

The influence of interstitial ads in television products on consumers' purchase intentions

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Abstract. Insertion-style advertisements have become one of the most prevalent methods for enhancing brand awareness in contemporary marketing. These advertisements take on a variety of forms and are strategically placed within media content. This study investigates the impact of the placement of insertion-style advertisements in film and television productions on consumers' purchase intentions. The research primarily employs an experimental grouping method, conducting online questionnaire surveys among 200 Chinese internet users across different regions via relevant platforms. Based on the analysis of the questionnaire results, it is evident that inserted advertisements placed in the middle section of films or TV shows yield the best overall user behavioral performance. Advertisements positioned at the end of the content tend to have a lower completion rate, while those at the beginning exhibit some limitations in engagement. Brands can enhance brand exposure and recognition by strategically placing a significant number of advertisements in the middle sections of films or TV shows, which positively influences consumers' purchase intentions.

Keywords: consumer behavior, interstitial, advertisement

1. Introduction

In the first half of 2024, the scale of China's internet advertising market reached 351.4 billion yuan, marking a year-on-year increase of 11.8% [1]. Notably, interstitial ads have emerged as a critical driver for the sustained expansion of the market during this growth phase. In recent years, interstitial ads have gained increasing adoption by brand owners and film and television producers alike. These ads not only effectively enhance brand awareness and boost product sales but also provide additional revenue streams for film and television producers, creating a "win-win" scenario for both parties. For instance, in the hit TV series "Yongye Xinghe", released in 2024, interstitial ads were strategically placed at the beginning of episodes and integrated seamlessly into the plot. By aligning with the narrative context of the work, these ads enhanced the visibility of advertised products, thereby driving their high sales performance.

In the academic domain, extensive research has consistently shown that interstitial advertisements can effectively enhance brand awareness and memory retention. For instance, Rothschild had already pointed out in 1984 that advertisements could establish a deeper connection with consumers through creating emotional bonds, thereby influencing their purchasing intentions [2]. Nevertheless, at present, brand owners exhibit a limited understanding of the formats of interstitial advertisements and the precise impact these advertisements have on consumers' purchase intentions. Consequently, this article seeks to investigate the influence of interstitial advertisement formats within film and television content on consumers' purchase intentions.

This study will employ an experimental grouping approach to categorize 200 participants from various regions in China into six groups. The objective is to investigate their willingness to view the interstitial advertisement, click on the advertisement's detail page, purchase products associated with the advertisement, and prioritize purchasing advertised products they had previously viewed during subsequent shopping decisions. This research aims to assist brand owners in refining certain internal formats and optimizing their placement positions, thereby enhancing their exposure, increasing brand awareness, and boosting sales performance.

2. Relevant preparations

2.1. Conceptions

Different websites give different definitions of “interstitial”. In 2000, an article written by Yingjian Feng, pointed out this opinion. For example, CNNIC defined “interstitial” as a blank page, while another website served it as an embedded advertisement [3]. In this study, interstitial ads are more like a kind of way to expand the brand’s popularity, and are a piece of advertisement embedded into the television products. In today’s advertising market, interstitial ads have emerged as an increasingly prevalent dissemination method. In addition to traditional advertising placements, brands are also opting for interstitial ads whenever possible.

Currently, interstitial ads are predominantly utilized on websites and take various forms, including pop-ups, intrusive placements, and standalone playbacks. The idea in Christian M. Derbaix’s research is that “the result of such specific studies could be that the audience receives advertising content more consistent with its wishes, and the announcers, are able to justify their content elaborated on the basis of a real marketing approach and, therefore, can expect a larger and better utilization of this content leading to the greater profitability of their efforts” [4]. Therefore, advertisements that align with consumer expectations can be more widely and effectively adopted, prompting brand owners to strategically shift in this direction.

2.2. Classification

The interstitial can be divided into two types: one is the traditional interstitial, and the other one is the modern interstitial. In the past, the interstitial was compulsory for the audience to watch, like the advertisement on television. The modern interstitial leverage interactive designs, such as the TrueView format of pre-roll ads that allow users to skip after five seconds. This design not only grants users the autonomy to choose but also effectively balances advertisers' need for exposure with user experience. Moreover, mobile interstitial ads frequently integrate touch-based operations (e.g., click-to-jump), thereby fostering a stronger sense of user engagement. Meanwhile, it fulfills the requirements of precise communication, including the meticulous selection of target audiences, the precise evaluation of communication outcomes, and the establishment of a one-to-one interactive communication framework between enterprises and customers [5].

3. Empirical analysis

3.1. Influencing factors

In the existing literature, the majority of studies have treated users' responses to advertisements as the dependent variable, with independent variables typically associated with the playback platform, product attributes, audience demographics, and advertisement design characteristics [6]. To investigate the impact of advertisements themselves on users' consumption preferences, this study defines the independent variable as the placement of inserted advertisements, specifically categorized into three types: pre-roll, mid-roll, and post-roll. Additionally, the moderating variable is defined based on the presence or absence of social celebrities in the advertisement performances. This study employs the ad completion rate, click-through rate, and conversion rate as metrics to quantify users' consumption preferences. Additionally, memory retention is established as a mediating variable in the analysis.

Ad Completion Rate, is a crucial metric for assessing whether users have watched through a complete advertisement, and it is also one of the indicators for evaluating the attractiveness of an advertisement. For example, while an engaging advertisement typically exhibits a high ad-viewing completion rate, this alone does not necessarily indicate that the advertisement is successful or will positively influence consumer behavior. Therefore, it is necessary to incorporate click-through rate and conversion rate as additional metrics to respectively assess users' propensity to click on the product detail page and proceed with the purchase after viewing the advertisement. Mothersbaugh David. L. and Hawkins. Del. I. in their research, which was published in 2016, pointed out that when perception occurs, the content derived from the stimulus is transferred to memory, and later, when the consumer is making a purchase decision, this memory is activated [7]. Therefore, this study integrates users' memory of advertisements into the evaluation of consumption behavior, as it serves as a critical factor influencing purchasing decisions.

3.2. Hypothesis

Advertisements placed at the beginning of a program can rapidly attract audience attention in a short time, effectively increasing exposure and brand awareness. However, they also run the risk of being skipped by viewers. Furthermore, for viewers who engage in prolonged consumption of films and television programs, frequent exposure to opening advertisements may lead to the development of negative emotions, thereby contributing to the adverse effects of advertising. Compared with opening advertisements, mid-film advertisements are more likely to elicit negative emotions from viewers, yet they tend to achieve higher exposure rates. This is because the advertisements in the film will cause the audience to have a strong sense of interruption and

fragmentation. Post-roll interstitials tend to excel in maintaining viewers' continuous engagement, as they typically do not disrupt the viewing experience. Nevertheless, a significant majority of viewers still opt to skip these advertisements in practice.

Based on the aforementioned perspectives, it is possible to formulate three hypotheses at present.

Hypothesis 1: Mid-roll interstitial has a relatively high completion rate.

Hypothesis 2: Pre-roll interstitial has a relatively high click-through rate.

Hypothesis 3: Mid-roll interstitial has a relatively high conversion rate.

3.3. Questionnaire design

The research primarily employs an experimental grouping method, conducting online questionnaire surveys among 200 Chinese internet users across different regions via relevant platforms. To investigate the influence of advertisements on consumers' purchasing behavior under varying conditions, respondents were allocated into six groups. Each group was presented with corresponding videos via the questionnaire and subsequently asked pertinent questions (see Table 1).

Table 1. Experimental grouping

Group	The Location of Interstitial	Whether Include Celebrity
A1	Pre-roll	No
A2	Pre-roll	Yes
B1	Mid-roll	No
B2	Mid-roll	Yes
C1	Post-roll	No
C2	Post-roll	Yes

3.4. Data Collection

This research was carried out via the global online survey platform "Credamo", leveraging its professional services and precise participant targeting to facilitate survey completion. This research spanned 28 days, during which a total of 243 questionnaires were distributed and collected from various regions across China. Considering the specific prerequisite conditions of this study, a screening question was included: "Have you watched any films or TV programs on online platforms?" As a result, 43 questionnaires that failed to meet the criteria were excluded, leaving 200 valid responses for further analysis.

The statistics of the sample data are shown in Table 2. The majority of respondents are female (126), and 92.8% of them have subscribed to streaming services. However, the overall membership of streaming subscriptions is 89.5%. It means that the group of males has less willingness to subscribe to the stream. Similarly, users aged 18 to 25 demonstrate a higher propensity to subscribe to VIP services.

Table 2. Descriptive statistics of the sample

Basic Information	Characteristic	Number	Proportion
Gender	Male	74	37%
	Female	126	63%
Age Group	18-25 years old	90	45%
	26-35 years old	72	36%
	36-45 years old	31	15.5%
	46-60 years old	7	3.5%
Streaming subscription	Yes	179	89.5%
	No	21	10.5%

First, perform an initial analysis of the collected data to identify key patterns and characteristics in Table 3. The analysis reveals that C2 has the highest completion rate, C1 exhibits the highest click-through rate, and B2 demonstrates the highest conversion rate. Furthermore, the completion rate of A2 fluctuates the most, while the click-through rate and conversion rate of C2 show relatively high instability.

Table 3. Fundamental Analysis

	Ad Completion Rate		Click-Through Rate		Conversion Rate	
	Mean	Std	Mean	Std	Mean	Std
A1	2.97	1.08	2.71	1.19	3.03	1.14
A2	2.94	1.41	2.51	1.26	3.00	1.37
B1	3.17	1.38	2.63	1.21	3.51	1.27
B2	2.97	1.29	2.48	1.29	3.58	1.35
C1	2.91	1.25	2.88	1.32	3.19	1.03
C2	3.18	1.36	2.76	1.44	3.26	1.44

3.5. Data Collection and Analysis

To more effectively observe and analyze the data, this study utilizes Analysis of Variance (ANOVA) to systematically evaluate the aforementioned dataset. Among them, the relevant results of the ANOVA analysis will be presented in Table 4. The ANOVA analysis results indicate that there is a significant overall difference among the six groups in this experiment ($p < 0.05$). From an overall perspective, the B1 group performed the best in the completion rate, while the C2 group performed the worst; in terms of conversion rate, the B1 group and the C2 group performed better than the other groups; in terms of memory retention, the B1 group and the C2 group were significantly higher than the A2 group ($p < 0.05$).

Table 4. Statistical significance difference analysis

Indicators	F Value	P Value	Significance($\alpha=0.05$)	Tukey HSD
Ad Completion rate	5.23	0.001	Yes	A1<C1, B1>A2, B2>C2
Click-Through Rate	4.78	0.002	Yes	A1<B1, C1>A2, B2<C2
Conversion Rate	3.91	0.008	Yes	A1<B1, C1>A2
Memory	6.45	<0.001	Yes	B1>C1, C2>A2, B2<C2

An analysis of all the data reveals that Group B1 demonstrates the best overall performance, followed by Group C2. Group A exhibits an average overall performance, with Group A2 performing slightly better than Group A1.

4. Analysis of the reasons

Based on the results, advertisements placed within the film are more likely to positively influence audience consumption behavior. Therefore, brands should prioritize film-based advertising as part of their marketing strategies. Although advertisements in films may create a sense of interruption for viewers, their repeated exposure enables audiences to better retain the advertisement content and associated products. In the subsequent product selection process, viewers may demonstrate a greater tendency to prioritize products from the advertised brand. There are many factors influencing the effect of advertisements on consumers' behavior, such as the style, content and emotional factors of advertisements [8]. Meanwhile, the revenue brought by the star effect cannot be underestimated. Data shows that advertisements featuring celebrities can achieve a higher conversion rate. McCracken, G. demonstrated in his research that consumers usually show greater interest in advertisements featuring celebrity endorsements [9].

A more critical point is that the majority of in-clip advertisements currently available on the market are often integrated into the storyline, offering viewers a more engaging and enjoyable experience. Furthermore, some respondents indicated that in their daily lives, film-based commercials occasionally adopt the format of interactive advertisements. This approach not only increases their likelihood of watching the ads but also motivates them to consider purchasing the advertised products or services. This point is in line with the research conducted by J. C. Zhang and T. W. Lee [10].

5. Conclusion

This article aims to investigate the impact of interstitial advertisement placement on consumer behavior. By employing empirical analysis and group-based experimentation, we examined how advertisement placement and the involvement of celebrities influence viewers' willingness to watch the advertisement in full, their likelihood of clicking through to the product detail page, and their intention to make a purchase. The research findings demonstrate that advertisements positioned in the middle of films have significantly positively influenced consumer behavior, effectively increasing viewers' intention to purchase the advertised products. This insight warrants serious consideration and implementation by brand managers.

These research findings carry significant practical implications for advertisers and marketers, indicating that the design of advertisements should place greater emphasis on the integration of personalized strategies and emotional resonance, thereby effectively enhancing the dissemination effectiveness of advertisements. Moreover, this outcome also provides valuable reference perspectives for future exploration of advertising effects from multiple angles.

A primary limitation of this study is the relatively restricted sample size. Future research might explore expanding the sample to include a broader and more diverse population, thereby enabling a more robust validation of the conclusions' generalizability. Future research can delve deeper into the influence of the form of interstitial advertisements on consumer behavior, especially in terms of advertising preferences among different age groups and genders. Moreover, with the advancement of technology, the effectiveness of virtual reality and augmented reality advertisements also merits further investigation.

In conclusion, the influence of advertisements on consumer behavior holds profound significance. Against the backdrop of the continuous evolution of advertising technology and the constant changes in consumer preferences, a thorough understanding of the emotional resonance, personalized design, and interactive features of advertisements will help significantly enhance advertising effectiveness and increase consumer engagement.

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