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Understanding Consumer Engagement and Purchase Behaviour toward AI-Generated Advertising among Generation Z Consumers

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ABSTRACT: Purpose: This study aims to examine the influence of consumer perception of AI-generated advertising on buying behaviour, while also analysing the roles of interaction intensity and engagement behaviour. Given the growing use of AI in digital advertising and the limited empirical understanding of how consumers respond to such content, this research develops an integrated framework to assess both direct and behavioural relationships among these constructs.

Design/methodology/approach: The research incorporates four key constructs that are perception of AI-generated advertising, interaction intensity, engagement behaviour, and buying behaviour—to build a structured model of consumer response. Data were collected through a structured questionnaire survey administered to Generation Z consumers, generating over 100 valid responses. Reliability analysis, descriptive statistics, correlation analysis, and regression techniques were conducted using SPSS to test the proposed relationships.

Findings: The results indicate that perception of AI-generated advertising significantly influences buying behaviour and emerges as the strongest predictor among the variables examined. Interaction intensity demonstrates a significant positive relationship with engagement behaviour, while engagement behaviour shows a positive association with buying behaviour. However, perception does not significantly influence interaction intensity or engagement behaviour, suggesting that cognitive evaluation and behavioural responses operate through partially independent pathways.

Originality/value: This study contributes to digital marketing literature by examining consumer behaviour within the context of AI-generated advertising, an area that remains underexplored. By integrating perception, interaction, engagement, and buying behaviour into a unified framework, the study offers a refined perspective on how AI-driven communication influences consumer decision-making. The findings provide actionable insights for marketers seeking to improve advertising effectiveness through perception-driven strategies.

KEYWORDS: AI-generated advertising; Consumer perception; Engagement behaviour; Interaction intensity; Buying behaviour; Generation Z; Digital advertising; Consumer behaviour

I. INTRODUCTION

The increasing integration of artificial intelligence (AI) into digital marketing has transformed how brands communicate with consumers. AI-generated advertising enables the delivery of personalised, adaptive, and data-driven content that aligns with individual preferences and behaviours. Unlike traditional advertising, which relies on static messaging and broad targeting, AI-driven advertising evolves continuously based on real-time data, reshaping consumer–brand interactions.

In today's digital environment, consumers are exposed to a high volume of advertising across multiple platforms, reducing the effectiveness of generic messaging and increasing the importance of relevance. AI-generated advertising addresses this by tailoring content to individual users, enhancing perceived relevance and communication efficiency. However, despite these advancements, there is limited understanding of how consumers respond to such advertising in behavioural terms.



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Consumer perception plays a crucial role in this context, as AI-generated advertisements are evaluated based on their credibility, clarity, and relevance. Positive perceptions may encourage acceptance and influence purchase decisions, while negative perceptions may lead to scepticism. At the same time, digital environments enable varying levels of interaction and engagement. Interaction intensity reflects the degree of exposure, while engagement behaviour captures active responses such as clicking or exploring content.

Although these factors are often assumed to influence purchase decisions, their combined impact remains unclear, as existing research tends to examine them in isolation. This study addresses this gap by developing an integrated framework to examine the relationships between perception, interaction intensity, engagement behaviour, and buying behaviour among Generation Z consumers.

II. LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

AI-generated advertising represents a shift toward algorithm-driven marketing communication, enabling highly personalised and context-sensitive content delivery. Prior research suggests that personalised advertising enhances perceived relevance and improves consumer response. However, it may also introduce concerns related to authenticity and credibility, influencing how consumers evaluate such content.

Consumer perception is widely recognised as a key determinant of advertising effectiveness. In digital contexts, advertisements perceived as relevant, useful, and credible are more likely to influence purchase decisions. In AI-generated environments, perception becomes particularly important as consumers evaluate both the message and the underlying technology.

H1. Perception of AI-generated advertising is positively associated with buying behaviour.

Beyond perception, consumer engagement reflects a deeper level of involvement with advertising content. Engagement behaviour, such as clicking or interacting with advertisements, indicates interest and active participation, which may influence purchase decisions.

H2. Perception of AI-generated advertising is positively associated with engagement behaviour.

Engagement behaviour is often considered a precursor to purchase decisions, as it reflects increased consumer involvement and attention.

H3. Engagement behaviour is positively associated with buying behaviour.

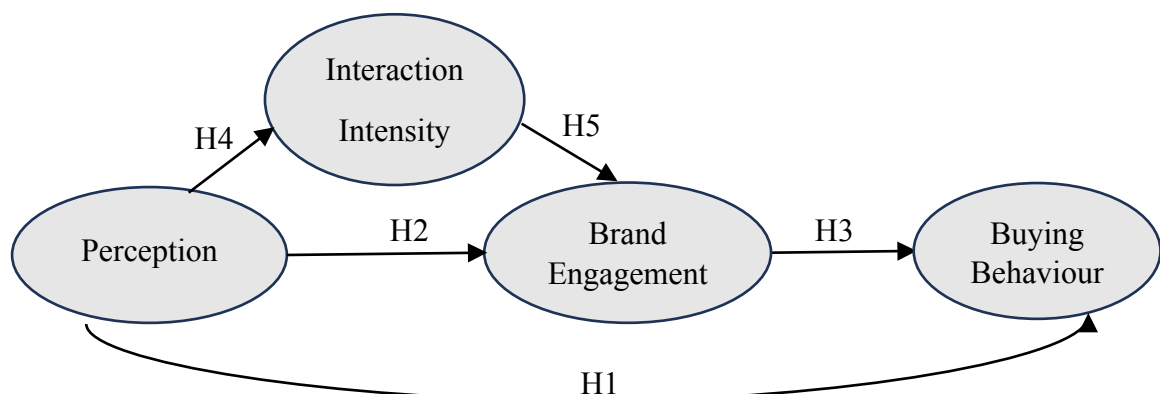
Interaction intensity represents the extent to which consumers are exposed to and interact with advertising content. Increased exposure may enhance familiarity and influence subsequent behaviour.

H4. Perception of AI-generated advertising is positively associated with interaction intensity.

Interaction is expected to contribute to engagement by increasing attention and encouraging further involvement.

H5. Interaction intensity is positively associated with engagement behaviour.

III. PROPOSED RESEARCH MODEL





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IV. METHODOLOGY AND MEASUREMENT

Data Collection and Sample

The unit of analysis in this study is at the consumer level. A questionnaire-based survey was employed to examine the proposed research framework and test the hypotheses. Data were collected using a structured questionnaire administered through Google Forms. The survey link was distributed via digital platforms such as Instagram and WhatsApp to ensure accessibility among Generation Z consumers.

The study targeted individuals residing in India who are active users of digital platforms and have prior exposure to online advertising. To ensure response validity, a screening question was included at the beginning of the survey to confirm whether respondents had encountered digital advertisements. Only those who met this criterion were allowed to proceed.

Prior to full-scale data collection, the questionnaire underwent a two-stage pretesting process. First, it was reviewed by academic experts in marketing and consumer behaviour to assess clarity and content validity. Based on their feedback, minor revisions were made to improve wording and structure. A second pretest was conducted with a small group of respondents to identify any remaining ambiguities. This process ensured that the instrument was clear, reliable, and suitable for data collection.

A total of 104 valid responses were obtained and used for analysis. The sample reflects digitally active consumers, making it appropriate for examining responses to AI-generated advertising. The Indian context was selected due to the rapid growth of digital consumption and the increasing prevalence of AI-driven advertising across online platforms.

Measurement of Constructs

All constructs in this study were measured using a five-point Likert scale ranging from 1 (“Strongly Disagree”) to 5 (“Strongly Agree”). Respondents were asked to evaluate statements based on their experience with digital advertisements.

Perception of AI-generated advertising refers to the extent to which consumers perceive advertising content as relevant, clear, and useful. This construct captures how individuals evaluate AI-generated advertisements in terms of their effectiveness and alignment with personal preferences.

Interaction intensity represents the level of attention and exposure given to advertising content. It reflects how frequently and actively consumers notice and respond to AI-generated advertisements in digital environments.

Engagement behaviour refers to active consumer responses such as clicking, exploring, or interacting with advertising content. This construct captures behavioural involvement beyond passive exposure.

Buying behaviour reflects the likelihood of consumers making purchase decisions influenced by advertising. It includes intention to purchase, preference formation, and conversion-related actions.

To ensure reliability and validity, the measurement items were adapted from established literature and refined through pretesting. Statistical analysis, including descriptive statistics, reliability testing, correlation analysis, and regression analysis, was conducted using SPSS to examine relationships between the constructs

V. RESULTS

The sample is predominantly composed of young, digitally active individuals, with balanced gender representation. A majority are students with lower income levels and moderate social media usage, indicating frequent exposure to AI-generated advertising.



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| Variable | Category | Percentage |
|---------------------------|--------------------|------------|
| Age | 18–20 | 22.12% |
| | 21–23 | 50.00% |
| | 24–27 | 27.88% |
| Gender | Female | 51.92% |
| | Male | 48.08% |
| Occupation | Student | 51.92% |
| | Full-time employed | 22.12% |
| | Self-employed | 9.62% |
| | Not working | 8.65% |
| | Part-time employed | 7.69% |
| Income | Below ₹20,000 | 52.88% |
| | ₹20,001–50,000 | 24.04% |
| | ₹50,001–1,00,000 | 12.50% |
| | Above ₹1,00,000 | 10.58% |
| Social Media Usage | < 2 hours | 18.27% |
| | 2–4 hours | 46.15% |
| | 4–6 hours | 22.12% |
| | > 6 hours | 13.46% |

The sample is predominantly young, with a majority in the 21–23 age group, indicating strong digital exposure and relevance to AI-generated advertising. A balanced gender distribution enhances the reliability of the findings by ensuring diverse perspectives. The dominance of students and lower-income respondents suggests high social media engagement and greater sensitivity to price-oriented and personalized advertising. Moderate daily social media usage reflects consistent exposure to digital advertisements, supporting meaningful analysis of engagement with AI-generated content.

Reliability analysis was conducted to assess the internal consistency of the constructs using Cronbach's Alpha, ensuring that the measurement scales are suitable for further statistical analysis.

| Construct | Number of Items | Cronbach's Alpha |
|-----------------------|-----------------|------------------|
| Perception | 5 | 0.672 |
| Interaction Intensity | 2 | 0.619 |
| Buying Behaviour | 4 | 0.737 |

The results indicate acceptable reliability across all constructs, with alpha values ranging from 0.619 to 0.737. Buying behaviour shows the highest reliability, followed by perception with moderate consistency. Although interaction intensity has a comparatively lower alpha, it remains acceptable due to the limited number of items. Overall, the scales demonstrate adequate internal consistency for further analysis.



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Correlation analysis was conducted to examine the relationships among perception, interaction intensity, engagement behaviour, and buying behaviour, followed by hypothesis testing to validate the proposed relationships.

| Variables | Perception | Buying Behaviour | Interaction | Engagement |
|------------------|------------|------------------|-------------|------------|
| Perception | 1 | 0.384** | 0.028 | 0.117 |
| Buying Behaviour | 0.384** | 1 | 0.141 | 0.252** |
| Interaction | 0.028 | 0.141 | 1 | 0.398** |
| Engagement | 0.117 | 0.252** | 0.398** | 1 |

Note: Significant at 0.01 level

The results indicate that perception and engagement have significant positive relationships with buying behaviour, while interaction intensity significantly influences engagement. However, perception does not significantly affect interaction or engagement, and interaction has no direct effect on buying behaviour, suggesting an indirect role through engagement.

| Hypothesis | Result |
|------------|---------------|
| H1 | Supported |
| H2 | Not Supported |
| H3 | Supported |
| H4 | Not Supported |
| H5 | Supported |

Regression analysis was conducted to assess the impact of key variables on buying and engagement behaviour.

| R | R ² | Adj. R ² | F | Sig. |
|-------|----------------|---------------------|-------|-------|
| 0.440 | 0.193 | 0.169 | 7.987 | 0.000 |

| Variable | Beta | Sig. |
|-------------|-------|-------|
| Perception | 0.360 | 0.000 |
| Interaction | 0.056 | 0.570 |
| Engagement | 0.188 | 0.060 |

The model is significant, explaining 19.3% of variance. Perception is the only significant predictor of buying behaviour.



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| R | R ² | Adj. R ² | F | Sig. |
|-------|----------------|---------------------|--------|-------|
| 0.398 | 0.158 | 0.150 | 19.176 | 0.000 |

| Variable | Beta | Sig. |
|-------------|-------|-------|
| Interaction | 0.398 | 0.000 |

The model is significant, explaining 15.8% of variance. Interaction intensity significantly influences engagement behaviour. Overall, perception directly affects buying behaviour, while interaction influences it indirectly through engagement.

VI. FINDINGS AND RECOMMENDATIONS

The study finds that perception of AI-generated advertising has a strong and significant influence on buying behaviour, making it the most critical factor in consumer decision-making. Engagement behaviour also positively affects buying behaviour, acting as a link between consumer interest and purchase action, while interaction intensity influences buying behaviour indirectly through engagement.

However, perception does not significantly impact interaction or engagement, and interaction alone does not directly lead to purchases, indicating that exposure without meaningful involvement is insufficient.

Based on these findings, it is recommended that marketers focus on enhancing the perceived relevance, clarity, and value of AI-generated advertisements through effective personalization. Strategies should prioritize active engagement by incorporating interactive elements and clear calls-to-action rather than relying solely on increasing exposure. Additionally, advertisements should be designed to capture attention and sustain interaction, which can further drive engagement and improve overall effectiveness.

VII. CONCLUSIONS AND IMPLICATIONS

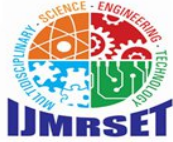
The study concludes that consumer buying behaviour in AI-generated advertising is primarily driven by cognitive evaluation (perception), supported by behavioural factors such as engagement and interaction. Perception directly influences purchase decisions, while interaction contributes indirectly through engagement, indicating a partially sequential behavioural process.

The findings contribute to theory by refining the understanding of consumer behaviour in digital environments, highlighting the distinction between interaction and engagement and emphasizing the dominant role of perception. They also suggest that consumer responses are non-linear and influenced by both cognitive and behavioural dimensions.

From a practical perspective, the study implies that organizations should adopt an integrated approach by combining perception-building strategies with engagement-driven techniques. AI should be utilized not only for targeting but also for enhancing user experience, ensuring that advertising efforts lead to meaningful consumer involvement and improved purchase outcomes.

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