An integrated theoretical framework based on the SOMR model

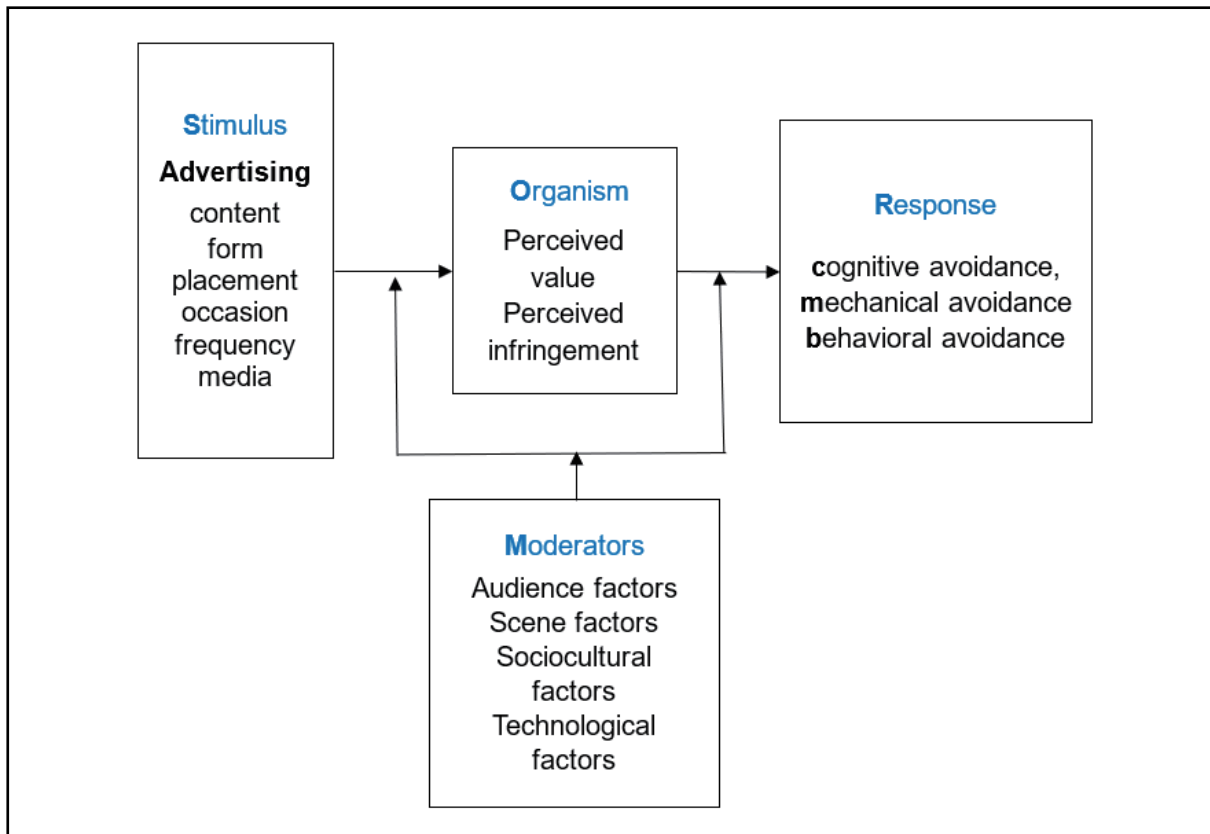Shengliang Zhang[1], Jianhui Jin[1] ✉, and Xiaodong Li[2]

[1]*School of Management, University of Science and Technology of China, Hefei 230026, China;*
[2]*School of Economics and Management, Anhui Polytechnic University, Wuhu, 241000, China*

✉Correspondence: Jianhui Jin, E-mail: jh1593572684@mail.ustc.edu.cn

Graphical abstract

The influence mechanism of advertisement avoidance based on SOMR model.

Public summary

■ This study clarified the relationship among the various factors of advertising avoidance, that is the advertisement itself is the independent variable, the internal perception of the audience is the mediator variable, the advertising avoidance is the dependent variable, while the audience themselves, the scene and social culture factors are the moderating variables.

■ This study comprehensively reviews and summarizes the respective connotations of the relevant factors and their specific factors of advertising avoidance.

■ This study point out and analyze the differences of scholars' understanding of related issues and the differences of research conclusions.

An integrated theoretical framework based on the SOMR model

Shengliang Zhang[1], Jianhui Jin[1] ✉, and Xiaodong Li[2]

[1]School of Management, University of Science and Technology of China, Hefei 230026, China;
[2]School of Economics and Management, Anhui Polytechnic University, Wuhu, 241000, China

✉Correspondence: Jianhui Jin, E-mail: jh1593572684@mail.ustc.edu.cn

Abstract: Advertising avoidance is resistance to advertising intrusion. This issue has been the subject of much academic research in recent years. To guide future scholars to better carry out relevant research and promote enterprises to better implement advertising activities, this study intends to summarize the relevant research on advertising avoidance in recent years. The specific method is to use the core literature meta-analysis method to identify, filter and screen relevant literature published in core journals from 1997 to 2020 with the keywords advertising avoidance and advertising resistance. We review the collected articles from the perspectives of external stimulating factors of advertising avoidance, internal perception factors of advertising avoidance, and moderating factors of advertising avoidance. On this basis, the SOMR model of advertising avoidance is constructed according to the SOR model. Finally, some prospects for future related research are given.

Keywords: advertising avoidance; perceived value; perceived infringement

CLC number: F270.3   **Document code:** A

1 Introduction

Advertising is a responsible information dissemination activity to certain people through certain media to convey certain information initiated and implemented by advertisers to achieve certain purposes. Advertising can not only convey information and stimulate demands but also shape images, connect emotions and stabilize sales.

In modern society, with oversupply, fierce competition, and increasing choices for consumers, every enterprise uses advertisements to promote its products or brands to expand product sales and enhance brand image. Second, with the continuous development of new media and the growing number of media, there are increasingly more media and advertising formats for enterprises to choose from. However, consumers do not always welcome and accept advertisements. In contrast, many consumers will avoid and resist advertisements, so advertisements that companies spend a great deal of money on will not only fail to work but will affect the image of the company or brand and then cause negative effects.

Ad avoidance is all actions taken by media audiences to reduce exposure to an ad[1]. Therefore, why do audiences avoid ads? What are its influencing factors and internal mechanism? What are the external regulating factors? Scholars have performed much research on this topic. This paper intends to use the SOMR model to review the relevant literature from 1997 to 2020 to provide guidance for future researchers to conduct further research and enterprises to carry out advertising activities.

This study has the following theoretical contributions. First, this study clarified the relationship among the various factors of advertising avoidance, that is, the advertisement itself is the independent variable, the internal perception of the audience is the mediator variable, and advertising avoidance is the dependent variable, while the audience itself, the scene, social culture factors and technological factors are the moderating variables. Second, this study comprehensively reviews and summarizes the respective connotations of the relevant factors and their specific factors of advertising avoidance. Finally, this study pointed out and analyzed the differences in scholars' understanding of related issues and the differences in research conclusions on advertising avoidance.

2 Literature collection and screening

This study used the core literature meta-analysis method (PRISMA) to collect and screen the literature related to advertising avoidance. The core literature meta-analysis method contains the whole process from topic concept definition to the literature identification, filtering, screening and then literature review, which is a repeatable method and procedure in evaluating previous studies[2].

2.1 Literature identification

Literature identification, also known as literature retrieval, refers to searching for relevant literature from a large number of studies. The time span of the literature identified in this study is from 1997 to 2020, which is mainly based on two considerations: first, the number of related studies published during this period is relatively larger; second, related research results in this period have breakthroughs. At first, the development of information technology such as the Internet after 1997 has led to great changes in the form and medium of advertising, and the relevant studies have also been groundbreaking. Second, the previous studies only studied advert-

ising avoidance in a specific single medium. After 1997, comprehensive and systematic studies on advertising avoidance began to emerge, combining multiple media (e.g., Speck et al.[1]). Third, the relevant studies after 1997 have begun to provide a systematic comprehensive definition and clear classification of advertising avoidance, such as classifying it into cognitive, affective and behavioral avoidance based on a specific model, whereas previous studies only defined advertising avoidance from a single aspect.

The literature identification method is mainly a keyword search method (retrieving title, abstract, author keywords and additional keywords), and there are four main keywords used: advertising avoidance, avoid advertising, advertising resistance and resist advertising (the noun and verb forms). There are two main approaches to the literature identification: one is an academic literature database including Web of Science, Research-Gate, Taylor & Francis online and other database websites; the other is the relevant world's top academic journals such as *Management Science*, *Journal of Advertising*, *Journal of Advertising Research*. Through the above methods, a total of 1329 independent studies were identified.

2.2 Literature filtering

Literature filtering refers to removing inappropriate literature according to certain criteria. This study mainly uses two methods to filter the literature. First, publication type - this study only retains journal literature and excludes non-journal literature because non-journal literature is not very academic. After this filtering process, 192 documents were excluded because they were not journal documents (including books, book chapters, normative standards, etc.); the second was document type—this study only retained original documents and excluded nonoriginal documents because nonoriginal documents lack enough theoretical contributions. After this filtering step, 95 articles were excluded because they were not original articles (including review papers, republished or revised papers, etc.). After the above two steps of filtering, a total of 1042 documents were retained.

2.3 Literature screening

Literature screening refers to the selection of studies that meet the requirements from multiple studies according to certain criteria. This study mainly used two criteria for literature screening. First, regarding the authoritativeness of the literature, this study only selected core journal literature and excluded noncore journal literature because core journal literature is more authoritative and credible. The core journal selection criteria for this study mainly fall into three categories: (1) Top 50 journal rankings on impact factors in the Web of Science database in the direction of "Business", "Communication", "Psychology, Multidisciplinary", "Psychology, Applied", and "Information Science & Library Science" in the past five years. (2) The top 50 journals based on the comprehensive weighted average of the marketing journals[3]. (3) The top 20 journals according to the impact factor of SSCI journals in the direction of "communication" [4]. After this screening step, 254 articles were retained (788 articles from noncore journals were excluded). The second is the research content of the literature --- this study only selects the literature whose research content is about commercial advertising

avoidance or advertising resistance and excludes the irrelevant literature that does not match the theme of this research. By reading the rest of the literature, 82 documents that were inconsistent with the content of this research were excluded (including political campaign advertisements, tobacco advertisement boycott, advertising literacy education, advertising creation research, etc.). After the above two screening steps, a total of 172 papers were retained.

2.4 Literature Supplement

To ensure the richness of the literature, this study finally adopted the snowball method to re-query the above 172 studies to determine the literature that was cited or mentioned much but not collected in the database. Then, 5 studies were added, and 177 related studies were eventually obtained.

2.5 Year of publications and major journals

The publication years and major journals of the 177 papers are shown in Fig. 1 and Table 1.

As shown in Fig. 1, the years in which core literature was published in this field were concentrated between 2015 and 2020, indicating that this issue has received more attention from the academic community in recent years. The possible reason is that in recent years, with the intensification of corporate competition and the continuous advent of new media, companies have launched more advertisements through more media, which has caused more interference and damage to consumers, thus arousing more consumer resistance, which has also prompted more scholars to pay attention to and study this issue. The researchers note that in the future, with the continuous acceleration of technological progress and its wide application in all fields of life, it will inevitably lead to more abundant social supply and more intense competition among enterprises, prompting enterprises to put more advertisements to promote their products or services, which will inevitably cause more interference to the audience and cause greater resistance from the audience. This phenomenon will inevitably arouse more scholars to pay attention to and study the related issues of advertising avoidance; that is, the problem of advertising avoidance will still be a hot issue of academic attention in the next few years. A review of the research on this issue will have great guiding significance for future related research.

It can be seen from Table 1 that core papers in this field are mainly published in core business journals, which indicates that scholars are researching this issue from the perspective of enterprises to study how to effectively reduce the advertising avoidance of audiences to improve advertising effectiveness.

3 Advertisement avoidance and its classification

3.1 The definition of advertisement avoidance

For advertising avoidance, scholars mainly have two expressions: one is advertising avoidance, and the other is advertising resistance. However, scholars basically agree on its definition—the behavior of audiences to avoid exposure to advertisements based on negative perceptions of advertisements. For example, Speck et al. define advertising avoidance as "all actions taken by media audiences to reduce ex-
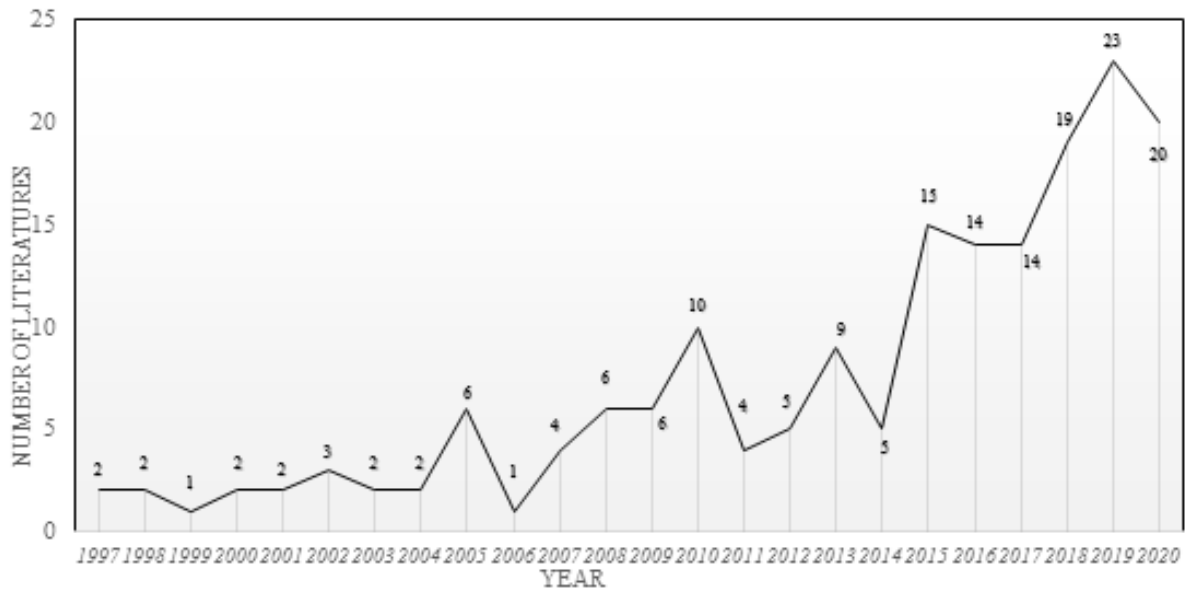
Fig. 1. Year distribution of the literature.

Table 1. Main published journals and their fields of sample literature.

Journal	Field	Key scholars	Number
Journal of Advertising	Business	Lowrey.et al (2001),Li.et al (2002),Chowdhury.et al (2007),Duff.et al (2011),Seyedghorban.et al (2016),Sollner.et al (2019).	22
Journal of Advertising Research	Business	Youn.et al (2001),Reading.et al (2006),Dix.et al (2010),Song.et al (2019).	14
International Journal of Advertising	Business	Fransen.et al (2015),Ketelaar.et al (2018),Youn.et al (2019).	18
Journal of Business Research	Business	Brechman.et al (2009),Rojas-Mendez.et al (2016),Choi.et al (2019).	13
Marketing Science	Business	Wilbur (2008),Ghosh.et al (2010).	10
European Journal of Marketing	Business	Woodside (2016),Sobande (2020).	9
Computers in Human Behavior	Psychology, Multidisciplinary	Chinchanachokchai.et al (2015),Ham.et al (2016),Jung (2017),Chen.et al (2019).	10
Telematics and Informatics	Information Science & Library Science	Belanche.et al (2017),Tefertiller (2020).	5

posure to advertising content"[1]. Edwards et al. defined advertising resistance as "the audience's behavior to avoid advertising intrusion and contact based on their psychological perception of the potential intrusiveness of advertising" [5]. Cho et al. defined advertising avoidance as "the audience's negative cognitive, emotional, and behavioral responses to advertising stimuli" [6]. Chinchanachokchai et al. defined advertising resistance as "resistance behaviors of audiences based on negative attitudes and beliefs about advertising"[7]. This study uniformly uses the expression "advertising avoidance" and defines it as follows: The audience forms negative psychological cognition, affects advertising or behavior to avoid exposure to advertising based on external stimuli of advertising, while the degree of avoidance is moderated by external factors such as scenarios, the audience themselves and sociocultural factors.

3.2 The evolution of advertising avoidance rooted in the medium

Advertising is rooted in the medium and has been changing in form and content with each iteration of the medium, while consumers display different cognitive and attitudinal mechanisms and avoidance patterns toward advertising depending on the differences in advertising and the medium to which it is attached.

For print advertising in print media, people avoid advertising mainly by cognitive ignoring and behavioral turning of pages or covering pages; for example, people can avoid advertising in newspapers or magazines by ignoring it (cognitive avoidance) or by turning pages or discarding advertising inserts (behavioral avoidance)[1].

With the development of wireless communication technology, the broadcast medium and the advertisements attached to it came. People can divert their attention from radio advertising by subjectively ignoring it (cognitive avoidance) by working and talking while it is on air and shifting their attention back and forth between radio and other activities or switching radio channels to avoid advertising (behavioral and mechanical avoidance)[8].

Regarding the avoidance of television advertisements, Tse et al. suggest that audiences can avoid television advertisements by physically leaving the room (behavioral avoidance)

or engaging in other activities, such as talking to people around them or doing household chores (cognitive avoidance), or by switching channels by pressing a button on the remote control (mechanical avoidance)[9]. Based on previous research, Rojas-Méndez et al. summarized eight behavioral approaches to TV ad avoidance: leaving the room, switching to another channel, turning off the TV, turning down the volume of the TV, reading paper media, talking to others in the room, talking on the phone and surfing the Internet, and they used a Likert scale in combination with these questions to measure ad avoidance behavior[10].

Along with the disruption of the television industry's field by digital video recorders (DVRs), the use of DVRs is also changing traditional television ad avoidance. Wilbur. found that with DVR, the proportion of avoidance of commercials increased significantly and that avoidance was often performed by fast-forwarding through commercial breaks by remote control [11]. Bellman et al. divided DVR ad avoidance (partial exposure) into five modes: zipping, zapping, muting, or skipping (mechanical avoidance) and eye off screen or distraction (cognitive avoidance), where mechanical avoidance had no significant effect on memorability or attitude toward the ad, and cognitive avoidance had a greater negative effect on memorability of ad content and attitude toward the ad[12].

With the emergence and popularity of the Internet, which incorporates the characteristics of many other media, new forms of advertising based on the Internet medium have begun to appear, such as web ads, email ads, banner ads and pop-up ads. Based on the cognitive-affective-behavioral (CAB) model, Cho et al. classify advertising avoidance on the Internet as cognitive, affective and behavioral avoidance. Cognitive avoidance refers to deliberately ignoring any advertisements on the Internet, deliberately not looking at banner advertisements, etc. Affective avoidance refers to hating pop-up advertisements and holding the belief that it would be better if there were no advertisements on the Internet, and behavioral avoidance refers to scrolling down the page to avoid banner advertisements and closing windows to avoid pop-up advertisements[6].

Fifth-generation communication media, mobile communication devices such as mobile phones, as personal communication vehicles have created new commercial opportunities for advertising and have also brought new forms of advertising avoidance. Okazaki et al. classify mobile advertising into two types: push and pull advertising, and they adopt a behavioral avoidance perspective to measure advertising avoidance on mobile devices, such as deleting mobile advertisements[13]. Rau et al. categorized mobile communication advertisements into two types, mobile advertisements and SMS advertisements, and argued that audiences would adopt different cognitive and behavioral avoidance approaches to the two types of advertisements. For the former, users avoid them by ignoring them (cognitive avoidance), clicking on the close buttons or using filtering software (behavioral avoidance); for the latter, users can glance at them to ignore them (cognitive avoidance) or simply skim a few lines and close or delete them (behavioral avoidance) after receiving SMS advertisements[14].

3.3 The classification of advertising avoidance

Regarding the classification of advertising avoidance, scholars mainly have the following three classification methods:

3.3.1 Cognitive avoidance, mechanical avoidance, and behavioral avoidance

This is the classification method of many scholars, but some scholars collectively refer to cognitive avoidance and behavioral avoidance as physical avoidance.

Speck et al. were the first scholars to divide advertising avoidance into cognitive avoidance, mechanical avoidance and behavioral avoidance and explained the three types of advertising avoidance in combination with different medias. In their opinion, for newspaper ads, people can avoid it by diverting attention (cognitive avoidance), turning to the next page, or setting aside the page of the ad (behavioral avoidance); for magazine ads, people can avoid paying attention to ads or ignore ads (cognitive avoidance). , turn or discard interspersed ad pages (behavioral avoidance); for radio ads, people can avoid them by diverting their attention (cognitive avoidance), switching stations or broadcast band (mechanical avoidance); and people can avoid TV commercials by turning their attention to talking or reading (cognitive avoidance), switching channels by using a remote control (mechanical avoidance), leaving the room, or dozing off (behavioral avoidance) [1,8]. Bellman et al. found that people have five avoidance methods for TV commercials: switching the channels fast, closing or muting the TV, skipping the ads, eyes leaving the screen or diverting attention, of which the first four belong to mechanical avoidance, and the fifth belongs to cognitive avoidance[12].

When commercials are aired on TV, people can engage in physical avoidance by leaving the room or engaging in other activities such as reading, chatting, doing housework, or mechanically pressing a remote to switch channels[15]. Dix et al. also divide TV advertising avoidance into physical avoidance and mechanical avoidance, and physical avoidance is further divided into cognitive avoidance and behavioral avoidance. Cognitive avoidance refers to turning the attention of the audience to talking or reading while the ad is on air; behavioral avoidance refers to leaving the room or dozing off while the ad is on air; mechanical avoidance refers to switching TV channels or using fast-forwarding tape on remote control to skip commercials[16].

3.3.2 Cognitive avoidance and behavioral avoidance

This is the classification method of a few scholars, but some scholars refer to behavioral avoidance as physical avoidance.

Rau et al. divided mobile communication advertisements into two types, mobile advertisements and SMS advertisements, and noted that audiences adopt different avoidance methods for the two types of advertisements. For the former, users avoid ads by ignoring ads (cognitive avoidance), clicking the closing bottom or using filtering software (behavioral avoidance); for the latter, because there are no available ad filters, audiences can avoid ads only after they receive them

and then ignore them (cognitive avoidance), close or delete ads at a glance (behavioral avoidance)[14]. There are two ways that users avoid Internet search engine advertisements: cognitive avoidance and physical avoidance. The former refers to intentionally ignoring keyword advertisements when users search online; the latter refers to reducing and avoiding clicking keyword advertisements (becoming more inclined to click and browse organic search results rather than keyword advertisements)[17].

3.3.3 Cognitive avoidance, affective avoidance, and behavioral avoidance

This is the classification method of individual scholars, but the definitions of cognitive avoidance and affective avoidance are not very differentiated.

Cho et al. divided internet advertising avoidance into three types: cognitive avoidance, affective avoidance and behavioral avoidance. Cognitive avoidance refers to the audience's intentional ignoring or inattentiveness to an ad based on negative beliefs about the ad; affective avoidance refers to the audience's intentional noncontact with an ad (such as not clicking on an ad link or page) based on a negative sentiment toward the ad; behavioral avoidance refers to taking steps to block the ad to avoid ad distraction (e.g., clicking the close sign to close the ad)[6].

In summary, scholars still have some disagreements in their understanding of advertising avoidance methods: first, the classification basis and methods are not unified, and the categories of advertising avoidance are also inconsistent; second, the definitions of different types of advertising avoidance methods are inconsistent——Scholars generally agree on the definition of cognitive avoidance—the audience pays no attention to or deliberately ignores advertisements. However, there are differences in the definitions of behavioral avoidance and mechanical avoidance—Speck et al. and Steve et al. define behavioral avoidance and mechanical avoidance as "the audience avoids advertisements with their bodies" and "the audiences use tools or software to skip or block advertisements", while Rau et al. define behavioral or physical avoidance as the use of tools or software by audiences to skip or block an ad. Third, the classification and definition of advertising avoidance by scholars are based on specific media, and there is basically no completely abstract classification of advertising avoidance.

The specific classification of advertisement avoidance is shown in Table 2.

This study adopts the classification method of most schol-ars and divides advertising avoidance into cognitive avoidance, mechanical avoidance and behavioral avoidance. In addition, this study accepts the definition of the three types of advertising avoidance by most scholars: cognitive avoidance refers to the fact that the audience pays little attention to or intentionally ignores the ad; mechanical avoidance is when the audience takes steps to block or close the ad; and behavioral avoidance is when the audience physically leaves or avoids the ad.

4 Construction of SOMR model for advertising avoidance

4.1 Theoretical basis

In this study, a framework model of advertising avoidance was constructed based on the stimulus-organism-response (SOR) model, which was proposed by Mehrabian and Russell in 1974. It describes the transmission mechanism by which external stimuli (stimuli) affect the organism's internal perception (body organism), which in turn causes the organism to approach or avoid external stimuli (behavioral response).

4.2 Construction of the model

This study notes that advertising is an external stimulus. After exposure to advertisements, audiences will make positive or negative evaluations of advertisements through internal perception and then respond to advertisements by approaching or avoiding them. Multiple external factors moderate and regulate the above mechanism. Based on this, this research constructs the influence mechanism model of advertising avoidance as follows:

In Fig. 2, the external stimulus, namely, the advertisement itself, is the independent variable; the audience's internal perception is the mediating variable; the external influencing factor is the moderating variable, and the audience's response is the dependent variable.

5 Analysis of internal and external factors of advertising avoidance

5.1 External stimuli for advertising avoidance

Advertising itself is an external stimulus for advertising avoidance that directly affects the audience's perception and then affects their responses. This factor specifically includes advertising content, advertising form, advertising placement,

Table 2. List of ad avoidance categories.

| classification	definition	Main scholars
Cognitive avoidance, Mechanical avoidance, Behavioral avoidance	Cognitive avoidance refers to the audience turning their attention away from the ad; mechanical avoidance refers to the audience taking steps to prevent the ad from appearing; behavioral avoidance refers to the audience physically avoiding the ad.	Speck.et al (1997),Speck.et al (1997),Siddarth.et al (1998),Tse A.et al (2001),Bellman.et al (2010),Dix.et al (2010).
Cognitive avoidance, Behavioral/Physical avoidance	Cognitive avoidance refers to audiences taking their attention away from an ad; behavioral/physical avoidance refers to audiences forcibly blocking or closing an ad.	Rau.et al (2013),Lo.et al (2014).
Cognitive avoidance, affective avoidance, and behavioral avoidance	Cognitive avoidance refers to ignoring or paying little attention to an ad; emotional avoidance refers to holding negative emotions about an ad without clicking on it; behavioral avoidance refers to taking steps to block or close an ad.	Cho.et al (2004).
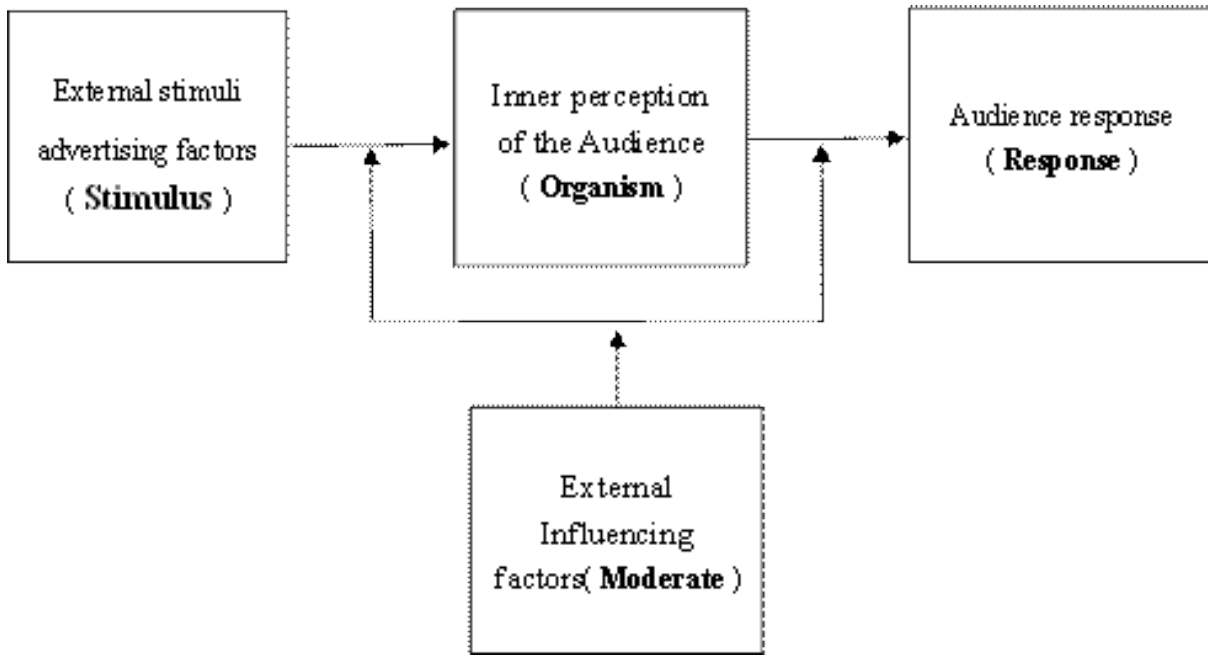
Fig. 2. The SOMR model of advertising avoidance.

advertising occasion, advertising frequency, advertising media and so on.

5.1.1 Advertising content

Advertising content refers to what kind of information the advertisement contains and disseminates, including information value, credibility, and the interest relation with the audience. Scholars have found that advertising content affects advertising avoidance as follows: when the information value and credibility of the advertising is high and closely related to the interests of the audience, the degree of avoidance is low; otherwise, the degree of avoidance is high.

Audiences will reduce the interception of attractive and valuable Internet advertisements that take into account privacy[18]. Jin et al. found a negative correlation between advertising credibility and advertising avoidance through structural equation modeling[19]. When the audience perceives the advertising content to be consistent with its target task, the resistance will be reduced[5]. Personalized advertisements that are highly relevant to users' interests will reduce people's suspicion of Internet advertisements and reduce advertisement avoidance[20]. High-relevance advertisements launched by enterprises based on users' Internet browsing traces can improve users' attention and advertising effect[21]. The degree of personalization of advertising content was significantly positively correlated with the audience's attitude and trust toward advertising and was significantly negatively correlated with advertising avoidance[22].

5.1.2 Advertising form

Advertisement form refers to the manner in which advertisement content is displayed or presented, including layout size, image form, recognizability, variability, etc. Scholars have found that the form of advertising affects advertising avoidance. Specifically, if advertising has a too-large layout, asynchronous images with programs, poor recognizability and

a lack of variability, the degree of avoidance is high; otherwise, the degree of avoidance is low.

Large-scale advertisements and special-page advertisements in newspapers have a low exposure rate and a high avoidance rate[1]. The avoidance rate of synchronous advertisements (the advertisement and the program are on the same screen) on the TV is low, and the avoidance rate of asynchronous advertisements (the advertisement and the program are not on the same screen) is high[23]. Native advertisements lacking clear advertising elements can cause audiences to feel deceived, which in turn leads to anger and avoidance behaviors[24]. On Internet terminals, special-shaped advertisements (such as rectangular banner advertisements) that are inconsistent with people's familiarity and habits are more likely to attract users' attention and be browsed more times and for longer times, and their degree of cognitive and behavioral avoidance is lower[25].

5.1.3 Advertising placement

Advertising placement refers to the position where the advertisement is displayed or appears on the media (mainly for print media and Internet terminal media). Scholars have found that advertisement position affects advertisement avoidance, which is shown as follows: when advertising is placed in a layout and position that is convenient for browsing, the degree of avoidance is low; otherwise, the degree of avoidance is high.

The exposure rate of advertisements on the inner pages of newspapers is lower, and the avoidance rate is higher; the exposure rate of the last 1/3 pages of magazine advertisements is lower, the exposure rate of the first 1/3 pages is higher, and the exposure rate of catalog pages is the highest[1]. Lo et al. used eye trackers to evaluate keyword advertisements when users browse Internet search engines and found that the keyword advertisings placed above the search results were viewed and clicked more frequently than those placed on the

right[17]. Van et al. conducted a comparative study between Facebook sidebar ads and news feed ads by using an online experimental method and found that the audience's degree of avoidance of news feed ads was significantly higher than that of sidebar ads[26].

5.1.4 Advertising occasion

Advertising occasion refers to the time the ad is presented in the medium (mostly for electronic media). Scholars have found that advertising occasion affects advertising avoidance, which is shown as follows: when it is broadcast at a time point with less interference to the audience, the degree of avoidance is low; otherwise, the degree of avoidance is high.

The audience avoided TV advertisements (switching channels) broadcast on the hour and half-hour point more than other time periods[10]. Biu et al. conducted a comparative study between the advertisements broadcast after the TV program ended, before the program resumed and in the middle of the program and found that the audience's cognitive avoidance rate of the advertisements before the program resumed was lower than that of the advertisements broadcast in other time periods[27].

5.1.5 Advertising frequency

Advertising frequency refers to the number of times an advertisement is displayed on a certain medium within a unit time, including the number of layouts and the frequency. Scholars have found that advertising frequency affects advertising avoidance, as follows: if the advertising has too many pages and too high frequency, the degree of avoidance is high; conversely, the degree of avoidance is low.

When there are too many advertisement pages in magazines (beyond the historical average), this will cause readers' negative emotions and complaining behaviors and lead to a decline in reading interest and magazine subscriptions[28]. The frequent broadcast of the same advertisement on TV can cause the audience to be angry with the advertisement and its brand and even transfer this emotion to other nonrelated advertisements and their brands[29]. Users' perception of advertising clutter (including excessive frequency, too long a time, too loud dubbing, etc.) is an important reason for Internet users to avoid advertising. Zahra et al. replicated the

research of Cho et al. (2004) and reverified the conclusion that users' perception of advertising clutter is positively related to internet advertising avoidance[6,[30]].

5.1.6 Advertising media

Advertising media refers to the medium that carries advertisements. Scholars have found that advertising media affects the degree and manner of advertising avoidance. Specifically, media with high controllability or strong self-selection for audiences overall has a low degree of avoidance, and cognitive avoidance is lower than behavioral avoidance. Conversely, the result is the opposite.

Flexible advertisements that the audience can choose by themselves are better than traditional TV advertisements, and audiences have lower cognitive avoidance rates and higher behavioral avoidance rates for videotape advertisements that can be freely selected than traditional TV advertisements[31]. Bin et al. found that the audience's perceived controllable sense of video ads reduces their avoidance intentions[32].

In summary, the external stimuli of advertising avoidance and their impact on advertising avoidance can be summarized as follows (as shown in Table 3).

5.2 Intrinsic perception factors of advertising avoidance

The external stimuli of advertising affect the behavior of the audience through their internal perception. The audience's perception of advertising is basically divided into two types: perceived value (or benefit) and perceived infringement (or loss). Some scholars use social exchange theory to explain advertising avoidance. In the online environment, the relationship between audiences and advertisers can be regarded as a kind of social contract, and audiences decide whether to approach (click) or avoid (without clicking the ad or even installing an ad blocker) by weighing the perceived value and perceived benefit infringements of advertisements[33]. Shin et al. conducted a national online survey in Singapore and found that advertising avoidance is affected by two factors: gain and loss factors: the gain factors contain perceived usefulness (including information effectiveness and money saving) and perceived entertainment value, which are closely negatively correlated with advertising avoidance, while the loss factors including perceived goal impediment and perceived sacrifice

Table 3. List of external stimuli of avoidance by advertisements.

External stimuli	specific factors	Impacts on ad avoidance	Main scholars
Advertising content	Information value Credibility Interest relation with the audience	The ad with high information value, high credibility, closely related interests to the audience has a low degree of avoidance;	Sollner et al.(2019)；Jin et al.(2007)；Edwards et al.(2002),Baek et al.(2012),Bellman et al.(2013),Tran et al.(2017).
Advertising form	Layout size Image form Recognizability Variability	The ad with too large layout, asynchronous images, poor recognizability, lacking of variability has a high degree of avoidance	Paul et al.(1997),Chowdhury et al.(2007),Jiyoon et al.(2018),Liu et al.(2018).
Advertising placement	Layout placement Position	The ad which placed in a layout and position for easy browsing has a low degree of avoidance;	Paul et al.(1997),Lo(2014),Van et al.(2018).
Advertising occasion	Period/Time point/Time in program	The ad which broadcast at a time with minimal disruption to the audience has a low degree of avoidance;	Siddarth et al.(1998),Biu et al.(2001).
Advertising frequency	Layout number Frequency	The ad with too many layouts, high frequency has a high degree of avoidance;	Louisa et al.(1997),Bob(2001),Cho et al.(2004),Zahra et al.(2016).
Advertising media	Controllability Autonomous selection	The ad with high controllability, high autonomous selection has a low degree of avoidance	Reading et al.(2006),Bin et al.(2020).

(including perceived irritation, perceived privacy infringement, and perceived time waste) were positively associated with ad avoidance[34].

5.2.1   Perceived value

Perceived value refers to the benefit that the audience perceives the advertisement to bring. Scholars have found that perceived value (generally including information value and entertainment value) negatively affects advertising avoidance. The greater the perceived value is, the lower the degree of avoidance.

When advertisements provide informational value or entertainment value or both, people will reduce their negative emotions and avoidance behaviors toward advertisements[5]. Perceived effectiveness negatively affects avoidance of over-the-counter drug advertising; perceived ineffectiveness positively affects advertising avoidance, in which advertising irritation (negative emotional response to advertising) plays a mediating role[35]. Johnston et al. used the belief-value-attitude-behavior framework model to study social media advertising (SMA) and found that audiences' beliefs about social media advertising's informativeness and credibility affect their perception of advertising value, which in turn affects their attitudes and behaviors toward advertising[36]. The driving effects of advertising information value and entertainment value on advertising positive attitudes also apply to advertising on social media[37].

5.2.2   Perceived infringement

Perceived infringement refers to the audience's perception of the loss or harm caused by the advertisement. Scholars have found that perceived infringement (generally including perceived goal impediment, perceived cost waste, perceived privacy infringement, and perceived freedom infringement) positively affects advertising avoidance; that is, the greater the perceived infringement is, the higher the degree of advertising avoidance is; conversely, the degree of avoidance is lower.

5.2.2.1   Perceived goal impediment

Perceived goal impediment refers to the audience's perception that an ad affects or hinders the achievement of their goals. Many scholars note that perceived goal impediment or intrusiveness is an important internal factor that causes audiences to avoid advertisements, and they use information theory and distractor devaluation theory to explain it.

According to information theory, advertising is largely a distraction to the audience, so the audience will naturally filter it as noise. Advertising avoidance is a function of perceived goal impediment and perceived advertising clutter[1]. Perceived goal impediment (including search barriers, interruptions in viewing web content, and distraction of attention) is the most important antecedent of audience avoidance of Internet advertising[5,6]. The perceived intrusiveness of advertisements of the audience is related to the degree to which advertisements hinder or affect the achievement of their goals[38].

According to Distractor Devaluation Theory, when people engage in a task, nongoal-oriented things are negatively evaluated for interfering with the target and in turn are flagged as

inhibitory or negative factors and ignored. In the Internet search task, people evaluated banner ads identified as distractors more negatively than ads that were not identified as distractors[39].

5.2.2.2   Perceived cost waste

Some scholars note that perceived cost waste (including time, physical, energy, money cost waste, etc.) is an important internal factor that leads to advertising avoidance, and cognitive load theory is used to explain it, which notes that human cognition and its information processing ability are limited (that cannot process multiple pieces of information at the same time); when multiple pieces of information appear at the same time, people will avoid or filter out some nonimportant information[40].

The ubiquity of mobile communication is convenient for people to deal with problems anytime and anywhere, so people are willing to sacrifice some personal privacy in exchange for its ubiquitous services and reduce their negative attitudes toward advertising[13]. When Internet users are dealing with tasks (such as reading, searching for information, and socializing), they generally take a marginalized path (mainly focusing on noncontent factors such as advertisement form, length, etc.) to deal with pop-up banner ads, and as a result, people have a more active attitude toward ephemeral and frequent pop-up ads than long-dwelling ads[41]. Internet users who process tasks while browsing advertisements can obtain a greater sense of accomplishment than simply browsing advertisements, which will appropriately reduce negative evaluations of advertisements and reduce advertisement avoidance, along with the mediating effect of time passing perception[42].

5.2.2.3   Perceived privacy infringement

Some scholars note that perceived privacy infringement is one of the internal factors that leads to audiences' advertising avoidance and use the Theory of Technological Threat Avoidance (TTAT) to explain it, which notes that when people perceive a technological threat, they will have a negative evaluation of the technology and then take measures to avoid it[43].

Users have a negative attitude toward mobile advertisements because of concerns about personal privacy leakage and then engage in avoidance behaviors[13]. When users perceive personalized advertising as an invasion of their privacy, they will hold a strong resistance toward the advertising[22,44].

5.2.2.4   Perceived freedom infringement

Some scholars note that perceived freedom infringement is one of the internal factors that lead to audiences' advertising avoidance and use reaction theory to explain it, noting that maintaining personal freedom is an important goal pursued by people. When personal free will is violated, various measures will be taken to resist it. The degree of resistance depends on the perceived degree of personal free will being violated[45].

The strong exposure of Facebook news ads can cause users to perceive that their personal free will has been violated and then generate anger and avoidance behavior. However, if users can choose to avoid advertisements on their own, the perception of intrusiveness of advertisements will be reduced, thereby reducing advertisement avoidance behavior[46].

In summary, the internal perception factors of advertising

Table 4. List of internal perception factors of advertising avoidance.

Intrinsic perception factors	specific factors	Impacts onad avoidance	main scholars
Perceived value	Information value Entertainment value	Perceived value negatively affects ad avoidance, that is, the greater the perceived value, the lower the degree of avoidance;	Johnston et al.(2018),Edwards et al.(2002),Huh et al.(2015),Miltgen et al.(2019).
Perceived infringement	Goal impediment Cost waste Privacy infringement Freedom infringement	Perceived infringement positively affects ad avoidance, that is, the greater the perceived aggression, the higher the degree of avoidance.	Speck et al.(1997),Edwards et al.(2002),Ha et al.(2008),Brittany et al.(2011)；Okazaki et al.(2012),Chinchanachokchai et al.(2015)；(2012)；Youn et al.(2019).

avoidance and their specific effects on advertising avoidance are summarized as follows (as shown in Table 4).

5.3 External moderators of advertising avoidance

Scholars have conducted many studies and found that audiences' perception of advertising value or invasiveness as well as their subsequent behavioral responses are affected or moderated by multiple external factors. These factors can be summarized into three categories: audience factors, scene factors, sociocultural factors and technological factors, each of which includes several specific aspects.

5.3.1 Audience factors

Scholars have found that audiences' perception of advertising value or invasiveness and their behavioral responses are affected by their own factors, which mainly include demographic factors, cognitive factors, life attitudes, and previous experience.

5.3.1.1 Demographic factors

Demographic factors refer to a range of factors related to demographics, including age, gender, education level, income level, family size, etc. Scholars have found that education level, income level, and family size positively affect advertising avoidance; the relationship between age and advertising avoidance is not unified and varies across countries and media; and gender affects advertising avoidance.

Rojas-Mendez et al. found that age was negatively related to behavioral avoidance of television advertisements, while the relationship between age and mechanical avoidance varied across countries, and educational level and family size were positively correlated with mechanical avoidance and behavioral avoidance through a cross-cultural sample study in the United Kingdom, Chile and Turkey. In terms of avoidance methods, men are more likely to use mechanical avoidance (such as switching TV channels), and women are more likely to use behavioral avoidance (such as talking to others when an advertisement is broadcast)[47]. The income level and education level of the audience were negatively correlated with the perceived utility of over-the-counter drug advertising and positively correlated with advertising skepticism and advertising avoidance[35]. Margot et al. conducted a cross-generational survey in six countries and found that the only significant difference between advertising avoidance and media generations was on the mobile phone medium, as shown that the Internet generation (born between 1978 and 1995, which grew up with the Internet media) avoided advertising on the mobile phone medium less than the newspaper generation (born between 1930 and 1957, which grew up with the newspaper media). For the remaining four media (websites,

social media, television and newspapers), the intergenerational effects are not significant, and the specific patterns vary across countries[48].

5.3.1.2 Cognitive factors

Cognitive factors refer to people's perceptions and attitudes toward things. Scholars have found that audience cognition affects advertising behavior. Specifically, a positive attitude toward and cognition of advertising lead to a low degree of advertising avoidance; conversely, the degree of advertisement avoidance is high.

Jain et al. divided human thinking into incremental thinking (which tends toward the variability of things) and substantive thinking (which tends toward the immutability of things) and divided advertising content into avoidance advertising (leading consumers to avoid negative results) and approach advertising (leading consumers to approach positive results). Through research, it was found that people with incremental thinking had lower evaluations and higher resistance to avoidance advertising than approach advertising. For people with substantive thinking, there was no difference between evaluation and avoidance of the two types of advertising, and they only focused on the content of the advertisement[49]. If the audience notes that personalized advertising can increase their interests, they will reduce advertising suspicion and avoidance; if the audience notes that personalized advertising is an infringement of their privacy, they will have a strong resistance to advertising[20].

5.3.1.3 Life attitude

Life attitude refers to the attitude people hold toward life, such as positive or negative, optimistic or pessimistic attitudes. Scholars have found that the audience's attitude toward life affects advertising behavior, as follows: a positive and optimistic attitude toward life leads to a low degree of advertisement avoidance; conversely, the degree of advertisement avoidance is high.

People with strong nostalgia will pay more attention to the negative aspects of advertisements, and the degree of perceived advertisement avoidance is higher; people who are oriented to the present and the future will pay more attention to the positive aspects of advertisements, and the degree of perceived advertisement avoidance is relatively low[10]. Consumers with low risk-taking propensity are more likely to avoid advertisings in low-interaction environments than in high-interaction environments[19].

5.3.1.4 Previous experience

Previous experience refers to the knowledge and experience that people have accumulated in the past. Scholars have found that people's accumulated knowledge and experience in exposure to advertising in the past affect advertising behavior,

as follows: positive experience negatively affects advertising avoidance, and negative experience positively affects advertising avoidance.

The audience's previous negative experience with internet advertising, including poor perceived utility, dissatisfaction with advertising, and lack of corresponding incentives, will increase their avoidance motivation and resistance to current advertising[6]. User experience can increase the avoidance of Internet dynamic banner ads[41]. Past experience can reduce audiences' attention to personalized advertising of low-engagement products and increase mechanical avoidance[21]. YouTube users who have skipped video ads will skip video ads faster to a greater extent than those without this experience[50].

5.3.2　Scene factors

Scene factors refer to the scene state of the audience contacting the advertisings and generally consist of the scene condition and the audience status. Scholars have found that different audiences in different situations have different perceptions of the value or infringement of the same advertisement and thus have different advertising avoidance behaviors.

5.3.2.1　Scene condition

The scene condition refers to the scene or space state in which the audience is exposed to the advertisement, such as a noisy or quiet scene, crowded or relaxing scene, individual presence or social presence (the presence of others) scene, etc. Scholars have found that in crowded scenes, audiences have a lower degree of avoidance of mobile personalized advertisements; in social presence scenes, audiences overall have a higher degree of advertising avoidance.

In the subway scene, when there are many passengers and it is crowded, the audience will have a more positive response to the targeted advertisements pushed by telecom operators, and the probability of purchasing influenced by advertisements is also higher because at this time, the audience is greatly disturbed by the outside world, and to avoid interference, their attention will be more concentrated on their inner spiritual space[51].

In social presence scenes, audiences generally avoided public personalized advertisements and avoided avoidance advertisements more than approach advertisements, in which consumers' perceived embarrassment played a mediating role[52].

5.3.2.2　Audience status

Audience status refers to the status of the audience when they contact the advertising, generally including the task type and load intensity. Scholars have found that when the audience is exposed to advertisements, the importance of the task and the load intensity positively affect advertising avoidance—that is, the more important the task is and the higher the workload intensity is, the higher the degree of advertising avoidance is; conversely, the lower the degree of advertising avoidance is.

When users watched stimulating programs through the Internet, the advertisements inserted in the middle were more invasive, and the degree of advertisement avoidance was higher than the advertisements inserted at the end when watching relaxing programs[5]. In the context of the Internet,

users in a high-load work state had a higher degree of ad-resistance and avoidance behaviors than users in a low-load work state, including significantly shortening the time to read ads and reducing ad recall[14].

Internet users whose targets are searching for information have a higher degree of advertising avoidance than those whose targets are just browsing and communicating[30]. The type of Internet users' tasks significantly moderated the relationship between advertisement salience and advertisement avoidance, as shown in the following: users aimed at information search had higher avoidance of salient ads (dynamic and larger ads) compared with users aimed at entertainment and relaxation[53].

5.3.3　Sociocultural factors

Based on the social and cultural environment of the audience, scholars have found differences in the perceived value or the degree of infringement of the same advertisement and subsequent advertising behavior. Sociocultural factors mainly include social factors and cultural factors.

5.3.3.1　Social factors

Social factors refer to the social class, related groups, social needs and the degree of intercourse of the audience. Scholars have found that the audience's social needs and degree of intercourse negatively affect advertising avoidance.

Social media is a medium for providing useful, reliable and high-quality product/brand information, and advertising on social media is less likely to be avoided than advertising on public media[54]. Advertisements with social background information (such as annotating fans' names, numbers, friend comments, etc.) published on the Facebook platform can increase attention and click-through rates[55]. Some advertisements are widely disseminated on the Facebook platform because users note that sharing advertisements on social media can enhance their image in the community[56]. The amount of social media used by users and their sensitivity to social media influence positively affect advertising attitudes and behaviors[57].

5.3.3.2　Cultural factors

Cultural factors refer to the cultural groups to which the audience belongs, value beliefs, religious beliefs of the audience, etc. Scholars have found that postmodern culture and individualistic culture intensify advertising avoidance, while religious belief weakens advertising avoidance.

The characteristics of postmodern culture (acceleration, fragmentation, diversity) and the reality of advertising pervasiveness will lead to more negative attitudes toward advertising and the development of more methods to filter out advertising clutter to protect mental space[58]. Möller et al. used a hierarchical linear model to conduct an online survey of 7,775 respondents from 34 countries and analyzed the click-through rate of 2,192 users from 26 countries and found that individualistic culture would increase audiences' negative attitudes toward advertising and decrease the willingness to click Internet banner ads[59]. Religious belief negatively affects advertising avoidance because religious believers are more likely to believe in external things rather than to be skeptical[60].

Biographies

5.3.4　Technological factors

On the one hand, technological factors influence the presentation and content of advertising, while on the other hand, they also have a profound impact on the way advertising is avoided and the size of that avoidance. The direction of the influence of technological factors on ad avoidance depends on the audience's psychological perception of the technology: specifically, when the audience perceives an increase in the benefits of advertising based on a specific technology, ad avoidance decreases, while when the audience perceives a threat of the technology, they will develop negative perceptions of the technology and take steps to avoid advertising using that technology.

Digital video recorders (DVRs) based on digital recording technology have transformed traditional TV ad avoidance. Wilbur K C. et al. found that DVR, whose access to availability data improved advertisers' measurement of ad avoidance and accuracy of target market positioning, helped advertisers tailor the content of product advertisements to individual characteristics (content preference and viewing speed), refine the time and frequency of advertising placement, and match ad content to the program to reduce users' resistance to the advertisements[11]. Wireless communication network technology and wireless communication protocols (WAP) have given mobile devices the characteristic of ubiquity of perception. Okazaki et al. found that the perceived ubiquity of mobile devices based on time savings and spatial flexibility can induce positive perceptions of the content provided by mobile devices, encouraging them to trust the advertisements it delivers, which in turn leads to positive attitudes toward advertising[13]. Social media based on Web2.0 and UGC technology has brought revolutionary changes to the content and communication methods of advertising, resulting in the emergence of social media advertising (SMA). For Facebook SMA, Li et al. found that an ad endorsement mechanism that combines personalized social context (number of followers, names of followers' friends) with targeting and social advertising technology can enhance the effectiveness of ads and improve click-through rates and product impressions[55].

Along with the development of JAVA and HTML technology, pop-up advertisements that are automatically launched when a web page is loaded began to appear. A study by Edwards et al. on pop-up ads found that the forced exposure of pop-up ads caused audience anger when triggering perceived intrusiveness, which in turn led them to avoid the ads[5]. Developments in big data technology and data processing capabilities allow advertisers to shift their focus from traditional mass advertising to personalized advertising that delivers messages tailored to individual preferences. However, Okazaki et al. found that users can have negative attitudes toward mobile advertisements and thus adopt avoidance behaviors due to concerns about the disclosure of personal privacy[13]. Baek et al. and Jung found that when users perceive the tracking of consumer data and potential use of personalized advertising as an invasion of their privacy, this leads to negative reactions, including negative attitudes and behaviors toward advertising[20,44]. With the advent of location tracking technology and the proliferation of GPS, location-based advertising (LBA) has emerged - LBA refers to personalized advertising that advertisers push to targeted consumers' mobile devices based on their current situational location. Shin et al. found that audience activity on mobile phones was interrupted or became untenable when LBA was present, and in turn, perceived goal impediment was found to be the strongest predictor of LBA avoidance[34].

In summary, the moderating factors of audience advertising perception and avoidance behavior and their specific adjustments to advertising avoidance can be summarized as follows (as shown in Table 5).

6　Summary and prospect

6.1　Summary and implication

6.1.1　Overview of the study

The overview and mechanism of this study can be summarized as follows (shown in Figure 3).

In the figure above, the advertising itself is an external stimulus. It stimulates the audience to form different perceptions, thereby affecting the audience's advertising avoidance behavior. The audience's perception of advertising and its avoidance behavior are also moderated by the audience, the scene and the sociocultural factors as well as technological factors.

6.1.2　Theoretical contribution

The theoretical contributions of this study are reflected in the following aspects:

① This study clarified the relationship among the various factors of advertising avoidance, that is, the advertisement itself is the independent variable, the internal perception of the audience is the mediator variable, and advertising avoidance is the dependent variable, while the audience itself, the scene and social culture factors are the moderating variables. Our review of the literature reveals that scholars have explored many factors influencing advertising avoidance, but these factors are not actually on an equal level and do not play the same role and that scholars have failed to distinguish and clarify the relationships between them. Based on the classical SOR model, this study constructed the SOMR model of advertising avoidance and divided the influencing factors of advertising avoidance into external stimuli, internal perception factors, and external moderating factors, which work together and influence each other, ultimately facilitating ad avoidance behavior. Among them, advertising itself is the external stimulus of advertisement avoidance, and it exerts influence on advertisement avoidance through audience perception as an intermediary. Audience perception includes perceived value and perceived infringement. Perceived value negatively affects advertisement avoidance, and perceived infringement positively affects advertisement avoidance. At the same time, the audience's perception of advertising value or invasiveness and thus advertising avoidance behavior are also affected and moderated by many external factors. This generalization and refinement can make people very clearly understand the various factors playing in advertising avoidance, which will help

Table 5. External moderators of advertising avoidance.

Moderators	Specific factors	Basic views	Main scholars
Audience factors	Demographic factors	Education level, income level, and family size positively affect advertising avoidance; age and advertising avoidance are inconsistent which varied across countries and media; gender affects advertising avoidance style.	Rojas-Mendez et al.(2009),Huh et al.(2015),Van et al.(2018).
	Cognitive factors	Positive perception of advertisements leads to low degree of advertisement avoidance.	Baek et al.(2012),Jain et al.(2009).
	Life attitudes	The attitude toward life is positive and optimistic, and the degree of advertisement avoidance is low.	Rojas-Mendez et al.(2006),Jin et al.(2007).
	Previous experience	Positive experiences negatively affect ad avoidance, while negative experiences positively affect ad avoidance.	Cho et al.(2004),JooWon et al.(2012),Bellman et al.(2013),Belanche(2017).
Scenefactors	Scene condition	When the scene is crowded, the audience's degree of avoidance of mobile personalized advertisements is low; in the social presence scene, the audience's overall degree of avoidance of advertisements is high.	Michelle et al.(2016),Nicole et al.(2019).
	Audience status	The importance of audience target task and workload intensity positively affect ad avoidance.	Zahra et al.(2016),Bang et al.(2018),Edwards et al.(2002),Rau et al.(2013).
Sociocultural factorsTechnologicalfactors	Social factorsCultural factors	Audience social needs and degree of interaction negatively affect advertising avoidance.Postmodern culture and individualistic culture intensify advertising avoidance, while religious belief weakens advertising avoidance.	Chu et al.(2011),Yung-Ming et al.(2014),Miltgen et al.(2019),Chinchanachokchai et al.(2020).Rumbo(2002),Moller et al.(2010),Ketelaar et al.(2015).
	Negative effectsPositiveeffects	The direction of the influence of technological factors on ad avoidance depends on the trade-offs between perceived value and perceived infringement brought by technology of the ads.	Wilbur K C . et al. (2008), Okazaki et al. (2012), Li et al. (2014).Edwards et al. (2002), Baek et al. (2012), Jung (2017), Shin et al. (2016).
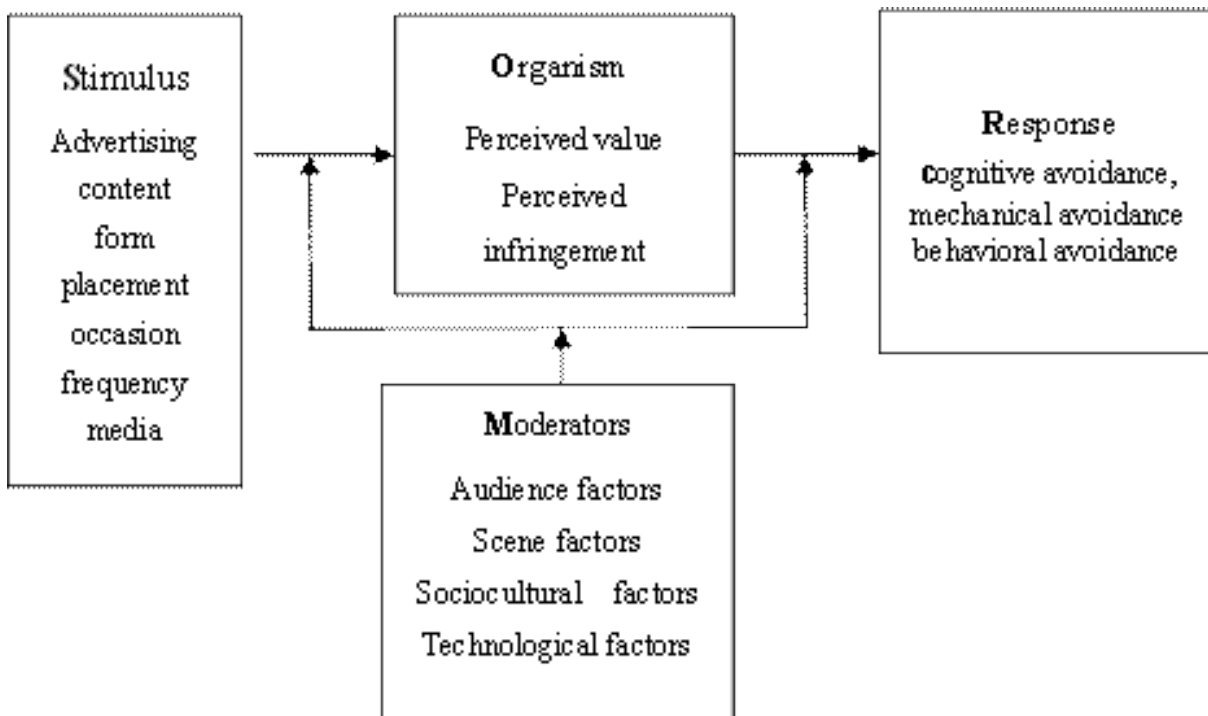
Fig. 3. The influence mechanism of advertisement avoidance based on SOMR model.

companies find the focus when carrying out advertising activities.

② This study comprehensively reviews and summarizes the respective connotations of the relevant factors and their specific factors of advertising avoidance.

First, on the basis of reading the literature and comparative analysis, the researchers accepted the views of most scholars and defined advertising avoidance as the behavior of audiences to reduce or avoid exposure to advertisements based on negative perceptions of advertisements. In addition, adopting

the classification method of most scholars, advertising avoidance is divided into three categories: cognitive avoidance, mechanical avoidance and behavioral avoidance.

Second, based on reading and digesting the literature, the stimuli of advertising avoidance are summarized and refined into advertising content, advertising form, advertising placement, advertising occasion, advertising frequency, and advertising media, and this study conducted a more detailed analysis of how the six factors affect advertising avoidance and their specific impacts on ad avoidance.

Third, the intrinsic perception factors of advertising avoidance are divided into perceived value and perceived infringement; the former includes perceived information value and perceived entertainment value, and the latter includes perceived goal impediment, perceived cost waste, perceived privacy infringement and perceived freedom infringement. This study expounded the internal influence mechanism of these factors on advertising avoidance in detail.

Finally, through reading the literature and repeated deliberation, the moderating factors of advertising avoidance are divided into audience factors, scene factors and sociocultural factors, and the moderating effects of these three types of factors and the specific factors included in advertising avoidance are expounded on in detail. The audience factors are further divided into demographic factors, cognitive factors, life attitudes and previous experience; the scene factors consist of scene condition and audience status; and the sociocultural factors are divided into social factors and cultural factors. Through the review and analysis of these issues, readers and future researchers can have a clearer understanding of the research status and basic conclusions of advertising avoidance and related issues.

③ This study points out and analyzes the differences in scholars' understanding of related issues and the differences in research conclusions.

First, this study found that there are some differences in the classification and definition of advertising avoidance among scholars. Most scholars divided advertising avoidance into cognitive avoidance, mechanical avoidance and behavioral avoidance, while a few scholars divided advertising avoidance into cognitive avoidance and behavioral avoidance or physical avoidance, and some scholars divided advertising avoidance into cognitive avoidance, affective avoidance and behavioral avoidance.

Second, this study found that there are some differences between scholars' definitions of different types of avoidance: the definitions of cognitive avoidance are basically the same, but there are differences between the definitions of mechanical and behavioral avoidance. Scholars' definitions and classification of advertising avoidance are different for the following reasons. First, theoretical research is a process of development; the early definitions of advertising avoidance were relatively simple, and as the medium of advertising developed, the definition of advertising avoidance was expanded and refined. Second, the difference in the definition of behavioral and mechanical avoidance is due to the variability in the media properties that carry advertising in the relevant studies. For example, Tse A et al. (2001) and Bellman et al. (2010) define and classify ad avoidance based on television advert-

ising, while Rau et al. (2013) define and classify ad avoidance based on advertising of mobile communication devices. Finally, the differences in analysis tools, research dimensions and methods lead to differences in the definition and classification of advertising. Speck et al. (1997) define and classify advertising avoidance on the basis of the previous definitions and real-life experiences, and Edwards et al. (2002) introduced perceived intrusiveness and reactance to their definition of advertising avoidance from the perspective of psychology. Cho et al.'s (2004) definition and classification of advertising avoidance is based on the CAB cognition (C), affect (A), and behavior (B) analysis model in consumer attitudinal responses to advertising stimuli.

Finally, this study found that scholars' research conclusions on the relationship between audience age and advertising avoidance are inconsistent. Some scholars note that age was negatively related to behavioral avoidance of television advertisements, while the relationship between age and mechanical avoidance varied across countries, but some scholars note that the Internet generation avoided advertising on the mobile phone medium less than the newspaper generation, while the intergenerational effects are not significant for advertising avoidance on the other four media, and the specific patterns vary across countries. The inconsistency in the relationship between age and advertising avoidance is mainly due to the following reasons: first, both studies are cross-cultural studies, but the countries chosen for the two studies are different; the first study selected countries with large cultural differences, such as Chile, Turkey and the UK, while the second study selected Western European countries and America. As mentioned in the conclusions of both studies, the results of age and advertising avoidance differ specifically by country, and the inconsistency in the conclusions of the two studies can be explained in terms of cultural differences. Second, the two studies selected different advertising mediums: the former studied the relationship between TV ad avoidance and age, and the latter studied the relationship between age and ad avoidance on websites, social media, TV, newspaper media and mobile phones. Different media have different characteristics and attributes, and there are significant differences in the age of their main target groups, which can also lead to significant differences in ad avoidance for different media by audiences of different ages.

6.1.3 Management implication

The ultimate purpose of studying advertising avoidance is to reduce and avoid audiences' advertising avoidance behavior, thereby improving the advertising effect. To achieve this goal, fundamentally speaking, the first rule is to increase the audience's perceived value of the advertising, and the second rule is to reduce the audience's perceived infringement of the advertising. Advertisers can take specific measures from the following aspects:

① Improve the content of advertising to the greatest extent and increase the attractiveness of the advertising itself to the audience, including increasing the information value or entertainment value or both of advertising and avoiding unintelligible or even deceptive content of the advertising.

② Make reasonable arrangements of advertising forms, ad-

vertising placements, advertising occasions, advertising frequency and advertising media. In terms of advertising form, if using traditional paper media, the layout should not be too large; if using TV media, it is best to keep the advertisement and program content on the same screen; if using Internet media, the variability of the advertising form or image should be increased; no matter what kind of media is used, the ads must be clearly identifiable, so that the audience can clearly identify that it is an advertisement. For ad placement, try to place the ad in a position that is convenient for the audience to browse—Specifically, if using traditional paper media, put it on the homepage or front part as much as possible; if using Internet media, put it on the top or left side of the screen as much as possible. For the advertising occasion, if TV media is used, first, the delivery time of the ads should avoid the hourly and half-hourly time as much as possible, and second, the delivery time of the ads should try to avoid inserting in the middle of the program or after the program ends but choose to insert before the program resumes. For ad frequency, try to avoid placing ads on the same medium on multiple pages or excessive times during the same time period. For advertising media, the media that the audience can control should be selected as much as possible so that the audience can choose whether to watch or read the advertisement.

③ When an enterprise releases advertisings, it is necessary to fully consider factors such as the audience themselves, the scene and the social culture to which they belong. From the perspective of the audience, advertising and guidance can be increased for people with lower education and income levels. For scene factors, in a crowded or noisy environment, some personalized advertisements can push the audience to increase browsing. In terms of sociocultural factors, they can choose to launch advertisements on social media to promote people to spread them to each other.

6.2 Limitations and prospects

6.2.1 Study limitations

This research mainly expounds the research limitations from two aspects: one is the limitation of this research; the other is the limitation of the related studies by existing scholars.

① This study is insufficient. In this study, the factors related to advertising avoidance are divided into external stimuli, internal perception factors and external moderating factors, which is not only a major theoretical contribution of this research but also a deficiency of this research because this induction is only based on logical reasoning and analysis without an empirical basis.

② The existing research is insufficient. Although predecessors have carried out many pioneering studies on advertising avoidance and achieved fruitful results, there are still some deficiencies or blanks in the field. For example, in terms of advertising content, scholars did not answer what kind of advertisements are "attractive and valuable"; in terms of advertising frequency, scholars did not answer the quantitative standard of "excessive frequency" or "frequent broadcast"; in terms of the moderating factors of advertising avoidance, the understanding and research conclusions on the relationship

between age and advertising avoidance are inconsistent; in terms of advertising value, scholars only divide it into information value and entertainment value, while the advertisements also have aesthetic value, such as Baisuishan bottled water and Changbaixue bottled water advertisements and Li Ziqi's rural pastoral style advertisements.

6.2.2 Prospects for future study

In view of the above research deficiencies, it is suggested that future researchers conduct further research in the following aspects:

① Adopt empirical methods to examine the roles of advertising factors, audience factors, scene factors, sociocultural factors, and audience perception factors in advertising avoidance, including the following: Is advertising an independent variable? Does it directly affect ad avoidance, or must it affect ad avoidance indirectly through audience perception? Are audience factors, scene factors, and sociocultural factors moderate variables? Do these factors moderate the effect of advertising on audience perception or the effect of mediating audience perception on ad avoidance or moderate both the effect of advertising on audience perception and audience perception on ad avoidance? What extent is the moderating effect of each factor?

② Further research can be carried out to address the shortcomings of existing research, including the following: What exactly does the audience perceive advertising value include? How important are the different ad values? Is there any difference in the importance of advertising value factors to different audiences? How can the degree of audience-perceived advertising damage be ranked? Are there differences in the perception of advertising infringement categories among different groups of people? What are the elements of an "attractive and valuable" ad? Are there differences in the "attractiveness and value" of advertisements by different audiences? Are there any differences in the "attractiveness and value" components of advertising in different media? What is a reasonable "advertising frequency"? What other scene and sociocultural factors affect ad avoidance, and how do they affect ad avoidance?

③ With the rapid development of the Internet and the continuous emergence of new media, new media advertising such as news feed advertising has become mainstream advertising, so scholars can conduct more in-depth research on new media advertising avoidance. There is little research on ad avoidance in the context of emerging technologies such as metaverse and ChatGPT. We suggest that scholars conduct research on ad avoidance in the context of relevant emerging technologies such as metaverse and ChatGPT in the future.

Acknowledgements

Conflict of interest

The authors declare that they have no conflict of interest.

Biographies

Shengliang Zhang　is currently an Associate Professor at the University of Science and Technology of China. He received his master degree from Fudan University. His research mainly focuses on service marketing, robotics services, and brand management.

Jianhui Jin　is currently a graduate student at the School of Management of the University of Science and Technology of China. His research mainly focuses on e-word of mouth and advertising avoidance.

References

[1] Speck P S, Elliott M T. Predictors of advertising avoidance in print and broadcast media. *Journal of Advertising,* **1997**, *26*: 61–76.

[2] Makkar M, Yap S F C. Managing hearts and minds: Romanticizing Airbnb experiences. *Current Issues in Tourism,* **2020**, *25*: 3461–3480.

[3] Steward M D, Lewis B R. A comprehensive analysis of marketing journal rankings. *Journal of Marketing Education,* **2010**, *32* (1): 75–92.

[4] Liao S Q, Liu C Y, Shen Q, et al. The current situation and development trend of international communication discipline: Taking the SSCI journal of communication studies from 2000 to 2011 as the research object. *Journalism Research,* **2013** (3): 77–89. (in Chinese)

[5] Edwards S M, Li H, Lee J H. Forced exposure and psychological reactance: Antecedents and consequences of the perceived intrusiveness of pop-up ads. *Journal of Advertising,* **2002**, *31* (3): 83–95.

[6] Cho C H, Cheon H J. Why do people avoid advertising on the Internet? *Journal of Advertising,* **2004**, *33* (4): 89–97.

[7] Chinchanachokchai S, Duff B R L, Faber R J. Distracted mind: The effects of multitasking and mind wandering on consumer memory for ad content. *International Journal of Advertising,* **2020**, *39* (5): 631–654.

[8] Speck P S, Elliott M T. Consumer perceptions of advertising clutter and its impact across various media. *Journal of Advertising Research,* **1998**, *38* (1): 29–41.

[9] Tse A C B, Lee R P W. Zapping behavior during commercial breaks. *Journal of Advertising Research,* **2001**, *41* (3): 25–29.

[10] Rojas-Mendez J I, Davies G. Avoiding television advertising: Some explanations from time allocation theory. *Journal of Advertising Research,* **2005**, *45* (1): 34–48.

[11] Wilbur K C. How the digital video recorder (DVR) changes traditional television advertising. *Journal of Advertising,* **2008**, *37* (1): 143–149.

[12] Bellman S, Schweda A, Varan D. The residual impact of avoided television advertising. *Journal of Advertising,* **2010**, *39* (1): 67–82.

[13] Okazaki S, Molina F J, Hirose M. Mobile advertising avoidance: Exploring the role of ubiquity. *Electronic Markets,* **2012**, *22* (3): 169–183.

[14] Rau P L P, Liao Q Z, Chen C L. Factors influencing mobile advertising avoidance. *International Journal of Mobile Communications,* **2013**, *11* (2): 123–139.

[15] Siddarth S, Chattopadhyay A. To zap or not to zap: A study of the determinants of channel switching during commercials. *Marketing Science,* **1998**, *17* (2): 124–138.

[16] Dix S, Phau I. Television advertising avoidance: Advancing research methodology. *Journal of Promotion Management,* **2010**, *16* (12): 114–133.

[17] Lo S K, Hsieh A Y, Chiu Y P. Keyword advertising is not what you think: Clicking and eye movement behaviors on keyword advertising. *Electronic Commerce Research and Applications,* **2014**, *13* (4): 221–228.

[18] Soellner J, Dost F. Exploring the selective use of ad blockers and testing banner appeals to reduce ad blocking. *Journal of Advertising,* **2019**, *48* (3): 302–312.

[19] Jin C H, Villegas J. Consumer responses to advertising on the Internet: The effect of individual difference on ambivalence and avoidance. *CyberPsychology & Behavior,* **2007**, *10* (2): 258–266.

[20] Baek T H, Morimoto M. Stay away from me: Examining the determinants of consumer avoidance of personalized advertising. *Journal of Advertising,* **2012**, *41* (1): 59–76.

[21] Bellman S, Murphy J, Treleaven-H S, et al. Using Internet behavior to deliver relevant television commercials. *Journal of Interactive Marketing,* **2013**, *27* (2): 130–140.

[22] Tran T P. Personalized ads on Facebook: An effective marketing tool for online marketers. *Journal of Retailing and Consumer Services,* **2017**, *39* (11): 230–242.

[23] Chowdhury R M, Finn A, Olsen G D. Investigating the simultaneous presentation of advertising and television programming. *Journal of Advertising,* **2007**, *36* (3): 85–96.

[24] Jiyoon H, Minette D, Wongun G. Native advertising: Is deception an asset or a liability? *Journal of Media Ethics,* **2018**, *33* (3): 102–119.

[25] Liu C W, Lo S K, et al. Effects of banner ad shape and the schema creating process on consumer Internet browsing behavior. *Computers in Human Behavior,* **2018**, *86* (9): 9–17.

[26] Van den Broeck E, Poels K, Walrave M. An experimental study on the effect of ad placement, product involvement and motives on Facebook ad avoidance. *Telematics & Informatics,* **2018**, *35* (2): 470–479.

[27] Biu T, Lee R. Zapping behavior during commercial breaks. *Journal of Advertising Research,* **2001**, *41* (3): 25–29.

[28] Ha L, Litman B R. Does advertising clutter have diminishing and negative returns? *Journal of Advertising,* **1997**, *26* (1): 31–42.

[29] Bob M F, Arnold B B. "Stay tuned—We will be back right after these messages": Need to evaluate moderates the transfer of irritation in advertising. *Journal of Advertising,* **2001**, *30* (3): 15–25.

[30] Zahra S, Hossein T, Matanda M J. Reinquiry into advertising avoidance on the Internet: A conceptual replication and extension. *Journal of Advertising,* **2016**, *45* (1): 120–129.

[31] Reading N, Bellman S, Varan D, et al. Effectiveness of telescopic advertisements delivered via personal video recorders. *Journal of Advertising Research,* **2006**, *46* (2): 217–227.

[32] Li B, Yin S. How perceived control affects advertising avoidance intention in a skippable advertising context: A moderated mediation model. *Chinese Journal of Communication,* **2020**, *14* (2): 157–175.

[33] Okazaki S. Social influence model and electronic word of mouth: PC versus mobile Internet. *International Journal of Advertising,* **2009**, *28* (3): 439–472.

[34] Shin W, Lin T C. Who avoids location-based advertising and why? Investigating the relationship between user perceptions and advertising avoidance. *Computers in Human Behavior,* **2016**, *63*: 444–452.

[35] Huh J, Delorme D E, Reid L N. Do consumers avoid watching over-the-counter drug advertisements? An analysis of cognitive and affective factors that prompt advertising avoidance. *Journal of Advertising Research,* **2015**, *55* (4): 401–415.

[36] Johnston W J, Khalil S, Cheng J M S, et al. Behavioral implications of international social media advertising: An investigation of intervening and contingency factors. *Journal of International Marketing,* **2018**, *26* (2): 43–61.

[37] Miltgen C L, Cases A S, Russell C A. Consumers' responses to Facebook advertising across PCs and mobile phones: A model for assessing the drivers of approach and avoidance of Facebook ads. *Journal of Advertising Research,* **2019**, *59* (4): 414–432.

[38] Li H, Lee E. Measuring the intrusiveness of advertisements: Scale development and validation. *Journal of Advertising,* **2002**, *31* (2): 37–47.

[39] Duff B R L, Faber R J. Missing the mark: advertising avoidance and distractor devaluation. *Journal of Advertising,* **2011**, *40* (2): 51–62.

[40] Sweller J. Cognitive load during problem solving: Effects on learning. *Cognitive Science,* **2010**, *12* (2): 257–285.

[41] Lee J W, Ahn J H. Attention to banner ads and their effectiveness: An eye-tracking approach. International. *Journal of Electronic Commerce,* **2012**, *17* (1): 119–137.

[42] Chinchanachokchai S, Duff B R L, Sar S. The effect of multitasking on time perception, enjoyment and ad evaluation. *Computers in Human Behavior,* **2015**, *45* (4): 185–191.

[43] Liang H G, Xue Y J. Avoidance of information technology threats: A theoretical perspective. *MIS Quarterly,* **2009**, *33* (1): 71–90.

[44] Jung A R. The influence of perceived ad relevance on social media advertising: An empirical examination of a mediating role of privacy concern. *Computers in Human Behavior,* **2017**, *70* (5): 303–309.

[45] Brehm S, et al. Psychological reactance: A theory of freedom and control. *Nurs Stand,* **1981**: 27.

[46] Youn S, Kim S. Understanding ad avoidance on Facebook: Antecedents and outcomes of psychological reactance. *Computers in Human Behavior,* **2019**, *98* (9): 232–244.

[47] Rojas-Mendez J I, Davies G, Madran C. Universal differences in advertising avoidance behavior: A cross cultural study. *Journal of Business Research,* **2009**, *62* (10): 947–954.

[48] Van der Goot M J, Rozendaal E, Opree S J, et al. Media generations and their advertising attitudes and avoidance: A six-country comparison. *International Journal of Advertising,* **2018**, *37* (2): 289–308.

[49] Jain S P, Mathur P, Maheswaran D. The influence of consumers' Lay theories on approach/avoidance motivation. *Journal of Marketing Research,* **2009**, *46* (1): 56–65.

[50] Belanche D, Flavin C, Prez-Rueda A. User adaptation to interactive advertising formats: The effect of previous exposure, habit and time urgency on ad skipping behaviors. *Telematics and Informatics,* **2017**, *34* (7): 961–972.

[51] Andrews M, Luo X, Fang Z, et al. Mobile ad effectiveness: Hyper-contextual targeting with crowdedness. *Marketing Science,* **2016**, *35* (2): 218–233.

[52] Hess N J, Kelley C M, Scott M L, et al. Getting personal in public!? How consumers respond to public personalized advertising in retail stores. *Journal of Retailing,* **2019**, *96* (3): 344–361.

[53] Bang H, Kim J, Choi D. Exploring the effects of ad-task relevance and ad salience on ad avoidance: The moderating role of Internet use motivation. *Computers in Human Behavior,* **2018**, *89* (12): 70–78.

[54] Chu S C, Yoojung K. Determinants of consumer engagement in electronic word-of-mouth (eWOM) in social networking sites. *International Journal of Advertising,* **2011**, *30* (1): 47–75.

[55] Li Y M, Lin L F, Chiu S W. Enhancing targeted advertising with social context endorsement. *International Journal of Electronic Commerce,* **2014**, *19* (1): 99–128.

[56] Miltgen C L, Cases A-S, Russell C A. Consumers' responses to Facebook advertising across PCs and mobile phones: A model for assessing the drivers of approach and avoidance of Facebook ads. *Journal of Advertising Research,* **2019**, *59* (4): 414–432.

[57] Chinchanachokchai S, de Gregorio F. A consumer socialization approach to understanding advertising avoidance on social media. *Journal of Business Research,* **2020**, *110* (3): 474–483.

[58] Rumbo J D. Consumer resistance in a world of advertising clutter: The case of Adbusters. *Psychology & Marketing,* **2010**, *19* (2): 127–148.

[59] Möller J, Eisend M. A global investigation into the cultural and individual antecedents of banner advertising effectiveness. *Journal of International Marketing,* **2010**, *18* (2): 80–98.

[60] Ketelaar P E, Konig R, Smit E G, et al. In ads we trust. Religiousness as a predictor of advertising trustworthiness and avoidance. *Journal of Consumer Marketing,* **2015**, *32* (3): 190–198.