



# Artificial Intelligence (AI) in Advertising: Understanding and Schematizing the Behaviors of Social Media Users

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## KEYWORDS

artificial intelligence; advertising; social media user; AI ads effects

## ABSTRACT

Nowadays, information technology is not only widely used in all walks of life but also fully applied in the marketing and advertisement sector. In particular, Artificial Intelligence (AI) has received growing attention worldwide because of its impact on advertising. However, it remains unclear how social media users react to AI advertisements. The purpose of this study is to examine the behavior of social media users towards AI-based advertisements. This study used a qualitative method, including a semi-structured interview. A total of 23 semi-structured interviews were conducted with social media users aged 18 and over, using a purposive sampling method. The interviews lasted between 27.05–50.39 minutes on average (Mean: 37.48 SD: 6.25) between August and October 2021. We categorized the findings of the current qualitative research into three main process themes: I) reception; II) diving; and III) break-point. While 'reception' covers positive and negative sub-themes, 'diving' includes three themes: comparison, timesaving, and leaping. The final theme, 'break-point', represents the decision-making stage and includes negative or positive opinions. This study provides content producers, social media practitioners, marketing managers, advertising industry, AI researchers, and academics with many insights into AI advertising.



# 1. Introduction

Due to the advancement of internet technology, big data, computing power, sensor communication (Ashraf et al., 2020a), and algorithmic breakthroughs, the impact of robotics and artificial intelligence technologies on human life is becoming ever more clear. Artificial intelligence (AI), which is a branch of information technology innovation, is a key factor for business and academics. Robotics and artificial intelligence (AI) have been among the main drivers of almost every field in the last decade. AI provides models of human intelligence for cognitive psychology, as well as computer software, hardware, and robotics that perform intelligent human functions (Churcher, 1991). The concept of AI, in a broad sense, refers to a set of machine functions that can learn with the help of humans or entirely on their own (Rodgers, 2021). According to another, more comprehensive definition «AI is the ability for a machine to collect information and use sophisticated algorithms and logical functions to learn from it, there-by adapting future capabilities based on additional information to increase knowledge» (McCarthy and Hayes, 1981; Xian, 2021).

Recent technological advances, especially those leveraging artificial intelligence (AI) and machine learning are challenging the concept of marketing, contemporary advertising, and advertising content (Campbell et al., 2022). It has been widely applied AI at in the advertising industry and increasingly attracts the attention of marketing scholars (Wu et al., 2021). While some other technologies may perform human-specific functions, AI also aims to achieve unique human characteristics such as speech, vision, reasoning, planning, and creativity. AI is rapidly becoming more central to the day-to-day digital world, and the marketing and advertising world is no exception (Murgai, 2018). Considering the technological advances in advertising, perhaps none are as exciting as AI (Rodgers, 2021).

Current developments and figures also point to the importance of AI in marketing and the high probability of this synergy continuing to grow in the future. Over 75% of consumers already use an AI-powered service or device. An expected 53% growth is expected in AI marketing in 2021. By 2023, we expected global digital advertising to reach \$517.51 billion, with AI accounting for 80% of this sum (Rodgers, 2021). As AI quickly becomes more sophisticated and widely adopted in marketing, the ability of marketers to effectively implement and manage it will become an ever more important skill (Shah et al., 2020). As in almost every field, AI has created unique opportunities to deliver personalized advertising messages to consumers. The reasoning capabilities of AI mean it can reveal personality, tendencies, values, and needs from social media users' comments and posts (Kietzmann et al., 2018).

Research into online shopping and product research is concerned with achieving customer satisfaction; it is in the interests of brands to leverage the capabilities of AI algorithms for personalized product recommendations that meet the needs of their target audiences. AI therefore creates a great opportunity for advertisers to target audience through personalized messages. With the proliferation of AI use, scientists have turned their attention to the effects of such technologies in personalized advertising. The best way to understand such effects would form a consumer/user-oriented perspective.

Based on consumers' searches on the internet or social media, AI algorithms aim to produce creative solutions for the products or services in which the user may be interested. Although the personalized messages can have a high accuracy rate sometimes, it may be the opposite in others where there is no potential consumption of the product. For example, for a low-income teenager who is searching for BMW cars out of curiosity, the effectiveness of such a category is questionable. Therefore, it can be said that AI advertising messages should be based on new algorithms supported by various parameters, such as the potential consumer's lifestyle and annual income.



Some of the previous research on this subject had focused on examining the wide range of tasks of multi criteria assessment of customer service in various social fields —retail stores, medicine, culture, health, physical educational training, public catering, other household and domestic services (Ashraf et al., 2020b)— and on different perspectives on AI technology (Zhao et al., 2020).

Studies that reveal the use of AI in the con-text of leisure services seem to focus only on subjects such as advantages and disadvantages, as well as factors that lead to the adoption of technologies. Although there are some studies such as using AI predicted personality to enhance advertising effectiveness (Shumanov et al., 2021), AI in advertising creativity (Vakratsas and Wang, 2020), promises and perils of AI (Rodgers, 2021), Twitter conversations about AI in advertising (Wu et al., 2021), the number of studies that address the effectiveness of AI ads from a consumer-oriented and comprehensive perspective, is low.

Unlike other studies, in this study, consumers' behaviors/reactions to AI advertisements are discussed by using a qualitative research method. This qualitative research focuses on consumers' reactions to AI-based ads for leisure services. Therefore, in qualitative consumer reactions to both leisure services and AI-ads, this study fills a significant gap in the literature. As a result, based on prior evidence, we believe that studying AI in leisure advertising can contribute to a better identification of the parameters that potentially impact consumers.

## 2. Literature Review

### 2.1. AI in leisure

Technology has blurred the lines between work and leisure (Lashua, 2014, 2018), which have had its own advantages and disadvantages. It shows that AI has become a guiding force. For example, the opinions based on a Washington Post report revealed that AI would have a negative impact on employment, although it would give the industry an advantage because of the opportunities offered by digitalization and algorithms. Studies have emphasized that AI can avoid monotonous, «boring» work and to increase the creativity of employees. Some facilitating factors related to AI, such as time saving, improved service, eliminating boredom through variation and creativity can be associated with leisure (Churcher, 1991).

For example, Hou (2013) underlines that forecasting traffic flow at leisure farms could be done using the advanced AI technology of artificial neural networks (ANNs), thus it would contribute positively to users. According to the research conducted by Xian (2021) regarding the adoption of AI technology in the leisure economy, seven factors were predicted to be effective performance expectancy, effort expectancy, social influence, facilitating conditions, hedonic motivation, price value, habit, and personal innovativeness. The performance expectation underlines the degree to which leisure activities increase efficiency because of using AI. Effort expectancy represents the user's expectation of convenience achieved through AI.

Consumers should feel that using this technology is easy. Social influence represents the influence of friends, relatives, family and peers on using this technology. The social media user can learn to use this technology through the influence of the social environment in which they interact. Facilitating conditions represent all kinds of factors that aid in the consumer's acceptance of AI-related technologies, such as online instruction and ongoing support. Hedonic motivation reveals the joy and pleasure derived from using technology. The state of not being bored or having fun is quite important, especially

with Millennial and Generation Z. Price value is related to the cost of using this technology but can also be associated with variables such as the duration of the search for the product, and the savings provided by the offered alternative. Habit is about positive outcomes from experiences. If the consumer has had a positive experience using AI, they are more likely to continue using it.

Finally, personal innovativeness relates to the consumer's preference, risk-taking, or predisposition to use innovations. Some consumers differ from others in adopting new products. This situation is considered as adopting innovations. The higher the consumers' expectations of the AI service are, the more likely they are to use it. Because of the research, it was found that the remaining six factors, excluding effort expectancy, influenced acceptance intention (Xian, 2021).

## 2.2. AI Advertising and Consumer Behavior

Advertising media is undergoing major changes. The online media advertising market is expanding. These changes significantly affected advertisements in traditional media. In various researches, they have addressed different aspects of the ad management process regarding the use of AI in advertising; such as market research, targeting and media selection, ad creation and design, ad placement and execution, ad performance and purchase decision, machine learning (Rodgers and Nguyen, 2022; Shah et al., 2020).

The study on the promises and perils of AI advertising (Rodgers, 2021) considered six articles, and the advantages and disadvantages of each subject were emphasized. The first of these articles looked at AI Influencers as brand endorsers. The second article examined how ad placement effects can be improved using machine-learning algorithms. The third article was on creativity in advertising and the fourth one addressed image-text mismatch. The fifth article was about the stimulating or intimidating effect, and the last article regarded a text analysis program that revealed linguistic questioning and word calculation. All these elements underline the need to evaluate multiple approaches in order to get effective consumer-oriented results in the AI advertising approach.

In the study on the use of machine learning in advertising, three approaches to the target setting were emphasized. These are user-centric, content-centric and click fraud approaches. The user-centric approach includes behavioral targeting and user profiling. The content-centric approach covers elements such as real time bidding and contextual advertising (display, video, vehicle, blog, web doc) (Choi and Lim, 2020). Click fraud is a challenging topic in AI advertising, because it misjudges behavior and incurs additional costs.

There are several steps to consider regarding the influence of AI on consumer experience. The first of these is the recognition of wants and needs. Attempts have been made to define the characteristics of smart advertising in the literature through the analysis of AI-powered applications. The crucial point to achieve so, is the personalization of intelligent ads according to consumers' specific requirements, needs & interests, and life-style. Going beyond mere guesses of the user's interests, intelligent ads can accurately predict the user's wants and needs in various contexts and specific time periods, and can suggest user-specific offers (Li et al., 2002). Hence, knowing the psychology of the consumer or social media users becomes a necessity.

Emotionally appealing advertisements are meant to appeal to the consumers' heart, making them feel special, and a part of the brand (Mogaji, 2018). It primarily served emotional ads to elicit positive feelings and emotions (Aaker and Stayman, 1992). Using Microsoft's AI system Azure for consumer profiling, the system analyzes billions of data points in seconds to identify the needs of individuals. It then personalizes the content in real time to align with those consumer interests. As user interactions

accumulate, more personal data makes it possible to optimize smart ads and serve the user better, thus establishing a long-term brand relationship (Li, 2019; Lai, 2020). As the consumers' digital footprints evolve through social-media status updates, purchasing behavior, or online comments and posts—machine learning continuously updates these profiles. AI also helps advertisers' «manifest» consumers' needs or wants. Similarly, Pinterest employs image recognition to learn about individual users' particular style preferences through the images they have pinned on the site. The website then suggests other relevant images that reflect the user's specific preferences, thus facilitating need or want recognition (Kietzmann et al., 2018).

A concept that may be related to the first step is FoMO (fear of missing out). FoMO is a «pervasive apprehension that others might have a rewarding experience from which one is absent, FoMO characterized by the desire to stay continually connected with what others are doing» (Przybylski et al., 2013). FoMO has successfully used in commercial advertising calls to start sales (Argan et al., 2018). For example, messages about «an opportunity not to be missed» can be effective in many hotels or leisure services. If some individuals are susceptible, i.e., reactive to fear appeals, FoMO can be used as a strategic tool. The effectiveness of FoMO appeals tested by introducing advertisements and stimulus materials. According to research on the effectiveness of FoMO, respondents reported commercial FoMO appeals started personally by «salespeople» or impersonally through «advertisements» and «sales catalogs (Hodkinson, 2019). There are many advertisements in practice showing that FoMO is widely used for the success of travel promotions. Some examples of advertisements (Hodkinson 2019), put forward by citing the industries were «Winning with FoMO», «Cruisings: A New Breed of FoMO» and 'MTV and Flight Center Create Travel «FoMO».

Similarly, some observe that FoMO is used directly or indirectly in the content of many advertisements (JWT, 2012). It has also shown that the FoMO strategy is used to emphasize the sense of scarcity in advertising messages (Hodkinson, 2019). In particular, the messages in the FoMO advertising campaign can impact young audiences. Used in the first evaluation, which is another step; Google AdWords lets marketers make better distinctions to target unqualified and qualified leads better. With Artificial Intelligence, Google analyzes search query data by analyzing not just keywords, but also context words and phrases and other big data. From that point, Google determines potentially useful consumer subsets and more accurate targeting. With Artificial Intelligence, wants and needs can be understood in real-time as customers communicate them digitally and «richer» profiles can be built quicker. AI also allows advertisers to manifest the wants and needs of individuals and increase the quality and quantity of their sales. (Kietzmann et al., 2018).

According to the third step, the active evaluation, advertising aims to persuade consumers to trust the offer and convince them that they are making the best choices when they narrow down their list of brand preferences (Batra and Keller, 2016). One strategy is to target high-intent consumers and provide them with much persuasive content. Since trust is the building block in intelligent advertising, the consumer should not be coerced into content, but instead, the content should be shown to the user with their consent (Li et al., 2002). Machine learning and AI techniques help marketers narrow down targeted customers through digital advertising and generate efficient results (Shah et al., 2020).

Previously, most advertising messages sent to unconstrained customers were going to waste, which increased cost and reduced the effectiveness. For example, instead of randomly recommending new movies to a moviegoer, it would be more effective for the algorithm to recommend a new adventure movie based on the few adventure movies they have watched before. It emphasized three points in active evaluation. According to the first point, predictive lead scoring through machine learning. The algorithm collects verified existing customer data and recognizes trends and patterns; and then, after



being fed with additional external data about consumer activities and interests, it creates reliable lead profiles. The second point focuses on machine learning and enabling the editing of advertising content by learning from consumer behavior in real time through functions such as image recognition, speech recognition and natural language processing (NLP) (Kietzmann et al., 2018). The third and final point is about emotion AI. Marketers use emotion AI to pretest ads and understand what consumers are saying and feeling based on publicly available data, such as reviews, blogs or videos about brands (Kietzmann et al., 2018).

In the fourth step, which is related to purchasing, advertising aims to take consumers out of the decision journey and take them into action while they decide on the value of the brand and how much they want to pay (Batra and Keller, 2016). Advertisers' high-light information about warranties, returns, purchase incentives, amenities, and places to buy. In the last stage, post-purchase, consumers evaluate their satisfaction and, perhaps by word of mouth, they discuss whether they want to buy the product again (Kietzmann et al., 2018). Advertisers try to please them by reinforcing satisfaction and eliminating potential problems. I enabled «chat-bots» can interact with customers. It can use parameters such as determining the most valuable customer, calculating customer lifetime value, likelihood of re-engagement and the probability of leaving (Kietzmann and Canhoto, 2013).

## 3. Method

### 3.1. Procedures

It followed a method of collecting qualitative data through photo-elicitation to investigate the AI advertising experiences and reactions of consumers. It is possible to better understand AI ad experiences in terms of data quality by talking about multiple realities with people who have been exposed to AI ads or have experienced AI in terms of leisure services (travel, entertainment, vacation, etc.). For this reason, it included people who have experienced AI ads in the research as a prerequisite. Interviews comprised two stages, a regular interview as a conversation and a photo-elicitation.

The interviewees were asked to show and describe one or more images that best described their AI advertising experience. Images were mostly used to make it easier for social media users/consumers to describe their concrete experiences. Using images was intended to provide an entertaining and engaging dialog between the interviewer and the interviewees. Questions from the personal information form (such as gender, age, online shopping frequency, and social media behavior) were asked of all participants and filled in by the second author. Interviews were conducted via videoconference (with 8 participants via Zoom), and face-to-face (with 15 participants).

The interviews lasted between 27.05–50.39 minutes on average (Mean: 37.48 SD: 6.25) and were conducted with participants by the second author between August and October 2021. All interviews were digitally recorded and transcribed. Since the primary aim of the study was to explore how consumers react to AI advertising in a broad sense, we asked open-ended questions such as 'What do you think about AI and intelligent advertising?' or 'What is your best experience with AI advertising so far?' Other central questions to the study included: 'What do you think about the AI advertising you receive about leisure services?', 'Did you open and review these ads? What did you do? Why?', 'While you are searching for any product (for example, holiday, concert, ticket, travel, accommodation, etc.) on the Internet or social media, do you deliberately leave a trace to see other opportunities (affordable price, variety of quality, etc.)?', 'In which cases do you click and open AI ads?', and 'what does this experience mean to you?'.

### 3.2. Sampling

Participants were selected from people who reported having experienced AI ads. The strength of the sample was based on specific facts related to the respondents' knowledge, experiences, or properties on the subject under investigation (Maltured et al., 2016). A total of 23 interviews were conducted with social media users aged 18 and over, using a purposive sampling method. When determining the sample size in this study, researchers applied saturation as a guiding principle during data collection (Glaser and Strauss, 2017). As the freshly collected data did not create new insights on the subject, it stopped data collection after 23 people in this study. Of the participants, 52.2% were female and 47.8% were male. Participants comprised young individuals between the ages of 19-23 ( $21.04 \pm 1.06$ ). In terms of income level, 34.8% (8 people) had a monthly income of between 5001 TL to 7500 TL. Regarding social media usage behavior, 34.8% (8 people) of the participants had been using social media for at least 6 years and 52.2% (12 people) reported that they were active on their social media accounts for 2-4 hours a day. The most frequently searched leisure service was a concert event, which is 39.1% of the participants (9 people). Additionally, 34.8% (8 people) of the participants stated their frequency of online shopping as «very often». It showed other information on the characteristics of the participants in Table 1.

Table 1. Profile of participants

No.	Pseudonym	Gender	Age	Income (TL)	Social media usage time	Social media usage year	Leisure services	Online shopping frequency
1	Kerem	M	21	7501-10000	2-4 hours	11,00	Travel Ticket	Often
2	Aysun	F	21	7501-10000	More than 6 hours	7,00	Concert	Frequent
3	Deniz	M	19	5001-7500	2-4 hours	6,00	Concert	Moderate
4	Asuman	F	21	5001-7500	2-4 hours	9,00	Concert	Often
5	Can	M	22	7501-10000	2-4 hours	8,00	Concert	Rare
6	Melahat	F	22	7501-10000	2-4 hours	8,00	Concert	Rare
7	Hilal	F	22	5001-7500	4-6 hours	6,00	Vacation	Moderate
8	Rıdvan	M	21	10000 and >	2-4 hours	5,00	Travel Ticket	Often
9	Oğuz	M	21	5001-7500	Less than 2 hours	10,00	Travel Ticket	Frequent
10	Büşra	F	23	7501-10000	Less than 2 hours	10,00	Travel Ticket	Frequent
11	Sude	F	20	5001-7500	More than 6 hours	6,00	Concert	Often
12	Ekrem	M	21	2501-5000	Less than 2 hours	12,00	Another Camp	Frequent

Table 1. Profile of participants (continued)

13	Yusuf	M	22	2501-5000	Less than 2 hours	5,00	Vacation	Often
14	Mine	F	23	2500 <	2-4 hours	6,00	Cinema	Often
15	Leman	F	21	2501-5000	2-4 hours	4,00	Vacation	Moderate
16	Ismail	M	21	5001-7500	2-4 hours	4,00	Vacation	Rare
17	Müge	F	20	2500 <	Less than 2 hours	6,00	Vacation	Moderate
18	Selçuk	M	20	2501-5000	2-4 hours	7,00	Concert	Moderate
19	Seda	F	22	5001-7500	More than 6 hours	8,00	Concert	Frequent
20	Eylül	F	21	5001-7500	Less than 2 hours	6,00	Vacation	Often
21	Ebru	F	21	2501-5000	2-4 hours	8,00	Vacation	Often
22	Veli	M	20	7501-10000	2-4 hours	6,00	Concert	Frequent
23	Okan	M	19	2501-5000	4-6 hours	6,00	Vacation	Rare

### 3.3. Data analysis

As suggested by Charmaz (2006) and many qualitative studies, data analysis, data collection, and note-taking were conducted simultaneously. The interviews recorded at the end of the data collection process were read, coded, and categorized as themes, topics, and sub-topics. Qualitative data analysis procedures, as suggested by Braun and Clarke (2006), apply to this study. The recommended steps, according to these procedures, are (1) data familiarity, (2) creating an original technique for coding responses, (3) developing a method by which themes are discovered, (4) developing evaluation techniques for themes, (5) determining definitions and choosing names of all themes, and (6) compiling and writing the final report. Four credibility assessments were used throughout the process (Creswell, 2013). First, the results of the analysis were confirmed by making supportive observations during the interviews. Second, the consensus among researchers was established, as suggested in many qualitative studies. In the third step, which is expert opinion, a PhD-level expert on advertising confirmed the themes and categories' suitability for the research efforts. Fourth and lastly, a member-checking approach was used (Table 2). The results were shown to two interviewees and confirmed by them with minor corrections.

Table 2. Example of coding

Meaning unit	Initial coding	Sub-theme	Theme	Memo
<b>Ekrem:</b> Time is precious for every person. It's the same in me. When I review the content, I think my time was completely wasted.	The participant felt that his time was wasted while reviewing the content of some suggested ads.	Time-saving	Diving-in	When people review ads, they look for speed in getting the results they want. If the ad causes the person to think of wasting unnecessary time, the ad review is terminated.



## 4. Results

Because of the interviews with the participants, it was found that the advertising process was experienced in 3 stages. The researcher evaluated as «process themes» these stages, which emerged spontaneously during the interviews. The responses given within the resulting «process themes» were treated as «topics». The process themes were named: 1. «reception», 2. «diving-in», 3. «break-point». It addressed the responses of the participants at the above stages within the «topics» from which relevant themes spontaneously emerged. At the initial stage (reception), it classified the responses of the participants as positive and negative receptions, and the information obtained from the participants' views on the factors that led to positive and negative processed reactions under «sub-topics». The second phase, which emerges after the advertisement successfully passed the «reception» phase, was named «diving-in», and the reactions and expectations at this stage were also discussed. Sub-topics were obtained from the topics that emerged because of the interviews, and it compiled the responses for the 2nd stage. Finally, the phase of ending the advertisement (Break-point) was reached with the guidance of the factors affecting the success of the «diving-in» process in terms of participant response. At this stage, the main factors that cause the termination of the ads and both their positive and negative effects on the participant's reaction were discussed. It gave the schema that emerged as a result of the study in Figure 1, and we explained it with quotations of the views expressed by the participants.

### 4.1. Reception

The ad sent by AI either reaches the ad involvement or is skipped without being viewed, depending on the reaction of the user when it first appears. The inferences made because of the interviews show that, at this stage, positive and negative receptions govern the process. While general factors such as attracting the attention of the person and creating curiosity can be counted among the factors that affect negative reception, the opposite of the explanation, given in the «sub-topics» of the topic, «positive reception» can be counted as negative reception. I mention more specific cases in the negative reception topic below.

#### 4.1.1. Negative Reception

When advertisements related to leisure services reach the consumer, the image first encountered by the person determines the perception of the advertisement. Considering the average age of the sample group, it is likely that they often consider their financial interests. Therefore, while visual attractiveness is a serious factor, the perception of expensiveness can hinder this process. It gave an opinion of a participant in favor of this inference below: «I skip the ad when I see that a place or a hotel seems luxurious, thinking that I can't afford it, anyway. I have to consider my wallet as much as I would like to be in such places» (Oğuz, 21).

Another negative reception factor is the traces left by experiences. Participants avoid re-experiencing prior experiences that did not satisfy them and generalize similar activities. It gave the thought, reflecting this view below: «...last year we went to Kaş. My foot was seriously injured by the cliffs and my vacation was ruined. Whenever I get an advertisement about Kaş, I don't even look at it» (Sude, 20).

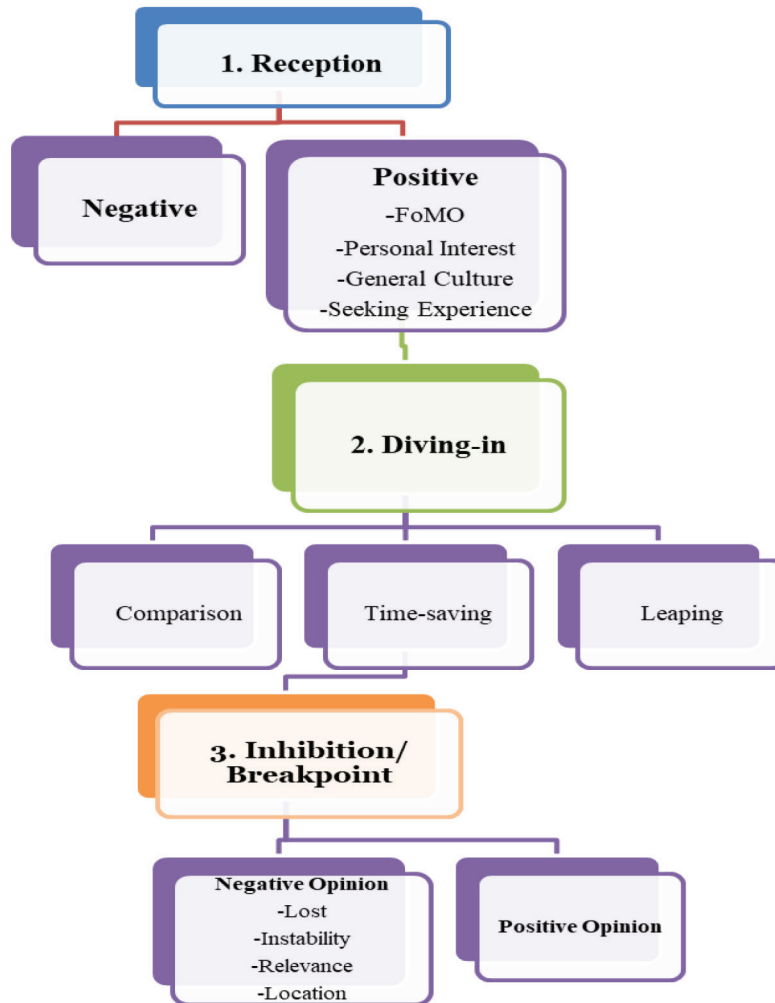


Figure 1. Consumer Reaction Towards AI Ads

#### 4.1.2. Positive Reception

The topic covered in this subsection related to the positive receptions of individuals at the time of their first interaction with the ads. If individuals encounter positive reception elements, they can decide to continue viewing the ads. Ad viewing ends and the advertising process cannot continue if consumers cannot relate to the concepts included in positive reception. The elements of the positive reception sub-topic are FoMo, Personal Interest, General Culture, and Experience Seeking. These elements are explained below and the participants' comments are provided.

FoMo: When the fear of missing out is imposed in advertisements containing leisure services, this fear stimulated the person and opens the advert and examine it. While this may be an opportunity offer, it may also be limited-day offers and financial opportunities. Particularly, in line with the

financial possibilities of the sample group, the participants state that specifying the price of the event on the main image may be an important factor in opening the relevant ad. The participants' comments supporting this view are given below.

I usually check to see if there is a fee on the poster. Even if it's not on the poster, I'll look at the description. I mean, you should be able to just click and see it. There are already a lot of ads, so I will not bother attempting to learn the price. (Selcuk, 20)

*Personal Interest:* Leisure service ads that individuals encounter regarding their field of interest can attract their attention at first sight. Advertisements about the concert of an artist that the individual is a fan of, or advertisements containing a vacation destination that the individual is planning to go to, can attract him/her personally because the content includes their interests. Showing the importance of personal attention, one participant who received the advertisement through a friend commented as follows.

Melek Mosso was coming to Afyon. I actually like her a lot, but I didn't get any ads about it. My friend randomly got the ad when I was with her. We bought our ticket as soon as we saw it. I would've missed the concert if I didn't see the ad. (Aysun, 21)

*General Knowledge:* Considering the above statement from another perspective, we can say that advertisements support the situations of following and attracting attention, as well as obtaining information, learning, and being aware. Rather than an opportunity situation, the content that appears in front of the user in recommended ads, which they have not searched about before and which allows him/her to get new information the elements of «being aware and curiosity» are seen as other factors that increase the chance of the ads being viewed. Besides this opinion, other participant comments are:

I mean, sometimes these ads lead me to learn new things. A turned out there is a place called «The Hobbit Houses» in Sapanca. Where I've come across a few times and even though it was a movie scene or something. It turned out to be in some park in Turkey. I learned about it through the ads. (Deniz, 19)

I watch a lot of movies and sometimes it's hard to find something to watch. I've watched many movies thanks to the suggestions. (Okan, 19)

*Seeking New Experiences:* Advertisements containing activities that are new to the user and which they think they could experience may also be effective if the content can respond to their wants and needs. The users can have a positive attitude towards the content, which contains activities that excite them and that they are open to trying. When people encounter such content, they imagine themselves in the event and may continue their advertising involvement with the belief that they can make their wish come true. The participant's comment for the sub-topic in question is as follows:

There are some ads that only have images of hotels and seascapes, which are already what you expect from a holiday. There was this ad that showed young people having fun on a banana boat. That's, for example, something I would like to take part in. (Kerem, 21)

## 4.2. Diving-in

The second theme for advertisements on leisure services is called diving. After the consumers react to the reception stage positively, they give new reactions in the review stage. The diving theme includes an ongoing process of individuals' perceptions of the ads. Consumers who cannot last in this phase do not perform their purchasing behavior.

The nature of the situations encountered during the evaluation of the contents comes to the fore. The generalization tendency of the consumer emerges because of the frequency of the encountered phenomenon and the co-existence of similar results. Content adequacy/insufficiency manifests itself as a re-reaction in the reception phase for the next ad. The reactions encountered during the diving process are associated with the sub-topics referred to as «comparison», «general knowledge», «time-saving» and «leaping». It also gives the relevant opinions below.

### 4.2.1. Comparison

Individuals can find a serious comparison opportunity within the suggestions given without the need to conduct additional research on the advertisement they are interested in. Digital traces gain importance here and offer users the opportunity to encounter other trace-based benchmark products later on. Users know that they will encounter these suggestions before they make a purchase, and they try to use this situation to their ad-vantage. In this process, encountering similar ads related to purchasing behavior that has not yet been performed can have a significant impact on the reminder feature and turn the intention into action. It gave opinions on participants reflecting on this topic below.

I talked to my friends about whether we should go to the camp, and then the advertisements about the camp appeared immediately. We came across a lot of company advertisements that organize camps. Since it coincided with the conversation, we looked into them. We looked at the pages of the companies in the recommended ads, looked at their followers, their activities, prices, etc. We made a shortlist to choose from..... Then, when I encountered ads again, I started sending them to my friends. Although the conversation was on the table, we couldn't make any real plans. But thanks to the pages I've looked through again and again; we finally went there. (Yusuf, 22)

My parents are on vacation right now. Let me tell you how it happened. They didn't have a vacation plan that I knew of. Ads kept popping up in front of my mom. She was saying things like «maybe we should go» or something, but no conclusion. Again, while I was at home like this, ads came to my mother again and then they left. If it weren't for the ads, they wouldn't have thought of it. (Aysun, 21)

### 4.2.2. Time-Saving

Time is undoubtedly a valuable resource for human beings. Therefore, consumers do not want to waste their time on commodities they find unnecessary. The sub-theme that emerged as another effective factor in the diving phase in this study is Timesaving. Participants emphasize that they want to conduct their research about any leisure service faster by using the suggested ads instead of spending time on search engines. Examining the advertisements that have been suggested based on the digital traces left by the consumer provides the consumer with a more specific review opportunity and faster access to the product with no additional research. Just as individuals do not want to waste their time,

their desire to «save» time has been considered a reaction when reviewing content. One of the participant's comments for the related sub-theme is given below:

I get furious when I open the ad and didn't find the explanations I was looking for. The cover of the ad is beautiful; the inside is a completely fiasco. I trust the cover and open the ad, stubbornly trying to reach the information about what the main page said. Then I leave finding nothing. I get frustrated for such a waste of time. (Seda, 22)

#### 4.2.3. Leaping

When considering any event, there may be additional equipment that the consumer would not think of at first, but is actually essential for the event. While consumers are not yet aware of this situation, they can improve their experience through the equipment suggested by the ads. If additional equipment related supports the content related to it, the person is considered in the sub-theme called leaping. Leaping takes place during the diving stage, depending on the type of activity, and the participants see it as an aid. One of the participant's comments supporting this inference is: «...turns out it doesn't end with buying a tent. You need a lot of things like flashlights, stools, sleeping bags. I discovered the things I need through the ads» (Yusuf, 22).

### 4.3. Break-point/Inhibition

Considering the reactions toward the suggested advertising process regarding leisure services, the main factors that led to it covered the termination of the process under this theme. It also covered together user comments about the way and the kind of elements in the ads affect this process with the emotions people experience. Another factor that emerges here is that although advertisements appear to enable us to perform our purchasing behavior, the review process continues with the function of small information packages until this behavior occurs. It emphasized these phases under the diving theme. As an extension of the diving theme, the part to understand at the breakpoint is the point of terminating or skipping the ad and returning to the main feed.

#### 4.3.1. Negative Opinion

The negative opinion topic within the break-point theme focuses on advertisements that have successfully passed the reception and driving phases but failed to satisfy the consumer and therefore could not achieve activating their purchasing behavior. Individuals stop viewing ads they find click-worthy in previous phases, because of the concepts given in this topic. The sub-topics determined for the negative opinion topics are «getting lost», «indecision», «relevance» and «locations».

*Getting Lost:* As a predictable extension of the comparison mentioned under the diving theme, the getting lost sub-theme manifests itself as an effort to get out because the individual gets lost in the abundance of options they encounter during the advertising process and gets bored with this situation. For the individual who is exposed to more diversity than they wish for, this diversity causes them to act negatively.

I get exposed to so much diversity that I'm starting to quickly skip from one ad to another. The ads keep going on incessantly and I am even tired of looking, but I also want to keep doing it because I need to make plans. (Melahat, 22)

*Indecision:* Another reason advertising diversity causes a negative reaction is causing indecision. While continuing their research on the leisure service they are looking for, users reach different involvements by turning to different opportunities they encounter, and the diversity they end up with affects the decision-making process. The participants in the study reported that their search ends because of the indecision caused by the variety of advertisements after a certain period. The participant comment, which includes the sub-theme of indecision, is as follows:

Let's say I'm looking for a hotel. If you have already researched once, there is no going back, it will re-appear for days. One hotel has an aqua park, the other is by the sea, and another one has another feature. Just when I decide on one of them, another suggestion appears. Then I can't decide. So, I end up leaving the ads. (Rıdvan, 21)

*Relevance:* The relevance of AI advertising is important to keep Ad involvement. Ads should maintain their relevance and not give the user the impression that they are ultimately reviewing them for nothing. Individuals have a negative reaction to advertisements that cannot maintain their relevance. One of the participant's comments supporting the inference is given below:

After a certain point, absurd things happen. What I was looking for was different; the place I ended up with is different. In such cases, I get bored and turn everything off immediately. (Asuman, 21)

*Locations:* Although some activities can be convenient, those that take place in their city are more appealing to users. We expect although changing locations for holidays; it is often not the case for events such as concerts, festivals, or theater. In terms of holiday trips, reactions depend on whether the location meets personal expectations (such as being close to the sea, markets, clubs, etc.) «If it is close to where I am and if I have spare time, and if the price is right, I'll be there.» (Eylül, 21).

I was in Izmir last week. I searched to see some places to go to and used my location. It's been a week since I returned, but I still get ads about different places in Izmir. There is even a place. I forgot its name. It is recommended so often that I thought that everyone in Izmir goes there. (Sude, 20)

#### 4.3.2 Positive Opinion

AI-based advertisements, which are reacted to by the participants, together with the stimulus of the related leisure service, complete a remarkable process. When the user's reaction process is managed correctly through the themes and concepts mentioned above, they can decide to purchase leisure service products as a reflection of these reactions. «I usually go if it works for me, if I found what I was looking for, and if I still think that I need it.» (Selcuk, 20).

## 5. Discussion and Implications

This study investigated the reactions of consumers to AI applications in leisure services, such as travel, vacation, and entertainment. This qualitative study, which reveals the emotions, thoughts, and reactions of 23 consumers exposed to personalized AI messages or promotions in leisure services, is



one of the very few studies in this line of research. Because of the conducted thematic analysis, three basic dimensions that characterize consumers' reactions to AI ads and their experiences were determined. The determined dimensions were process-based and were evaluated as reactions encountered during the processes. It entitled these themes as reception, diving, and break-point. The reception theme was evaluated in two topics as positive reception and negative reception, and the positive reception topic turned out to be related to the sub-topics of FoMo, personal interest, general knowledge, and seeking new experiences. The second theme, diving, is explained with the topics called comparison, time-saving, and leaping. The third and final theme, break-point, is divided into two topics positive and negative. The negative break-point theme was associated with getting lost, indecision, relevance, and logistics sub-topics.

While these themes that emerged because of the research were in line with some responses to artificial intelligence-based advertisements (Xian, 2021; Li, 2019), the unique side of the study was the themes or sub-themes that were not emphasized in the literature and emerged specifically in this study. For example, some observe that the reactions of the consumer to the advertisement because of FoMO and the information in the literature are parallel to each other. FoMO can be a successful strategy for starting sales and for individuals who respond positively to fear calls (Hodkinson, 2019). Indeed, Hodkinson (2019) highlighted that it started FoMO appeals through salespeople and advertisements.

Considering that it used the FoMO element in many advertisements in practice (Argan et al., 2018), some observe that this aspect of our research and the information in the literature are parallel to each other. When the responses of the participants have carefully listened to during the collection of the study data, it was observed that it related the responses given by the individuals to several stages. The first interaction with the ad includes a reaction related to the ad, and the ad responses had to be successful for them to go through the review process. Therefore, advertisements encountered on social media are clicked on or skipped depending on whether the person finds them click-worthy. It has shown that click-worthiness in social media advertisements should be evaluated in the processes, as well as exposure and involvement. With this finding, our study contributes to the subject of AI.

The principal managerial contribution of this study is to show that the crucial point in a succession of AI ads is to contain creative content which could attract the attention of the consumer. The results highlight that the manager needs to consider should evaluate both positive and negative aspects of AI from a consumer-oriented perspective. It should have considered that it is necessary to be careful in matters that may disturb the consumer and are likely to intrude into private areas' aspects of their lives. For AI advertising messages not to go to waste, marketing managers should consider the issue from the perspective of consumer behavior. It related selectivity in perception to a desire to click and see AI advertising.

As shown by 'psychological variables in consumer behavior', perception increases when the message exactly matches the person's needs. Within the framework of consumer behavior research, this study reveals how variables, such as perception and learning, which are considered intrinsic or psychological factors, affect AI advertising. Understanding the users' reactions to AI ads gives managers another perspective based on which they can improve the ad creation process by creating more relevant and engaging ad messages that improve the customer experience.

This study also shows that AI algorithms can predict consumer expectations and desires on a large scale and that they can apply consumer behavior theories and variables to improve advertiser-user interactions. Thus, using theories such as personalization, needs, expectations, and motivation to attract the attention of consumers provides managers with opportunities.

## 6. Conclusion

This study examines the behavior of social media users exposed to AI ads. Using a qualitative study, which included an in-depth interview, we found three process themes that influence consumer reactions to AI-based advertisement messages among social media users: reception, diving in, and break-point. The first stage comprises positive and negative sub-themes. If the AI ads attract the attention of a consumer, positive evaluation occurs and the consumer's evaluation of AI ads continues. That this positive stage, FoMO, personal interest, general culture, and seeking experience come into play. The second stage, entitled diving in, includes sub-themes, comparison, time-saving, and leaping. The final stage represents the decision-making stage and includes negative or positive opinions. Regarding theoretical implications, AI-based brand ads need to constantly update their knowledge of the psychological mechanisms that will motivate consumers. The current study contributes to social media user reactions to artificial intelligence-based advertisements. Specifically, our study contributes to the literature on the success criteria of AI-based advertising by demonstrating that psychological and impulsive factors have significant effects on the reactions of users using social media and being exposed to AI ads. Considering managerial implications, brands that use AI ad technologies should put themselves in the place of the consumers. In other words, they should empathize. A synthesis of consumer reactions on social media is important in advertising, as well as AI research and practice because a user-based perspective is required to achieve effective results.

## 7. Limitation and Future Studies

As in every scientific research, our study also has some limitations. We can consider this study pioneering research, as it provides the first qualitative, in-depth descriptions of consumers' reactions to AI ads. To eliminate the limitations of research, the validity and reliability issues in qualitative research, such as member checks, are emphasized. However, our research still has some limitations, as in every qualitative research. It may limit the generalizability of these results because of the small sample size. Therefore, the results of our study should be evaluated in this limitation. To get more generalizable results, it would be beneficial to include participants from more countries and perform quantitative studies. It can achieve a broader and generalizable perspective by using consumer-based scales related to AI advertising metrics or by developing new scales.

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