

**A COMPARATIVE STUDY OF TRADITIONAL VS. AI-DRIVEN ADVERTISING: CONSUMER PERCEPTIONS, PREFERENCES, AND IMPACT**

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**Abstract:**

Advertising has undergone significant transformation due to technological advancement. While traditional advertising methods such as television, print media, radio, and outdoor displays have long dominated the industry, artificial intelligence-based advertising has emerged as a powerful digital alternative. This study comparatively examines consumer perceptions, preferences, trust levels, privacy concerns, and perceived effectiveness of traditional and artificial intelligence-based advertising. Primary data were collected through a structured questionnaire consisting of twenty questions and distributed online to more than one hundred forty participants across different age groups and genders. Quantitative data were analyzed using percentage analysis, and qualitative responses were examined using thematic analysis. The findings indicate that artificial intelligence-based advertising is perceived as more personalized, relevant, and efficient, whereas traditional advertising is considered more trustworthy and emotionally appealing. The study also reveals that privacy concerns significantly influence consumer attitudes toward artificial intelligence based advertisements. The results suggest that integrating personalization with credibility may offer the most effective advertising strategy for contemporary consumers.

**Keywords:** Artificial intelligence based advertising, Traditional advertising, Consumer perception, Personalization, Trust, Privacy concerns, Advertising effectiveness

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**Introduction:**

Advertising has always been an integral part of business communication. Advertising has played a crucial role in shaping consumer awareness and influencing consumer behavior. The traditional form of advertising was dependent on mass media communication channels such as television, newspapers, magazines, radio, and hoardings. But with the advent of digital technology and data analytics, the field of advertising has undergone a significant shift. AI advertising is now based on algorithms and machine learning, which helps in the creation of personalized advertisements for consumers. Google and Meta are using consumer data to display personalized content based on consumer behavior. However, this paradigm shift from mass communication to hyper-personalized communication has generated a lot of questions. Does

personalization result in increased effectiveness? Does tracking result in a lack of trust? Do consumers prefer storytelling over precision? This research paper will attempt to give an answer to these questions by comparatively analyzing traditional advertising and AI-based advertising on the basis of consumer perception, preference, and behavior.

**Statement of Problem:**

With rapid technological changes, advertising is changing from traditional advertising like television and newspaper advertising to AI-based advertising. Though there are precise results in AI-based advertising, there are also privacy and security concerns. Traditional advertising, on the other hand, provides credibility and emotional appeals to consumers. However, there are no personalization features. The objective of this study is to identify which

advertising method consumers prefer and how trust, personalization, and privacy concerns are influencing their preferences.

#### Literature Review:

**Alexa Bezjian-Avery, Bobby Calder & Dawn Iacobucci (2025) - “New Media Interactive Advertising vs. Traditional Advertising”.** This research examines just how effective interactive advertising is on these newer media platforms. Because the use of this industry and the research on this topic are still relatively new, this research aims to understand one aspect of this phenomenon interactivity without clouding the results with other variables. It also attempts to determine when interactive advertising is more effective and when traditional advertising may be just as good, or even better. What is interesting about this research is that it has found that traditional, linear advertising may be more effective than interactive advertising on certain types of consumers and certain types of advertisements. The determining factor in this is a “cognitive match” – that is, the type of information delivery (primarily visual or primarily verbal) matches the type of information delivery the consumer wants to receive. In other words, it’s not just about making the advertising interactive – it’s about making sure it’s delivered in a way that suits the consumer.

**Jan Kietzmann, Jeannette Paschen & Emily Treen (2018) - “Artificial Intelligence in Advertising.”** Jan Kietzmann, Jeannette Paschen, and Emily Treen have significantly contributed to understanding the role of artificial intelligence in advertising. In their work on AI in advertising, the authors explain how AI technologies such as machine learning, natural language processing, and predictive analytics are transforming advertising strategy, execution, and performance measurement. The authors argue that AI enables advertisers to move beyond traditional mass communication toward highly personalized and data-driven engagement. AI systems can analyze large volumes of consumer data in real

time, allowing brands to optimize ad targeting, automate bidding strategies, and customize content based on individual consumer preferences. This results in improved efficiency and higher return on advertising investment. However, the authors also highlight important challenges. They note that while AI enhances precision and scalability, it raises ethical concerns related to transparency, privacy, and consumer trust. Over-reliance on automation may reduce human creativity and emotional depth in advertising messages. Therefore, they suggest that AI should complement, rather than replace, human judgment and strategic thinking. Their research emphasizes that successful AI-driven advertising requires a balance between technological capability and ethical responsibility. From a comparative perspective, their work provides a foundation for understanding how AI-driven advertising differs from traditional advertising in terms of personalization, automation, and consumer interaction.

**Huh, Nelson & Russell (2023) – “ChatGPT, AI Advertising, and Advertising Research and Education.”** In their article “ChatGPT, AI Advertising, and Advertising Research and Education,” Jisu Huh, Michelle R. Nelson, and Cristel Antonia Russell examine the growing influence of generative AI tools such as ChatGPT on advertising practice, research, and academic training. The authors discuss how AI-powered systems are transforming content creation, campaign development, consumer targeting, and advertising analytics. The article highlights that generative AI enables rapid production of advertising copy, slogans, social media captions, and even visual concepts. This increases efficiency and lowers creative production costs. However, the authors emphasize that while AI enhances speed and scalability, it also raises concerns regarding originality, ethical responsibility, bias, and transparency. 22 From a research perspective, the authors argue that AI is

reshaping how advertising effectiveness is studied. Researchers can now analyze large datasets, simulate consumer responses, and test advertising variations more efficiently. At the same time, they caution that over-reliance on AI tools may risk weakening critical thinking and human creativity if not integrated responsibly. In terms of advertising education, the authors suggest that academic institutions must adapt curricula to include AI literacy, ethical understanding, and responsible AI usage. Future advertising professionals must learn how to collaborate with AI systems rather than view them solely as replacements for human creativity. Overall, the article positions AI particularly generative tools like ChatGPT as both an opportunity and a challenge. It underscores the importance of balancing technological innovation with ethical standards, creativity, and human oversight. This perspective is highly relevant for comparative studies examining how AI-driven advertising differs from traditional advertising in terms of creativity, efficiency, trust, and consumer perception.

**Gao, Wang & Hu (2023) – “Artificial Intelligence in Advertising: Advancements, Challenges, and Ethical Considerations.”** In the study “Artificial Intelligence in Advertising: Advancements, Challenges, and Ethical Considerations in Targeting, Personalization, Content Creation, and Ad Optimization,” Biao Gao, Yiming Wang, and Yi Hu explore how AI technologies are reshaping advertising strategy, execution, and ethical frameworks. The authors provide a comprehensive overview of how machine learning, predictive analytics, natural language processing, and automation enhance advertising functions across multiple dimensions. One central theme of the article is AI’s role in advancing targeting and personalization. The researchers explain that AI systems analyze vast amounts of consumer data, including browsing behavior, purchase history, and social interactions, to deliver highly tailored

content. This precision allows advertisers to reduce wasteful impressions and improve conversion rates. Several empirical studies cited in their review show that personalized ads can significantly increase engagement and purchase intention when relevance aligns with consumer needs. Content creation is another area where AI’s impact has grown rapidly. Tools powered by generative AI can produce advertising copy, visuals, and campaign modules at scale and speed far beyond traditional creative workflows. Gao and colleagues acknowledge that AI-generated content supports efficiency and creative experimentation, but they caution that a lack of deep contextual understanding can sometimes result in generic or inappropriate messaging. <sup>23</sup> However, the study also highlights persistent challenges and ethical considerations. Privacy concerns are prominent, as advanced targeting requires continuous data collection and processing. The authors note that consumers may resist AI-driven ads perceived as intrusive or manipulative, potentially harming brand trust. Additionally, they emphasize the ethical implications of bias in algorithmic decision-making; if training data reflects societal biases, advertisement delivery can unintentionally marginalize certain groups or reinforce stereotypes. The article further discusses the challenge of balancing automation with human oversight. While algorithms excel in optimization and prediction, they lack the emotional intelligence and cultural nuance that humans bring to advertising. Therefore, Gao et al. argue that the future of AI in advertising lies in hybrid models where AI enhances human creativity rather than replacing it entirely. Overall, this research contributes to a deeper understanding of AI’s multifaceted role in advertising. It underscores that although AI-driven advertising offers undeniable advantages in targeting, personalization, and optimization, ethical responsibility and consumer trust must be central considerations. These insights provide

a foundation for examining how AI-driven advertising compares with traditional forms in terms of consumer perceptions, preferences, and behavioral impact.

#### Objectives of the Study:

1. To compare consumer perceptions of traditional and AI-driven advertising
2. To analyze the effectiveness of both advertising approaches.
3. To examine the level of trust associated with each format.
4. To evaluate privacy concerns related to AI-driven advertising.
5. To identify consumer preference between traditional and AI-driven advertising.

#### Research Methodology:

**Research Design** The study adopts a comparative descriptive research design to analyze consumer opinions and compare traditional and AI-driven advertising effectiveness.

**Data Collection** Primary data was collected through a structured questionnaire consisting of 20 questions. The survey was distributed through Google Forms. The questionnaire included multiple-choice questions and one open-ended question to gather detailed opinions. Secondary data was collected from research articles, journals, websites, and books to support the study.

**Sample Size** The study includes responses from 140 participants belonging to different age groups and genders. 5.4 Sampling Method Convenience sampling method was used for collecting primary data. The survey targeted general consumers familiar with both traditional and digital advertising platforms.

**Time Frame** Data collection was conducted between December 2026 and February 2026.

**Data Analysis** Quantitative Analysis Descriptive statistics such as percentages and frequencies were calculated to interpret the responses. Pie charts generated through Google Forms were used to visually represent findings and identify trends. Thematic

analysis was applied to open-ended responses to identify recurring themes such as trust, privacy concerns, emotional connection, personalization, cost-effectiveness, and preference for hybrid strategies.

**Demographic Overview and Consumer Profile** The survey achieved a robust and diverse sample, providing a comprehensive look at the modern consumer market. Age Dynamics: The study is grounded in the perspectives of "Digital Natives," with 62% (87 respondents) falling within the 18–25 age bracket. However, a vital 28% (39 respondents) were aged 30 and above, ensuring the findings include insights from established professionals with high purchasing power. Gender and Occupation: The sample maintained a balanced gender distribution (58% Female, 42% Male). On the professional front, the split between students (52%) and working professionals (29%) allows the study to generalize findings across different economic strata from budget-conscious students to high-disposable-income professionals.

**Frequency of Ad Encounter:** The Digital Saturation The figures confirm that advertising has moved from a periodic encounter to a constant environmental factor. Exposure Levels: More than half of the 140 surveyed persons (51%) indicated they notice advertisements "Frequently" or "Very Frequently." Platform Dominance: Social Media was identified as the primary medium of encounter. This high level of digital literacy explains why traditional advertising is undergoing a shift; as consumer life moves online, the "point of influence" must follow to close the gap between awareness and action.

**Traditional vs. AI-Driven: A Head-to-Head Comparison** From the 140 responses analyzed, a comparative performance matrix was created across four major areas of marketing effectiveness: 1. Attention vs. Relevance: In a surprising twist, 31.4% of respondents found Traditional ads more attention-grabbing, while 26.4% favored AI. This indicates that

while AI is more "relevant," the physical scale of traditional media (billboards/TV) still possesses superior "stopping power" in a cluttered digital world.

2. Trustworthiness (The Credibility Gap): Trust remains the biggest hurdle for AI. 39.3% (55 respondents) expressed higher trust in Traditional media, compared to a low 18.6% (26 respondents) for AI-driven ads. This trend suggests consumers view human-curated content as more legitimate, whereas algorithmic targeting is often met with suspicion.

3. Information Depth and Authenticity: The difference in perceived "soul" was clear. 50.8% of the sample viewed Traditional ads as more authentic and creative. However, AI won on functional utility, with 46.4% acknowledging that AI-driven ads help them discover relevant products significantly faster.

4. Final Purchase Conversion: Despite the trust gap, the "Final Closer" result was a near-tie. 24.3% were influenced to buy by Traditional ads, while 22.9% were influenced by AI. This confirms that while Traditional ads initiate the "thought process," AI-driven ads are equally effective at "sealing the deal" through sheer convenience.

**Factor Analysis:** The Triggers of Modern Conversion Diving deeper into the psychological triggers that actually moved the 140 consumers to act: The Privacy

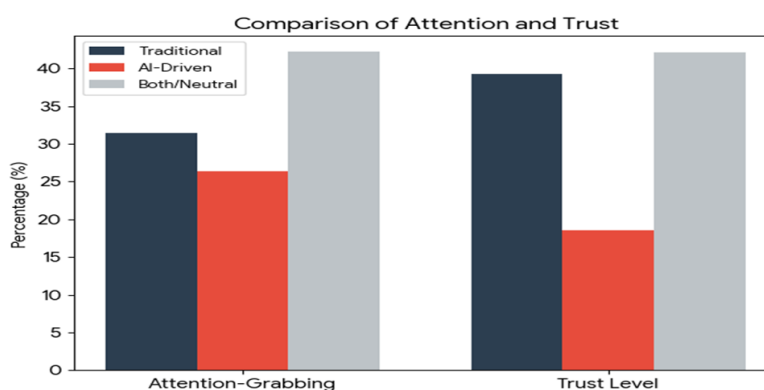
Trigger: This emerged as the primary "negative" factor. 58.5% of individuals are moderately to strongly concerned about their data privacy. Even more telling is that 48.8% would sacrifice ad relevance to protect their personal data, illustrating a significant "Privacy Paradox" in the AI era.

Recall and Memory: For the "Test of Recall," 49.7% (70 respondents) acknowledged that they remember brand names better when seen on TV or billboards compared to transient social media feeds. This confirms that traditional media serves as the "anchor" for long-term brand equity.

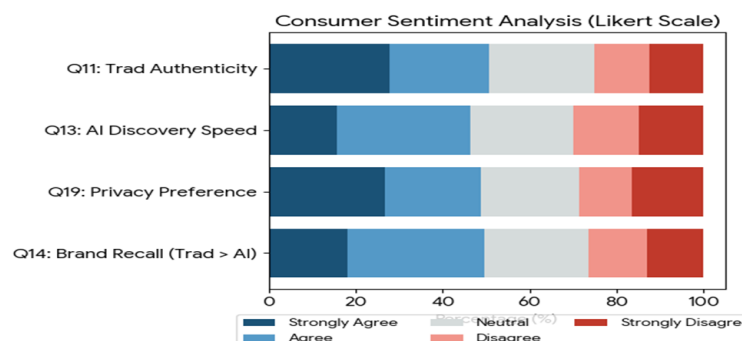
The Future Outlook: When asked about the next decade, the majority of the 140 participants predicted a Hybrid Paradigm. They believe the future effectiveness of advertising depends on merging the trust of traditional media with the precision of AI.

Summary of Interpretation The analysis of these 140 responses indicates that while AI-Driven Advertising is the winner in terms of Utility and Discovery Speed, it currently lacks the Emotional Depth and Trust found in Traditional Advertising. The results suggest that for a marketing strategy to be truly effective today, it must utilize traditional media for "Brand Building" and AI-driven agents for "Conversion Optimization."

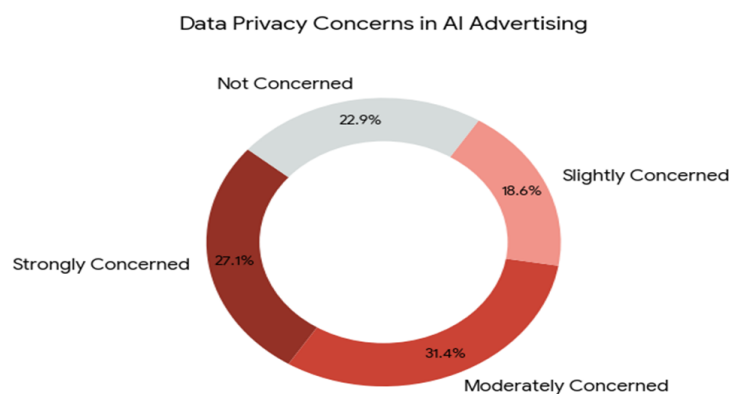
### VISUALIZATIONS



**Figure 1: Comparison of Attention and Trust** As seen in Figure 1, there is a noticeable disparity between what catches a consumer's eye and what they actually believe. While attention-grabbing scores are relatively competitive, the Trust Level for Traditional media is more than double that of AI-Driven media (39.3% vs. 18.6%).



**Figure 2: Consumer Sentiment Analysis (Likert Scale)** The horizontal distribution in **Figure 2** highlights the nuances in consumer behavior. Notably, **Q11 (Authenticity)** and **Q14 (Brand Recall)** show a strong positive skew (darker blue) toward traditional media, whereas **Q13 (Discovery Speed)** confirms the functional utility of AI. This chart acts as a visual "scorecard," proving that AI is currently winning on utility while Traditional is winning on sentiment



**Figure 3: Data Privacy Concerns in AI Advertising** The doughnut chart in **Figure 3** provides a stark visualization of the "Privacy Paradox." With over 58.5% of the 140 respondents falling into the "Strongly" or "Moderately" concerned categories, it is clear that data privacy is not a niche concern but a majority barrier to AI ad acceptance. This suggests that the future of AI in advertising is contingent on solving the "Trust deficit" identified in **Figure 1**.

### Findings of the Study:

- The research paper, based on the responses received from the 140 participants, indicates that there is an evident change in consumer participation with AI-driven advertising in the field of advertising.
- Age was found to be an important factor in influencing advertising preferences among consumers.
- AI-driven advertising was found to have a greater influence on consumers' immediate purchase decisions.
- Traditional advertising was found to have more influence on consumers' trust levels.
- Privacy was found to be an important factor that influenced consumers' attitude towards AI-driven advertising.

- Intrusiveness of advertising was also found to influence consumers' attitude towards AI-driven advertising.
- The research paper indicates that AI-driven advertising has more relevance to consumers' interests compared to traditional advertising; however, traditional advertising has an added advantage over AI-driven advertising in terms of trust levels.

### Conclusion :

The study concludes that both traditional and AI-driven advertising play significant roles in influencing modern consumers. While AI-driven advertising offers personalization, efficiency, and measurable outcomes, traditional advertising maintains trust, credibility, and emotional connection. Privacy concerns remain a critical factor influencing consumer attitudes toward AI-driven advertising. Therefore, a balanced hybrid model combining technological precision with ethical responsibility and emotional storytelling appears to be the most effective advertising strategy for today's market

### Recommendations :

1. Companies should adopt a hybrid advertising strategy.
2. Transparency in data usage must be ensured to reduce privacy concerns.
3. Emotional storytelling from traditional advertising should be integrated into digital platforms.
4. AI-driven ads should focus on ethical data practices.
5. Brands should customize strategies based on target audience demographics.

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