

An Empirical Study on the Impact of Social Media Advertising on Consumer Buying Behavior

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Abstract

The proliferation of social media platforms has fundamentally transformed contemporary marketing practices and consumer decision-making processes. Social media advertising, encompassing influencer marketing, video advertisements, image-based promotions, and sponsored posts, has become a dominant promotional strategy in the digital marketplace. This study empirically examines the impact of social media advertising on consumer buying behavior, with specific emphasis on identifying the most influential advertisement formats.

A descriptive and analytical research design was adopted. Primary data were collected from 107 respondents through a structured questionnaire administered via Google Forms. Percentage analysis and chi-square testing were employed to analyze the data and examine statistical associations. The findings indicate that social media advertising significantly influences consumer purchase decisions, with influencer marketing and short-form video advertisements emerging as the most impactful formats. The chi-square test confirms a statistically significant association between advertisement type and consumer buying behavior.

The study contributes to the growing body of literature on digital marketing effectiveness and offers practical implications for marketers seeking to optimize social media advertising strategies in increasingly competitive digital environments.

Keywords: Social media advertising, Consumer buying behavior, Influencer marketing, Digital marketing, Purchase intention, Chi-square analysis

1. Introduction

The digital transformation of communication technologies has reshaped the marketing ecosystem globally. The rapid expansion of platforms such as Instagram, Facebook, YouTube, and other social networking sites has redefined how brands communicate with consumers. Social media advertising has evolved into a powerful marketing instrument, enabling firms to target audiences with precision while fostering interactive engagement.

Unlike traditional mass-media advertising, social media advertising facilitates personalized messaging, algorithm-based targeting, and real-time consumer interaction. It includes various formats such as influencer endorsements, sponsored posts, video advertisements (Reels/Shorts), and image-based promotions. These formats differ in engagement levels, credibility perceptions, and persuasive impact.

Consumer buying behavior refers to the cognitive, emotional, and behavioral processes involved in selecting, purchasing, and evaluating products or services. In digital contexts, buying behavior is increasingly shaped by online exposure, digital engagement, and social influence. Social media advertisements not only create awareness but also stimulate interest, shape attitudes, and trigger purchase intentions.

Despite the widespread adoption of social media advertising, empirical evidence comparing the relative influence of different advertisement formats remains limited, particularly in the context of emerging digital consumers. Therefore, this study aims to examine the impact of social media advertising on consumer buying behavior and to identify which advertising formats exert the strongest influence.

2. Literature Review

The growing relevance of social media advertising has been widely discussed in academic and industry literature.

Nielsen (2021) reports that digital advertisements significantly influence brand awareness and consumer trust when content is relevant and personalized. Their findings highlight the increasing shift from traditional media to digital platforms in shaping purchase intentions.

McKinsey & Company (2020) introduced the concept of the modern consumer decision journey, emphasizing that digital touchpoints, particularly social media advertisements, play a critical role in awareness generation and active evaluation stages.

Kantar (2022) found that influencer marketing campaigns enhance brand recall and consumer engagement, particularly when influencers maintain authenticity and credibility. However, over-commercialization may reduce effectiveness.

Deloitte (2023) emphasizes the importance of transparency and consumer trust in digital advertising. Their research suggests that interactive and engaging formats outperform static advertisements in influencing purchase decisions.

Kotler and Keller (2016) explain that social and psychological factors significantly influence consumer behavior. Social media advertisements affect these factors by shaping perceptions, attitudes, and motivations through persuasive communication.

Although prior research establishes the importance of digital advertising, there remains a need for empirical studies assessing consumer responses to different social media advertisement formats. This study addresses this gap by statistically analyzing consumer preferences and behavioral outcomes.

3. Research Methodology

3.1 Research Design

The study adopts a descriptive and analytical research design to examine the relationship between social media advertising and consumer buying behavior.

3.2 Data Collection

Primary data were collected through a structured questionnaire distributed via Google Forms. The questionnaire consisted of multiple-choice and close-ended questions designed to capture consumer exposure, influence levels, and purchase behavior.

Secondary data were obtained from academic journals, industry reports, and established marketing literature to provide theoretical grounding.

3.3 Sampling Technique and Sample Size

Convenience sampling was employed due to accessibility and respondent willingness. The final sample consisted of 107 respondents representing diverse demographic backgrounds.

3.4 Statistical Tools

The data were analyzed using:

- Percentage analysis
- Tabular representation

- Chi-square test of independence

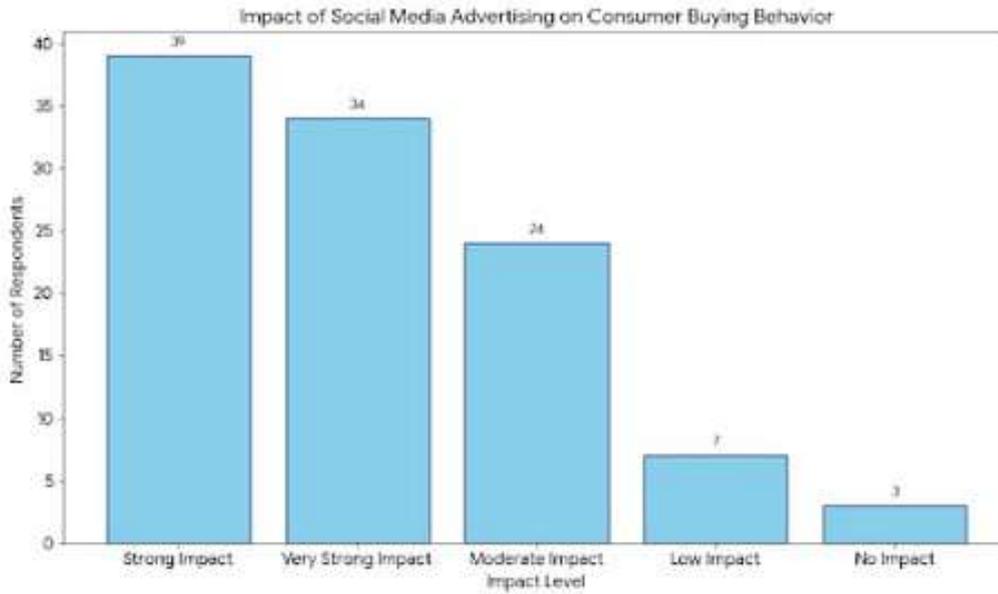
The chi-square test was conducted at a 5% level of significance ($\alpha = 0.05$).

4. Data Analysis and Results

4.1 Impact of Social Media Advertising on Buying Behavior

A majority of respondents reported that social media advertising significantly influences their buying decisions. Over two-thirds indicated moderate to strong influence, demonstrating the persuasive capacity of digital promotional strategies.

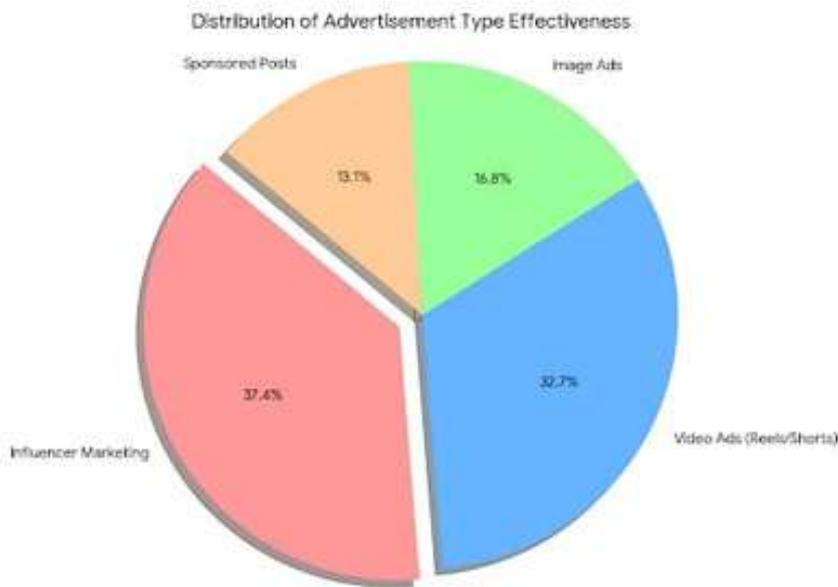
Impact Level	Number of Respondents	Percentage (%)
Very Strong Impact	34	31.8
Strong Impact	39	36.4
Moderate Impact	24	22.4
Low Impact	7	6.5
No Impact	3	2.9
Total	107	100.0



4.2 Most Influential Advertisement Format

Influencer marketing emerged as the most influential advertisement format, followed closely by video advertisements. Static image advertisements and sponsored posts were comparatively less influential.

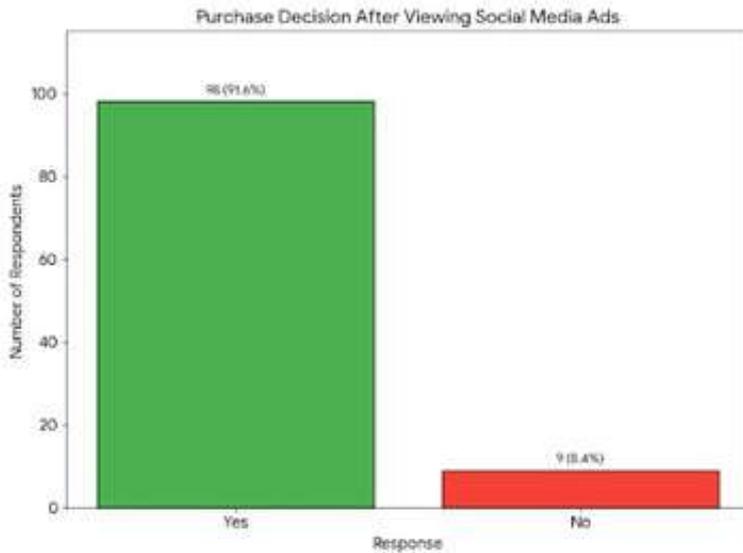
Advertisement Type	Frequency	Percentage
Influencer Marketing	40	37.4%
Video Ads (Reels/Shorts)	35	32.7%
Image Ads	18	16.8%
Sponsored Posts	14	13.1%
Total	107	100%



4.3 Purchase After Viewing Social Media Advertisements

Consumers were asked whether they had ever purchased a product after viewing an advertisement on social media platforms. This question was included to examine the effectiveness of social media advertising in influencing actual consumer buying behavior.

Response	Number of Respondents	Percentage (%)
Yes	98	91.6
No	9	8.4
Total	107	100.0



Interpretation: The data indicates that a very high proportion of respondents (91.6%) have made purchases after viewing social media advertisements. This clearly confirms the strong persuasive nature of social media advertising and its effectiveness in converting viewers into buyers. The relatively small percentage of respondents who reported not making a purchase suggests that social media advertisements play a significant role in influencing consumer buying behavior.

Chi-Square Test

To examine whether the type of social media advertisement influences consumer buying behavior.

Variables

Variable 1: Type of Social Media Advertisement **Variable 2:** Consumer Buying Behavior (Purchase Influence)

Hypothesis

Null Hypothesis (H₀): There is no significant association between the type of social media advertisement and consumer buying Behaviour .

Alternative Hypothesis (H₁): There is a significant association between the type of social media advertisement and consumer buying Behaviour .

Chi-Square Calculation

Advertisement Type	Observed (O)	Expected (E)	(O – E) ² / E
Influencer Marketing	40	26.75	6.56
Video Ads (Reels/Shorts)	35	26.75	2.54

Image Ads	18	26.75	2.86
Sponsored Posts	14	26.75	6.08
Total	107	107	$\chi^2 = 18.04$

Chi-Square Test Results

The Chi-square test was conducted to examine whether different types of social media advertisements have a significant influence on consumer buying Behaviour . The test was performed at a **5% level of significance ($\alpha = 0.05$)**.

- **Calculated Chi-square value (χ^2): 18.04**
- **Degrees of Freedom (df): 3**
- **Significance Level (α): 0.05**
- **Critical value (χ^2 at df = 3): 7.815**

The degrees of freedom were calculated using the formula:

$$df=(n-1)df = (n - 1)df=(n-1)$$

where n represents the number of advertisement categories.

Decision Rule

Since the **calculated chi-square value (18.04) is greater than** the critical value (7.815), the **null hypothesis is rejected**.

Interpretation

The Chi-square test indicates that there is a **statistically significant association** between the type of social media advertisement and consumer buying Behaviour . This suggests that consumers do not respond equally to all forms of social media advertisements. Advertisement formats such as **influencer marketing and video-based advertisements** exert a stronger influence on purchase decisions compared to image ads and sponsored posts. The findings highlight the importance of selecting appropriate advertisement formats to effectively influence consumer buying Behaviour .

5. Discussion

The findings indicate that social media advertising significantly shapes consumer buying behavior. Influencer marketing was identified as the most impactful format, suggesting that relatability, perceived credibility, and social influence enhance persuasive effectiveness.

Video advertisements ranked second, reflecting the growing dominance of visually engaging, short-form digital content. This aligns with contemporary consumer preferences for interactive and dynamic media formats.

The comparatively lower influence of static image ads and sponsored posts suggests a shift away from passive promotional formats toward immersive and experience-driven content.

The statistically significant chi-square result further validates the empirical relationship between advertisement format and buying behavior, reinforcing theoretical perspectives that emphasize digital engagement and social influence as determinants of purchase intention.

6. Conclusion

This study provides empirical evidence that social media advertising exerts a significant influence on consumer buying behavior. Influencer marketing and short-form video advertisements are more effective than traditional static formats in shaping purchase decisions.

The statistical analysis confirms a significant association between advertisement type and consumer response, highlighting the importance of selecting appropriate content formats in digital marketing strategies.

From a managerial perspective, brands should prioritize authentic influencer collaborations and engaging video content to maximize advertising effectiveness. Transparency, credibility, and consumer trust remain essential in sustaining long-term brand relationships.

As social media platforms continue to evolve, future research may explore demographic variations, psychological drivers, and platform-specific effectiveness to further refine digital advertising strategies.

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