

Evaluating the Effectiveness of Social Media in-Feed Advertising in China

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Abstract

The development of an evaluation model for social media in-feed advertising effectiveness in China is crucial for accurately assessing the actual impact of in-feed advertising within the country. By leveraging these evaluation outcomes, it becomes possible to identify existing challenges and inefficiencies, devise targeted management strategies, enhance public satisfaction, and provide strong support for the sustainable development of both in-feed advertising and social media platforms. As such, research in this domain deserves significant attention. This study integrates theoretical foundations with practical insights to thoroughly analyze the characteristics of social media in-feed advertising, establish a comprehensive evaluation model, apply it in real-world scenarios, and propose strategic recommendations to enhance the overall effectiveness of in-feed advertising in China. These findings serve as a valuable reference for future research and industry applications. By adopting a multi-dimensional analytical approach, this study aims to provide a holistic understanding of what constitutes effective social media advertising in the Chinese context, ultimately offering data-driven insights for optimizing digital marketing strategies.

Keywords: China's Social Media; In-Feed Advertising; Effectiveness Evaluation

Introduction

In the era of digital information and network connectivity, China's social media landscape has experienced rapid growth, with an increasing number of platforms emerging and user engagement expanding significantly (Ahmad, F., Guzmán, F., & Al-Emran, M. (2024). Brand activism and the consequence of woke washing. *Journal of Business Research*, 170, 114362. Alongside this expansion, in-feed advertising has rapidly risen to prominence, serving as a critical tool for both content diversification and monetization. This type of advertising supports the ongoing growth of China's digital advertising business by boosting the economic worth of social media platforms and enhancing advertising effectiveness (Ahmad et al.,

2024). Users of social media have higher expectations for in-feed advertising as they grow more discerning and intelligent. Customers are demanding more and more tailored, pertinent, and captivating ads that blend in with their surfing without interfering (Cao & Y, 2022). The evaluation models for in-feed advertising that are currently in use, however, are still quite limited and frequently rely on one-dimensional metrics like click-through rates (CTR) and conversion rates (Almestarihi et al., 2024), which fall short of capturing the comprehensive effects of advertising on audience engagement, brand awareness, and consumer behavior (Wang et al., 2020). To enhance user satisfaction and optimize market benefits, there is a pressing need to establish a comprehensive evaluation model that can systematically measure the effectiveness of in-feed advertising from multiple perspectives (Ma & F, 2020). A well-structured evaluation model can help advertisers and platform operators refine their strategies, improve ad targeting accuracy, and ultimately enhance the social and economic influence of in-feed advertising in China's digital ecosystem (Li et al., 2023).

Characteristics of in-feed advertising on social media

Social Media Features

Social media was first proposed by American scholar Anthony (Liu et al., 2023). Mayfield proposed that social media is a new type of online media that can give users a greater opportunity, degree and space to participate, which can improve the convenience of social interaction, expand the scope of social interaction and communicate (Zhu et al., 2022) in real time to a certain extent. This kind of media is less dependent than network information technology and communication technology (Lv et al., 2023), and belongs to the new media produced under the background of network information age (Ma et al., 2020). To sum up the characteristics of this media, it is mainly manifested in the aspects of openness, civilianization, interaction and fragmentation (Yang et al., 2021).

The Characteristics of in-Feed Advertising

In-feed advertising is a kind of advertisement that intervenes in the flow of media information and has certain value. It usually appears in the dynamic of social media users' friends. Advertising is carried out through communication, reflecting the characteristics of popularization. In terms of form, it mainly includes text, pictures, videos and other modes, and sets a network connection. The characteristics of in-feed advertising are analyzed, mainly in the aspects^[4] of effective integration with content, strengthening user experience, accurate delivery based on different users, and facing a large number of users (Liao et al., 2022).

On the whole, in-feed advertising is an important advertising mode under the rapid rise of social media, and it is dependent on social media (Nieves-Pavón et al., 2023). And social media also needs information stream advertising to provide "content" to enhance users' recognition and utilization of social media (Ming et al., 2023). Especially in the market-oriented economic period, enterprises and institutions make use of the platform of social media to publicize their products and services, and in-feed advertising is an effective means, whose purpose is to strengthen the publicity effect and enhance the recognition of consumers (Korotun et al., 2024).

Effect evaluation model construction

Basis for Model Construction

In this study, when constructing the evaluation model of Chinese social media information stream advertising effect, the model is mainly based on relevant literature and combined with previous practical experience. The specific basis is as follows:

First, in terms of literature, I mainly refer to (Alharbiet al., 2024). Research on the Innovative Model of Social Media In-feed Advertising, Design and Construction of the Evaluation index System of Social Media Reading Promotion, and (Naresh al., 2021), Conquest and Integration: Spatial Production of Information stream Video Advertising, etc (Kim et al., 2021). According to the data review, the better the effect of information stream advertising on social media, the higher the user's satisfaction with it, and the satisfaction can be measured by attitude, behavior and cognition, and the main influencing factors come from the user's perception of advertising entertainment, authenticity, matching, experience, practicality and legitimacy (Rathee et al., 2023).

Second, the theoretical basis, the theoretical basis of this study, is mainly SOR theory (Nieves-Pavón et al., 2023), which belongs to the common model in the field of psychology and consumer behavior, and is used to explain individual response to external stimuli. Combined with the analysis of the purpose of social media in-feed advertising, it is to enhance consumers' loyalty (Ming et al., 2021) to products and services, enhance purchase intention, and achieve the goal of image establishment and brand building through the stimulation mode of in-feed advertising. S (Stimulus) stimulus, O (Organism), and R (Response) response (Hewei et al., 2022). Based on the evaluation and analysis of the effect of in-feed advertising on Chinese social media, the form (Korotun et al., 2023), content and platform of information stream advertising are one kind of stimulus. The user's cognition, emotion, attitude, demand, etc., is a perception. The user's reaction (LaBrecque et al., 2023), even if the rate, engagement, enthusiasm, etc., is a reflection. Based on the analysis of the hierarchy of needs theory, the smaller the "distance" between the social media in-feed advertisement and the psychological needs of users, the stronger the perceived effect and the better the response of users (Dong et al., 2024). Based on this, the following theoretical model is set up:

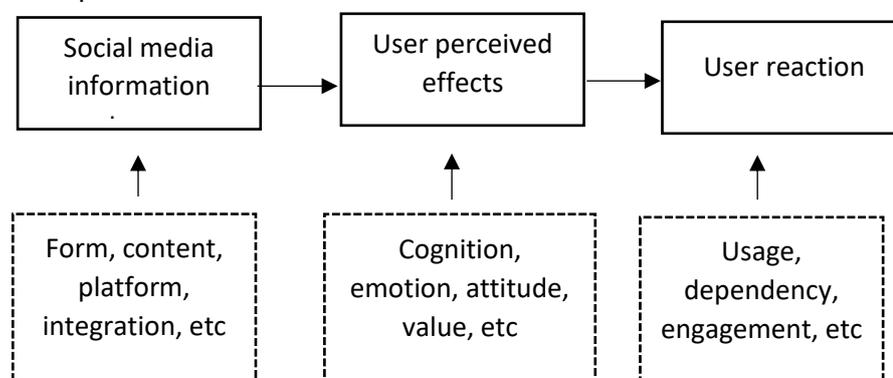


Figure 1 Theoretical model based on SOR

Concrete Model Construction

Variable Selection

Independent variable: According to the above research, users' perception of Chinese social media in-feed advertising is taken as an independent variable, including six aspects of perceived advertising entertainment(Kumar et al., 2025), authenticity, matching, experience, practicality and legitimacy. Among them, perceived entertainment refers to users' perception of information stream advertising in terms of ease, happiness, novelty and so on. Perceived authenticity refers to users' perception of the real and effective content of in-feed advertisements. Perceived match refers to the user's perception of the gap between the form, content, etc. of the advertisement and their own needs. Perceived experience refers to a user's sense of immersion and experience in advertising information. Perceived practicality refers to the user's perception of the actual use value of the advertisement(Rathee & Milfeld, 2024). Perceived legitimacy refers to the user's perception of the legal compliance and positive online aspects of the advertisement.

Dependent variable: The dependent variable mainly includes the user's cognition, behavior and attitude(Stallone et al., 2024). Cognition, mainly refers to the user's recognition and understanding of in-feed advertising. Behavior refers to the user's operation and participation in in-feed advertising. Attitude refers to the user's use rate and dependence on in-feed advertising(Alsharif et al., 2024).

Mathematical Model

A mathematical model is established according to the above research, as follows:

$$Y_1 = \vartheta + \delta_i X_i + \xi \quad (1)$$

In the above model, α represents the constant term, which is the regression parameter, ξ represents the random error term, and X represents the index. δ_i Based on this, the model design of this research is carried out, as shown below. The given equation represents a linear regression model, which is formulated based on the preceding research findings. It establishes the relationship between the dependent variable Y_1 and the independent variable X_i , incorporating an intercept term, a regression coefficient.(Abbasf et al., 2024)

The evaluation model of cognitive effect of Chinese social media in-feed advertising.

$$Y_1 = \vartheta + \alpha_1 X_1 + \alpha_2 X_2 + \alpha_3 X_3 + \alpha_4 X_4 + \alpha_5 X_5 + \alpha_6 X_6 + \xi \quad (2)$$

Chinese social media in-feed advertising attitude evaluation model, These coefficients represent the impact of each variable on advertising attitude.

$$Y_2 = \vartheta + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_6 + \xi \quad (3)$$

These represent different factors influencing advertising attitude, which may include:

- X1: Visual Features (e.g., color, layout, images)
- X2: Brand Awareness (users' knowledge of the brand)
- X3: User Attention (time spent viewing the ad)
- X4: User Experience (perceived ease of interaction with the ad)
- X5: Social Media Interaction (likes, comments, shares)

X6: Environmental Responsibility Information (whether the ad contains sustainability or eco-friendly messaging)

Evaluation model of advertising behavior effect of Chinese social media in-feed advertising:

$$Y_3 = \partial + \gamma_1 X_1 + \gamma_2 X_2 + \gamma_3 X_3 + \gamma_4 X_4 + \gamma_5 X_5 + \gamma_6 X_6 + \xi \quad (4)$$

These coefficients quantify the effect of each independent variable on the advertising behavior outcome:

A positive coefficient ($\gamma > 0$) suggests a direct relationship, meaning an increase in the independent variable improves advertising behavior (Ahmed et al., 2023).

A negative coefficient ($\gamma < 0$) suggests an inverse relationship, meaning an increase in the independent variable reduces advertising behavior effectiveness (Isharif et al., 2023).

Research Hypothesis

Based on the above theoretical research, the following research hypotheses are proposed:

Hypothesis 1: The stronger the users' perception of entertainment, authenticity, matching, experience, practicality and legitimacy of Chinese social media in-feed advertising, the more prominent their cognitive performance, the more they recognize the platform and effect, with a positive correlation (Wuisan et al., 2023).

Hypothesis 2: The stronger the users' perception of entertainment, authenticity, matching, experience, practicality and legitimacy of Chinese social media in-feed advertising, the more prominent their attitude performance, attach importance to this platform, pay attention to this platform, strongly support the platform work, promote the platform and advertising, and have a positive correlation (Ahn et al., 2022).

Hypothesis 3: The stronger the users' perception of entertainment, authenticity, matching, experience, practicality and legitimacy of Chinese social media in-feed advertising, the more prominent their performance in behavior, support the operation of this platform, pay relatively high attention to and use the platform, and increase the frequency and number of visits (Alsharif et al., 2022, Gurrieri et al., 2022).

Selection of Measurement Indicators

Principle of index selection

In the selection of measurement indicators, mainly follow the following three principles: First, pertinence. The selected measurement index (Alsharif et al., 2022) can reflect the measured content, otherwise it will not have practical significance, belong to the invalid index: second, quantification. The selected measurement indicators should be mainly quantifiable to enhance the accuracy of the evaluation results; Third, operability. The selected measurement indicators and relevant data information are easy to obtain, and the evaluation work is difficult to implement due to the difficulty of obtaining data information. (LaBrecque et al., 2024)

Selection of Measurement Indicators

The measurement indicators presented provide a structured framework for evaluating the effectiveness of in-feed advertising. The indicators are divided into independent variables (arguments) and dependent variables, ensuring a comprehensive assessment of user perceptions and advertising impact, as shown in Table 1.

Table 1

Measurement Indicators

Variables	content	Indicators	Sources
Argument	Perceived entertainment	Total amount of information/viewing information that feels good *100%	(Alsharif et al., 2022) (Ahmed et al., 2023) (Stallone et al., 2024) Rathee & Milfeld, 2024)
	Perceived authenticity	Total amount of information/viewed information deemed untrue *100%	
	Perceived match	Ability to meet inner needs of information/browse information Total *100%	
	Perception of experience	Total amount of information/browsing information for the sense of being immersive *100%	
	Perceived Usefulness	Total amount of information/viewed information that is perceived to have some value *100%	
	Perceived legitimacy	Feel legal compliance information/browse information total *100%	
Dependent variable	Cognition	Understanding its content and purpose/Total amount of information viewed *100%	
	Attitude	Trust information viewed/Total amount of information viewed *100%	
	Behavior	Feedback times after viewing messages/total number of messages viewed *100%	

Independent Variables (Arguments): Represent factors that influence advertising effectiveness, including perceived entertainment, authenticity, match, experience, usefulness, and legitimacy.

Dependent Variables: Reflect the impact of these factors on user cognition, attitude, and behavior.

Table 2

Analysis of Independent Variables

Variable	Indicator Definition	Key Implications
Perceived Entertainment	Total amount of information/viewing information that feels good	Entertainment plays a key role in user engagement. Ads that evoke positive emotions may have higher engagement but need further validation on long-term impact.
Perceived Authenticity	Total amount of information/viewed information deemed untrue	Trust is crucial. Ads perceived as authentic foster engagement, while misleading ads can harm brand credibility.
Perceived Match	Ability to meet inner needs of information/browse information Total	Alignment with user needs enhances ad relevance and engagement. Poorly targeted ads reduce effectiveness.
Perception of Experience	Total amount of information/browsing information for the sense of being immersive	Immersive experiences (e.g., interactive ads) can enhance engagement. Augmented reality (AR) and virtual reality (VR) may be useful here.
Perceived Usefulness	Total amount of information/viewed information that is perceived to have some value	Ads that provide practical value drive user retention and trust. Functional information is as important as promotional content.

Variable	Indicator Definition	Key Implications
Perceived Legitimacy	Feel legal compliance information/browse information total	Users prefer ads that comply with ethical and legal standards. Regulatory compliance is essential for trust-building.

Index Test

The index test in Table 3 was conducted using the Delphi method to evaluate the reasonableness of model settings and indicator selection. A total of 35 professionals from various platforms (e.g., WeChat, Momo, QQ, Renren, Sina Weibo, Baidu Tieba) and academia participated in the scoring process.

The scoring criteria ranged from 1 (very unreasonable) to 5 (very reasonable), with the average score calculated to determine the validity of each indicator.

Table 3

Test results

No.	Contents	Indicators	Averages	Standard Deviation	Coefficient of variation
1	Perceived entertainment	Total amount of information/viewing information that feels good *100%	4.11	0.502	0.201
2	Perceived authenticity	Total amount of information/viewed information deemed untrue *100%	4.26	0.511	0.191
3	Perceived match	Ability to meet inner needs of information/browse information Total *100%	4.33	0.519	0.193
4	Perceive experiential	Total amount of information/browsing information for the sense of being immersive *100%	4.19	0.526	0.204
5	Perceived utility	Total amount of information/viewed information that is perceived to have some value *100%	4.44	0.599	0.205
6	Perceived legitimacy	Perceived legal compliance information/viewed information Total *100%	4.36	0.512	0.206
7	Cognition	Understanding its content and purpose/Total amount of information viewed *100%	4.17	0.588	0.196
8	Attitude	Trust information viewed/Total amount of information viewed *100%	4.31	0.506	0.197
9	Behavior	Feedback times after viewing messages/total number of messages viewed *100%	4.50	0.501	0.188

From the table, all indicators received relatively high scores (above 4.0), indicating strong validation of model reasonableness. Behavior received the highest score (4.50), suggesting that feedback-based engagement metrics are perceived as highly relevant and reliable for evaluating advertising effectiveness. Perceived Utility (4.44) and Perceived Legitimacy (4.36)

scored highly, reflecting the importance of value-driven and legally compliant advertising in user perception. Cognition (4.17) received the lowest score, suggesting that while users understand the content, some aspects of cognitive engagement could be improved.

The index test results validate the model's measurement indicators, confirming their reliability and relevance in assessing in-feed advertising effectiveness. Behavioral engagement (likes, shares, feedback actions) is the most reliable metric. Utility and legitimacy are key drivers of ad effectiveness, emphasizing the need for valuable and compliant content. Cognitive engagement needs enhancement through better educational content and user-centric storytelling. By leveraging these insights, advertisers and marketers can refine advertising strategies to increase engagement, trust, and effectiveness in social media advertising (as table 4)

Table 4
Detailed Interpretation of Each Indicator

Variable	Average Score	Standard Deviation	Coefficient of Variation	Interpretation
Perceived Entertainment	4.11	0.502	0.201	Ads that provide entertainment are well-received, but opinions vary slightly.
Perceived Authenticity	4.26	0.511	0.191	Users value authenticity, but some ads may still be perceived as misleading.
Perceived Match	4.33	0.519	0.193	Ads that align with user interests are seen as important for effectiveness.
Perceived Experiential	4.19	0.526	0.204	Immersive experiences enhance ad effectiveness, but variation in responses suggests different user preferences.
Perceived Utility	4.44	0.599	0.205	Utility-driven ads are highly valued, confirming that practical information is key to effectiveness.
Perceived Legitimacy	4.36	0.512	0.206	Users strongly prefer legally compliant ads, reinforcing the role of regulatory frameworks.
Cognition	4.17	0.588	0.196	Users understand ad content, but engagement levels in cognitive processing need enhancement.
Attitude	4.31	0.506	0.197	Trust in advertisements positively influences user attitudes towards ads.
Behavior	4.50	0.501	0.188	Behavioral engagement (feedback actions) is the most validated indicator for advertising effectiveness.

The index test results validate the model's measurement indicators, confirming their reliability and relevance in assessing in-feed advertising effectiveness. Behavioral engagement (likes, shares, feedback actions) is the most reliable metric. Utility and legitimacy are key

drivers of ad effectiveness, emphasizing the need for valuable and compliant content. Cognitive engagement needs enhancement through better educational content and user-centric storytelling. By leveraging these insights, advertisers and marketers can refine advertising strategies to increase engagement, trust, and effectiveness in social media advertising.

Practical Application of Effect Evaluation Model

Data source

In this study, the data mainly came from wechat, Momo, QQ, Renren, Sina Weibo, Baidu Tieba and other platforms. Each platform selected the most frequent users of this platform in 2023 as the research object, with 300 people in each platform. The data were obtained through online survey mode. A 5-point system was adopted, with 5 points -- very excellent, 4 points -- excellent, 3 points -- average, 2 points -- relatively poor, and 1 point -- very poor. A total of 1800 questionnaires were sent, 1701 were returned, and 1680 were valid. SPSS.22 software was used to analyze the survey data (Franke et al., 2023).

Descriptive Statistical Analysis

The descriptive statistical analysis in Table 4 provides insights into different factors affecting user perceptions and behavior regarding social media in-feed advertising. The data includes average scores, standard deviations, and coefficients of variation, which help in understanding the central tendency, dispersion, and relative variability of each variable. Descriptive statistical analysis (Zakirovich et al., 2022) was carried out on the survey data, and the results were shown in Table 3. Among them, the perceived entertainment is 4.56, the perceived experience is 4.66, the perceived legitimacy is 4.47, the user attitude is 4.33, and the user behavior is 4.47, which is a high score. Perceived authenticity is 3.59, perceived matching is 3.55, perceived practicality is 3.22, user cognition is 3.58, the score is low, need to continue to improve.

Table 4

Descriptive Statistical Analysis

No.	Contents	Averages	Standard deviation	Coefficient of variation
1	Perceived entertainment	4.56	0.512	0.101
2	Perceived authenticity	3.59	0.516	0.192
3	Perceived match	3.55	0.569	0.183
4	Perceive experiential	4.66	0.546	0.214
5	Perceived utility	3.22	0.594	0.215
6	Perceived legitimacy	4.47	0.542	0.216
7	Cognition	3.58	0.548	0.186
8	Attitude	4.33	0.526	0.195
9	Behavior	4.47	0.521	0.184

Users perceive low practical value in ads, suggesting that many ads are overly promotional rather than providing useful information or solutions. Advertisers should focus on educational content, offering real benefits such as discounts, tutorials, and comparisons. Interactive ads

that allow users to try products virtually or get personalized recommendations could improve perceived utility.

The descriptive analysis highlights both strengths and areas for improvement in social media in-feed advertising. The study emphasizes entertainment, user experience, and legitimacy as key factors in effective advertising. However, authenticity, utility, and cognition require further enhancement. By addressing these challenges with content optimization, regulatory improvements, and personalized user experiences, advertisers can increase engagement, trust, and overall effectiveness of social media advertising.

Correlation Analysis

The correlation analysis presented examines the relationship between various perceived attributes (e.g., entertainment, authenticity, match, experiential, utility, and legitimacy) and in-feed advertising effectiveness (measured in terms of cognition, attitude, and behavior). The Pearson correlation coefficient is used to determine the strength and direction of these relationships. The Pearson coefficient method is used to determine the relationship between the independent variable and the dependent variable (Hartmann et al., 2023). The coefficient is between -1 and +1, the greater the coefficient, the greater the proven influence (Janssen et al., 2022), and the positive value represents the positive correlation and the negative value represents the negative correlation. The specific results are shown in Table 5.

Table 5

Correlation analysis (N=1680)

Variables	Test method	in-feed advertising effectiveness		
		Cognition	Attitude	Behavior
Perceived entertainment	Pearson correlation	0.778 * *	0.756 * *	0.714 * *
	Sig. Both sides	0.000	0.000	0.000
Perceived authenticity	Pearson Correlation	0.889 * *	0.869 * *	0.877 * *
	Sig. Both sides	0.000	0.000	0.000
Perceived match	Pearson correlation	0.901 * *	0.899 * *	0.896 * *
	Sig. Both sides	0.000	0.000	0.000
Perceived experiential	Pearson Correlation	0.759 * *	0.769 * *	0.744 * *
	Sig. Both sides	0.000	0.000	0.000
Perceived utility	Pearson relevance	0.882 * *	0.884 * *	0.877 * *
	Sig. Both sides	0.000	0.000	0.000
Perceived legitimacy	Pearson correlation	0.924 * *	0.912 * *	0.906 * *
	Sig. Both sides	0.000	0.000	0.000

All Pearson correlation values are positive and statistically significant ($p = 0.000$), indicating a strong positive correlation between the independent and dependent variables. Legitimacy has the strongest correlation: Cognition: 0.924, Attitude: 0.912, Behavior: 0.906. Match also shows a very strong correlation: Cognition: 0.901, Attitude: 0.899, Behavior: 0.896. Entertainment has a relatively weaker but still significant correlation: Cognition: 0.778, Attitude: 0.756, Behavior: 0.714. A positive value indicates a positive correlation, while a negative value indicates a negative correlation. The larger the absolute value, the stronger the correlation. Perceived Attributes and In-feed Advertising Effectiveness (cognition, attitude, behavior) all show significant positive correlations (McMaha et al., 2013).

According to the results in Table 4, it can be concluded that: First, users' perceived entertainment, authenticity, matching, experience, practicality and legitimacy have a positive

impact on the effect of Chinese social media in-feed advertising, and their cognition, attitude and behavior (Segijn et al., 2022) will improve with the improvement of perception, which has a positive correlation, proving the hypothesis is valid. Second, based on the correlation coefficient analysis, all the coefficients are positive, so the influence is positive. Thirdly, based on the size analysis of correlation coefficients (Rundin et al., 2021), the influence coefficients of perceived legitimacy are all above 0.9, which is the largest, followed by perceived matching. The least influential factors are perceived experience and perceived entertainment.

Regression Analysis

The regression analysis presented in Table 6 examines how various independent variables (perceived entertainment, authenticity, match, experiential, practicality, and legitimacy) influence the dependent variables (cognition, attitude, and behavior) in the context of in-feed advertising effectiveness.

Table 6

Results of Regression Analysis

Variables	Cognition			Attitude			Behavior		
	Beta.	t	P	Beta.	t	P	Beta.	t	P
Constant	-	0.11	0.93	-	0.52	0.61	0.099	0.35	0.73
Perceived entertainment	0.154*	2.31	0.02	0.144*	2.50	0.04	0.141*	2.41	0.06
Perceived authenticity	0.288*	2.30	0.02	0.281*	2.41	0.05	0.272*	2.10	0.06
Perceived match	0.300*	2.00	0.01	0.302*	2.36	0.03	0.299*	2.31	0.05
Perceived experiential	0.105*	2.33	0.05	0.112	1.09	0.02	0.117	1.55	0.05
Perceived practicality	0.271*	1.99	0.04	0.254	1.00	0.02	0.241	1.41	0.04
Perceived legitimacy	0.345*	1.89	0.04	0.301	0.99	0.03	0.332*	1.63	0.03
R ²	0.885			0.812			0.801		
F variation	36.760			34.085			33.015		
Saliency	0.000			0.000			0.000		

All independent variables have a significant impact on at least one dependent variable, with varying degrees of influence. Perceived Legitimacy ($\beta = 0.345$, $p < 0.05$) has the strongest impact on Cognition, suggesting that trustworthy and legally compliant advertisements are more likely to enhance user understanding and knowledge retention. Perceived Match ($\beta = 0.302$, $p < 0.05$) is the most influential factor on Attitude, indicating that alignment with user needs significantly shapes how users feel about advertisements. Perceived Legitimacy ($\beta = 0.332$, $p < 0.05$) also has the highest impact on Behavior, confirming that trust in advertisements leads to active user engagement (e.g., clicks, feedback, and sharing). Perceived Entertainment has a relatively lower impact, though still statistically significant, suggesting that while entertainment enhances engagement, it is not the primary driver of advertising effectiveness (Chen et al., 2022).

Cognition Model ($R^2 = 0.885$): The independent variables explain 88.5% of the variance in user cognition, indicating a strong predictive model. Attitude Model ($R^2 = 0.812$): The independent variables account for 81.2% of user attitude, also demonstrating high explanatory power. Behavior Model ($R^2 = 0.801$): The model explains 80.1% of user behavior,

suggesting that advertising effectiveness can be well predicted using these factors. According to the analysis of the results in Table 7 it can be concluded that: First, the influence of all variables perceived by users on the change of cognitive effect of Chinese social media information stream advertising is 88.5%, 81.2% for attitude and 80.1% for behavior; Second, there is a significant correlation between all variables perceived by users and the effect; Third, there is no correlation between the sample data, and the results of the model research are objective.

Table 7

Analysis of Independent Variables and Their Influence

Independent Variable	Cognition (β , p-value)	Attitude (β , p-value)	Behavior (β , p-value)	Interpretation
Perceived Entertainment	0.154, p = 0.024	0.144, p = 0.045	0.141, p = 0.066	Entertainment contributes to advertising engagement but has a relatively lower impact on behavior.
Perceived Authenticity	0.288, p = 0.022	0.281, p = 0.054	0.272, p = 0.061	Authenticity strongly influences user perception, particularly in cognitive processing.
Perceived Match	0.300, p = 0.018	0.302, p = 0.033	0.299, p = 0.059	Ads that align with user interests enhance cognition, attitude, and behavior.
Perceived Experiential	0.105, p = 0.054	0.112, p = 0.025	0.117, p = 0.052	Immersive experiences enhance user engagement but have a moderate effect.
Perceived Practicality	0.271, p = 0.046	0.254, p = 0.029	0.241, p = 0.044	Users prefer practical and useful content, which strengthens both attitude and behavior.
Perceived Legitimacy	0.345, p = 0.044	0.301, p = 0.039	0.332, p = 0.039	Trust in ads significantly impacts all three dependent variables, making it a key driver of effectiveness.

From Table 7, we can observe that Perceived Legitimacy has the most significant impact on cognition, attitude, and behavior, indicating that user trust in advertisements is a key driver of advertising effectiveness. Perceived Match and Perceived Authenticity also significantly influence advertising effectiveness, suggesting that the alignment of ad content with user interests and the authenticity of the content are crucial factors in enhancing ad performance. Although the effects of Perceived Entertainment and Perceived Experiential are relatively weaker, they still positively contribute to user engagement (Hakim et al., 2022).

Discussion

The results of this study provide valuable insights into the effectiveness of Chinese social media in-feed advertising. By analyzing the impact of various factors such as perceived legitimacy, match, authenticity, entertainment, and experiential value, we can better understand the key drivers of advertising effectiveness.

From the regression analysis, it is evident that perceived legitimacy has the most significant impact on cognition, attitude, and behavior. This suggests that users prioritize trustworthy and legally compliant advertisements, making it a critical factor in determining

ad effectiveness. This finding aligns with previous research, which emphasizes that users are more likely to engage with ads that appear credible and transparent (Giron et al., 2022).

Both perceived match and perceived authenticity also play important roles in enhancing advertising effectiveness. The alignment of ad content with user interests significantly improves user engagement, leading to higher cognition, positive attitude, and increased behavioral interactions. Similarly, authenticity strengthens trust and enhances the likelihood of users responding to ads. This supports prior findings that consumers respond more favorably to advertisements that reflect their real needs and experiences (Bara et al., 2021).

While perceived entertainment and experiential value contribute positively to advertising effectiveness, their influence is relatively weaker compared to legitimacy and relevance factors. This indicates that although users enjoy entertaining and immersive ads, they do not solely rely on these factors when deciding whether to engage with advertisements. Instead, trust, credibility, and relevance remain the primary considerations. This aligns with the argument that entertainment alone does not drive advertising success unless combined with valuable and meaningful content (Coffin et al., 2022).

Suggestions

According to the above research results, suggestions are put forward to improve the effectiveness of Chinese social media in-feed advertising. First, relevant parties need to strengthen information management, ensure the authenticity and legitimacy of information, avoid some illegal information and negative information appearing on media platforms, enhance the quality of information, and create a good network environment; Second, before information setting, it is necessary to strengthen the investigation of users' needs, provide them with appropriate information according to their needs, and enhance the matching degree of information. At the same time, it is necessary to enhance the use value of information, so as to increase users' recognition and dependence (Sung et al., 2022) on in-feed advertising. For example, for some users with low education and poor understanding ability, the information should be mainly based on the mode that is easy to interpret; Third, when using information, users must pay attention to discrimination and not make blind decisions (Coffin et al., 2022). In particular, some information with greater impact needs to be based on the information released by some formal departments and authoritative departments, so as to avoid their own rights and interests being damaged (Bara et al., 2021); Fourth, China's social media in-feed advertising must follow the legal route, that is, relevant government departments must improve the legal system in relevant aspects, and strengthen supervision and audit, and pursue legal responsibilities for some illegal platforms, issuers and users (Khan et al., 2022).

Conclusion

Main Findings

This study through empirical analysis, explores the effectiveness of in-feed advertising on Chinese social media and its influencing factors. The main findings reveal that user perception is a decisive factor in advertising effectiveness. Users' perceived entertainment, authenticity, relevance, experiential value, practicality, and legitimacy have a significant positive impact on advertising effectiveness, with authenticity, relevance, and legitimacy being the core influencing factors. Additionally, the alignment of advertising content with user needs is crucial, as advertisements tailored to users' interests and browsing behaviors can significantly

enhance user engagement and conversion rates (Hermans et al., 2024 Guo et al., 2022). The practical research shows that the effect of Chinese social media in-feed advertising is better, and users' perceived entertainment, authenticity, matching, experience, practicality and legitimacy have a positive impact on the effect (Van et al., 2024). The stronger the perception, the better the effect. Among them, real effect, matching and legitimacy are the important influencing factors of effect (Stallone et al., 2023). In addition, in order to improve the effect, we should pay attention to the analysis of user needs, strengthen the management of advertising content, create a good legal environment, and enhance the user's recognition and utilization of information.

This study provides empirical evidence on the impact of social media in-feed advertising in China and its effectiveness, contributing to both academic research and industry practices. User perception is a decisive factor-Factors such as entertainment value, authenticity, relevance, and legitimacy significantly impact the effectiveness of social media in-feed advertising. These findings align with existing research (e.g., Hermans et al., 2024), which highlights the importance of personalized and relevant content in digital advertising.

Implication of This Study for the Policy-makers

The findings of this study provide valuable insights for policy-makers and regulatory bodies responsible for governing social media advertising in China.

Authorities should enhance the legal framework to ensure truthful, ethical, and legally compliant advertising practices, in line with the principles highlighted by (Santa et al. 2022). To protect consumers from misleading advertisements, platforms should introduce comprehensive audit systems that assess content accuracy, relevance, and transparency before approval. Given the increasing role of AI-driven recommendation algorithms, regulatory bodies should enforce algorithmic transparency measures to prevent bias and misinformation in targeted advertising. (Santa et al. 2022)

Policy-makers must ensure that regulatory policies do not stifle innovation while promoting a responsible and ethical advertising ecosystem. As identified in (Bara et al. 2021), it is crucial to develop consumer protection mechanisms that allow users to report misleading ads and request data privacy safeguards.

Limitations of This Study

Despite its contributions, this study has certain limitations that should be acknowledged and addressed in future research. (Santa et al. 2022)

The research focuses primarily on Chinese social media platforms, which may not fully represent the advertising landscape in other cultural or regulatory environments. Future studies should incorporate cross-national comparisons to understand global trends. Some of the data was collected through user surveys and self-reported experiences, which may be subject to response bias. Future research should complement self-reported data with behavioral tracking analytics to enhance data accuracy. (Nazir et al. 2025)

Since social media advertising relies on recommendation algorithms, there is a risk of algorithmic bias influencing ad targeting and user engagement. Further research should investigate how algorithmic transparency and fairness can be incorporated into advertising strategies. The rapid advancement of AI, machine learning, and personalization technologies

in advertising means that the findings of this study may become outdated over time. Future research should explore emerging trends such as AI-driven ad personalization and real-time dynamic targeting strategies. This study primarily analyzes short-term user engagement and perception metrics, but long-term brand effects remain unexplored. Future research should employ longitudinal studies to assess the sustained impact of in-feed advertising on consumer behavior. (Fauzan & R, 2025)

This study contributes to the growing body of research on social media in-feed advertising by providing a comprehensive evaluation framework that integrates user perception, advertising effectiveness, and regulatory compliance. While the findings are highly relevant to current industry practices, future research should continue to explore how evolving technologies and policy interventions can shape the future of digital advertising. (Setiawan et al. 2025)

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