 1975), and ranged from 0.72-0.85 and 0.83-0.95 for Cronbach's alpha and CR, respectively. Consequently, there was sufficient internal consistency across all constructs, indicating the satisfactory reliability of the research constructions. The indicators of Cronbach's α and composite reliability (CR) are shown in Table 5.

For construct validity, previous studies have indicated that to ensure convergent validity, the CR and AVE values should be higher than 0.7 and 0.5, respectively (Bagozzi & Yi, 1988). Additionally, the factor loading (FL) value for all items should be higher than 0.5 (Jalilvand et al., 2017). The sufficient condition for convergent validity was confirmed by the test results, which revealed that each of the FL, CR, and AVE indices in the measurement model was higher than the permissible threshold (Table 3).

Table 3: The Factor Loading, Reliability, And Validity Indicators

Construct	Items	Mean	FL	AVE	CR	Cronbach's α
Signs (SI)				0.61	0.95	0.72
Color	SI1	4.65	0.91			
	SI2	4.96	0.82			
	SI3	4.30	0.90			
Noise/Voice	SI4	3.85	0.69			
	SI5	4.25	0.61			
	SI6	4.55	0.72			
	SI7	4.23	0.77			
	SI8	4.68	0.86			
	SI9	4.80	0.59			
	SI10	4.57	0.83			
Body shape	SI11	4.65	0.78			
	SI12	4.33	0.92			
	SI13	4.40	0.84			
Physical features	SI14	4.88	0.73			

	SI15	4.90	0.87			
Perceived Advertisement Attractiveness (PAA)	PAA1	4.56	0.88	0.87	0.94	0.78
	PAA2	4.35	0.92			
	PAA3	4.15	0.86			
	PAA4	4.86	0.93			
	PAA5	4.45	0.84			
Online Purchase Intention (OPI)	OPI1	4.41	0.61	0.51	0.83	0.85
	OPI2	3.80	0.76			
	OPI3	3.93	0.68			
	OPI4	3.24	0.65			
	OPI5	4.41	0.85			
Self-Sexual Desire	SSD	120.51	***	0.72	0.86	0.81
	1-26					

Note: *** shows that all loading factors for SSD were higher than 0.5.

Moreover, the pairwise construct comparison matrix of Fornell and Larcker (1981) was used to check the discriminant validity. The discriminant validity of a construct is confirmed when the square roots of its AVE are larger than the values of its correlation coefficient with other constructs. The Heterotrait–Monotrait ratio (HTMT) was also assessed to confirm the discriminant validity of the constructs (Cohen, 1988; Tian et al., 2022). Given that the HTMT values were lower than the acceptable threshold of 0.9, there was no discriminant validity (Henseler et al., 2015). Consequently, the discriminant and convergent validity were verified. The Fornell and Larcker test and HTMT test results are shown in Table 4.

Table 4: Discriminant Validity

Pairwise construct comparison				
Construct	SI	PAA	OPI	SD
SI	0.781			
PAA	0.433	0.932		
OPI	0.544	0.603	0.714	
SD	0.572	0.384	0.556	0.848
Heterotrait–Monotrait ratio (HTMT)				
Construct	SI	PAA	OPI	SD
SI	-			
PAA	0.725	-		
OPI	0.722	0.681	-	
SD	0.432	0.546	0.495	-

Notes: Bolded-italic indicators represent the square root of AVE. Values below the diagonal level are correlation coefficients; the level of significance is $p < 0.05$.

4.2. Testing of Hypotheses

4.2.1. Direct Association

Structural equation modeling (SEM), a reliable multivariate technique, was used to test the proposed hypotheses. The goodness of model fit was accepted by the model-fit indices in the structural model ($\chi^2/df = 2.26$, GFI= 0.92, AGFI= 0.86, NFI=0.89, CFI=0.91, and RMSEA= 0.037). Table 5 presents the values of the constructs' relationships and model fit indices.

Table 5: Results of Relationships

Hypothesizes	Path Estimate (β)	P-Value	Variance explained (R ²)	Result
H1: SI \rightarrow ATT	0.412	***	0.58	Positive
H2: ATT \rightarrow OPI	0.126	**	0.51	Positive
Model fit indices				
Fit indices	Values	Acceptable value	Suggestions	
GFI	0.92	≥ 0.8	(Scott, 1995)	
AGFI	0.86	≥ 0.8	(Scott, 1995)	
NFI	0.89	≥ 0.8	(Hair et al., 2010)	
CFI	0.91	≥ 0.9	(Bagozzi & Yi, 1988)	
RMSEA (0.037	≤ 0.08	(Bagozzi & Yi, 1988)	
χ^2/df	2.26	≤ 3	(Hayduk, 2023)	

Notes: * $p < 0.10$; ** $p < 0.05$; *** $p < 0.001$

The results revealed that all hypothesized relationships were significant at a p value greater than 0.05. The finding of a significant positive relationship between signs and perceived advertisement attractiveness supported H1 ($\beta = 0.412$, $p < 0.001$). Furthermore, the relationship between perceived advertisement attractiveness and online purchase intention supported H2: ($\beta = 0.126$, $p < 0.05$). The explained variances (R^2) of perceived advertisement attractiveness and online purchase intention were 0.58 and 0.51 percent, respectively, indicating a medium effect size of R^2 since the indices exceeded the cutoff value of 0.50 (Ozili, 2022).

4.2.2. Moderator Effect

To test the moderating effect of self-sexual desire on the relationship proposed in the model, a bootstrapping procedure was performed in AMOS. The results illustrated that self-sexual desire had a significant positive total effect on the relationship between signs and perceived advertisement attractiveness, and the relationship between perceived advertisement attractiveness and online purchase intention. This indicates an overall direct impact of the determinant variables on the predicted variables. The results are reported in Table 6.

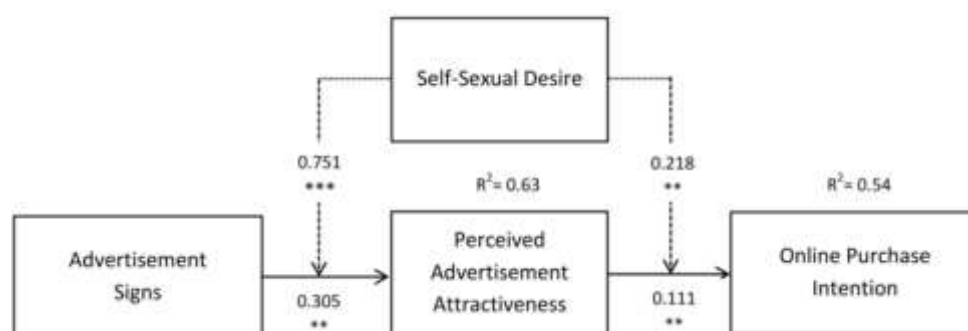
Table 6: Results of the Moderating Influence

Effects	Path estimate (β)	p-value	BSE	BLCL	BUCL
Direct effect					
SI - ATT	0.412	***	0.042	0.573	0.632
ATT - OPI	0.126	**	0.061	0.654	0.681
Total effect					
SI - ATT	0.305	**	0.033	0.585	0.647
ATT - OPI	0.111	**	0.054	0.690	0.711
Total Indirect effect					
SI * SD = ATT	0.751	***	0.025	0.651	0.725
ATT * SD = OPI	0.218	**	0.046	0.701	0.764
Hypotheses results					
		Indirect path estimates (β)	Probability value (p)	Result	Variance explained (R^2)
H7: RI * SQ \rightarrow AR		0.751	***	Positive	0.63
H8: RI * RB \rightarrow AR		0.218	**	Positive	0.54

Note: BSE= boot standard error ; BLCL= boot lower confidence level; BUCL= boot upper confidence level; Notes: * $p < 0.10$; ** $p < 0.05$; *** $p < 0.001$

The results indicated that when self-sexual desire is included as a moderating variable, the influence of signs on perceived advertisement attractiveness and perceived advertisement attractiveness on online purchase intention significantly improves ($\beta = 0.751$, $p < 0.001$; $\beta = 0.218$, $p < 0.05$). This result thus highlights a total moderation of self-sexual desire on the relationship between signs and perceived advertisement attractiveness (BLCL= 0.651, BUCL = 725, $p < 0.001$) and perceived advertisement attractiveness and the online purchase intention (BLCL= 0.701, BUCL = 0.764, $p < 0.05$). This statistical evidence also supports H3 and H4, suggesting that self-sexual desire is the essential ingredient for maximizing the impact of signs on advertising attractiveness, which increases the online purchasing intention towards the advertised product. Overall, the model suggests that 63% of the variation in perceived advertisement attractiveness is explained by signs, and 54% of online purchase intention by perceived advertisement attractiveness. According to the results, self-sexual desire had a stronger impact on the relationship between signs and perceived advertisement attractiveness. The results of hypothesis testing are shown in Figure 2 and Table 8.

Figure 2: Estimated Model



Note: * $p < 0.10$; ** $p < 0.05$; *** $p < 0.001$.

Table 7: Hypotheses Results

H	Hypothesis Statement	Level	Result
H1	Signs have a positive impact on advertising attractiveness.	Significant	Supported
H2	Perceived advertising attractiveness has a positive impact on online purchase intention.	Significant	Supported
H3	Self-sexual desire moderates the relationship between semiotic signs and advertising attractiveness.	Significant	Supported
H4	Self-sexual desire moderates the relationship between advertising attractiveness and purchase intention.	Significant	Supported

5. FINDINGS AND DISCUSSIONS

5.1. Empirical Implications

The results of the analyses revealed that signs in the advertisement significantly influenced the customers' perception towards the advertisement's attractiveness ($\beta = 0.412$, $p < 0.001$). These findings are consistent with the results of previous studies (e.g., Tanyildizi et al., 2020; Adomaitis et al., 2024). Since testing the scent of perfume advertised online is impossible, this study highlighted erotic signs as a key driver influencing the perceptions of customers in a positive way, which can increase the attractiveness of video commercials for perfumes. However, it should be noted that it is obvious that using sexuality to promote products, whether directly or indirectly, can cause conflicting emotions. Relevant ideas, such as moral and ethical considerations, can aid in the explanation of reactions to sexual appeal (Reichert et al., 2011).

Furthermore, the outcomes of the current study demonstrated that customer perceived attractiveness positively influenced their intention to order the perfume online ($\beta = 0.126$, $p < 0.05$). This result supports the outcomes of previous studies in the literature (e.g., Guido et al., 2011; H. J. J. Chang et al., 2016; Gramazio et al., 2021). However, it should be mentioned that the significance level did not confirm a strong relationship between the variables (moderately), given the analysis's indices. These low-significant results might be affected by several factors, such as online purchasing limitation (Roper & S. Alkhalifah, 2020), shipping/delivering national restrictions (Surjandy et al., 2021), international bank transfer boundaries (such as nationality restriction) (Indiani & Fahik, 2020), lack of brand trust (Iqbal, 2021; Ling et al., 2010), and financial power (Law et al., 2016). Overall, the results of this study place emphasis on the importance of advertisement attractiveness perceived by customers, given the erotic signs in advertising, in online purchase decision-making in the perfume industry.

Lastly, this study's results demonstrated the influence of individual sexual desire on the relationship between sign-perceived attractiveness ($\beta = 0.751$, $p < 0.001$) and perceived attractiveness-online purchase intention ($\beta = 0.218$, $p < 0.05$). However, no study has been conducted to specifically test the moderating role of self-sexual desire in the advertising context; the outcomes confirmed the results of previous studies, highlighting the influential role of self-sexual desire in purchase decision-making (Reichert et al., 2011). In particular, the results illustrated that self-sexual desire had a greater positive influence on the relationship between signs and customer perceived attractiveness compared to the attractiveness-online purchase intention relationship. This result is assumed to be due to the high sexual desire of those participating in the study, considering that erotic signs that exist in advertising make advertising more attractive. This is supported by the theory of attractiveness similarity, suggesting that audiences prefer commercials that match their personality (Aguirre-Rodriguez et al., 2012; Bekk et al., 2016). Therefore, respondents liked the voluptuous video commercial due to its similarity to their interests; thus, it was perceived to be attractive for them (Byrne et al., 1986). It can be assumed that this result is due to the erotophilic personality of the respondents, who like/support material that is sexually explicit in the media.

5.2. Theoretical Implications

It was argued that trust is a key factor in customers' decisions to purchase online, which increases their confidence in ordering an advertised product (Dai et al., 2013; Lim et al., 2016). However, it has always been a challenge for marketers to create trust for customers virtually (Arief et al., 2023). Thus, customers constantly seek to persuade themselves to make the right decision to order an advertised product online. In this line, advertisement appeals were suggested as an influential factor affecting customer buying decision-making (Munnukka et al., 2016; Kergoat et al., 2017). The signs in the advertising increase the trust and confidence of customers towards the product, which consequently persuades them to decide to buy online (Mukherjee & Nath, 2007). Signs that are attractive in the eyes of customers significantly affect the customers' decisions to purchase online (Eckman & Wagner, 1994; Seifert & Chattaraman, 2017). As discussed earlier, both linguistic and non-linguistic signs were reported as influential elements for advertising attractiveness; signs in the form of human voice (Casado-Aranda et al., 2017; Belin, 2021), color (Lynn & Shurgot, 1984; Oboudi et al., 2022), body shape (Del Zotto & Pegna, 2017; Del Zotto et al., 2020), and music (Peretz & Zatorre, 2012). Furthermore, it was shown that erotic signs in advertising affected the attractiveness perception evaluated by audiences (Tanyildizi et al., 2020; Adomaitis et al., 2024), which consequently influenced their decision to purchase online (Guido et al., 2011; H. J. J. Chang et al., 2016; Gramazio et al., 2021). Therefore, the findings of this study support attractive signs from the customer perspective in advertising strongly affect potential customers to act towards online shopping.

According to the theory of source attractiveness, the degree of customer perceived attractiveness significantly depends on the advertisement similarity, familiarity, and likability from audiences' perspectives (Petty et al., 1997). Based on the source attractiveness theory, a commercial is more attractive to audiences if its contents are similar to their personality/character or when they have knowledge and emotional attachment to physical appearance, behaviors, or other personal traits in the advertised product (Kiecker & Cowles, 2002; Sanders, 2005). Therefore, the current study assumed that sexual desire is the strongest human behavior motivator, which relatively affects the subsequent thoughts and behaviors (Sternberg, 1988), and affects the attractiveness and online purchase decision-making for erotic video commercials. Given the outcomes of the study, the sexual desire of individuals was shown as a stimulator of customer perception of attractiveness and online purchasing decisions as well.

6. LIMITATIONS AND SUGGESTIONS

Several limitations were detected, and recommendations are provided to be addressed in future studies. Firstly, the target audience of this research was the students in the capital city of Cyprus, who might face difficulties in purchasing/ordering specific products online, thus affecting their decision to order online. Therefore, it is suggested that future studies consider larger regions as the target market to address and overcome these obstacles (e.g., socially, psychologically, geographically, and culturally). Secondly, this study's objective was not to specifically examine the effect of each element of signs in the proposed model. Therefore, it is suggested that future studies test the impact of each element independently on customer perception. Lastly, in future studies, researchers are suggested to focus on commercials for other products such as clothes, hair fashion, and cosmetics.

7. CONCLUSION

This study was conducted to examine the effect of signs in voluptuous video commercials on the customer perceptions of attractiveness and consequently on online purchase intention. Additionally, the influence of self-sexual desire on the proposed relationships was tested. To test the hypotheses in the model, a voluptuous video commercial of a Tom Ford perfume was chosen, and data were collected from students attending universities in Nicosia, Cyprus. Using SEM, 273 empirical data were tested, and the results revealed significant positive correlations among the constructs' relationships. Furthermore, the moderating effect of self-sexual desire was tested, and it was found to have a significant positive effect on signs-perceived advertisement attractiveness and perceived advertisement attractiveness-online purchase intention. However, the moderating effect was shown to be stronger between signs-perceived advertisement attractiveness relationships. The outcomes of this study contribute to the literature on behavioral intention, advertising, communication, and customer relationship marketing.

REFERENCES

- Adomaitis, A. D., Saiki, D., & del Pozo Severino, J. (2024). Impact of sex in luxury fashion advertisements on brand attractiveness and identification. *Journal of Fashion Marketing and Management*, 28(3), 112-125. <https://doi.org/10.1108/JFMM-08-2022-0181>
- Aguirre-Rodriguez, A., Bosnjak, M., & Sirgy, M. J. (2012). Moderators of the self-congruity effect on consumer decision-making: A meta-analysis. *Journal of Business Research*, 65(8), 1124-1132. <https://doi.org/10.1016/j.jbusres.2011.07.031>
- Agustia, K. T. S., & Karmini, L. A. M. (2020). The analysis of verbal and visual meanings of advertisements found at the now Bali magazine: a semantic study. *Litera Jurnal Bahasa Dan Sastra*, 6(1), 15-22.
- Al-Adwan, A. S., Alrousan, M. K., Yaseen, H., Alkufahy, A. M., & Alsoud, M. (2022). Boosting online purchase intention in high-uncertainty-

- avoidance societies: a signaling theory approach. *Journal of Open Innovation: Technology, Market, and Complexity*, 8(3), 66-78. <https://doi.org/10.3390/joitmc8030136>
- Andersen, B. L., & Cyranowski, J. M. (1994). Women's sexual self-schema. *Journal of Personality and Social Psychology*, 67(6), 1079–1100. <https://doi.org/10.1037/0022-3514.67.6.1079>
- Andhika Dhananjaya, P., Wandia, I. K., & Isnun Maharani, S. A. (2019). Verbal and non-verbal signs of Moana Movie Poster. *Humanis*. <https://doi.org/10.24843/jh.2019.v23.i01.p08>
- Anglada-Tort, M., Keller, S., Steffens, J., & Müllensiefen, D. (2021). The impact of source effects on the evaluation of music for advertising are there differences in how advertising professionals and consumers judge music? *Journal of Advertising Research*, 61(1), 14-28. <https://doi.org/10.2501/JAR-2020-016>
- Arief, M. (2021). Marketing Analysis: Security and public trust online shopping at shopee.co.id. *Enrichment: Journal of Management*, 11(2), 65-78.
- Arief, M., Mustikowati, R. I., & Chrismardani, Y. (2023). Why customers buy an online product? The effects of advertising attractiveness, influencer marketing and online customer reviews. *LBS Journal of Management & Research*, 21(1), 34-45. <https://doi.org/10.1108/lbsjmr-09-2022-0052>
- Asan, K. (2022). Measuring the impacts of travel influencers on bicycle travellers. *Current Issues in Tourism*, 25(6), 256-267. <https://doi.org/10.1080/13683500.2021.1914004>
- Audrezet, A., de Kerviler, G., & Guidry Moulard, J. (2020). Authenticity under threat: When social media influencers need to go beyond self-presentation. *Journal of Business Research*, 24, 117-124. <https://doi.org/10.1016/j.jbusres.2018.07.008>
- Bagozzi, R. P., & Yi, Y. (1988). On the evaluation of structural equation models. *Journal of the Academy of Marketing Science*, 16(1), 1-14. <https://doi.org/10.1007/BF02723327>
- Basson, R. (2000). The female sexual response: A different model. *Journal of Sex and Marital Therapy*, 26(1), 37-49. <https://doi.org/10.1080/009262300278641>
- Bekk, M., Spörrle, M., & Kruse, J. (2016). The benefits of similarity between tourist and destination personality. *Journal of Travel Research*, 55(8), 455-469. <https://doi.org/10.1177/0047287515606813>
- Bower, A. B. (2001). Highly attractive models in advertising and the women who loathe them: The implications of negative affect for spokesperson effectiveness. *Journal of Advertising*, 30(3), 145-156. <https://doi.org/10.1080/00913367.2001.10673645>
- Byrne, D., Clore, G. L., & Smeaton, G. (1986). The attraction hypothesis. do similar attitudes affect anything? *Journal of Personality and Social Psychology*, 51(6), 234-256. <https://doi.org/10.1037/0022-3514.51.6.1167>
- Casado-Aranda, L. A., Sánchez-Fernández, J., & Montoro-Ríos, F. J. (2017). Neural correlates of voice gender and message framing in advertising: A functional MRI study. *Journal of Neuroscience, Psychology, and Economics*, 10(4), 145-158. <https://doi.org/10.1037/npe0000076>
- Chang, H. J. J., O'Boyle, M., Anderson, R. C., & Suttikun, C. (2016). An fMRI study of advertising appeals and their relationship to product attractiveness and buying intentions. *Journal of Consumer Behaviour*, 15(6), 378-389. <https://doi.org/10.1002/cb.1591>
- Chang, S. H., Chih, W. H., Liou, D. K., & Yang, Y. T. (2016). The mediation of cognitive attitude for online shopping. *Information Technology and People*, 29(3), 151-163. <https://doi.org/10.1108/ITP-08-2014-0172>
- Chen, F., Sukpasjaroen, K., & Chankoson, T. (2022). Influence of light and color of advertising photography on consumers' purchase intention. *Innovative Marketing*, 18(4), 211-225. [https://doi.org/10.21511/im.18\(4\).2022.18](https://doi.org/10.21511/im.18(4).2022.18)
- Chen, M. J., Grube, J. W., Bersamin, M., Waiters, E., & Keefe, D. B. (2005). Alcohol advertising: What makes it attractive to youth? *Journal of Health Communication*, 10(6), 334-346. <https://doi.org/10.1080/10810730500228904>
- Cohen, J. (1988). *Statistical power analysis for the behavioural sciences*. Hillsdale, NJ: Lawrence Earlbaum Associates.
- Dahnil, M. I., Marzuki, K. M., Langgat, J., & Fabeil, N. F. (2014). Factors Influencing SMEs Adoption of Social Media Marketing. *Procedia - Social and Behavioral Sciences*, 7, 148-159. <https://doi.org/10.1016/j.sbspro.2014.07.025>
- Dai, B., Forsythe, S., & Kwon, W. S. (2013). The impact of online shopping experience on risk perceptions and online purchase intentions: Does product category matter? *Journal of Electronic Commerce Research*, 15(1), 22-34.
- Del Zotto, M., Framorando, D., & Pegna, A. J. (2020). Waist-to-hip ratio affects female body attractiveness and modulates early brain responses. *European Journal of Neuroscience*, 52(11), 456-469. <https://doi.org/10.1111/ejn.14209>
- Del Zotto, M., & Pegna, A. J. (2017). Electrophysiological evidence of perceived sexual attractiveness for human female bodies varying in waist-to-hip ratio. *Cognitive, Affective and Behavioral Neuroscience*, 17(3), 189-201. <https://doi.org/10.3758/s13415-017-0498-8>
- DeShields, O. W., Kara, A., & Kaynak, E. (1996). Source effects in purchase decisions: The impact of physical attractiveness and accent of salesperson. *International Journal of Research in Marketing*, 13(1), 41-53. [https://doi.org/10.1016/0167-8116\(95\)00036-4](https://doi.org/10.1016/0167-8116(95)00036-4)
- Dewi, N. N. Y. R., Pratiwi, D. P. E., & Santika, I. D. A. D. M. (2021). The meaning of verbal and nonverbal signs in Maybelline advertisements.

Social Science, Public Administration and Management, 1(4). 167-179.

Eckman, M., & Wagner, J. (1994). Judging the attractiveness of product design: the effect of visual attributes and consumer characteristics. *Advances in Consumer Research*, 5, 21-39.

Fabrigar, L. R., & Petty, R. E. (1999). The role of the affective and cognitive bases of attitudes in susceptibility to affectively and cognitively based persuasion. *Personality and Social Psychology Bulletin*, 25(3), 205-217. <https://doi.org/10.1177/0146167299025003008>

Feingold, A. (1988). Matching for Attractiveness in romantic partners and same-sex friends: a meta-analysis and theoretical critique. *Psychological Bulletin*, 104(2), 189-199. <https://doi.org/10.1037/0033-2909.104.2.226>

Figl, K., Derntl, M., Rodriguez, M. C., & Botturi, L. (2010). Cognitive effectiveness of visual instructional design languages. *Journal of Visual Languages and Computing*, 21(6), 321-340. <https://doi.org/10.1016/j.jvlc.2010.08.009>

Flavián, C., Gurrea, R., & Orús, C. (2017). The influence of online product presentation videos on persuasion and purchase channel preference: The role of imagery fluency and need for touch. *Telematics and Informatics*, 34(8), 521-534. <https://doi.org/10.1016/j.tele.2017.07.002>

Fornell, C., & Larcker, D. F. (1981). Structural equation models with unobservable variables and measurement error: algebra and statistics. *Journal of Marketing Research*, 18(3), 89-102. <https://doi.org/10.1177/002224378101800313>

Furaji, F., Łatuszyńska, M., Wawrzyniak, A., & Wąsikowska, B. (2013). Study on the influence of advertising attractiveness on the purchase decisions of women and men. *Journal of International Studies*, 6(2), 78-89. <https://doi.org/10.14254/2071-8330.2013/6-2/2>

Gramazio, S., Cadinu, M., Guizzo, F., & Carnaghi, A. (2021). Does sex really sell? Paradoxical effects of sexualization in advertising on product attractiveness and purchase intentions. *Sex Roles*, 84(11–12), 367-379. <https://doi.org/10.1007/s11199-020-01190-6>

Guido, G., Peluso, A. M., & Moffa, V. (2011). Beardedness in advertising: Effects on endorsers' credibility and purchase intention. *Journal of Marketing Communications*, 17(1), 56-69. <https://doi.org/10.1080/13527260903157383>

Ha, S. H., Bae, S. Y., & Son, L. K. (2015). Impact of online consumer reviews on product sales: Quantitative analysis of the source effect. *Applied Mathematics and Information Sciences*, 9(2), 77-89. <https://doi.org/10.12785/amis/092L12>

Harahap, D. A., & Amanah, D. (2018). Online purchasing decisions of college students in Indonesia. In *International Journal of Latest Engineering Research and Applications*, 3(10), 788-801.

Henseler, J., Ringle, C. M., & Sarstedt, M. (2015). A new criterion for assessing discriminant validity in variance-based structural equation modeling. *Journal of the Academy of Marketing Science*, 43(1), 45-59. <https://doi.org/10.1007/s11747-014-0403-8>

Herz, R. (2007). *The scent of desire: Discovering our enigmatic sense of smell*. New York: William Morrow/ HarperCollins.

HORTON, R. S. (2003). Similarity and attractiveness in social perception: differentiating between biases for the self and the beautiful. *Self and Identity*, 2(2), 105-116. <https://doi.org/10.1080/15298860309033>

Ikawati, K., Militina, T., & Achmad, G. N. (2021). The effect of celebrity endorsers and advertising attractiveness on brand image and purchase decisions for tokopedia application users in Samarinda. *Business and Accounting Research*, 5(2), 78-91.

Indiani, N. L. P., & Fahik, G. A. (2020). Conversion of online purchase intention into actual purchase: The moderating role of transaction security and convenience. *Business: Theory and Practice*, 21(1), 33-41. <https://doi.org/10.3846/btp.2020.11346>

Iqbal, W. (2021). Impact of perceived risk on customer's online purchase intention towards branded apparels. *Journal of Marketing Strategies*, 1(1), 15-25. <https://doi.org/10.52633/jms.v1i1.3>

Jalilvand, M. R., Salimipour, S., Elyasi, M., & Mohammadi, M. (2017). Factors influencing word of mouth behaviour in the restaurant industry. *Marketing Intelligence and Planning*, 35(1), 41-52. <https://doi.org/10.1108/MIP-02-2016-0024>

Jones, J. E., Jones, L. L., Calvert, M. J., Damery, S. L., & Mathers, J. M. (2022). A literature review of studies that have compared the use of face-to-face and online focus groups. *International Journal of Qualitative Methods*, 12(1), 21-34.. <https://doi.org/10.1177/16094069221142406>

Joseph Cronin, J., & Morris, M. H. (1989). Satisfying customer expectations: The effect on conflict and repurchase intentions in industrial marketing channels. *Journal of the Academy of Marketing Science*, 17(1), 41-53. <https://doi.org/10.1007/BF02726352>

Kergoat, M., Meyer, T., & Merot, A. (2017). Picture-based persuasion in advertising: the impact of attractive pictures on verbal ad's content. *Journal of Consumer Marketing*, 34(7), 515-524. <https://doi.org/10.1108/JCM-01-2016-1691>

Kiecker, P., & Cowles, D. (2002). Interpersonal communication and personal influence on the internet: A framework for examining online word-of-mouth. *Journal of Euromarketing*, 11(2), 102-121. https://doi.org/10.1300/J037v11n02_04

Kim, H., & Park, M. (2023). Virtual influencers' attractiveness effect on purchase intention: A moderated mediation model of the Product-Endorser fit with the brand. *Computers in Human Behavior*, 11(3), 143-155. <https://doi.org/10.1016/j.chb.2023.107703>

Kim, W., & Cha, S. (2021). How attributes of green advertising affect purchase intention: The moderating role of consumer innovativeness. *Sustainability*, 13(16), 1120-1132. <https://doi.org/10.3390/su13168723>

Kodžoman, D., Hladnik, A., Pavko Čuden, A., & Čok, V. (2022). Exploring color attractiveness and its relevance to fashion. *Color Research and Application*, 47(1), 65-79. <https://doi.org/10.1002/col.22705>

- Langlois, J. H., Kalakanis, L., Rubenstein, A. J., Larson, A., Hallam, M., & Smoot, M. (2000). Maxims or myths of beauty? A meta-analytic and theoretical review. *Psychological Bulletin*, 126(3), 234-251. <https://doi.org/10.1037/0033-2909.126.3.390>
- Law, M., Kwok, R. C. W., & Ng, M. (2016). An extended online purchase intention model for middle-aged online users. *Electronic Commerce Research and Applications*, 5(1), 20-39. <https://doi.org/10.1016/j.elerap.2016.10.005>
- Lee, E. J., & Park, J. (2014). Enhancing virtual presence in e-tail: Dynamics of cue multiplicity. *International Journal of Electronic Commerce*, 18(4), 289-302. <https://doi.org/10.2753/JEC1086-4415180405>
- Lee, E. J., & Shin, S. Y. (2014). When do consumers buy online product reviews? Effects of review quality, product type, and reviewer's photo. *Computers in Human Behavior*, 31(1), 67-89. <https://doi.org/10.1016/j.chb.2013.10.050>
- Levine, S. B. (1987). More on the nature of sexual desire. *Journal of Sex and Marital Therapy*, 13(1), 14-29. <https://doi.org/10.1080/00926238708403877>
- Levine, S. B. (2002). Reexploring the concept of sexual desire. *Journal of Sex and Marital Therapy*, 28(1), 46-58. <https://doi.org/10.1080/009262302317251007>
- Levine, S. B. (2003). The nature of sexual desire: a clinician's perspective. In *Archives of Sexual Behavior*, 32(3), 221-237. <https://doi.org/10.1023/A:1023421819465>
- Lim, Y. J., Osman, A., Salahuddin, S. N., Romle, A. R., & Abdullah, S. (2016). Factors influencing online shopping behavior: the mediating role of purchase intention. *Procedia Economics and Finance*, 5(1), 35-49. [https://doi.org/10.1016/s2212-5671\(16\)00050-2](https://doi.org/10.1016/s2212-5671(16)00050-2)
- Ling, K. C., Chai, L. T., & Piew, T. H. (2010). The effects of shopping orientations, online trust and prior online purchase experience toward customers' online purchase intention. *International Business Research*, 3(3), 99-112. <https://doi.org/10.5539/ibr.v3n3p63>
- Liu, M. T., Huang, Y. Y., & Minghua, J. (2007). Relations among attractiveness of endorsers, match-up, and purchase intention in sport marketing in China. *Journal of Consumer Marketing*, 24(6), 411-423. <https://doi.org/10.1108/07363760710822945>
- Lynn, M., & Shurgot, B. A. (1984). Responses to lonely hearts advertisements: effects of reported physical attractiveness, physique, and coloration. *Personality and Social Psychology Bulletin*, 10(3), 203-220.
- Mahdavi, M., Barbosa, B., Oliveira, Z., & Chkoniya, V. (2020). Sounds of scents: olfactory-auditory correspondences in the online purchase experience of perfume. *Revista Brasileira de Gestao de Negocios*, 22(4), 311-324. <https://doi.org/10.7819/rbgn.v22i4.4083>
- Mark, K., Herbenick, D., Fortenberry, D., Sanders, S., & Reece, M. (2014). The object of sexual desire: Examining the "What" in "What do you desire?" *Journal of Sexual Medicine*, 11(11), 1445-1459. <https://doi.org/10.1111/jsm.12683>
- Mensing, J. (2023). Welcome to the Neuroperfumery. In *Beautiful SCENT*. https://doi.org/10.1007/978-3-662-67259-4_4
- Mukherjee, A., & Nath, P. (2007). Role of electronic trust in online retailing: A re-examination of the commitment-trust theory. *European Journal of Marketing*, 41(9-10), 1121-1140. <https://doi.org/10.1108/03090560710773390>
- Mulford, M., Orbell, J., Shatto, C., & Stockard, J. (1998). Physical attractiveness, opportunity, and success in everyday exchange. *American Journal of Sociology*, 103(6), 345-359. <https://doi.org/10.1086/231401>
- Munnukka, J., Uusitalo, O., & Toivonen, H. (2016). Credibility of a peer endorser and advertising effectiveness. *Journal of Consumer Marketing*, 33(3), 99-119. <https://doi.org/10.1108/JCM-11-2014-1221>
- Nowlis, S. M., Mandel, N., & McCabe, D. B. (2004). The effect of a delay between choice and consumption on consumption enjoyment. *Journal of Consumer Research*, 31(3), 189-203. <https://doi.org/10.1086/425085>
- Nunnally, J. C. (1975). Psychometric theory' 25 years ago and now. *Educational Researcher*, 4(10), 632-645. <https://doi.org/10.3102/0013189X004010007>
- Oputa, E. A., Fakhrorazi, A., & Islam, R. (2019). The influence of semiotic advertising efficacy on GEN-Y purchase intent: A study of reputable major brands of smart phone. *Humanities and Social Sciences Reviews*, 7(1), 89-102. <https://doi.org/10.18510/hssr.2019.7129>
- Overmars, S., & Poels, K. (2015). Online product experiences: The effect of simulating stroking gestures on product understanding and the critical role of user control. *Computers in Human Behavior*, 51, 3321-3340. <https://doi.org/10.1016/j.chb.2015.04.033>
- Pan, P. L. (2014). Toward an integrated model of purchase intention of dietary supplements in sexually oriented advertising. *Journal of Food Products Marketing*, 20(2), 128-144. <https://doi.org/10.1080/10454446.2012.726948>
- Peretz, I., & Zatorre, R. J. (2012). The Cognitive Neuroscience of Music. In *The Cognitive Neuroscience of Music*. Oxford University Press. <https://doi.org/10.1093/acprof:oso/9780198525202.001.0001>
- Petty, R. E., Wegener, D. T., & Fabrigar, L. R. (1997). Attitudes and attitude change. *Annual Review of Psychology*, 48, 609-647. <https://doi.org/10.1146/annurev.psych.48.1.609>
- Phau, I., & Lum, L. (2000). Effects of "physical attractiveness" in the evaluation of print advertisements. *Asia Pacific Journal of Marketing and Logistics*, 12(4), 167-181. <https://doi.org/10.1108/13555850010764668>
- Phelps, J., & Thorson, E. (1991). Brand familiarity and product involvement effects on the attitude toward an ad - brand attitude relationship. *Advances in Consumer Research*, 18(18), 3211-3229.

- Pieters, R., Wedel, M., & Batra, R. (2010). The stopping power of advertising: Measures and effects of visual complexity. *Journal of Marketing*, 74(5), 345-359. <https://doi.org/10.1509/jmkg.74.5.48>
- Podsakoff, P. M., MacKenzie, S. B., Lee, J. Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: a critical review of the literature and recommended remedies. In *Journal of Applied Psychology*, 88(5), 256-271. <https://doi.org/10.1037/0021-9010.88.5.879>
- Reichert, T., LaTour, M. S., & Ford, J. B. (2011). The naked truth: Revealing the affinity for graphic sexual appeals in advertising. *Journal of Advertising Research*, 51(2), 88-102. <https://doi.org/10.2501/JAR-51-2-436-448>
- Roper, S., & S. Alkhalifah, E. (2020). Online shopping in a restrictive society: lessons from Saudi Arabia. *Qualitative Market Research*, 24(4), 231-245. <https://doi.org/10.1108/QMR-01-2020-0012>
- Schover, L. R., Fouladi, R. T., Warneke, C. L., Neese, L., Klein, E. A., Zippe, C., & Kupelian, P. A. (2002). The use of treatments for erectile dysfunction among survivors of prostate carcinoma. *Cancer*, 95(11), 2397-2407. <https://doi.org/10.1002/cncr.10970>
- Scott, J. E. (1995). The measurement of information systems effectiveness: evaluating a measuring instrument. *ACM SIGMIS Database*, 26(1), 56-73. <https://doi.org/10.1145/206476.206484>
- Seifert, C., & Chattaraman, V. (2017). Too new or too complex? Why consumers' aesthetic sensitivity matters in apparel design evaluation. *Journal of Fashion Marketing and Management*, 21(2), 78-92. <https://doi.org/10.1108/JFMM-10-2016-0092>
- Senecal, S., & Nantel, J. (2004). The influence of online product recommendations on consumers' online choices. *Journal of Retailing*, 80(2), 62-77. <https://doi.org/10.1016/j.jretai.2004.04.001>
- Serban, S. (2014). From marketing to semiotics: the way to marketing semiotics. *Journal of Self-Governance and Management Economics*, 2(2), 81-93.
- Shaw Taylor, L., Fiore, A. T., Mendelsohn, G. A., & Cheshire, C. (2011). Out of my league: A real-world test of the matching hypothesis. *Personality and Social Psychology Bulletin*, 37(7), 942-954. <https://doi.org/10.1177/0146167211409947>
- Sibley, C. G., & Wilson, M. S. (2004). Differentiating hostile and benevolent sexist attitudes toward positive and negative sexual female subtypes. *Sex Roles*, 51(11-12), 687-696. <https://doi.org/10.1007/s11199-004-0718-x>
- Surjandy, Lisanti, Y., Meyliana, Eni, Y., Cassandra, C., & Kusumaningtyas, A. W. (2021). Analysis of product, product delivery service, and product assurance in e-commerce on purchase intention during the covid-19 pandemic. *Proceedings of 2021 International Conference on Information Management and Technology, ICIMTech 2021*. <https://doi.org/10.1109/ICIMTech53080.2021.9535048>
- Takahashi, C., Yamagishi, T., Tanida, S., Kiyonari, T., & Kanazawa, S. (2006). Attractiveness and cooperation in social exchange. *Evolutionary Psychology*, 4(1), 21-33. <https://doi.org/10.1177/147470490600400127>
- Tian, H., Siddik, A. B., & Masukujjaman, M. (2022). Factors affecting the repurchase intention of organic tea among millennial consumers: an empirical study. *Behavioral Sciences*, 12(2), 111-125. <https://doi.org/10.3390/bs12020050>
- Till, B. D., & Busler, M. (2000). The match-up hypothesis: Physical attractiveness, expertise, and the role of fit on brand attitude, purchase intent and brand beliefs. *Journal of Advertising*, 29(3), 143-155. <https://doi.org/10.1080/00913367.2000.10673613>
- Torresi, I. (2008). Advertising: A case for intersemiotic translation. *Meta*, 53(1), 34-49. <https://doi.org/10.7202/017974ar>
- Van de Sompel, D., & Vermeir, I. (2016). The influence of source attractiveness on self-perception and advertising effectiveness for 6- to 7-year-old children. *International Journal of Consumer Studies*, 40(5), 312-331. <https://doi.org/10.1111/ijcs.12302>
- van der Walddt, D. L. R., de Beer, N., & Plessis, N. du. (2007). Attitudes towards attractive and credible celebrities in advertisements: a survey amongst students. *Communicare*, 26(1), 41-55.
- White, L. A., & Kelley, K. (1988). Erotophobia-erotophilia as a dimension of personality. *The Journal of Sex Research*, 25(1), 22-34. <https://doi.org/10.1080/00224498809551448>
- Wiederman, M. W., & Hurst, S. R. (1997). Physical attractiveness, body image, and women's sexual self-schema. *Psychology of Women Quarterly*, 21(4), 199-221. <https://doi.org/10.1111/j.1471-6402.1997.tb00131.x>
- Wilson, R. K., & Eckel, C. C. (2006). Judging a book by its cover: Beauty and expectations in the trust game. *Political Research Quarterly*, 59(2), 77-89. <https://doi.org/10.1177/106591290605900202>
- Zhong, G. (2019). E-Commerce Consumer Privacy Protection Based on Differential Privacy. *Journal of Physics: Conference Series*, 1168(3). <https://doi.org/10.1088/1742-6596/1168/3/032084>
- Zoghaib, A. (2017). The contribution of a brand spokesperson's voice to consumer-based brand equity. *Journal of Product and Brand Management*, 26(5), 445-471. <https://doi.org/10.1108/JPBM-06-2016-1230>