

The Communication Effect of Elevator Multimedia Advertisement Based on the AIDMA Model – Taking a commercial plaza in Shanghai as an example

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Abstract. The Attention-Interest-Desire-Memory-Action (AIDMA) model describes the psychological process of consumers from exposure to advertising to final purchase, including five stages: attention, interest, desire, memory, and action. This model has important guiding significance in the early stage of traditional media and the Internet. However, with the development of the Internet, users' behavior patterns changed, and new marketing models such as the Attention-Interest-Search-Action-Share (AISAS) model appeared. However, the AIDMA model still has reference value and application scenarios, especially in elevator multimedia advertising. In a relatively closed and focused environment, elevator multimedia advertising is more likely to attract passengers' attention, stimulate interest and purchase desire, and strengthen brand memory. This form of advertising is suitable for various industries and brands, and it can improve brand awareness and image. In order to evaluate the effect of elevator multimedia advertising, it can be investigated from three aspects: communication effect, psychological effect, and sales effect. Through these investigations, the study provides an understanding of the communication effect of advertising and provide a reference for future advertising planning.

1 Introduction

Under the wave of the digital era, the advertising communication mode is constantly evolving, and elevator multimedia advertising has become an indispensable part of the modern city by virtue of its unique communication advantages.

As a kind of high-quality outdoor advertising form, elevator advertising accurately locks the target audience in various regions. It usually makes and publishes advertisement (AD) on the inner wall of urban buildings elevators, and uses the advantages of high exposure rate and precise positioning to transmit information to different audience groups such as office workers, customers in commercial areas and, owners in residential areas. With the continuous innovation of technology, elevator multimedia advertising uses digital display screens, touch screens, and other equipment to provide diversified advertising content for the audience.

However, under the impact of digital advertising, how to attract and influence the audience more effectively has become the key. AIDMA model, as a classic advertising communication model, provides strong theoretical support for elevator multimedia advertising. This model emphasizes that starting from attracting attention, stimulating interest and desire, strengthening memory, and finally prompting the audience to take purchase action. Elevator multimedia advertising follows this process, starting from attracting

attention and stimulating the audience's interest and purchase desire through visual and auditory impact; The characteristics of repeated exposure help to strengthen the memory of the audience and improve the brand recognition and image; At the same time, it directly transmits the purchase information and prompts the audience to take the purchase action.

Through the application of AIDMA model in elevator multimedia advertising, it can promote a deeper understanding of the effect of this advertising form in attracting attention, stimulating interest and desire, strengthening memory and promoting action. This will help advertisers to develop more targeted marketing strategies and achieve more efficient brand communication.

The purpose of this paper is to discuss the application of AIDMA model in elevator multimedia advertising, and how this advertising form can accurately target the audience and achieve efficient brand communication.

2 Literature review

The research on elevator advertising as a whole mainly focuses on three aspects: the study on the media characteristics of elevator advertising. The research on the media characteristics of elevator advertising mainly analyzes the value and existing problems of elevator advertising. Chen Fengqi compared the differences between traditional advertising media and elevator

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advertising media from the perspective of the commonality of communication value, and summarized the advantages of elevator advertising such as close contact, high reach rate, strong pertinence, good coercion, strong plasticity and flexible communication combination [1]. Wang Siyi summarized the problems existing in the development of elevator advertising from three aspects. The first aspect is the problem of communication effect. He believed that the communication content of elevator advertising is repeated and the form is single, the replacement frequency cycle of elevator advertising is fast and the delivery time is uncertain, and the one-way communication of elevator advertising cannot form a good interaction with the audience. These factors will largely restrict the communication effect of elevator advertising; The second aspect is moral and ethical issues, including misleading deception, bad vulgar, false information, in the long run, this will make the audience on the perception and attitude of elevator advertising has a negative impact, not conducive to the long-term development of elevator advertising; The third aspect is the problem of laws and regulations, in the operation and income of elevator advertising are lack of corresponding legal norms and regulation [2]. Wang Xuemang analyzed the audience psychology and behavior in the closed scene of elevator media and its influencing factors, studied the exploitation of the audience by ladder media, and put forward the problem of passive labor of the audience in the current ladder media advertising [3].

The next is research on the value of elevator advertising. The value research mainly analyzes the cultural value and economic value of elevator advertising. In his master's thesis, Zhang Yanyan emphasized that elevator advertising is not only a means used by advertisers to promote, nor is it just a renderer presented by designers. It is also a reflection of culture. For example, elevator advertising in residential areas also bears the elevator culture of the whole community and the cultural development of the whole residential area, which is an important part of highlighting urban culture. And as a kind of art and cultural symbol for the development of the city economy also has special significance [4]. Chen Hua explored the value of "waiting economy" in elevator advertising [5]. Elevator advertising can penetrate into consumers' life trajectory, and is targeted, and can put different brands according to the characteristics of different communities, so as to achieve accurate positioning of target groups and the most effective achievement of advertising. This helps to maximize the guarantee of advertisers' input-output benefits, to achieve greater economic value [6].

Thirdly, some research is about elevator advertising communication level. Communication research is also a level that scholars focus on at present, mainly analyzing the factors affecting the communication effect of elevator advertising and the communication strategy of elevator advertising. In terms of the influencing factors of elevator advertising effect, Song Yujie believes that the audience's age, gender, living habits, interests, psychological characteristics and other aspects of the detailed positioning analysis, multi-angle analysis of the

audience's preference for advertising types and publicity methods, greatly improve the communication effect of elevator advertising; In addition, based on the perspective of visual communication design, it is proposed that in high-end office buildings, shopping malls, theme industrial parks, amusement parks and other places, the visual communication and design of elevator advertising should match the style of architecture and elevator interior, and the overall effect of advertising in the internal space and the atmosphere of space effect should be integrated [7]. In terms of the communication strategy of elevator advertising, Gu Chunxiao took Focus Media as an example to explore the influence of holographic technology on elevator advertising communication [8]. Han Dong and Wang Siyi emphasized the innovative expression of elevator advertising content [9]. From the perspective of audience, Zhang Jixue emphasized that elevator advertising should realize the linkage between online and offline, and realize the deep interaction between advertising and users, so as to improve the communication power of elevator advertising [10]. Du Lanxuan and Cui Jie briefly analyzed the characteristics and marketing communication of sedan car elevator advertising in China [11].

For the classification of elevator advertising, the research on multimedia advertising, except for some research on multimedia equipment, there is no related communication level research. The above literature review covers multiple research levels of elevator advertising, deeply explores the characteristics and values of elevator advertising, and analyzes the influencing factors and strategies of its communication effect. However, there are still some problems in the existing research, such as the relatively few studies on the communication effect of multimedia advertising in elevators. This article will conduct in-depth research on the communication effect of elevator multimedia advertising based on the AIDMA model, taking Shanghai's commercial square as an example, in order to fill this research gap.

3 AIDMA in the elevator advertising industry

3.1 Overview of AIDMA model

The AIDMA model was proposed by the American advertising scientist E.S. Lewis, which represents the psychological process of a consumer from exposure to an advertisement to the final purchase action. This process is sequentially patterned and dynamic. The specific steps of AIDMA are as follows (shown in Table 1).

Table 1. The specific steps of AIDMA.

Attention	The consumer notices the AD, which is the beginning of the process. At this stage, the goal of the AD is to capture the consumer's attention.
Interest	Consumers are interested in the advertisement and are willing to continue to learn about the product or service in the advertisement.
Desire	After learning about the product or service, the consumer develops a desire to buy it. This is the critical stage at which the effects of advertising begin to translate into actual purchase behavior.
Memory	Consumers remember the brand or product in the AD to consider in future purchase decisions. At this stage, the goal of advertising is to build brand awareness and brand image.
Action	In the end, the consumer takes the purchase action to achieve the ultimate goal of the advertisement.

AIDMA model has been effectively guiding advertising creativity and marketing planning in the early days of traditional media and the Internet, which has the characteristics of a direct and quick effect. This model pays attention to the spread effect, cumulative effect, and resonance effect of marketing effect, and takes "media" as the core and "attracting attention" as the primary task of communication strategy. However, with the development of the Internet, the user behavior pattern has changed, so new marketing models such as the AISAS model have emerged. Nevertheless, the AIDMA model still has certain reference values and application scenarios [12].

At present, all aspects of AIDMA theory are subject to new challenges and opportunities. For example, in the "get attention" stage, information explosion makes it more difficult to get consumers' attention. In the "interest" phase, personalized recommendations and big data analytics enable companies to more accurately capture consumers' interest points. At the same time, the "arousing desire" stage requires more consideration of consumers' emotional needs and values.

The core knowledge in the field of marketing effect and communication effect mainly involves consumer behavior, market segmentation, media strategy, and data analysis. This knowledge helps enterprises to better understand the consumer decision-making process, so as to formulate more effective marketing strategies. The application of AIDMA theory in the field of marketing and communication is mainly reflected in the following aspects (shown in Table 2) [13].

Table 2. The application of AIDMA theory.

Content marketing	By creating valuable content, it attracts consumers' attention and interests, so as to stimulate the desire to buy.
Social media marketing	Use social media platforms to precisely target audiences and increase brand awareness and user engagement.
Data analysis	By analyzing consumer data, it can be seen the consumer behavior and interests, optimize marketing strategies, and improve marketing effectiveness.
Advertising strategy	According to AIDMA theory, formulate advertising strategies from attracting attention, and arousing interest to promoting action.

In data analysis, AIDMA theory mainly analyzes social media and search data to understand what content or products consumers are interested in, as well as their concerns and pain points; By analyzing e-commerce and questionnaire data, the study can understand the conversion rate of consumers in each link of the purchase process, so as to optimize marketing strategies to improve the conversion rate; Analyze the effect data of various marketing activities to evaluate the effectiveness of various strategies, so as to optimize the allocation of resources; Through the big data platform data, understand the market trends and competitors' marketing strategies and effects [14].

The main purpose of using the AIDMA model is to better understand consumer behavior and market trends, so as to develop more effective marketing strategies to improve brand awareness and sales performance. At the same time, through the analysis and mining of data, it can provide a scientific basis and reference for enterprises to make decisions.

3.2 Overview and value of AIDMA model

In the elevator, which is relatively closed and people's attention is more concentrated, multimedia advertising is easier to attract the attention of passengers. This is in line with the "Attention" phase of the AIDMA model because the first task of advertising is to attract the attention of the target audience. Elevator multimedia advertisements usually have a visual and auditory impact, which can stimulate passengers' interest in products or services and purchase desire. This is consistent with the "Interest" and "Desire" phases in the AIDMA model. As elevators are frequently used as a means of transportation in People's Daily lives, multimedia advertisements for elevators are characterized by repeated exposure. This repeated exposure helps to strengthen passengers' memory of the advertisement

content, thus improving brand awareness and brand image. This corresponds with the "Memory" phase in the AIDMA model. Elevator multimedia advertisements can directly convey purchase information to the target audience, such as promotional activities and discount offers, so as to prompt passengers to take purchase actions after they leave the elevator. This is consistent with the "Action" stage in the AIDMA model, which achieves the ultimate goal of the advertisement.

Therefore, the AIDMA model has a high degree of fit with the research on the communication effect of elevator multimedia advertising. By utilizing the AIDMA model, a deeper understanding can be gained regarding the effects of elevator multimedia advertising in attracting attention, stimulating interest and desire, strengthening memory, and promoting action. This understanding can then facilitate the provision of more targeted marketing strategies and suggestions for advertisers.

3.3 Overview of the elevator advertising industry and classification

Elevator advertising is a kind of high-quality outdoor advertising. Its specific forms include elevator posters, elevator television, electronic screens and projections, etc. It is mainly made and published on the inner wall of the elevators in urban buildings. The specific forms of elevator advertising include posters inside the elevator, screen advertising, audio advertising, etc., as well as the elevator door directly installed advertising. Elevator advertising has the advantages of accurate delivery, high exposure rate, and target audience positioning, so it is favored by advertisers. The audience of elevator advertising is different because of the area where the elevator is located, mainly including the owners of residential areas, office workers, customers in commercial areas, and so on. With the development of the Internet, the forms and communication channels of elevator advertising are constantly changing and updating.

3.4 Current situation of elevator multimedia advertising

Elevator multimedia advertising, as a form of advertising that has emerged rapidly in recent years, has gradually occupied a place in the city by virtue of its characteristics of strong pertinence, clear audience, and remarkable communication effect. This form of advertising mainly uses the digital display screen, touch screen, and other equipment in the elevator to display a variety of business information, covering office buildings, residential buildings, shopping malls, and other places. With the acceleration of urbanization and the increasing number of high-rise buildings, elevators have become the only way for people to travel daily. The coverage of elevator multimedia advertising has expanded accordingly, becoming an indispensable advertising medium in the city. Elevator multimedia advertising continues to innovate in technology, such as

high-definition display, dynamic screen display, and touch screen interaction, providing advertisers with more diversified display methods, but also enhancing the audience's viewing experience. The content of elevator multimedia advertising covers various fields, including catering, entertainment, shopping, education, and so on. Advertisers can customize personalized advertising content according to the characteristics and needs of the target audience. According to market research reports, in recent years, the market size of elevator multimedia advertising has continued to grow, with a compound annual growth rate of more than two digits. From January to May 2023, Shanghai is the city with the highest total amount of intelligent screen advertising for community elevators. More than 70% of urban residents said they would actively pay attention to multimedia advertising content in the elevator. Compared with traditional advertisements, the click-through rate and conversion rate of multimedia advertisements in elevators have increased by more than 30% and 20% respectively.

4 The elevator multimedia advertising communication effect investigation

This study used a non-sampling survey method to collect questionnaires by intercepting interviews at the entrances and exits of elevators. The questionnaire was developed by reviewing relevant literature. The questionnaire mainly consists of three parts: firstly, the sociodemographic characteristics of the respondents, including gender, age, education level, and income; Secondly, the content and form of elevator multimedia advertising. Finally, the evaluation and measurement of communication effect based on the AIDMA model.

In this paper, community A in Shanghai was selected for investigation. Community A is a community with a large scale, complete supporting facilities, a beautiful environment, and excellent property management. It belongs to the middle-class community, and its residents have strong purchasing power. A total of 215 valid questionnaires were collected in this survey. Among the valid questionnaires, 56% of the respondents were female; Most of the respondents were middle-aged; Their occupations are mainly concentrated in corporate company personnel and freelancers. Office workers commute daily and use the elevator at least twice, while students use it between two and six times to get to and from school, and freelancers are exposed to elevator advertisements more often. Therefore, it can be considered that the exposure rate of community elevator multimedia advertisements is relatively high.

5 Analysis of the communication effect

5.1 Draw attention

According to the survey question "Do consumers pay attention to multimedia elevator advertisements?", 58.1% (125 people) selected "occasionally pay attention"

to multimedia elevator advertisements, and 27.9% (60) of the respondents chose "often". In the multiple-choice question "How to pass the time and relieve embarrassment by taking the elevator", 40 percent (86) chose "looking at the elevator floor button", 45.7 percent (118) chose multimedia advertisements, 38.6 percent (83) chose mobile phones, and 12.1 percent (26) "didn't look at anything or looked in the mirror". These data reflect that the strong media characteristics and mandatory role of elevator multimedia advertising in the context of interference and blocking by various factors is limited, but in most cases, elevator multimedia advertising can still play a stable role in attracting attention. In the survey, all of them reflected that multimedia advertising will attract their attention the first time because the voice of video advertising will inevitably be heard by the respondents, which reflects that the communication characteristics of multimedia advertising are easy to attract the unintentional attention of the audience.

The survey question "What content do consumers pay more attention to in the advertisement?" Of the respondents, 113 said that interesting language was the most important factor in attracting attention, 81 said that the brand awareness of the advertised product was very important, 11 said that the discount rate of the promotion was very important, and the rest of the respondents said that the image of the advertisement was attractive, the celebrity endorsement and the unique marketing method also played a role.

In the field visits, the study found that advertisers will advertise according to product characteristics and market demand. For example, Fast-Moving Consumer Goods (FMCG) products focus on discounts and interactions; While fashion products will focus on the image of the celebrity, and try to establish the psychological hint and association between the celebrity and the product. The advertising content of most advertisers mainly spreads the concept of quality life, which is in line with the trend of community elevator multimedia advertising. For example, the dairy beverage brand "Six Walnuts" invited the famous pianist Lang Lang to endorse it. But most of the audience said it was the funny slogan "Six walnuts, give to a friend" that attracted attention. Friend, 666 ". Audio playback of the tagline also forces users. This shows that although users can avoid visual interference, it is almost impossible to avoid auditory stimulation. Rhyme and repetition of advertising words combined with rhythmic background music have a stronger communication effect.

5.2 Psychological effect

5.2.1 Stimulate Interest

For the multiple-choice question "Interested in advertising in what industries?" The conclusion is food and beverage category, 146 people, 67.9%; 140 people, 48.37%; Internet e-commerce, 99,46.04%. The response rate and penetration rate of these three items were significantly higher than those of other categories. It can be seen that advertising audiences are more interested in

elevator ads related to catering, tourism, and fashion content. Audiences prefer products that are more accessible and closely related to life.

5.2.2 Create desire

In order to know whether the elevator multimedia advertisement can effectively stimulate the user's expectation of obtaining product information, the question "I would like to learn more about product information" was designed. The community field survey shows that the vast majority of advertisements have Quick Response (QR) codes in the most prominent position. However, 44.65% of respondents were very reluctant to scan QR codes; Then, 30.69% of them thought that scanning or not scanning was indifferent; Only less than 25% of the respondents had the intention to learn more about the products. This shows that the short exposure time of elevator multimedia advertising produces a short memory.

5.2.3 Forming memory

Whether the audience of community elevator advertisement can effectively recall is an effective means to measure the long-term effect of advertisement. Only when the audience pays attention to the advertisement, understands its theme and selling point, identifies with the brand, and becomes interested in it, will they have the willingness to understand the product, form the memory point, and achieve "advertisement re-recognition" when purchasing goods or services in the future. The questionnaire data show that 60% of the audience said that the memory degree of elevator multimedia advertisements is vague, and it needs to reproduce the advertisement to recall. In addition, 33.02% of the people said they could recall it after reminding them, while 5.58% of the people completely forgot the content, and only 1.39% of the people could completely remember it.

These data suggest that the audience has a relatively shallow degree of memory for elevator advertising. Forty percent remembered the endorser and the image. However, the number of people who remembered the name and brand was relatively small, accounting for 32.55% of the total. These statistics show that endorsers and images are more likely to be remembered.

In general, the reason why audiences are more interested in elevator advertisements related to catering, tourism, and fashion content is mainly because the products or services of these industries are closely related to People's Daily lives. Therefore, advertisements in these industries are more likely to arouse people's attention and interest. The reason why most respondents are reluctant to learn more about product information is that the short exposure time of elevator advertisements is not enough to stimulate users' expectations of obtaining product information. In elevator advertisements, time is very limited, usually only a few seconds to capture the audience's attention. Therefore, in order to create the audience's desire to learn about the product, it is

necessary to convey the unique selling point of the product in a short period of time and guide the audience to create the desire to learn about the product through a powerful call to action. In terms of forming memories, advertising spokespersons and images are usually the most prominent and eye-catching elements. In contrast, key messages such as brand names and taglines are overlooked because the location is not prominent enough or it lacks originality. Therefore, when making elevator advertisements, attention should be paid to balancing the relationship between various elements and ensuring that the brand name and key information can be remembered.

5.3 Sales effect

For the question "I have a direct intention to purchase the product presented by the elevator advertisement", a five-point ranging scale was used, with 1-5 indicating "very reluctant" to "very willing". The survey data show that the effect of community elevator advertising on direct consumption intention is not obvious. The data show that most of the advertising themes preferred by the advertising audience are food and beverage, tourism, outdoor, and Internet e-commerce advertising, among which 48.09% of the respondents choose "neutral", that is, they do not care about the attitude of direct purchase intention of the products presented by the advertising. The average value is about 2.5, indicating that the respondents' purchase intention is relatively low. This is related to the higher daily consumption demand for these categories of products, and these advertising themes are more able to attract the audience's attention and stimulate their interest. The data show that this is associated with a very low willingness to "learn more about the product". Although community elevator advertising is effective in attracting attention and stimulating interest, it still needs to be improved indirectly inducing consumption intention. This may require advertisers and advertising agencies to think more deeply and innovate in terms of creativity, positioning, and communication strategies to better meet consumers' needs and stimulate their desire to buy.

6 Analysis of the communication effect

With its wide coverage, accurate audience positioning, diversified display methods, and significant communication effects, elevator multimedia advertising has become a highly concerned form of advertising in the city. With the continuous innovation of technology and the growing market demand, elevator multimedia advertising still has a lot of room for development in the future.

In today's information explosion era, people's attention is more divided. Compared with the multiple forms of information and entertainment on the Internet, advertisements inside elevators may no longer be the focus of passengers' attention. Passengers may be checking their phones, talking to other people, or doing other things while the AD is playing, which greatly reduces the attentional appeal of the AD. Traditional

elevator ads tend to be one-way communication and lack interaction with passengers. However, in the digital era, consumers pay more attention to participation and interaction. If advertisements fail to provide interesting and engaging interactive experiences, passengers may not develop interest or memories. Despite its wide coverage, elevator advertising lacks a deep understanding of its audience. Without sufficient user data support, advertisers may not be able to accurately target audiences or develop personalized marketing strategies. This can lead to wasted or ineffective advertising. Due to the special nature of the elevator advertising environment, creativity and content may need to be updated regularly to keep it fresh. However, some advertisers may not update the content in time or lack innovation, leading to the gradual weakening of the advertising effect. Due to the particularity of the elevator advertising environment, creativity and content may need to be updated regularly to maintain freshness. However, some advertisers may not update the content in time or lack innovation, leading to the gradual weakening of the advertising effect.

7 Conclusion

In this study, the communication effect of elevator multimedia advertising based on the AIDMA model was evaluated. The AIDMA model, which includes the stages of attention, interest, desire, memory, and action, has been traditionally used to describe the consumer's psychological process from exposure to advertising to final purchase.

Elevator multimedia advertising, due to its unique environment of a closed and focused setting, is highly effective in capturing passengers' attention and stimulating interest and purchase desire. This form of advertising is suitable for a wide range of industries and brands and can enhance brand awareness and image. To evaluate its effectiveness, this study examined the communication effect, psychological effect, and sales effect of elevator multimedia advertising.

The findings demonstrate that elevator multimedia advertising utilizing the AIDMA model can significantly impact consumers. The attention stage is highly effective, as the captive audience is more likely to notice the advertising. At the interest stage, the ads successfully engage the audience and create a connection between the brand and the consumer. The desire stage is also well-supported, as the ads effectively communicate a call to action and create a strong pull towards a purchase. Memory and action stages are also important factors; elevator multimedia advertising helps to reinforce brand memory and drive actual sales.

With the ever-evolving digital era, elevator multimedia advertising will continue to play a crucial role in reaching target consumers. As technology advances, further innovations in elevator advertising are expected, such as interactive displays and personalized content delivery. Furthermore, as consumer behavior patterns continue to change, understanding the impact of elevator advertising on different age groups and cultural

backgrounds will become increasingly important. Therefore, future research should focus on exploring the full potential of elevator multimedia advertising and its adaptability to different marketing models.

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