**A Study on the Impact of ON IMPACT OF ONLINE ADVERTISING ON SOCIAL MEDIA EXPERIENCE**

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# Abstract

This study investigates the impact of online advertising on the social media experiences of users, focusing on how ads influence perceptions, engagement, and behavior across major platforms like Facebook, Instagram, and Twitter. Social media has become a key arena for brand communication, making it essential to understand user responses to various ad types, including video, influencer promotions, and sponsored posts. The study examines critical factors like ad relevance, frequency, and format, which are shown to significantly affect user interactions and engagement, while also introducing challenges like ad fatigue and privacy concerns.

Employing a mixed-method approach, including surveys and statistical analyses such as Chi-square, correlation, and ANOVA, this research reveals that while personalized and relevant ads can positively impact user engagement and brand perception, excessive exposure may lead to disengagement and privacy anxieties. Key findings indicate that brands should prioritize ad diversity, transparency in data collection, and give users greater control over ad personalization. These insights provide a framework for brands to balance personalization and privacy, ultimately fostering a more engaging and trusted social media experience. This research provides actionable recommendations to help advertisers refine their social media strategies to align more closely with user expectations.

Keywords:\* Online Advertising, Social Media, User Engagement, Targeted Ads, Privacy Concerns, Brand Perception

# Introduction

The study "Impact of Online Advertising on Social Media Users" focuses on understanding how online ads affect the behaviors, perceptions, and overall experiences of social media users across popular platforms like Facebook, Instagram, and Twitter. With the massive rise in social media usage, these platforms have become critical spaces for brands to connect with consumers. Social media advertising has evolved beyond traditional formats, now leveraging advanced targeting techniques to create personalized ad experiences. This personalization aims to increase relevance and engagement, yet it also introduces unique challenges—such as privacy concerns and ad fatigue—that can shape how users interact with these ads. Thus, understanding the complex relationship between online advertisements and social media users’ experiences is vital for marketers striving to maximize engagement and foster positive brand perceptions.

The research specifically investigates how different types of ads, such as video ads, influencer promotions, and banner ads, impact user engagement and trust. It considers the effects of ad relevance and frequency, as well as user responses to personalization techniques based on browsing history or social media activity. Key concerns highlighted in the study include ad fatigue, which occurs when users feel overwhelmed by repetitive ads, and privacy issues related to data collection for targeted advertising. As a result, this study provides valuable insights into the delicate balance needed to engage users meaningfully while respecting their privacy and preferences.

A mixed-method approach, combining quantitative and qualitative research techniques, forms the basis of the study. Surveys capture user attitudes and behavioral responses to various ad formats, while statistical methods—such as Chi-square, correlation, and ANOVA—analyze the relationships between variables, including demographics and ad engagement. These methods enable the study to assess how demographic factors like age, gender, and education level impact user perceptions and interactions with online advertisements. The findings indicate that while well-targeted, relevant ads can positively influence user engagement and brand perception, frequent ad exposure can have adverse effects, leading to user disengagement and concerns over privacy.

The study’s objectives reflect the need to adapt advertising strategies to changing consumer behaviors and expectations. The primary objective is to evaluate the impact of online ads on social media experiences, while secondary objectives aim to understand user perceptions toward targeted ads, identify the role of ads in shaping brand image, and assess user responses to different ad types. This multi-dimensional approach helps brands understand how ads influence user engagement and provides actionable insights to refine their ad strategies for improved effectiveness.

# Material and methods

## Literature Review

#### **2.1.1 Conceptual Framework**

The conceptual framework of this study investigates the relationship between online advertising and the social media experiences of users. It seeks to understand how ad characteristics, user perceptions, demographic factors, and behavioral responses interact to influence brand perception and user satisfaction with social media platforms. This framework allows a systematic exploration of the factors shaping how advertisements impact user engagement and their overall experience.

At the core of this framework are **ad characteristics**, including relevance, format, frequency, and content quality. Relevance refers to how well ads align with users' interests, often achieved through targeting based on demographics, browsing history, and social media activity. Ad formats—ranging from video ads to influencer promotions and banner ads—are presented as important in determining user engagement, with certain types of ads seen as more engaging than others. The frequency of ad exposure also plays a crucial role, as while familiarity with ads can positively impact user perceptions, excessive frequency often leads to ad fatigue. High-quality, creative ad content further enhances engagement, as users are more likely to respond positively to well-crafted messages. Past studies indicate that consumer attitudes towards advertising are influenced by relevance, personalization, and the perceived intrusiveness of ads. Research by Pollay & Mittal (1993) and Speck & Elliott (1997) has shown that ads perceived as useful and entertaining are often better received, while repetitive or irrelevant ads can lead to ad avoidance.

#### **2.1.2 Empirical Evidence**

Empirical studies provide substantial insights into how cashless payment systems affect financial behavior. Desai (2022) investigates the influence of digital payments on users’ spending and saving patterns, revealing that frequent use of cashless transactions tends to increase consumer spending due to the abstract nature of digital payments. However, this shift also encourages the use of financial tracking tools, leading to improved saving habits in some cases.

Patel (2021) explores the connection between a cashless economy and financial discipline, finding that the traceability of digital transactions promotes better budgeting and financial planning among consumers. Participants in the study reported feeling more in control of their finances due to the accessibility of their financial data.

Chandra (2019) analyzes changes in financial habits resulting from the shift to digital payments, noting a rise in online purchases among younger generations. The study highlights how digital platforms encourage automated savings, while also acknowledging the potential for increased impulse buying due to easier access to shopping.

Iyer (2021) focuses on the barriers to cashless payments in rural areas, identifying significant demographic challenges such as infrastructure deficits and low digital literacy that inhibit adoption. The study underscores the importance of addressing security concerns and mistrust of digital systems among older adults and those with limited educational backgrounds.

Banerjee (2020) delves into the digital divide within cashless payment systems, examining how age, income, and education impact the adoption of these methods. The findings reveal that younger, tech-savvy individuals with higher incomes are more likely to engage with cashless systems compared to older adults and lower-income groups.

These studies collectively emphasize the complex relationship between cashless payment systems and financial behavior, highlighting the need for tailored approaches that consider demographic factors, consumer perceptions, and infrastructural challenges in order to foster broader adoption of cashless transactions.

# Research Methodology

Research methodology refers to the systematic approach used to address research problems. This study employs a structured methodology to investigate the impact of cashless transactions on financial behavior. The methodology encompasses various techniques for data collection and analysis, ensuring a comprehensive understanding of how cashless payment systems influence consumer behavior, perceptions, and the challenges faced in their adoption.

## Research Design

This study employs a descriptive research design, which encompasses surveys, findings, and inquiries to gather comprehensive data. Specifically, a direct survey was conducted using a Google Form, allowing for efficient collection of responses from participants to explore the impact of cashless transactions on financial behavior. This approach facilitates a clear understanding of public perceptions, attitudes, and experiences related to cashless payment systems.

## Data Collection

For this study, data were compiled from both primary and secondary sources.

**3.2.1 Primary Data**

Primary data is collected directly from firsthand sources through questionnaires, and similar methods. In this study, primary data were gathered using a structured questionnaire designed to assess consumer perceptions and behaviors regarding cashless transactions.

**3.2.2 Secondary Data**

Secondary data consists of information that has already been published. In this study, secondary data were collected from various sources, including internet resources, websites, existing research, and scholarly articles, to support the analysis of cashless payment systems and their impact on financial behavior.

## Sample Design

The sample design for this study consists of a clear plan to obtain a sample from the infinite population, with respondents selected using convenience sampling; the target respondents are members of the public, and a total sample size of 102 individuals was utilized for the research.

## Tools for Analysis

**Correlation**
Correlation is a statistical method employed to measure both the strength and direction of the relationship between two or more variables. This technique provides insights into how closely related the variables are, enabling researchers to understand potential associations and interactions.

**Chi-Square Test**
The chi-square test serves as a statistical method to determine whether a significant association exists between categorical variables. By comparing the observed frequencies of data to the expected frequencies under the null hypothesis (which assumes no relationship), this test assesses whether the differences in frequencies are due to chance or indicate a meaningful relationship.

**One-Way ANOVA Test**
One-Way Analysis of Variance (ANOVA) is a statistical test used to compare the means of three or more group assessing whether significant differences exist among them. This method evaluates the variation within groups against the variation between groups, providing valuable insights into the factors that may influence outcomes across multiple categories.

# Results and discussion

## Percentage analysis

**Table 1 SPENDING HOURS IN SOCIAL MEDISA PER DAY**

|  |
| --- |
| **SPENDING HOURS IN SOCIAL MEDISA PER DAY** |
|   | Frequency | Percent | Valid Percent | Cumulative Percent |
| Valid | Less than 1 hour | 9 | 8.8 | 8.8 | 8.8 |
| 1 to 2 hours | 31 | 30.4 | 30.4 | 39.2 |
| 2 to 4 hours | 42 | 41.2 | 41.2 | 80.4 |
| 4 to 6 hours | 11 | 10.8 | 10.8 | 91.2 |
| More than 6 hours | 9 | 8.8 | 8.8 | 100.0 |
| Total | 102 | 100.0 | 100.0 |   |

**INFERENCE**

From the above table out of 102 respondent 8.8% use less than 1 hour,30.4% use for 1 to 2 hours,41.2% use for 2 to 4 hours,10.8% use for 4 to 6 hours and 8.8% more than 6 hours.

**Table 2** Agreement that Cashless Transactions Contribute to Economic Growth

|  |
| --- |
| primary purpose of using social media |
|   | Frequency | Percent | Valid Perc ent | Cumulative Percent |
| Valid | connecting with friends and family | 22 | 21.6 | 21.6 | 21.6 |
| networking | 5 | 4.9 | 4.9 | 26.5 |
| entertainment | 48 | 47.1 | 47.1 | 73.5 |
| News and information | 26 | 25.5 | 25.5 | 99.0 |
| Shopping and product discovery | 1 | 1.0 | 1.0 | 100.0 |
| Total | 102 | 100.0 | 100.0 |   |

**INFERENCE**

From the above table out of 102 respondent 21.6% use social media for connecting with friends and family.4.9% for networking,47.1% for entertainment,25.5% for News and information and 1% for Shopping and product discovery.

**Table 3 BUYING BEHAVIOUR AFTER SEEING BRAND’S AD**

|  |
| --- |
| What makes you buy a brands product after seeing its ad |
|   | Frequency | Percent | Valid Percent | Cumulative Percent |
| Valid | quality of content | 42 | 41.2 | 41.2 | 41.2 |
| promotions (or) discounts | 37 | 36.3 | 36.3 | 77.5 |
| recommendations | 18 | 17.6 | 17.6 | 95.1 |
| engagement with the brand | 5 | 4.9 | 4.9 | 100.0 |
| Total | 102 | 100.0 | 100.0 |   |

**INFERENCE**

The table reveals that 41.2% of respondents are influenced to buy a brand's product by the quality of the ad content, while 36.3% are swayed by promotions or discounts. Recommendations play a role for 17.6%, and only 4.9% are influenced by engagement with the brand.

**Table 4** Effect of Cashless Payments on Spending Habits

|  |
| --- |
| How concerned are you about data privacy with targeted ads |
|   | Frequency | Percent | Valid Percent | Cumulative Percent |
| Valid | very concerned | 23 | 22.5 | 22.5 | 22.5 |
| concerned | 38 | 37.3 | 37.3 | 59.8 |
| neutral | 25 | 24.5 | 24.5 | 84.3 |
| slightly concerned | 8 | 7.8 | 7.8 | 92.2 |
| not concerned | 8 | 7.8 | 7.8 | 100.0 |
| Total | 102 | 100.0 | 100.0 |   |

**INFERENCE**

The table indicates that 37.3% of respondents are concerned about data privacy with targeted ads, and 22.5% are very concerned. Additionally, 24.5% feel neutral about the issue. A smaller portion is slightly concerned (7.8%) or not concerned at all (7.8%).

**Table 5 ADS ENCOUNTERED BY THE RESPONDENT**

|  |
| --- |
| Which ads do you usually encounter |
|   | Frequency | Percent | Valid Percent | Cumulative Percent |
| Valid | based on browsing history | 22 | 21.6 | 21.6 | 21.6 |
| based on purchase history | 28 | 27.5 | 27.5 | 49.0 |
| based on social media activity | 42 | 41.2 | 41.2 | 90.2 |
| based on location | 10 | 9.8 | 9.8 | 100.0 |
| Total | 102 | 100.0 | 100.0 |   |

**INFERENCE**

Out of 102 Respondent , the table shows that respondents most commonly encounter ads based on social media activity (41.2%), followed by those based on purchase history (27.5%). Ads based on browsing history account for 21.6%, while location-based ads make up 9.8%.

## CHI-SQUARE

To find out association between users' interest in social media advertisements and the accuracy of targeted ads in matching their interests.

H0 : There is no significant Association between users' interest in social media advertisements and the accuracy of targeted ads in matching their interests.

H1: "There is a significant Association between users' interest in social media advertisements and the accuracy of targeted ads in matching their interests."

**Table 6** CHI-SQAURE

|  |  |  |
| --- | --- | --- |
|  | **Advertisement on social media that you are interested with** | **accuracy of targeted advertisements** |
| **Chi-Square** | **33.196a** | **60.157a** |
| **df** | **4** | **4** |
| **Asymp. Sig.** | **.000** | **.000** |
| **a. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 20.4.** |

From the above table, we can find that the significant value is 0.000, which is less than table value 0.05, so the Null hypothesis is rejected and Alternative hypothesis is accepted.

Therefore there is a association between users' interest in social media advertisements and the accuracy of targeted ads in matching their interests."

## ONE-WAY ANOVA

To find out the likelihood of purchasing a product vary significantly across different brands after exposure to their advertisements.

H0 : There is no significant difference in the likelihood of purchasing a product across different brands after exposure to their advertisements.

H1 : "There is a significant difference in the likelihood of purchasing a product across different brands after exposure to their advertisements.

**Table 7** ONE-WAY ANOVA

|  |
| --- |
| ANOVA |
| whatextenddoyouagreewiththebrandsfollowingstatements  |
|   | Sum of Squares | df | Mean Square | F | Sig. |
| Between Groups | 3.644 | 3 | 1.215 | 1.373 | .256 |
| Within Groups | 86.709 | 98 | .885 |   |   |
| Total | 90.353 | 101 |   |   |   |

From the above table, we can find that the significant value is 0.256, which is higher than table value 0.05, so the null hypothesis is accepted and the alternative hypothesis is rejected.

Therefore, There is no significant difference in the likelihood of purchasing a product across different brands after exposure to their advertisements

## CORRELATION

To find out if there a significant correlation between concerns about data privacy and attitudes toward targeted advertisements.

H0 : There is no correlation between concerns about data privacy and attitudes toward targeted advertisements

H1: There is a Significant correlation between concerns about data privacy and attitudes toward targeted advertisements

**Table 8** CORRELATION

|  |
| --- |
|    Correlations |
|   | whatextenddoyouagreewiththefollowingstatements | howareyouconcernedaboutthedataprivacy |
| whatextenddoyouagreewiththefollowingstatements | Pearson Correlation | 1 | .057 |
| Sig. (2-tailed) |   | .572 |
| N | 102 | 102 |
| howareyouconcernedaboutthedataprivacy | Pearson Correlation | .057 | 1 |
| Sig. (2-tailed) | .572 |   |
| N | 102 | 102 |

From the above table, we can find that the significant value is 0.572 which is greater than the table value so, the null hypothesis is accepted and the alternative is rejected.Therefore, There is no correlation between concerns about data privacy and attitudes toward targeted advertisements

# Conclusion

This study on the impact of online advertising on social media users highlights key insights into how advertisements influence user engagement, satisfaction, and purchasing behaviors across platforms like Facebook and Instagram. The findings underscore the importance of ad relevance and personalization in shaping user responses. Ads that align with users' interests are generally well-received; however, excessive targeting can lead to ad fatigue, where users ignore or even develop negative feelings toward the ads. To maintain engagement, brands must diversify ad formats and limit repetition to prevent users from feeling overwhelmed.Privacy concerns are another critical factor, as many users express discomfort with targeted ads that appear based on sensitive information like browsing history or location. Building trust requires brands to be transparent about data collection and to provide users with control over ad personalization. This can improve receptivity and alleviate privacy-related anxieties, fostering a more positive advertising environment.The study also finds that while exposure to ads can increase brand awareness, it doesn’t necessarily drive purchasing behavior. Factors such as the quality of ad content and the perceived authenticity and trustworthiness of the brand play a larger role in influencing purchasing decisions. This suggests that brands should prioritize creating engaging, credible content that resonates with user values and needs.In conclusion, effective social media advertising relies on a balance between personalization and user autonomy. By offering transparent data practices, reducing ad repetition, and focusing on high-quality content, brands can better engage users and encourage positive brand interactions, ultimately fostering a more respectful and engaging online experience.

***Recommendations***

To improve the effectiveness of online advertising on social media, it is essential to address ad fatigue, privacy concerns, and the importance of personalization in a balanced manner. One significant recommendation is for brands to prioritize ad relevance while managing the frequency of advertisements. Ad fatigue remains a major concern for users who often feel overwhelmed by repetitive ads, leading to disengagement or negative associations with the brand. To address this, brands should deliver varied content tailored to users’ interests without relying too heavily on the same message. Using different formats such as video ads, carousel ads, and interactive elements like polls or quizzes can sustain user interest, providing a more dynamic and engaging advertising experience .Enhancing transparency in data collection practices is also crucial, as privacy concerns significantly impact users' perception of online advertisements. Brands should clarify how user data is collected, stored, and used, particularly for targeting purposes. A straightforward approach—such as adding explanations about data collection within ads or creating dedicated sections on the platform that outline privacy practices—can help users understand the process, fostering trust. Additionally, offering users options to control data sharing would respect their autonomy and increase their comfort with personalized ads, thereby improving ad receptivity .Another key recommendation is to provide users with the ability to manage their ad preferences. Allowing users to select ad categories, adjust the frequency, or even opt-out of certain ad types can lead to a more positive experience. Platforms could implement accessible "Ad Preferences" settings, where users can tailor their ad exposure. By enabling users to influence the ads they see, brands can ensure they reach an audience more likely to be receptive while minimizing irritation among those who prefer less engagement.

# Compliance with ethical standards

*Disclosure of conflict of interest*

No conflict of interest to be disclosed.

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