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Evaluating the Impact of Generative Artificial Intelligence on Digital Advertising Effectiveness and Consumer Perception

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Abstract:

The rapid advancement of generative artificial intelligence (GenAI) is transforming digital advertising by enabling the automated creation of advertising content, personalised messaging, and scalable campaign optimisation. Despite its growing adoption, questions remain regarding its effectiveness in improving advertising performance while maintaining consumer trust, brand authenticity, and creative quality. This study examines the impact of GenAI on digital advertising effectiveness, production efficiency, and consumer perception, with particular attention to the comparative advantages and limitations of AI-generated and human-created advertising content. The proposed research adopts a comparative approach to evaluate relevant advertising performance indicators, including click-through rates, conversion rates, return on advertising spend, production time, and consumer responses to AI-generated content. It also considers the influence of human oversight, personalisation, and transparency on advertising outcomes. The analysis is intended to identify the operational benefits of GenAI alongside potential challenges, including creative fatigue, perceived inauthenticity, inconsistencies in brand communication, and ethical concerns. The study provides a framework for understanding how organizations can integrate GenAI into digital advertising strategies without compromising consumer confidence or brand integrity. It highlights the importance of a human–AI collaborative approach in balancing automation, creative effectiveness, and responsible marketing practices. The findings are expected to contribute to the evolving literature on AI-driven advertising and offer practical guidance for marketers seeking to improve campaign efficiency while preserving meaningful consumer engagement.

Keywords:

Generative artificial intelligence, digital advertising, advertising effectiveness, consumer perception, personalized marketing, human–AI collaboration, brand authenticity.

1. METHODOLOGY

1.1. Review design and research focus

This paper uses a structured, source-based comparative review to examine how generative artificial intelligence (GenAI) affects digital advertising effectiveness and consumer perception. It brings together empirical studies that compare AI-generated advertising with –human-created content, or test a distinct GenAI advertising feature such as personalization or disclosure. The review focuses on three questions: (1) what reported evidence exists for campaign effectiveness and production efficiency; (2) how do message type, disclosure, and perceived authenticity shape consumer responses; and (3) what role should human oversight play in responsible use? No new survey, experiment, or advertising campaign data were collected for this paper.

1.2. Search strategy and source identification

Source discovery was conducted on 15 October 2026 through publicly accessible scholarly search results and publisher pages. Search terms combined variations of "generative AI," "generative artificial intelligence," "AI-generated," and "GenAI" with "digital advertising," "online advertising," "advertisement," "consumer perception," "effectiveness," "trust," "authenticity," "disclosure," and "human-created." Exact phrases and DOI searches were used to verify article titles, authors, publication details, methods, and findings against publisher or repository records. The source set was chosen for direct relevance to the paper's research questions and for sufficient accessible bibliographic and abstract-level information.

This is an SLR-informed preliminary synthesis, not a claim of a completed exhaustive systematic review. Direct database exports and reproducible record counts from Scopus or Web of Science were not available for this draft. Accordingly, no invented PRISMA identification, duplicate-removal, or screening counts are reported. PRISMA 2020 is used as a reporting reference for the transparency that a full systematic review should provide (Page et al., 2021).

1.3. Eligibility and selection rules

Studies were prioritized when they were peer-reviewed journal articles published in English between 1 January 2020 and 15 October 2026, and directly addressed generative AI in advertising or marketing communications. Eligible designs included randomized experiments, field experiments, surveys, mixed-method studies, and systematic reviews. Studies of general AI targeting or automated bidding without AI-generated creative content, chatbots unrelated

to advertising, promotional commentary without a research method, and duplicate records were outside the main evidence set. Foundational review or reporting guidance was retained where it informed the method.

1.4. Evidence extraction and comparative synthesis

For each core study, the comparison recorded author and year, study design, advertising format or context, outcomes examined, principal result, and limitations relevant to interpretation. The evidence was grouped into four themes: (a) performance and production efficiency; (b) consumer response to AI versus human authorship; (c) disclosure, trust, and authenticity; and (d) ethical accountability and human oversight. Because the studies use different outcomes and designs, their results were synthesized narratively rather than pooled into one effect estimate.

2. DIAGRAMS, TABLES, AND COMPARISON OF MAIN REFERENCES

Figure 1 summarizes the relationship examined in the literature. It is a conceptual synthesis of variables reported by the selected studies, not a statistical model estimated by the present paper.

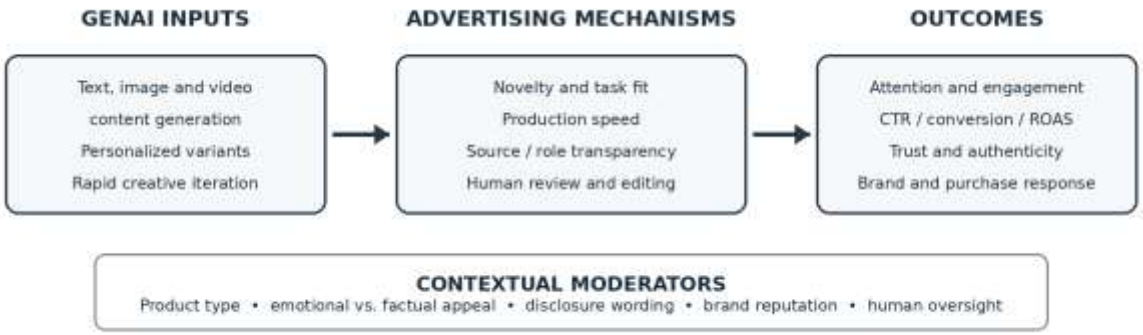


Figure 1. Conceptual pathway linking GenAI creative inputs, advertising mechanisms, and consumer or campaign outcomes.

The following table compares the principal empirical studies most directly relevant to the title. Reported results reflect each source's stated design and findings; they are not results from a new experiment conducted by the present authors.

Table 1. Comparative evidence from selected published studies

Study / design	Focus	Main reported result	Interpretive limit
Chen et al. (2024); four experiments	AI vs. human ad creation; agentic vs. communal appeals	AI-created ads were evaluated more positively for agentic/task-focused appeals; human-created ads were favoured for communal/social appeals. An assigned social role for AI could reduce the disadvantage for communal appeals.	Consumer attitude and appeal fit; not a direct estimate of CTR, conversion, or ROAS.
Kirk & Givi (2025); seven preregistered experiments	AI authorship of marketing messages	Believing an emotional message was AI-authored reduced positive word of mouth and loyalty; the effect was weaker for factual messages and AI-assisted editing. Authenticity helped explain the effect.	Message type matters; not all uses of AI were treated as equivalent.
Kapoor & Kumar (2025); field experiment	Personalized GenAI video ads on WhatsApp	GenAI-based personalized video ads increased engagement by 6–9 percentage points over personalized image ads and generic nonpersonalized video ads in the studied campaign.	One field context and engagement metric; not proof of universal lift in sales or ROAS.
Shi & Jiang (2026); three online experiments	Disclosure labels for AI-generated ad images	Labels increased perceived novelty but could reduce perceived authenticity; effects varied with regulatory focus and product type.	Label effects are double-edged and context dependent.

Study / design	Focus	Main reported result	Interpretive limit
Le et al. (2026); four studies	Transparency about AI's role in creating ads	Higher perceived role-disclosure transparency improved creation-process credibility and ad attitude; effects were stronger under specified disclosure framing and compliance cues.	Clarity about AI's role differs from a bare "AI-generated" label.
Do et al. (2026); online vignette survey, n = 300	Disclosure label, trust, credibility and purchase intention	Disclosure was reported to improve consumer trust and advertising credibility in the tested scenarios.	Scenario-based survey results may not fully reproduce live campaign behaviour.
Shitova et al. (2026); lab mixed-method comparison	AI-generated vs. human-made video ads	AI video elicited strong visual attention and emotional responses; human-made video supported narrative relatability and personal/social connections.	Lab stimuli and qualitative context; results do not establish overall market superiority.
Bhoumika (2026); three studies	AI vs. human-created misrepresentative ads	Consumers were less forgiving of misrepresentative AI-created ads; perceived effort and ad attitude helped explain responses. Strong brand reputation buffered some negative reactions.	Specific to misleading or misrepresentative ads; highlights ethical boundary conditions.
Prasanna & Kushwaha (2026); systematic review of 104 studies	GenAI across the broader marketing domain	Mapped research across psychological, social/communication, innovation-adoption, and human-computer-interaction perspectives.	Broad marketing coverage; it does not replace an advertising-specific evidence synthesis.

Table 2 condenses the cross-study implications into practical dimensions.

Table 2. Cross-study patterns and practical implications

Dimension	Synthesis of reported evidence	Implication for interpretation
Performance	Personalized GenAI video generated higher engagement in one field experiment.	Treat the lift as context-specific; compare the same campaign objective, audience and channel.
Creative fit	AI and human authorship advantages differed between task-focused and communal messages.	Match creator role and appeal to the product and message objective.
Trust / authenticity	Emotional AI authorship could reduce authenticity-related outcomes; AI labels can raise novelty while lowering authenticity.	Use human judgment for emotional claims and test disclosure effects with real audiences.
Transparency	Clear information about AI's role may support credibility; the effect of labels depends on wording and context.	Explain AI involvement meaningfully rather than relying only on a generic label.
Responsibility	AI-created misrepresentation can be judged harshly; human oversight remains relevant to accountability.	Review claims, representation, brand fit and disclosure before publication.

3. FINDINGS OR RESULTS

The findings in this section are a comparative synthesis of the selected published studies, not results from original data collection. The selected evidence points to conditional rather than universal effects: GenAI can improve some campaign outcomes, while the response of consumers depends on creative purpose, authorship cues, product context, and transparency.

3.1. Advertising effectiveness and production efficiency

The strongest direct performance result in the selected set comes from Kapoor and Kumar (2025). In a field experiment delivered through WhatsApp for a direct-to-consumer brand, personalized GenAI video ads increased engagement by six to nine percentage points compared with personalized image ads and generic

nonpersonalized video ads. The experiment therefore provides evidence that combining generative content with personalization can improve engagement in a real campaign. However, engagement is not the same as CTR, conversion rate, revenue, or ROAS. The result does not establish that every AI-generated ad is more profitable than a human-created one.

Other studies explain why a single average effect may be misleading. Chen et al. (2024) found that AI-created advertising worked better for agentic appeals that communicate competence or task performance, while human-created content was preferred for communal appeals that signal warmth or social connection. In practice, AI may be particularly useful for generating multiple benefit-led variants, but campaigns whose value depends on empathy, shared identity, or a credible human voice need closer creative review.

3.2. Consumer perception, trust, and authenticity

Kirk and Givi (2025) showed across seven preregistered experiments that consumers' beliefs about who authored a message can affect their reactions. AI authorship reduced positive word of mouth and loyalty for emotional marketing communications, while the effect weakened for factual messages and when AI served only as an editor. This suggests that the audience's interpretation of the creative process—not just the visible quality of the final ad—can shape brand responses.

The video-ad comparison by Shitova et al. (2026) provides a useful counterpoint to a simple "AI lacks emotion" assumption. Their mixed-method laboratory study found that AI-generated video could elicit strong emotional and visual responses, while human-created video supported more narrative relatability and personal or social connections. Taken together, these studies suggest that emotional intensity and perceived authenticity are related but not interchangeable: an AI ad may attract attention without necessarily building the same sense of human connection.

3.3. Disclosure and transparency

Disclosure results are not uniformly positive or negative. Shi and Jiang (2026) found that an AI label could improve evaluations through perceived novelty but weaken them through lower perceived authenticity. The balance varied with consumers' regulatory focus and product type. By contrast, Le et al. (2026) found that consumers' perceived understanding of AI's role in creating an ad strengthened the credibility of the creation process and improved ad attitude; their studies also showed that disclosure framing and compliance cues mattered. Do et al. (2026), using an online vignette study of 300 consumers, reported positive effects of

disclosure on trust and advertising credibility in the scenarios tested.

These findings can be reconciled by distinguishing a simple label from meaningful explanation. A short "AI-generated" notice may make an ad feel novel while also prompting questions about authenticity. A clearer statement about how AI was used—and what human review was applied—may provide consumers with more useful information. Still, these disclosure studies use different designs and settings, so a single disclosure rule cannot be assumed to maximize every outcome.

3.4. Ethical risk and human oversight

Bhoumika (2026) found that consumers were less forgiving of misrepresentative advertisements when they were created by AI rather than by humans. Perceived effort and subsequent ad attitudes helped account for the difference, while a stronger brand reputation buffered some negative reactions. This illustrates a practical risk: when AI content misrepresents people or communities, consumers may interpret it as evidence that the brand failed to exercise sufficient care. Brand reputation may soften a reaction, but it is not a substitute for responsible review.

A practical human–AI workflow should therefore assign clear responsibility. AI can support ideation, content variation, localization, and rapid testing; people should remain accountable for factual claims, brand voice, cultural context, representation, rights clearance, and final approval. Human involvement should be substantive and traceable, not a nominal approval step after publication.

3.5. Answers to the research questions

RQ1: Existing evidence suggests that GenAI can improve engagement in selected personalized formats, but the available studies do not justify a universal claim about CTR, conversion rate, or ROAS. RQ2: AI-created content is more suitable for some task-focused appeals, while human-created content can perform better for communal or emotionally expressive communication. RQ3: Consumer trust and authenticity depend on perceived authorship, the type of message, and how AI involvement is presented. RQ4: Transparency can help when it explains AI's role, but disclosure can also reduce perceived authenticity. RQ5: Further work should compare actual campaign performance, measure production time after human editing, and test disclosure and oversight across markets, products, and ad formats.

3.6. Research gap emerging from the comparison

A key gap is the lack of a single, consistent comparison across operational and consumer outcomes. Field performance work measures engagement, while laboratory experiments often measure ad attitude, authenticity,

purchase intention, or loyalty. These outcomes cannot be combined without qualification. Future studies should compare AI-only, human-only, and human–AI collaborative production under matched campaign conditions; record total production time and revision effort; and report downstream outcomes such as conversion and ROAS alongside trust and brand measures. More cross-cultural and longitudinal work is also needed to establish whether short-term novelty persists or gives way to creative fatigue.

4. TYPES OF AI-GENERATED CONTENT USED IN CAMPAIGNS

AI technologies have diversified the types of content marketers can generate, enabling automation and personalization across multiple formats. The most common types of AI-generated content used in marketing campaigns include: **(1) Text-Based Content:** AI-powered tools like natural language generation (NLG) systems create blog posts, product descriptions, email copy, social media posts, and ad copies. These tools analyze data inputs to produce coherent, relevant, and engaging written content rapidly (Davenport et al., 2020). For instance, platforms like GPT (Generative Pre-trained Transformer) and Jasper AI assist marketers in automating content creation while maintaining brand voice consistency (Chaffey, 2023). **(2) Visual Content:** AI algorithms generate images, infographics, banners, and videos customized to target audiences. Tools such as DALL·E and Canva's AI features allow marketers to produce creative visuals without extensive design expertise, accelerating campaign workflows (Kietzmann et al., 2018). **(3) Video Content:** AI-driven video generation platforms create dynamic video ads, personalized video messages, and explainer videos. These platforms utilize AI for scripting, voice synthesis, and animation to enhance engagement and storytelling (Kaplan & Haenlein, 2020). **(4) Chatbots and Conversational Agents:** AI-powered chatbots engage customers in real-time through personalized conversations, guiding them through sales funnels and providing instant support. These chatbots use natural language understanding (NLU) to interpret and respond effectively, improving customer experience and conversion rates (Jarek & Mazurek, 2019). **(5) Audio Content:** With advancements in AI voice synthesis, marketers can generate podcasts, audio ads, and voice messages tailored to different customer segments. This technology helps brands reach audiences across multiple channels with personalized audio experiences (Davenport et al., 2020).

5. CONCLUSION

Generative AI is changing digital advertising by making content production and

personalization easier to scale. The published evidence reviewed here shows potential performance gains, especially for personalized video, but it does not support the idea that AI consistently outperforms human creativity. Consumer responses depend on message purpose, emotional meaning, perceived authenticity, disclosure, and the care shown by the brand. The most defensible practical approach is collaboration: use GenAI to broaden creative options and accelerate iteration, while maintaining human responsibility for truthfulness, representation, brand consistency, and final judgment. The findings in this draft are preliminary because its source discovery was targeted rather than an exhaustive database-based SLR. A fully systematic follow-up should run and document database-specific searches, screen all eligible records, assess study quality, and report the PRISMA flow transparently before making stronger claims about the whole evidence base.

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