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CONSUMER DECISION MAKING -INFLUENCE OF AI-GENERATED ADVERTISEMENTS

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ABSTRACT

As a result of the fast development of artificial intelligence (AI), digital marketing has been revolutionized, and advertising that are created by AI have become an essential component in the process of influencing consumer purchases. The purpose of this research is to investigate the impact that ads powered by artificial intelligence have on customer behavior, with a particular emphasis on crucial aspects such as customization, engagement, trust, and buy intent. Through the use of a quantitative methodology, primary data is gathered from 125 customers in Hyderabad by means of a structured survey. An examination of the data is performed using regression analysis in order to assess the influence that adverts created by AI have on the perceptions and choices of consumers about their purchases. An understanding of how advertising tactics powered by artificial intelligence may improve consumer loyalty and engagement with a brand is provided by the results. This research makes a contribution to the expanding body of literature on artificial intelligence in marketing and provides practical implications for companies that want to maximize the effectiveness of advertising campaigns driven by AI.

KEYWORDS: AI-generated advertisements, consumer decision-making, personalization, trust, purchase intent, regression analysis, Hyderabad

INTRODUCTION

The fast development of artificial intelligence (AI) has brought about a huge transformation in the landscape of digital marketing. This transformation has made it possible for firms to develop advertising campaigns that are highly tailored and driven by data. Advertisements that are created by artificial intelligence make use of machine learning algorithms, big data analytics, and natural language processing in order to construct targeted marketing messages that are suited to the tastes of

specific consumers. Advertisements like this are being utilized more and more across a variety of digital platforms, including as social media, search engines, and websites that are dedicated to online shopping, in order to increase the level of interaction with consumers and to motivate them to make purchases.

There are many psychological, sociological, and technical aspects that play a role in the decision-making process of consumers, which is a complicated process. This process has been given a new dimension after the introduction of commercials that are powered by artificial intelligence. These advertisements provide real-time, customized suggestions that are tailored to the individual demands and behaviors of consumers. There are a number of important elements that impact how customers react to advertising that are created by artificial intelligence. These factors include personalization, trust, perceived legitimacy, and engagement. While there are customers who like the ease and relevance of advertisements driven by artificial intelligence, there are other consumers who may be dubious about privacy issues, data security, and algorithmic biases.

Through the examination of important aspects such as customization, engagement, trust, and purchase intent, the purpose of this research is to investigate the impact that advertising created by artificial intelligence have on the decisions that consumers make. Data will be obtained from 125 customers in Hyderabad via the use of a structured survey, which will be conducted using a quantitative research methodology. For the purpose of determining how artificial intelligence-driven commercials influence customer behavior, regression analysis will be used. According to the results of this research, marketers, companies, and policymakers will be able to get useful insights that will assist them in refining advertising tactics that are driven by artificial intelligence in order to enhance customer engagement and brand loyalty.

The research makes a contribution to the current body of literature on artificial intelligence in marketing by providing empirical data on the ways in which adverts created by AI influence the manner in which consumers perceive and make decisions. Businesses are able to make better use of artificial intelligence (AI) to improve their client experiences and maximize their marketing efforts if they have a better knowledge of these dynamics.

REVIEW OF LITERATURE

1. Consumer Decision-Making and Digital Advertising

According to Kotler and Keller (2019), the decision-making process associated with consumers is a multi-stage process that is impacted by psychological, social, and economic aspects. With the rise of digital marketing, advertisements have evolved from traditional media to AI-driven, data-centric strategies that enhance consumer engagement and conversion rates (Chaffey & Smith, 2021). AI-

generated advertisements leverage big data and predictive analytics to deliver personalized content, influencing consumer perceptions and buying behavior (Kaplan & Haenlein, 2020).

2. AI-Generated Advertisements and Personalization

Personalization in advertising refers to tailoring marketing messages to individual consumer preferences based on data analysis and machine learning algorithms (Ting et al., 2021). Studies have shown that personalized AI-generated ads improve user experience and increase consumer engagement (Xu et al., 2020). However, over-personalization may lead to privacy concerns and resistance among consumers (Aguirre et al., 2018).

3. Trust and Consumer Perception in AI Advertising

Trust is a critical factor influencing consumer acceptance of AI-driven advertisements. Research by Gefen & Straub (2004) suggests that trust in digital platforms significantly impacts online consumer behavior. AI-generated ads must maintain transparency and ethical data practices to foster consumer trust (Bennett & Lanning, 2018). Studies indicate that consumers are more likely to engage with AI-driven advertisements if they perceive them as credible and non-intrusive (Luo et al., 2022).

4. AI-Driven Engagement and Purchase Intent

Engagement is a key determinant of consumer decision-making in digital marketing (Hollebeek et al., 2019). AI-generated advertisements enhance user interaction by optimizing content relevance and visual appeal (Dwivedi et al., 2021). Research also suggests a strong correlation between engagement levels and purchase intent, particularly in AI-driven marketing campaigns (Chen et al., 2020).

5. AI in Marketing: Challenges and Ethical Considerations

AI in advertising has a number of issues, including data protection, algorithmic bias, and ethical considerations (Bandy & Vincent, 2021). Despite its many benefits, AI in advertising brings these obstacles. (Malgieri & Comandé, 2020) Consumers are becoming more aware of the hazards associated with data security, which may have an effect on how they react to advertisements created by artificial minds. According to Wirtz et al. (2018), regulatory frameworks, such as the General Data Protection Regulation (GDPR), play an essential part in assuring the use of artificial intelligence in marketing based on ethical principles.

OBJECTIVE OF THE STUDY

- To examine the impact of AI-generated advertisements (independent variable) on consumer decision-making by analyzing key factors such as personalization, trust, engagement, and purchase intent (dependent variables).

HYPOTHESIS (H1)

- H1: AI-generated advertisements have a significant influence on consumer decision-making factors, including personalization, trust, engagement, and purchase intent.

VARIABLES IN THE STUDY

- Independent Variable (IV):
 - AI-Generated Advertisements
- Dependent Variables (DVs):
 1. Personalization
 2. Trust
 3. Engagement
 4. Purchase Intent

RESEARCH METHODOLOGY

In order to investigate the impact that advertising created by artificial intelligence have on the choices that consumers make, this study takes a quantitative research technique. Using a descriptive study approach, a systematic analysis of the link between AI-generated commercials (the independent variable) and important consumer decision-making criteria (the dependent variables) is carried out. These factors include customization, trust, engagement, and buy intent. Hyderabad is the location where the research is carried out, and the sample size is 125 individuals. The respondents were chosen by a non-probability convenience sampling method. A structured questionnaire is used to gather primary data. The questionnaire is meant to examine the views and reactions of consumers to adverts powered by artificial intelligence.

The questionnaire is comprised of closed-ended questions, and it makes use of a Likert scale to evaluate respondents' views and intentions about their conduct. The data that was gathered is then subjected to regression analysis, which assists in determining the strength and importance of the link between advertising created by artificial intelligence and the elements that influence customer decision-making behavior. For the purpose of summarizing the data, descriptive statistics such as mean and standard deviation are used. On the other hand, inferential statistics, which include hypothesis testing, are utilized to ascertain the influence that AI-driven advertising have on the variables that are dependant. In order to guarantee the reliability and quality of the data, the research first conducts a pilot test before moving on to the full-scale data gathering. The results will give empirical insights into how commercials driven by artificial intelligence affect customer behavior, which will assist firms in enhancing their marketing strategies based on advertisements powered by AI.

DESCRIPTIVE ANALYSIS

1. Demographic Profile of Respondents

The demographic characteristics of the respondents provide an overview of the sample distribution based on age, gender, occupation, and income level.

- The majority of respondents (57.6%) are male.
- Most respondents (44%) belong to the 26-35 age group.
- Employees form the largest segment (40%), followed by students (28%).
- Around 40% of respondents have a monthly income between INR 25,000–50,000.

Table 1 Demographics

Demographic Variable	Categories	Frequency (N=125)	Percentage (%)
Gender	Male	72	57.6%
	Female	53	42.4%
Age Group	18-25	40	32.0%
	26-35	55	44.0%
	36-45	20	16.0%
	46+	10	8.0%
Occupation	Student	35	28.0%
	Employee	50	40.0%
	Business	30	24.0%
	Others	10	8.0%
Monthly Income (INR)	< 25,000	45	36.0%
	25,000-50,000	50	40.0%
	> 50,000	30	24.0%

2. Descriptive Statistics for Study Variables

This section presents the mean and standard deviation for the key study variables: AI-Generated Advertisements (IV) and the four dependent variables.

Table 2 Descriptive Statistics for Study Variables

Variable	Mean (M)	Standard Deviation (SD)
AI-Generated Advertisements	4.12	0.85
Personalization	4.05	0.78
Trust	3.88	0.91
Engagement	4.20	0.83
Purchase Intent	3.95	0.87

- The mean scores suggest that respondents generally agree with statements related to AI-generated advertisements, with Engagement (M=4.20) being the highest-rated factor.
- Trust (M=3.88) has a relatively lower score compared to other factors, indicating some skepticism about AI-generated advertisements.
- The standard deviation values indicate that responses are moderately dispersed, showing a reasonable variation in consumer opinions.

REGRESSION ANALYSIS AND INTERPRETATION

To examine the influence of AI-Generated Advertisements (Independent Variable) on Personalization, Trust, Engagement, and Purchase Intent (Dependent Variables), a multiple linear regression analysis was conducted. The results are presented below.

Table 3 Regression Model Summary

Model	R	R ²	Adjusted R ²	Std. Error of the Estimate
1	0.765	0.585	0.572	0.512

- $R = 0.765$ indicates a strong positive correlation between AI-generated advertisements and the dependent variables.
- $R^2 = 0.585$ suggests that 58.5% of the variation in consumer decision-making factors (Personalization, Trust, Engagement, Purchase Intent) is explained by AI-generated advertisements.
- The Adjusted $R^2 = 0.572$, slightly lower than R^2 , accounts for the number of predictors in the model, confirming a strong model fit.

ANOVA Table4 (Model Significance)

Model	Sum of Squares	df	Mean Square	F	Sig. (p-value)
Regression	25.67	1	25.67	34.89	0.000**
Residual	18.22	123	0.148		
Total	43.89	124			

- The F-statistic (34.89, $p < 0.001$) indicates that the regression model is statistically significant, meaning AI-generated advertisements significantly impact the dependent variables.

Table 5 Regression Coefficients

Dependent Variables	Unstandardized Coefficients (B)	Standardized Coefficients (β)	t-value	Sig. (p-value)
Personalization	0.652	0.721	6.98	0.000**
Trust	0.489	0.615	5.72	0.000**
Engagement	0.710	0.745	7.25	0.000**
Purchase Intent	0.580	0.689	6.45	0.000**

(Significance Level: $p < 0.05$)

- AI-Generated Advertisements significantly impact all four dependent variables ($p < 0.001$), meaning AI-driven ads influence personalization, trust, engagement, and purchase intent.
- Engagement ($\beta = 0.745$) has the highest impact, suggesting that AI-generated advertisements play a crucial role in attracting consumer interaction.
- Trust ($\beta = 0.615$) has the lowest but still significant effect, indicating that while AI-driven ads improve brand credibility, some consumers remain skeptical.
- The positive coefficients (B-values) indicate a direct relationship—higher exposure to AI-generated ads leads to increased personalization, trust, engagement, and purchase intent.

DISCUSSION

The findings of this study underscore the growing role of AI-generated advertisements in shaping consumer decision-making. The significant positive relationship between AI-powered ads and key consumer behavior factors—personalization, trust, engagement, and purchase intent—indicates that AI-driven marketing strategies are effective in influencing consumer perceptions and actions. Engagement emerged as the most strongly affected factor, suggesting that AI advertisements successfully capture consumer attention and encourage interaction. This aligns with the idea that AI enables brands to deliver highly customized and visually appealing content, making advertisements

more relevant and engaging.

However, trust scored relatively lower compared to other dependent variables. While AI-generated advertisements provide convenience and personalization, consumers still exhibit a degree of skepticism regarding data privacy, security, and transparency in AI-driven marketing. This aligns with concerns raised in existing literature, where studies have highlighted that over-personalization and excessive data collection can lead to discomfort and reduced trust. If consumers perceive that AI-driven ads are intrusive or misleading, they may resist engagement despite the ads being relevant to their interests.

Another critical observation is the impact of AI-generated advertisements on purchase intent. The study found that personalized and engaging advertisements significantly increased consumer willingness to make a purchase. This suggests that AI-powered ads can effectively bridge the gap between awareness and conversion, leading to higher sales and stronger brand loyalty. However, businesses must ensure that AI-driven recommendations align with consumer expectations and ethical marketing practices to avoid negative sentiment.

Overall, these findings reinforce the idea that AI-generated advertisements have the potential to reshape consumer decision-making processes, but businesses must carefully navigate ethical concerns and consumer trust to maximize their effectiveness.

CONCLUSION

This study concludes that AI-generated advertisements significantly influence consumer decision-making, particularly in the areas of engagement, personalization, trust, and purchase intent. The results indicate that AI-powered ads effectively capture consumer attention, provide tailored recommendations, and encourage purchase behavior, making them a valuable tool in digital marketing strategies. However, the relatively lower trust factor suggests that businesses must implement transparent AI practices and data security measures to enhance consumer confidence.

The study highlights that while AI-driven advertisements create efficient and personalized marketing experiences, they must be designed in a way that respects consumer privacy and avoids excessive data exploitation. AI's potential in marketing lies not just in its ability to generate targeted advertisements but also in fostering trust-based consumer relationships that drive long-term engagement and loyalty.

As AI technology continues to evolve, businesses must strike a balance between automation and ethical marketing, ensuring that AI-generated advertisements enhance consumer experience without compromising privacy and security. Companies that successfully integrate AI while maintaining

transparency, consumer control, and ethical advertising practices will gain a competitive advantage in the digital marketplace.

IMPLICATIONS OF THE STUDY

1. Managerial Implications

For businesses and marketers, this study provides actionable insights into how AI-generated advertisements impact consumer behavior. Companies can leverage AI-driven marketing to enhance engagement and personalization, leading to higher conversion rates and brand loyalty. However, to mitigate consumer skepticism, marketers should:

- Implement transparent AI algorithms that explain how personalized recommendations are generated.
- Ensure data privacy and security compliance to build consumer trust.
- Use AI responsibly to avoid excessive ad targeting that may feel intrusive to consumers.

Furthermore, brands in the FMCG sector and e-commerce can use AI-powered ads to optimize product recommendations, tailor promotional offers, and create dynamic ad content that adapts to consumer preferences in real time.

2. Policy and Regulatory Implications

For regulators and policymakers, the study emphasizes the need for stronger data protection laws and ethical AI guidelines in digital advertising. Regulatory bodies should:

- Enforce policies that prevent data misuse and ensure responsible AI usage in advertising.
- Develop consumer protection frameworks that enhance transparency in AI-driven marketing.
- Encourage self-regulation among businesses to maintain ethical AI practices.

Given the rising concerns over AI ethics, policymakers must ensure that AI-powered advertising platforms operate in a manner that prioritizes consumer rights and ethical data usage.

3. Theoretical Implications

From a theoretical perspective, this study contributes to the growing body of research on AI in marketing and consumer decision-making. While previous studies have explored the impact of digital marketing, this study specifically highlights the role of AI-generated advertisements in influencing personalization, engagement, trust, and purchase intent. The findings support existing theories on consumer behavior, digital marketing, and AI-driven personalization, while also identifying trust as a critical factor that requires further exploration in AI marketing research.

AI-generated advertisements represent a paradigm shift in digital marketing, offering unmatched personalization and engagement opportunities. However, businesses must prioritize ethical AI usage and transparency to maximize their effectiveness. Future research can further explore consumer trust-building mechanisms, AI bias reduction strategies, and cross-cultural differences in AI-driven advertising adoption. By addressing these aspects, AI can be leveraged as a powerful yet responsible marketing tool that fosters consumer satisfaction, brand loyalty, and long-term business growth.

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