Fake It Till You Play It
A Deep Dive into Fake Mobile Game Ads

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Abstract

Misleading advertisements in mobile gaming have become a widespread and profitable marketing tactic. Developers use fake gameplay, exaggerated failure scenarios, and emotional manipulation to drive downloads by exploiting cognitive biases. While these ads often frustrate players, they remain effective due to their low user acquisition costs and financial benefits for game companies. This study systematically analyzes 250 YouTube ads and 50,000 Google play reviews to examine how deceptive advertising influences player perceptions. Ads were categorized into seven deception tactics, and NLP techniques were applied to user reviews. Results show that misleading ads are a dominant source of player complaints, with strong negative sentiment. By identifying key trends and psychological mechanisms behind these ads, this study offers insights into their persistence in mobile game marketing.

1 Introduction

Deceptive mobile game advertisements have become a widespread yet controversial marketing strategy, particularly in the free-to-play (F2P) sector. These ads often feature dramatic imagery, exaggerated mechanics, and emotionally charged narratives that are unrelated to actual gameplay. According to the Interactive Advertising Bureau, 56% of mobile gamers have encountered promotional content that blatantly misrepresents a game's core mechanics. This misalignment between expectation and reality contributes to high uninstall rates. Despite eroding consumer trust, deceptive ads continue to dominate mobile game marketing due to their ability to drive downloads at lower user acquisition costs.

A closer look at these ads reveals several recurring deceptive tactics. Some use classic 'bait-and-switch' strategies, where a popular puzzle mechanic (e.g., "pull-the-pin") is featured prominently in the ad but either appears only as a minor mini-game or is entirely absent in the actual game. Others rely on "fake incompetence", deliberately showing characters failing at simple tasks to trigger viewers' self-enhancement bias, leading them to think, "I can do better." This technique is reinforced by the Dunning-Kruger effect, as individuals with lower skill levels overestimate their abilities. Additionally, sexualized clickbait remains a common engagement tool, featuring provocative visuals to generate curiosity and downloads. Developers also borrow elements from well-known intellectual property (IP) or create false brand associations to tap into familiarity, urgency, and nostalgia. Another prevalent strategy is emotional manipulation, where ads depict dramatic, distressing storylines that barely exist in the actual game.

The gendered dimension of deceptive ads raises additional concerns. Many misleading campaigns rely on hypersexualized female characters or distress-driven narratives to attract clicks, perpetuating harmful stereotypes and reinforcing problematic portrayals of gender roles.

From a business perspective, misleading ads flourish because the mobile gaming industry is highly competitive, and user acquisition costs continue to rise. To stand out in an oversaturated market, developers turn to sensationalized marketing to achieve a lower cost-per-install (CPI) and higher initial download counts. While negative reviews and uninstalls reflect user dissatisfaction, a small but financially significant fraction of players remain, sustaining monetization and justifying continued investment in deceptive ad campaigns. Some developers retroactively integrate the falsely advertised mechanics as mini-games or limited-time events to counter backlash—navigating a legal gray area where the promised features technically exist but in a far less prominent form than advertised.

Given the scale and persistence of deceptive mobile game ads, understanding how they operate, why they succeed, and their impact on user perception is crucial.

2 Related Work

Misleading mobile game advertisements have become a dominant marketing strategy, exploiting psychological and emotional triggers to maximize engagement. These ads frequently misrepresent gameplay by depicting nonexistent mechanics, exaggerated storytelling, or misleading interactive elements, capitalizing on cognitive biases such as

self-enhancement bias and loss aversion. Research [3, 4] indicates that deceptive advertising is not only prevalent but also actively optimized through A/B testing, where developers refine ad elements to maximize engagement and conversion rates. The impact of these ads extends beyond initial downloads, as users often realize the deception too late, leading to frustration, distrust, and negative app store reviews. Studies have identified that emotional manipulation plays a key role in the success of these deceptive ads. Ihsan [2] conducted a content analysis of 100 free-to-play mobile game advertisements and found that 79.69% relied on emotional appeals such as fear, guilt, humor, and FOMO (Fear of Missing Out). Similarly, Alha [1] analyzed advertisements for Project Makeover and Matchington Mansion, revealing how these games exploit gender stereotypes and beauty standards by portraying women as helpless, distressed, or in need of transformation to achieve happiness. These tactics leverage psychological vulnerabilities to trigger impulsive downloads, often making misleading promises about the actual game content.

The use of structured deception patterns is another critical aspect of misleading mobile game advertisements. Moradzadeh and Kou [4] identified five deception tactics in fake mobile game ads: gameplay misrepresentation (ads show a different genre or mechanics), false storylines (advertised plots don't exist in-game), absent celebrity endorsements (ads feature influencers or brands not in the game), exaggerated difficulty (claims of high skill requirements are false), and misleading rewards. Mago [3] specifically analyzed the "pull-the-pin" fake ad trend and found that, despite its widespread use, this gameplay mechanic was largely absent from the advertised games. Their research analyzed Google Play reviews and found that at least 25% of negative user reviews explicitly mentioned misleading ads as a source of frustration. However, some developers later integrated the falsely advertised mechanics as mini-games to comply with advertising regulations while maintaining their misleading marketing practices. These findings indicate that deception is not an accidental byproduct of mobile game advertising but rather a deliberate strategy that continues to evolve.

User reactions to misleading mobile game ads often follow a predictable pattern. Moradzadeh and Kou [4] analyzed 2.47 million Google Play and App Store reviews, filtering 2,589 relevant complaints about fake ads, and identified four key stages of user response. The unfolding realization phase occurs when players gradually recognize they have been misled, followed by the risks involved phase, where concerns arise regarding privacy, excessive permissions, or forced monetization. The emotive contours phase is characterized by expressions of anger, frustration, and betrayal, leading to the response patterns phase, where users react by uninstalling, leaving negative reviews, or demanding regulatory intervention. Additionally, Mago [3] found that games using misleading ads had systematically lower ratings, with an average 1.5-star difference compared to non-deceptive games. This suggests that, despite their short-term effectiveness in driving downloads, misleading ads significantly harm long-term retention rates and brand trust.

Regulatory enforcement against misleading mobile game ads remains inconsistent, allowing these practices to persist. While the Federal Trade Commission (FTC) and the Advertising Standards Authority (ASA) have taken action against some deceptive ads, particularly those promoting false rewards or predatory monetization tactics, their enforcement efforts remain limited [2]. Developers often find loopholes by incorporating the falsely advertised mechanics into the game after release, making it difficult to hold them accountable [3].

3 Methodology

This study employs a mixed-method approach to examine misleading mobile game advertisements, analyzing both ad content and user reactions. The methodology includes data collection, ad classification, user review analysis, sentiment analysis, topic analysis, and longitudinal tracking, providing insights into the impact of deceptive advertising.

3.1 Data Collection and Preparation

A total of 250 misleading mobile game ads were collected from YouTube, sourced from users who upload mobile game advertisements. The selection focused on five games known for deceptive marketing: *Project Makeover, Last Fortress, Hero Wars, Hustle Castle,* and *Puzzles and Survival.*

To assess user reactions to misleading ads, 50,000 Google Play reviews (10,000 per game) were collected, prioritizing relevant reviews. Furthermore, to track how user complaints evolved over time, a longitudinal study was conducted on Puzzles and Survival, analyzing 40,000+ reviews from 2020 to 2025. To systematically analyze deception, seven common misleading ad tactics were defined based on previous research:

- **Bait-and-Switch:** Ads prominently feature gameplay mechanics or features that do not exist in the actual game.
- **Fake Incompetence:** Ads showcase a user repeatedly failing at an absurdly simple task.
- **Emotional Manipulation:** Ads employ dramatic, distressing, or urgent scenarios to evoke strong emotional reactions from viewers.

- **Sexualized Clickbait:** Ads use provocative visuals, suggestive themes, or hypersexualized characters to attract attention.
- **False Storylines:** Ads present elaborate narratives that do not exist in the actual game.
- **Borrowed IP:** Ads falsely associate the game with famous characters, brands, or intellectual properties (IP) to exploit user recognition and nostalgia.
- **Exaggerated Difficulty:** Ads misrepresent the challenge level of a game by making it seem much harder than it actually is.

3.2 Ad Classification & Labeling

Since the dataset was unlabeled, **Gemini AI** was used, leveraging prompt engineering to classify ads into relevant deception categories. The model analyzed the first 10 seconds of each ad video, enabling multi-label classification, where an ad could be assigned to multiple deceptive categories based on its content.

3.3 User Review Analysis

To assess user reactions to misleading ads, reviews were collected from Google Play. BM25 ranking was used to identify reviews mentioning fake ads,and topic modeling extracted dominant discussion themes. Further analysis was conducted in ads-related reviews, applying topic modeling again to categorize complaints based on deception types. This validated that real user frustrations aligned with the predefined ad deception categories. In addition, a Named Entity Recognition (NER) analysis was applied to all ad-related reviews to identify key platforms, developers, and frequently mentioned terms.

3.4 Sentiment Analysis

To evaluate the overall sentiment of user reviews, sentiment analysis was conducted on the full dataset of collected reviews. In addition, sentiment analysis was performed to assess whether advertising topics had a higher negative sentiment compared to other game-related issues, such as monetization or gameplay mechanics. This approach allowed for a comparative understanding of user dissatisfaction across different concerns.

3.5 Longitudinal Analysis

To analyze the evolution of user complaints about misleading ads, a longitudinal study was conducted on Puzzles and Survival (2020–2025), covering 40,000+ reviews. First, BERTopic modeling was applied to extract general discussion themes, isolating those related to advertising complaints. Next, a SentenceTransformer-based semantic similarity model was used to align these complaints with predefined misleading ad categories. Finally, topic frequencies were analyzed over time, revealing shifts in deceptive advertising tactics.

4 Result Analysis

4.1 Distribution of Ad Tactics

Figure 1 and Figure 2 illustrate the distribution and classification of misleading ad categories across five mobile games. Using **Gemini AI**, the 250 collected ads were categorized into seven deceptive advertising tactics, with Sexualized Clickbait, Emotional Manipulation, and Fake Incompetence emerging as the most prevalent. This suggests a strong reliance on visual appeal and psychological engagement rather than accurate gameplay representation. In Project Makeover, Emotional Manipulation and False Storylines appears most frequently suggesting a focus on narrative-driven engagement. Puzzles and Survival seems to rely on Sexualized Clickbait. Hustle Castle and Hero Wars show a higher use of Fake Incompetence, likely encouraging engagement through frustration, while Hero Wars also suggests a notable presence of Exaggerated Difficulty. Last Fortress appears more balanced, with Sexualized Clickbait and Emotional Manipulation being prominent tactics.

False Storylines and Bait-and-Switch were more challenging to classify due to the lack of actual gameplay data, as Gemini AI relied solely on ad content. These findings underscore the intentional use of deception tactics in mobile game marketing, with variations in how different games manipulate user expectations to drive downloads.

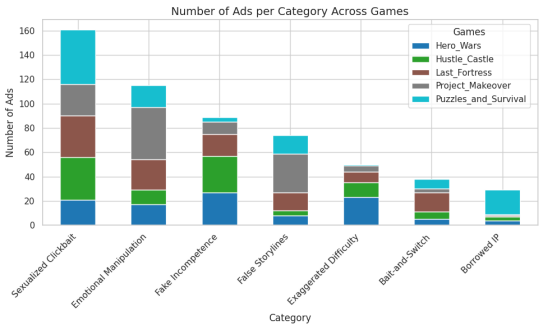

Figure 1: Number of Ads per Category Across Games

4.2 Analysis of User Reviews

Many user reviews indicate that the games rely on misleading advertising tactics, leading to frustration when the actual gameplay does not match expectations. Several topics directly reference false advertising and bait-and-switch marketing strategies.

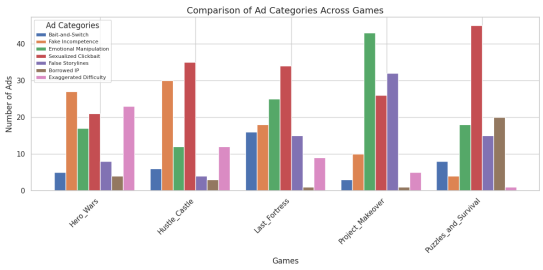

Figure 2: Comparison of misleading ad categories across mobile games.

4.2.1 Puzzles & Survival

Topic	Keywords	Reviews
3	ads, the, ad, is, like, game, not, nothing	672
7	advertised, false, ads, nothing, advertising	230
14	not, pictures, what, like, screenshots, shown	70
21	add, adds, like, the, show, not, nothing, what	42
30	scam, cheating, lying	16

These findings suggest that many players feel misled by the game's marketing, reinforcing concerns that Puzzles & Survival does not accurately represent its actual gameplay in advertisements.

4.2.2 Hustle Castle

Topic	Keywords	Reviews
3	ads, ad, fake, nothing, false, advertising	560
20	adds, add, not, nothing, the, like, download	60
35	advertised, as, not, advertisedthis	14

These findings suggest that many players perceive the game's marketing as deceptive, reinforcing concerns that Hustle Castle presents an exaggerated or inaccurate portrayal of its core mechanics.

4.2.3 Project Makeover

Topic	Keywords	Reviews
5	ads, ad, no, the, to, moves, and, game, extra	345
15	women, woman, ads, her, the, for, and, female	68
21	candy, crush, pls, like, but, than, is, would	37

These findings suggest that many players feel misled by the game's marketing, reinforcing concerns that Project Makeover presents an exaggerated or inaccurate representation of its core gameplay. Additionally, comparisons to Candy Crush in user reviews indicate that some players feel the game's mechanics differ significantly from what was advertised, further contributing to dissatisfaction.

4.2.4 Hero Wars

Topic	Keywords	Reviews
2	ads, the, like, ad, false, nothing, is, not	714
3	data, personal, parties, third, to, agree, you, share	394
5	money, to, pay, you, spend, have, and, but, game	317
16	adds, add, like, the, nothing, not, fake, its	104
19	advertised, demo, not, as, fake, game, is	86
23	advertised, as, not, what, was, kinda, seen	51
28	scam, justplay, total, offerwall, dont, offer	30

Users criticize Hero Wars for misleading ads, data collection concerns, and a pay-to-win model, expressing frustration that the gameplay does not match what was advertised.

4.2.5 Last Fortress

Topic	Keywords	Reviews
2	ads, the, it, game, ad, like, is, and, not, to	811
14	win, pay, to, grab, play, cash, money, game	77
24	adds, add, like, the, nothing, games, as, same	27

These findings suggest that false advertising is a common complaint, with many players feeling deceived after downloading the game.

While false advertising is a dominant complaint, reviews also mention positive gameplay experiences, technical issues, and monetization concerns. Some players enjoy the game despite initial disappointment, while others report problems such as performance issues, lag, and pay-to-win mechanics.

Figure 3 presents the sentiment distribution across topics identified through BERTopic modeling for *Hero Wars*, illustrating the proportion of negative (purple) and positive (yellow) sentiment within each topic. The analysis reveals that topics associated with misleading advertisements (Topics 2, 3, 5, 16, 19, 23, and 28) exhibit the highest levels of negative sentiment, indicating strong user dissatisfaction regarding deceptive marketing practices. In contrast, other topics related to gameplay, engagement and general user experience display more balanced or predominantly positive sentiment. This pattern suggests that advertising-related concerns are a significant source of frustration among players. While this analysis is specific to Hero Wars, similar sentiment distributions were observed across the other four games, with detailed visualizations available in the Colab notebook.

After filtering advertisement-related topics from the initial topic modeling analysis, a second round of topic modeling was applied specifically to these topics.

As shown in Figure 4, the refined topic modeling for *Puzzles & Survival* highlights several key themes. Multiple topics (0, 1, 2, 5, and 6) explicitly reference dissatisfaction with ads not matching actual gameplay, reinforcing Bait-and-Switch as a

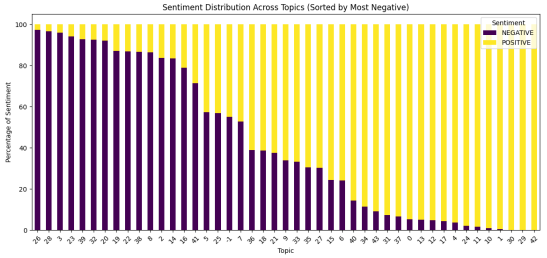

Figure 3: Sentiment distribution across topics in *Hero Wars*.

dominant concern. Topic 7 focuses on False Advertising, while Topic 8 discusses Misleading Ads, suggesting user awareness of deceptive marketing. The presence of Topic 9, which mentions Sexualized Depictions of Women, suggests that Sexualized Clickbait is also a relevant complaint in this game's advertisements. Topic 11 directly references Bait-and-Switch, confirming that users recognize this deceptive strategy. Topic 12, which mentions Candy Crush, indicates frustration that the game plays differently than expected, aligning with False Storylines.

While this analysis focuses on *Puzzles & Survival*, similar patterns were observed in other games, with the full results available in the Colab notebook.

Topic	Count	Name	Representation
0	36	0_as_advertised_not_booo	[as, advertised, not, booo, corny, unoriginal,...
1	18	1_advertised_what_not_was	[advertised, what, not, was, whats, its, def, ...
2	16	2_advertised_nothing_like_rest	[advertised, nothing, like, rest, bother, was,...
3	16	3_scam_cheating_will_lying	[scam, cheating, will, lying, pay, aholes, scu...
4	40	4_add_adds_the_like	[add, adds, the, like, game, play, not, to, it...
5	78	5_like_nothing_ad_ads	[like, nothing, ad, ads, the, not, from, diffe...
6	61	6_advertised_not_game_as	[advertised, not, game, as, the, same, is, tha...
7	41	7_false_advertising_advertisement_ad	[false, advertising, advertisement, ad, advert...
8	41	8_misleading_ads_fake_are	[misleading, ads, fake, are, deceptive, ad, li...
9	64	9_women_the_men_is	[women, the, men, is, are, this, and, for, to,...
10	492	10_the_game_to_is	[the, game, to, is, ads, and, it, this, you, i...
11	22	11_bait_switch_click_and	[bait, switch, click, and, of, games, clickbai...
12	35	12_candy_crush_its_game	[candy, crush, its, game, with, like, is, of, ...

Figure 4: Subtopics of advertisement-related complaints in *Puzzles & Survival*.

4.3 NER Analysis

Named Entity Recognition was applied to all ad-related reviews across all games to identify key platforms, developers, and frequently mentioned terms.

Figure 5 shows a word cloud of common entities in user complaints. Major platforms like Google, YouTube, Facebook, Instagram, and TikTok are frequently referenced, suggesting that deceptive ads are primarily encountered on these channels. Specific games such as Fallout Shelter, Evony, and Candy Crush appear often, likely because users expected the advertised gameplay but instead received a match-3 or city-building game, leading to frustration.

"Nexters", the developer of *Hero Wars*, is frequently mentioned, reflecting repeated complaints about misleading ads. Terms like "BS" (short for "bullshit"), "shady," and "scammy" highlight strong negative sentiment toward deceptive marketing tactics. "NPC" (non-playable character) suggests discussions around fake incompetence in ads.

Figure 5: NER analysis of advertisement-related complaints, identifying major platforms, developers, and key terms associated with misleading ads.

4.4 Longitudinal Trends in User Complaints About Ads

Figures 6 and 7 illustrates the decline in user engagement for *Puzzles & Survival* over time, with both positive and negative reviews peaking in 2020–2021, likely due to the game's virus-themed storyline resonating during the COVID-19 pandemic. While overall reviews decreased, persistent negative sentiment suggests continued frustration with misleading ads.

As before, topic modeling was applied to all reviews, followed by a second round on ad-related reviews. Using *SentenceTransformer*, these topics were categorized into predefined deceptive advertising tactics, enabling trend analysis over time. The second figure tracks the frequency of complaints within these categories, showing that Bait-and-Switch and Sexualized Clickbait were dominant concerns early on, with Bait-and-Switch experiencing periodic resurgences. Other tactics, such as Exaggerated Difficulty and Emotional Manipulation, remained relatively low and stable.

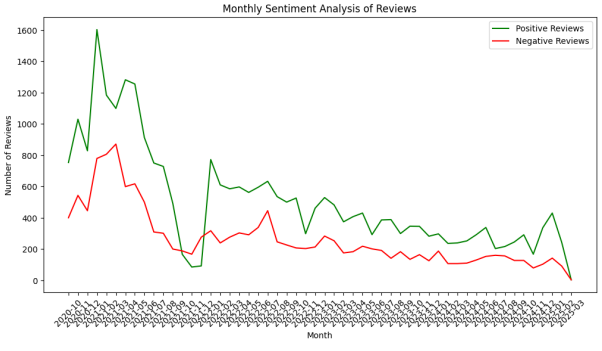

Figure 6: Monthly sentiment analysis of user reviews for *Puzzles & Survival*.

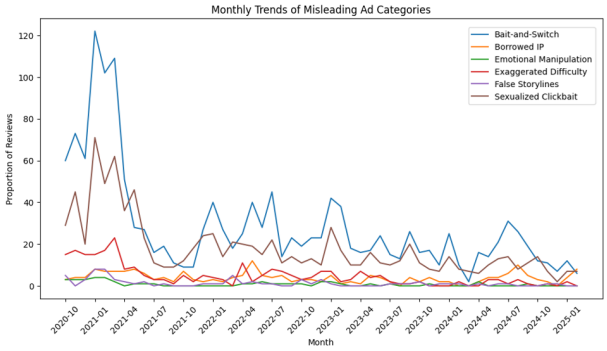

Figure 7: Trends in misleading ad categories over time for *Puzzles & Survival*.

5 Conclusions and Discussion

This study highlights the persistent impact of misleading advertising in mobile games, with Bait-and-Switch, Sexualized Clickbait, and Fake Incompetence emerging as the most common deceptive tactics. These strategies create unrealistic expectations, leading to frustration when gameplay differs from ads.

While user engagement declines over time, negative sentiment toward deceptive ads remains, eroding trust in developers. NER analysis reveals that major platforms facilitate the spread of misleading ads, with terms like BS, shady, and scammy reflecting user frustration. Nexters' frequent mention suggests that deceptive marketing can harm brand reputation.

This study also provides a large dataset of video ads and a rapid labeling method for identifying deception. Future research should compare deceptive and non-deceptive ads, refine classification with gameplay verification, and analyze games with stable review volumes to track shifts in advertising tactics more accurately. Strengthening industry regulations could help restore user trust and improve transparency in mobile game marketing.

6 Data and Code Availability

The dataset analyzed in this study is available at Dataset Link. It includes:

- Reviews for five mobile games.
- Full review dataset for the longitudinal analysis.
- Video advertisements for the five games.
- Gemini AI classification results.

The source code and analysis scripts can be found in our GitHub repository.

7 Acknowledgment

*This study utilized **ChatGPT** for writing assistance and **Gemini AI** for ad classification.*

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