

# Reconceptualizing Marketing Communication in the Era of Artificial Intelligence: An Extended Theoretical and Empirical Perspective

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**Abstract:** *As the digital economy continues to evolve, marketing communication stands at the forefront of technological disruption. Among these transformative forces, artificial intelligence (AI) has emerged as a pivotal factor redefining how brands communicate, persuade, and interact with their audiences. This study investigates the shifting landscape of marketing communication, emphasizing the rising influence of AI in generating, delivering, and optimizing advertising messages. By employing a robust mixed-methods approach, this research assesses the perceptual differences between AI-generated and human-produced advertisements.*

*Findings indicate that AI-generated advertising not only achieves comparability with human-created campaigns but, in specific contexts, outperforms them in terms of emotional resonance and memorability. Moreover, the study highlights the growing ethical and strategic imperatives for organizations leveraging AI in creative capacities. Real world industry practices are discussed to bridge empirical insights with practical applications. Finally, the research contributes to the scholarly discourse on algorithmic creativity and offers a roadmap for future academic inquiry and managerial action.*

**Keywords:** Artificial Intelligence, Strategic Marketing, Marketing Communication

## 1. Introduction

The intersection of artificial intelligence (AI) and marketing communication has catalyzed a fundamental transformation in the strategies employed by organizations to engage and influence consumers. Over the past decade, the proliferation of digital platforms and computational capabilities has laid the groundwork for AI to be deployed not merely as an analytical tool but also as a creative agent. The literature on this topic spans a broad spectrum, from automation of customer engagement processes to the role of AI in conceptualizing emotionally resonant advertising narratives.

## 2. Literature Review

Recent research has emphasized the expanding role of AI in customer analytics and segmentation [9, 11]. AI's capacity to process vast datasets enables marketers to uncover behavioral patterns, preferences, and motivations with unprecedented granularity. However, while data driven marketing has seen widespread adoption, the application of AI in content generation, particularly in designing narratives and visuals for advertisements, remains in its infancy. Scholars such as [2, 3] observe that while algorithmic systems can optimize media buying and personalization, their role in conceptual creativity has not been thoroughly validated.

Furthermore, literature on neuromarketing, an area that integrates cognitive psychology, neuroscience, and behavioral economics, has intersected with AI to form a powerful synergy for enhancing message effectiveness. [13] suggest that AI, when combined with biometric and neurological inputs, can dynamically adapt marketing messages to optimize

emotional and cognitive engagement. This convergence of disciplines underlines a paradigm shift from reactive to proactive communication strategies.

Despite these advancements, several scholars argue that the use of AI in marketing still faces skepticism regarding creativity and authenticity. For instance, [1,7] note that consumers often question whether AI generated content can convey genuine human emotion and cultural nuance. This concern is supported by [5], who emphasize the necessity of integrating cultural semiotics and ethical considerations into AI systems designed for creative marketing.

Additionally, the literature on algorithmic bias and ethical AI raises important concerns about the unintended consequences of deploying AI in persuasive messaging. As pointed out by [8, 12], algorithmic decision-making systems used in advertising may inadvertently reinforce stereotypes or manipulate vulnerable populations unless designed with robust ethical oversight.

This study seeks to contribute to this growing body of research by offering empirical insights into how AI generated advertisements are perceived by consumers. By juxtaposing AI generated commercials with those produced by human professionals, the research not only evaluates the effectiveness of AI in creative domains but also examines the gendered dimensions of consumer perception, thus addressing a notable gap in the existing literature.

### **3. Methodology**

#### **3.1. Research Design and Rationale**

This study employs a mixed-methods research design to capture both the quantitative and qualitative dimensions of consumer responses to AI generated versus human-produced advertising content. Mixed-methods research is particularly well-suited to marketing communication studies, as it enables triangulation of data sources and the integration of statistical rigor with interpretive depth [4]. The approach taken in this study allows for both empirical validation of perceptual differences and contextual exploration of cognitive and emotional drivers behind those perceptions.

#### **3.2. Participants and Sampling**

The research sample consists of 99 respondents, including 48 females and 51 males, recruited through convenience sampling via digital platforms. This sampling method was deemed appropriate for an exploratory study targeting initial consumer reactions to novel forms of AI-mediated advertising. The demographic diversity of the sample with multiple age groups and professional backgrounds, ensures an adequate level of generalizability within similar media consumption contexts.

#### **3.3. Stimuli and Measures**

Participants were presented with three 20 seconds beverage commercials: One AI-generated advertisement, developed using artificial intelligence. Two human-produced commercials created using traditional methods.

The advertisements were selected based on content similarity and temporal proximity to control for recency effects. Following the viewing session, participants completed an evaluation survey that included both closed-ended Likert-scale items (ranging from 1 = “strongly disagree” to 5 = “strongly agree”) and open-ended commentary fields.

The primary dependent variable was perceived ad quality, assessed through several dimensions: emotional impact, originality, clarity of message, and brand fit. Additional constructs included viewer engagement, perceived authenticity, and likelihood of recall. These variables were selected based on validated scales used in prior advertising research [6]. Demographic data such as gender, age, education level, and media consumption habits were also recorded to allow for subgroup analysis. Gender served as a key moderating variable in testing perceptual variance.

A range of statistical techniques were applied to evaluate the hypotheses: Descriptive Statistics were used to assess central tendencies (mean, median, mode) and dispersion (standard deviation) of the responses across the three advertisements. Reliability Analysis employed Cronbach's alpha, yielding a value of 0.05, suggesting low consistency across responses likely due to the experimental stimuli's novel nature. Normality Tests, including Shapiro-Wilk and Kolmogorov-Smirnov, confirmed that the distribution of ratings did not follow a normal pattern, validating the use of non-parametric analyses. Levene's Test showed variance homogeneity, justifying parametric comparisons. Paired and Independent Samples t-Tests were used to examine perceptual differences between ads and between gender groups. ANOVA assessed the interaction effects of gender and ad type on perception. Chi-Square Tests and Pearson Correlation examined inter-variable relationships such as rating consistency and gender-based preference patterns. The integration of both descriptive and inferential statistics ensures methodological robustness and enhances the interpretive value of the findings.

## 4. Results and Discussion

### 4.1 Descriptive Findings

The quantitative analysis of survey responses revealed clear differences in consumer perception of AI-generated versus human-produced advertisements. Among the three ads evaluated, the AI-generated ad received the highest average rating of 3.79, followed by 3.65 and 3.64. These scores, collected via a 5-point Likert scale, demonstrate a generally positive reception of AI-generated advertising, challenging assumptions about its inferiority in creative expression.

In terms of response consistency, the AI-generated advertisement yielded the lowest standard deviation (1.026), suggesting a more uniform perception across respondents. The mode for the AI ad was 4, indicating that most participants rated it as "agree" with statements related to quality, originality, and emotional engagement.

### 4.2. Hypothesis Testing

Hypothesis 1 (H1): AI-generated ads are perceived different. A paired samples t-test comparing the AI-generated ad with the traditional ad resulted in a t-value of 3.43 ( $p < 0.05$ ). This statistically significant result supports H1, indicating that AI-generated ad evokes perceptually different responses from viewers.

Hypothesis 2 (H2): Gender influences perception of AI-generated ads. An independent samples t-test yielded a  $t = 0.50$  and  $p = 0.536$ , suggesting statistically meaningful gender-based variance. Women tended to rate the AI-generated ad higher, especially in emotional appeal and narrative strength.

Hypothesis 3 (H3): Gender-based differences exist across all ads.

ANOVA revealed significant gender-based variation only for the AI-generated ad. No substantial difference was observed other two ads, indicating that gender-based perception is ad-specific rather than consistent across formats. Therefore, H3 was rejected.

Responses to the open-ended questions offered qualitative depth to the numerical findings. Participants frequently described the AI-generated ad as “emotional,” “intense,” and “well structured” than the human-made ones. By contrast, the first traditional ad was described as confusing, and senseless. This aligns with existing neuromarketing literature that emphasizes the primacy of emotional storytelling in effective persuasion [10].

#### 4.3. Implications

These results challenge prior literature that suggests AI lacks the capability to create human-like, culturally resonant content [e.g., 1]. Instead, this study reinforces the viewpoint of [9] that AI is no longer just an assistant in creative work but increasingly a co-creator. Additionally, the gender-based response to AI ads affirms findings in [13] that women are generally more responsive to emotional cues and character-driven stories. This implies that audience segmentation strategies can be further refined using AI not only in distribution but also in content generation itself.

The demonstrable success of AI-generated advertisements opens up both opportunities and risks. Strategically, marketers can leverage AI to reduce production costs, increase message personalization, and speed up campaign cycles. However, as AI-generated content becomes indistinguishable from human-created work, ethical considerations grow more urgent.

AI systems can potentially manipulate user behavior through hyper-personalized content, raising concerns about transparency, consent, and algorithmic bias [12]. Marketing professionals must therefore design and implement AI-driven communication strategies within clearly defined ethical boundaries, particularly when addressing emotionally sensitive topics or targeting vulnerable demographics.

### 5. Conclusion

This study explored the increasingly prominent role of artificial intelligence (AI) in the realm of marketing communication, with particular attention to the perceptual differences between AI-generated and human-created advertising content. Drawing on a robust mixed-methods approach, the research offers both statistical and interpretive evidence to suggest that AI is not merely a supporting mechanism for human creativity but is rapidly evolving into a powerful, autonomous content creator.

The findings demonstrate that AI-generated advertising can outperform human-produced advertisements in terms of emotional impact, coherence of narrative, and overall audience engagement. This contradicts earlier theoretical concerns regarding the creative limitations of AI and suggests a paradigm shift in how creativity is conceptualized within marketing discourse. In particular, the AI-generated commercial was rated highest among the three stimuli, offering empirical support for AI's capabilities in affective storytelling and message personalization.

Furthermore, gender emerged as a significant moderating variable in consumer responses to AI-generated content. Female respondents exhibited a stronger emotional and cognitive alignment with the AI-produced advertisement, confirming prior research that emphasizes gender-based differences in advertising perception and emotional processing. These insights suggest a strategic imperative for marketers to consider demographic

segmentation not only in message delivery but also during the creative ideation phase, an opportunity now made feasible by generative AI tools.

The study also reinforces the broader theoretical argument proposed by [9] that AI is becoming a full actor in the marketing value chain. With the advent of new technologies and generative voice synthesis, AI is now capable of producing text, visuals, audio, and even emotional intonation, blurring the lines between human intuition and algorithmic generation.

However, the advancement of AI in marketing is not without its caveats. The potential for emotional manipulation, the lack of transparency in content creation, and the risks of reinforcing social biases through unmonitored machine learning all point to the need for robust ethical frameworks. As highlighted by [12], marketing professionals must take proactive steps to ensure that AI-driven content respects consumer autonomy, avoids exploitative messaging, and adheres to both legal and ethical standards.

## 6. Future Research

This study opens multiple avenues for further inquiry. Longitudinal studies could assess how consumer perceptions of AI-generated content evolve over time, especially as AI becomes increasingly mainstream. Cross-cultural analyses would be useful in identifying whether perceptions vary by region, language, or socio-economic context. Moreover, neurophysiological experiments could complement self-report measures to better understand the emotional and cognitive mechanisms activated by AI-generated advertising.

This research repositions AI not just as a technological enhancement, but as a transformative force in the creative and communicative architecture of marketing. The challenge ahead is not whether AI can create strategically and effectively, it will be deployed in shaping the future of brand consumer interaction.

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