

# Exploring the Impact of Interactive Advertisements on User Experience: An Evaluation of Different Types of Ads

Aayush Pokharel, Sushant Regmi, Subash Khatri, Sabin Badal, and Ranjit Sapkota

**Abstract**—This research project aims to investigate the impact of interactive advertisements on user experience by evaluating various types of ads. Traditional advertising methods often irritate users and fail to effectively promote brands, products, or services. In response to these challenges, this study focuses on interactive ads, which provide engaging and interactive experiences for users. By evaluating different types of interactive ads, we seek to understand their potential to enhance user experience and overcome the limitations of conventional advertising methods. The research team will employ a mixed-methods approach, combining qualitative and quantitative research techniques. The evaluation will involve user surveys, interviews, and usability testing to gather data on user preferences, engagement levels, brand recall, and perception. Through statistical analysis and thematic coding, the findings will provide insights into the effectiveness and user experience of different interactive ad formats. The expected outcomes of this research include a comprehensive understanding of how interactive ads influence user experience, user engagement, brand recall, and brand perception. The research findings will contribute to the development of more effective and user-friendly advertising strategies that prioritize user experience and engagement. Furthermore, the research aims to provide actionable insights to advertisers and marketers seeking to improve the effectiveness of their advertising campaigns. By exploring the impact of interactive advertisements, this research project contributes to the advancement of advertising practices and aligns with the evolving needs and preferences of users in the digital age. The results of this study will not only benefit marketers and advertisers but also enhance the overall user experience in the advertising ecosystem.

**Index Terms**—HCI, User Experience, User Interface, Static Ads, Interactive Ads,

## I. INTRODUCTION

### A. Background

IN today's digital landscape, advertisements play a pivotal role in promoting brands, products, and services. However, the effectiveness of traditional advertising methods has been increasingly questioned as users grow more resistant to intrusive and irrelevant ads [1]. Traditional approaches, such as banner ads or pop-ups, often fail to captivate users' attention, leading to reduced engagement, limited brand recall, and suboptimal outcomes for advertisers. As a result, there is a growing need to explore alternative advertising strategies that prioritize user experience and engagement.

### B. Motivation

This research project focuses on exploring the impact of interactive advertisements on user experience. Interactive ads,

characterized by their ability to provide engaging and interactive experiences, have emerged as a potential solution to the limitations of traditional advertising methods [2]. By incorporating gamification, personalized content, and interactivity, these ads aim to establish meaningful connections with users and deliver persuasive messages. Understanding the effectiveness of interactive ads in promoting brands, products, or services is crucial for advertisers and marketers seeking more effective and user-friendly advertising strategies.

### C. Literature Review

Interactive advertising has emerged as a highly effective approach, captivating viewers and driving brand awareness with greater efficacy than static advertising [3]. The Elaboration Likelihood Model (ELM) provides insights into the psychological processes underlying the effectiveness of interactive ads. It posits that interactive ads, by offering opportunities for interaction and engagement, stimulate central processing, leading to profound message elaboration and favorable brand attitudes.

The Theory of Planned Behavior (TPB) further highlights the factors influencing consumer behavior and the effectiveness of interactive ads [4]. Interactive ads impact elements of the TPB, including intention, perceived behavioral control, and attitude. These ads enhance intention by making behaviors more captivating, improve perceived behavioral control by increasing ease and accessibility, and shape attitudes by making behaviors more desirable and eliciting positive evaluations.

The Social Cognitive Theory (SCT) emphasizes observational learning and suggests that interactive ads can serve as models for desired behavior [5]. By showcasing positive outcomes associated with the behavior, interactive ads inspire consumers to seek similar experiences. The SCT reinforces the notion that interactive ads hold greater sway in influencing consumer behavior compared to non-interactive ads.

The Interactivity Theory delves deeper into the role of interactivity in advertising [6]. It posits that interactivity engenders a sense of control, involvement, and engagement among viewers, transcending the passive nature of static ads. Interactive ads captivate attention and foster deeper engagement by actively involving viewers and allowing them to shape their own experiences.

The Social Presence Theory highlights the impact of social interaction in advertising [7]. Interactive ads incorporating features facilitating social interaction amplify the sense of

social presence, fostering greater engagement and involvement among viewers.

Supporting these theoretical perspectives, empirical evidence from Natalia Viktorovna Antonova's study (2015) titled "The Psychological Effectiveness of Interactive Advertising" [8] confirms the empowering effect of interactivity on individuals, enabling them to identify with advertising characters and actively participate within the advertising environment. Active involvement in interactive ads increases individuals' willingness to act in the real world, enhancing the potential impact of interactive advertising on consumer behavior and brand perception.

In conclusion, the Elaboration Likelihood Model, Theory of Planned Behavior, Social Cognitive Theory, Interactivity Theory, and Social Presence Theory collectively demonstrate the effectiveness of interactive advertising in fostering engagement and brand awareness. These theoretical frameworks, supported by empirical evidence, highlight the psychological impact of interactivity in shaping consumer behavior and conveying brand messages effectively. Interactive ads, by fostering central processing, interactivity, social interaction, intention, perceived behavioral control, attitude, and observational learning, drive greater brand engagement. As interactive advertising continues to evolve, its importance as a powerful marketing tool becomes increasingly evident.

#### D. Problem Statement

The problem at hand encompasses two main aspects. Firstly, there is a need to assess the effectiveness of interactive advertisements in engaging users and facilitating brand recall, comprehension of product claims, and risk disclosures. Secondly, it is crucial to address the potential irritations and negative experiences that users may encounter when interacting with such ads. By understanding the challenges and opportunities associated with interactive advertising, we can develop strategies to optimize these ads and improve user experience, leading to desired advertising outcomes.

To tackle these concerns, this research project aims to investigate the impact of interactive advertisements on user experience by evaluating different types of ads. By examining user engagement, recall, comprehension, and potential irritations, the study seeks to provide valuable insights for advertisers, marketers, and designers to enhance the effectiveness of interactive advertising campaigns.

#### E. Research Question

This research project aims to investigate the impact of interactive advertisements on user experience and advertising effectiveness. To achieve this, the study will address the following research questions:

- How do user attitudes and perceptions towards interactive advertisements influence their engagement and recall of advertised brands?
- What are the key factors that contribute to user comprehension of product claims and risk disclosures in interactive advertisements?

- How do different types of interactive ad formats (e.g., gamification, personalized content) affect user experience and engagement?
- What are the potential irritations and negative experiences that users may encounter when interacting with interactive advertisements, and how can they be mitigated?

#### F. Research Objective

The primary objective of this study is to comprehensively evaluate the impact of interactive advertisements on user experience. To achieve this, we will assess various types of interactive ads to understand their effectiveness in engaging users, enhancing brand recall, and improving overall brand perception [9]. By employing a mixed-methods approach, combining qualitative and quantitative research techniques, we aim to gather robust data to achieve the following objectives:

- Investigate the relationship between user attitudes and perceptions towards interactive advertisements and their engagement and recall of advertised brands.
- Identify the key factors that contribute to user comprehension of product claims and risk disclosures in interactive advertisements.
- Examine how different types of interactive ad formats (e.g., gamification, personalized content) affect user experience and engagement.
- Explore the potential irritations and negative experiences that users may encounter when interacting with interactive advertisements and develop strategies to mitigate them.

By pursuing these research objectives, we aim to generate valuable insights and practical knowledge that can contribute to the advancement of interactive advertising practices. Ultimately, the objective is to create more engaging, user-friendly, and persuasive interactive advertisements that align with user preferences and needs, resulting in improved user experiences and advertising outcomes.

#### G. Significance

The outcomes of this research hold significant potential for advertisers and marketers seeking more effective and user-friendly advertising strategies. By gaining insights into how interactive ads influence user experience, engagement, and brand perception, advertisers can tailor their campaigns to better resonate with their target audience [10]. Moreover, understanding the impact of interactive ads on user experience can pave the way for the development of innovative and engaging advertising approaches that prioritize user preferences and needs.

#### H. Research Approach

To accomplish our research goals, we will employ a range of research methods, including user surveys, interviews, and usability testing. The collected data will be subjected to rigorous statistical analysis and thematic coding, allowing us to draw meaningful conclusions and insights. It is essential

to emphasize that the research findings are intended to provide actionable insights and recommendations to advertisers and marketers looking to enhance the effectiveness of their advertising campaigns [11].

### I. Outline

In summary, this research project aims to contribute to the advancement of advertising practices by exploring the impact of interactive advertisements on user experience. By evaluating various types of ads, we seek to identify effective strategies that can address the limitations of traditional advertising methods and create engaging experiences for users. The results of this study have the potential to reshape advertising practices, improve user experience, and foster a more harmonious relationship between advertisers and their target audience.

## II. RELATED WORK

## III. METHODOLOGY

## IV. EXPERIMENTAL RESULTS

## V. DISCUSSION

## VI. CONCLUSION

## ACKNOWLEDGMENT

The authors would like to acknowledge the support and contributions of various individuals and organizations in the completion of this research paper. We express our sincere gratitude to the Kathmandu University for providing the opportunity to pursue the BSc. degree in Computer Science.

Special thanks are extended to Assistant Professor Dr. Sushil Shrestha for his invaluable guidance, expertise, and continuous support throughout the research process. His constructive feedback, insightful suggestions, and profound knowledge in the field of Human-Computer Interaction (HCI) have significantly influenced the quality and direction of this research.

We would also like to acknowledge the assistance and cooperation received from the Kathmandu University. Their support in providing access to essential resources, including the library facilities, is greatly appreciated.

Furthermore, we would like to express our gratitude to our fellow classmates for their valuable collaboration, discussions, and shared experiences during the course. Their diverse perspectives have enriched our research work and broadened our understanding of HCI.

Finally, the authors would like to thank all the participants who generously contributed their time and insights to this research study. Their participation has been crucial in collecting the necessary data and ensuring the validity of our findings.

The authors acknowledge the contributions and support provided by all the individuals and organizations mentioned above. Their involvement has been instrumental in the successful completion of this research.

## REFERENCES

- [1] S. Shavitt, P. Lowrey, and J. Haefner, "Public attitudes towards advertising: More favorable than you might think," *Journal of Advertising Research*, vol. 38, no. 4, pp. 7–22, 1998.
- [2] S. Roy, P. Arora, and V. Bhatia, "The role of interactivity in advertising effectiveness: A systematic review and research agenda," *Journal of Advertising*, vol. 49, no. 2, pp. 168–192, 2020.
- [3] R. E. Petty and J. T. Cacioppo, *Communication and persuasion: central and peripheral routes to attitude change*. Berlin, Germany: Springer-Verlag, 1986.
- [4] I. Ajzen, "The theory of planned behavior," *Organizational Behavior and Human Decision Processes*, vol. 50, no. 2, pp. 179–211, 1991.
- [5] A. Bandura, *Social foundations of thought and action: A social cognitive theory*. Prentice-Hall, 1986.
- [6] Y. Liu and L. J. Shrum, "What is interactivity and is it always such a good thing? implications of definition, person, and situation for the influence of interactivity on advertising effectiveness," *Journal of Advertising*, vol. 31, no. 4, pp. 53–64, 2002.
- [7] J. Short, E. Williams, and B. Christie, *The social psychology of telecommunications*. John Wiley & Sons, 1976.
- [8] N. V. Antonova, "The psychological effectiveness of interactive advertising," *Russian Psychological Journal*, vol. 12, no. 4, pp. 28–40, 2015.
- [9] K. Giombi, C. Viator, J. Hoover, J. Tzeng, H. W. Sullivan, A. C. O'Donoghue, B. G. Southwell, and L. C. Kahwati, "The impact of interactive advertising on consumer engagement, recall, and understanding: A scoping systematic review for informing regulatory science," *PLoS One*, vol. 17, no. 2, p. e0263339, 2022. [Online]. Available: <https://doi.org/10.1371/journal.pone.0263339>
- [10] S. S. Sundar, "The main model: A heuristic approach to understanding technology effects on credibility," in *Digital media, youth, and credibility*. MIT Press, 2008, pp. 73–100.
- [11] X. Liang and M. Lee, "User attitudes and advertising effectiveness in online social networking websites," *Journal of Interactive Advertising*, vol. 8, no. 2, pp. 1–13, 2008.