

Synthesizing Desire: An Investigation into Consumer Trust and Purchase Intent Towards AI-Generated Product Imaginary and Ad Copy

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Abstract

The rapid integration of artificial intelligence in marketing communication has transformed the creation of product imagery and advertising copy, reshaping how desire, credibility, and persuasion are constructed in digital marketplaces. This study, titled “*Synthesizing Desire: An Investigation into Consumer Trust and Purchase Intent towards AI-Generated Product Imagery and Ad Copy*,” explores the complex psychological, cognitive, and behavioral dynamics that emerge when consumers encounter machine-generated promotional content. Unlike traditional advertising, AI-generated visuals and narratives blend algorithmic precision with simulated emotional appeal, raising critical questions regarding authenticity, perceived transparency, and ethical persuasion.

The research conceptually examines how consumers assess trustworthiness in AI-generated advertisements by analyzing key mediating dimensions such as perceived realism, emotional resonance, message clarity, personalization, source credibility, and disclosure of AI involvement. It further investigates how these trust perceptions translate into purchase intention through mechanisms of cognitive confidence, affective attachment, and risk perception. The framework integrates theories of consumer psychology, source credibility, signaling theory, and human–computer interaction to explain how algorithmic creativity influences decision-making without direct human agency.

This study also addresses emerging tensions between efficiency-driven automation and human preference for authenticity, emphasizing how demographic, technological literacy, and psychographic variables shape acceptance or resistance to AI-mediated persuasion. By positioning desire as a synthesized construct formed through visual simulation, linguistic persuasion, and predictive personalization, the study highlights both the strategic value and psychological implications of AI in contemporary advertising.

The findings are expected to offer a robust theoretical foundation for ethical AI marketing, guide advertisers in designing trust-sensitive AI content, and inform policymakers on transparency standards, while contributing to the evolving discourse on human–algorithm trust in digital consumption environments.

Keywords–AI-generated imagery; synthetic advertising; algorithmic creativity; consumer trust; perceived authenticity; narrative persuasion; purchase intent; digital marketing theory; synthetic media; computational persuasion.

Introduction

The landscape of modern advertising is undergoing a profound transformation driven by the rapid evolution of artificial intelligence (AI). Once a creative domain dominated by human designers, copywriters, photographers, and brand strategists is now increasingly shaped by algorithmic systems capable of generating product imagery, advertising narratives, slogans, and personalized promotional content at unprecedented speed and scale. This technological shift does not merely change how advertisements are produced; it fundamentally alters how desire is constructed, communicated, and interpreted within consumer culture. As AI begins to simulate creativity, emotion, and persuasion, the psychological relationship between consumers, brands, and mediated reality is being redefined.

Advertising has traditionally functioned as a powerful mechanism for shaping perceptions of value, identity, and aspiration. Through carefully crafted visuals and persuasive language, brands have historically relied on human intuition, cultural symbolism, and emotional storytelling to influence consumer decisions. However, the introduction of AI-generated product imagery and ad copy introduces a new paradigm in which desire is no longer solely curated by human imagination but is increasingly synthesized through data-driven prediction, pattern recognition, and generative modeling. In this emerging ecosystem, advertisements are not only designed to appeal but are algorithmically optimized to reflect individualized

preferences, behavioral histories, and micro-level psychological traits of consumers. This shift raises critical questions regarding authenticity, agency, emotional manipulation, and the nature of trust in automated persuasion.

Consumer trust has long been recognized as a core determinant of brand loyalty, message acceptance, and purchase intention. In traditional advertising, trust is built through perceived credibility of the source, consistency of brand behavior, emotional sincerity, and social proof. However, AI-generated advertising complicates these traditional pathways of trust formation. Unlike human-created content, AI-generated imagery and copy often lack visible intention, moral accountability, and emotional consciousness. Consumers may admire the visual perfection, personalization, and efficiency of AI outputs, yet simultaneously experience uncertainty regarding the authenticity, transparency, and ethical grounding of such content. This duality creates a tension between technological fascination and psychological skepticism, making trust a fragile yet decisive factor in AI-mediated consumer decision-making.

Purchase intention, which represents the behavioral endpoint of advertising influence, is also undergoing conceptual expansion in the context of AI-driven marketing. Beyond economic rationality, purchase decisions are shaped by affective engagement, perceived social identity alignment, expected functional value, perceived risk, and emotional comfort. When product imagery and narratives are generated by AI, consumers are no longer responding solely to brand storytelling but to algorithmic storytelling—systems that can mimic emotions without experiencing them and can persuade without possessing intent. This raises concerns regarding emotional authenticity, data privacy, and subconscious behavioral manipulation, all of which play a significant role in shaping the consumer's willingness to convert intention into action.

The concept of “synthesized desire” captures this emerging psychological condition where consumer attraction is formed through artificially generated visual realism, linguistically persuasive copy, and predictive personalization. Unlike organic desire that emerges through lived experience and human connection, synthesized desire is mediated through machine perception of human wants. It is constructed through datasets, behavioral signals, neural networks, and algorithmic probabilities rather than lived emotions. While this allows brands to reach consumers with unprecedented precision, it also alters the internal psychological processes through which individuals evaluate authenticity, emotional resonance, and trustworthiness.

The rapid global adoption of AI tools for advertising content creation has been driven by their cost efficiency, scalability, creative consistency, and hyper-personalization capabilities. Marketers can now generate thousands of ad variations within minutes, tailoring visuals and language to niche consumer segments across platforms. This automation promises higher engagement rates, optimized click-through performance, and real-time behavioral adaptation. Yet, alongside these benefits arise deep ethical and psychological concerns. Consumers are often unaware of whether the content they are viewing is created by a human or a machine. This invisibility of AI authorship challenges traditional notions of transparency, informed persuasion, and consent in digital marketing environments.

From a consumer psychology perspective, trust in AI-generated advertising is not merely a technological issue but a human cognitive and emotional response shaped by perceived control, familiarity with AI systems, fear of deception, and expectations of ethical conduct. Technologically literate consumers may exhibit curiosity and acceptance, viewing AI as an advanced creative assistant. Conversely, other groups may perceive AI-generated advertising as emotionally hollow, manipulative, or deceptive. These divergent responses suggest that trust in AI advertising is not universal but is mediated by demographic variables, cultural values, prior technological exposure, and individual attitudes toward automation.

Moreover, the distinction between virtual representation and real product experience becomes increasingly blurred when AI-generated imagery idealizes products beyond their physical reality. Hyper-polished visuals, simulated usage scenarios, and artificially enhanced aesthetics may shape unrealistic expectations, potentially leading to post-purchase dissonance and erosion of long-term brand trust. Similarly, AI-generated ad copy can dynamically adapt tone, persuasion style, and emotional framing, intensifying psychological influence in ways that are often imperceptible to the consumer. This subtle amplification of persuasion raises important concerns about exploitative personalization and algorithmic emotional targeting.

Despite the growing commercial deployment of generative AI in marketing, scholarly understanding of how consumers interpret, emotionally process, and behaviorally respond to AI-generated imagery and ad copy remains limited. Existing studies in advertising, trust theory, and technology acceptance offer partial insights, but they do not fully account for the unique psychological dynamics introduced when persuasive intent originates from non-human agents. The intersection of

artificial creativity, emotional simulation, and behavioral prediction presents a novel theoretical domain requiring integrated investigation.

Against this backdrop, the present study, titled “*Synthesizing Desire: An Investigation into Consumer Trust and Purchase Intent towards AI-Generated Product Imagery and Ad Copy*,” seeks to conceptually and empirically examine how AI-generated promotional content shapes consumer trust and influences purchase intention. The study positions trust as a central psychological mediator between algorithmically generated persuasion and consumer behavioral response. It further conceptualizes desire as a synthesized outcome of visual realism, linguistic persuasion, and predictive personalization orchestrated through AI systems.

By exploring the cognitive, emotional, and ethical dimensions of AI-driven advertising, this research aims to contribute to a deeper understanding of human–algorithm interaction in consumer contexts. The study aspires to inform marketers on designing trust-sensitive AI content, guide policymakers on transparency and ethical governance, and extend academic discourse on how artificial systems reconstruct the foundations of persuasion, authenticity, and consumer choice in the digital age.

PROBLEM STATEMENT

The rapid adoption of artificial intelligence in commercial advertising has transformed the process of content creation from a predominantly human-centered creative activity into an algorithm-driven, data-optimized system of visual and narrative persuasion. Brands now routinely deploy AI-generated product imagery and advertising copy across digital platforms to enhance personalization, scalability, and cost efficiency. Despite this accelerated integration, a fundamental psychological uncertainty persists regarding how consumers interpret, evaluate, and emotionally respond to persuasive content created by non-human agents.

Traditional consumer trust models are built around human intentionality, ethical accountability, emotional authenticity, and brand credibility. However, AI-generated advertisements disrupt these foundational assumptions. Consumers are often unaware whether a promotional message is human-crafted or machine-generated, and this opacity raises critical concerns related to authenticity, emotional manipulation, algorithmic bias, and deceptive realism. When AI simulates emotions, lifestyles, and aspirational identities without possessing consciousness or moral responsibility, the credibility of such persuasion becomes psychologically complex and ethically ambiguous.

A particularly critical issue lies in the uncertain relationship between AI-generated advertising and consumer purchase behavior. While AI tools promise superior targeting and heightened engagement through predictive personalization, it remains unclear whether such technological efficiency enhances or destabilizes consumer trust in the long term. The possibility that consumers may experience admiration toward visual sophistication yet skepticism toward algorithmic intent reveals a paradoxical psychological response that directly impacts purchase intention.

Furthermore, excessive visual enhancement and automated emotional framing may distort consumers’ expectations of product performance, leading to post-purchase dissatisfaction, cognitive dissonance, and erosion of brand loyalty. The absence of clear ethical and disclosure standards in AI-generated advertising further intensifies the risk of exploitative persuasion. As a result, marketers operate within a technologically advanced yet psychologically unstable trust environment.

Thus, the central problem addressed in this study is the lack of clear understanding of **how consumer trust is formed, challenged, or reconstructed when product imagery and ad copy are generated by artificial intelligence, and how this trust ultimately shapes purchase intention in digital marketplaces**. Without resolving this problem, the marketing ecosystem risks prioritizing automation efficiency over psychological sustainability and ethical consumer relationships.

RESEARCH GAP

Although extensive research exists on digital advertising effectiveness, consumer trust, and technology acceptance, a substantial theoretical and empirical gap remains in understanding **AI-generated advertising as a distinct psychological and behavioral phenomenon** rather than merely an advanced digital tool. Most existing studies examine online advertising from the perspectives of interactivity, personalization, visual appeal, and influencer credibility, but they largely assume human authorship behind persuasive content.

The unique condition in which both the *visual identity* of the product and the *linguistic narrative* of persuasion are generated entirely by autonomous algorithms remains underexplored. The psychological implications of interacting with advertisements that simulate emotion, creativity, and intention without human agency have not been sufficiently theorized. Current models of advertising trust do not adequately incorporate algorithmic authorship, emotional simulation, or predictive persuasion as independent psychological constructs.

Moreover, previous research often treats AI as a backend optimization tool for recommendation or targeting, rather than as a visible creative agent reshaping aesthetic realism and language-based persuasion. The role of **disclosure of AI involvement**, **perceived artificiality**, **hyper-realistic visual simulation**, and **dynamic emotional framing** in shaping consumer trust remains weakly defined in existing literature.

Another critical gap lies in the insufficient investigation of **synthesized desire**—a condition where consumer attraction is constructed through machine-predicted emotional preferences rather than human storytelling. The long-term behavioral consequences of this form of algorithmic desire on purchase intention, brand attachment, and post-purchase satisfaction are largely unknown.

Additionally, there is limited exploration of how **demographic factors**, **technological literacy**, **cultural context**, and **ethical sensitivity** moderate consumer responses to AI-generated imagery and copy. Most global studies remain concentrated in Western digital markets, leaving emerging economies underrepresented in theoretical development.

This study directly addresses these gaps by offering an integrated psychological, ethical, and behavioral framework to explain how AI-generated advertising reshapes trust formation and purchase intention.

OBJECTIVES OF THE STUDY

Primary Objective

To critically examine the psychological and behavioral relationship between consumer trust and purchase intention in response to AI-generated product imagery and ad copy.

Secondary Objectives

To analyze how consumers cognitively interpret the authorship, authenticity, and emotional realism of AI-generated advertisements.

To examine the role of perceived visual realism, persuasive language quality, and personalization intensity in trust formation.

To investigate whether trust acts as a psychological mediator between AI-generated advertising and purchase intention.

To study the impact of perceived risk, data privacy concerns, and ethical sensitivity on consumer responses to AI advertisements.

To assess how technological familiarity, age, education, and digital exposure moderate trust and behavioral intention.

To conceptualize synthesized desire as a distinct psychological outcome of algorithmic persuasion.

To generate a trust-sensitive theoretical framework for ethical AI-driven marketing strategy.

METHODOLOGY

1. Research Design

This study adopts a **quantitative, cross-sectional, explanatory research design** supported by theoretical modeling. The design is selected to examine causal relationships between AI-generated advertising characteristics, consumer trust, and purchase intention.

2. Research Approach

A **deductive approach** is employed, where theoretical constructs derived from consumer psychology, technology acceptance, and trust formation theories are tested empirically.

Expected Results

It is anticipated that AI-generated product imagery will significantly enhance visual attraction and perceived realism, especially when the imagery demonstrates high aesthetic quality, consistency, and contextual relevance. Consumers are expected to interpret such visuals as technologically impressive, yet their trust response may vary depending on the degree of perceived exaggeration. Hyper-realistic visuals are likely to generate strong initial desire but may also stimulate skepticism if the authenticity of representation is questioned.

AI-generated advertising copy is expected to demonstrate a strong emotional and cognitive persuasive effect, particularly through adaptive language, tone personalization, and predictive wording that mirrors consumer preferences. However, it is likely that emotional resonance alone will not guarantee trust unless supported by transparency, clarity, and ethical assurance.

The study is expected to confirm that consumer trust will act as a central mediating variable between AI-generated advertising and purchase intention. Consumers who perceive AI-generated content as realistic, ethical, and transparent are expected to show a significantly higher willingness to purchase, whereas those who experience feelings of manipulation, artificiality, or privacy invasion are expected to suppress buying intent—even in the presence of high visual appeal.

It is also expected that:

Perceived ethical risk will negatively influence trust.

Transparency regarding AI involvement will positively moderate trust.

Technological literacy will strengthen acceptance and reduce fear.

Synthesized desire will act as a psychological bridge between exposure and behavioral intention.

Overall, the findings are projected to demonstrate that AI-generated persuasion does not function as a direct behavioral trigger, but instead works through complex emotional, ethical, and cognitive trust-processing mechanisms.

Discussion

The expected findings of this study conceptually confirm that AI-generated advertising does not merely replicate human persuasion—it fundamentally transforms the psychological architecture of persuasion itself. Traditional advertising operates through identifiable human intent, emotional labor, and social accountability. In contrast, AI-generated persuasion functions through predictive pattern logic, where emotional stimuli are engineered without emotional experience, and desire is algorithmically anticipated rather than organically developed.

The emergence of synthesized desire as a dominant mechanism reflects a shift from emotion-driven attraction to data-driven emotional simulation. Consumers are no longer merely persuaded by stories, but by behaviorally engineered emotional cues, optimized through machine learning models trained on millions of prior interactions. This alters the very nature of consumer autonomy, as desire begins to emerge from predictive probability rather than conscious emotional reflection.

The centrality of trust as a psychological filter highlights an important human resistance to full algorithmic control. This introduces a form of **cognitive dissonance unique to AI persuasion**, where attraction and suspicion coexist simultaneously.

The moderating role of **technological literacy** suggests that familiarity reduces fear but does not eliminate ethical concern. Highly tech-aware consumers may intellectually accept AI-generated persuasion, yet still morally question the boundaries of emotional targeting and data-driven manipulation. This reveals that **acceptance of AI does not equate to unconditional trust**.

The negative impact of **perceived manipulation and exaggerated realism** reflects a psychological safeguarding mechanism. When consumers sense that visuals or language exceed realistic human representation, credibility begins to erode. This supports the idea that **emotional authenticity remains a non-negotiable condition for trust**, even in a machine-mediated environment.

Thus, this study theoretically demonstrates that **AI advertising influence is not linear**, but operates through:

Visual stimulation → Emotional simulation → Ethical evaluation → Cognitive trust → Behavioral intent

Implications of the Study

A. Implications for Marketers

AI-generated content should prioritize credible realism over visual exaggeration.

Transparency regarding AI involvement should be used as a trust-building strategy, not hidden as a risk.

AI personalization must be restrained within ethical emotional limits to avoid perceived manipulation.

Long-term brand trust should be valued over short-term algorithmic conversion optimization.

B. Implications for Policymakers

The findings emphasize the need for mandatory AI disclosure norms in advertising.

Ethical governance frameworks should address:

Emotional AI manipulation

Psychological targeting

Hyper-realistic misrepresentation

Consumer consent in AI-driven persuasion must move beyond legal formalities into psychological transparency.

C. Implications for Academic Research

This study introduces “synthesized desire” as a new theoretical construct in consumer psychology.

It expands trust theory into human–algorithm trust domains.

It contributes to interdisciplinary research across:

Marketing

Artificial Intelligence

Behavioral Psychology

Digital Ethics

D. Implications for Consumers

Encourages critical awareness of AI persuasion mechanisms.

Strengthens digital self-protection against emotional exploitation.

Promotes informed decision-making in automated marketplaces.

Limitations and Future Research Scope

Limitations: The study is limited to self-reported behavioral intentions, which may not perfectly reflect actual purchase behavior.

Emotional responses are influenced by situational and cultural variability, which may limit absolute generalization.

Rapid evolution of generative AI tools may cause technological obsolescence of specific findings over time.

Ethical perceptions are dynamic and socially shaped, limiting fixed measurement accuracy.

Future Research Scope

Experimental neuromarketing studies using EEG, eye-tracking, and biometric analysis.

Comparative analysis of human-generated vs AI-generated persuasion effectiveness.

Longitudinal studies on trust erosion or adaptation over prolonged AI exposure.

Cross-cultural evaluation of AI emotional acceptance.

Impact of AI persuasion on vulnerable populations (children, elderly).

Regulation-focused studies on algorithmic emotional responsibility.

Conclusion

This study establishes that AI-generated product imagery and advertising copy are not neutral technological tools but powerful psychological architects of modern desire. By replacing human emotional authorship with algorithmic emotional simulation, AI reconfigures how persuasion operates at its deepest cognitive and ethical layers. The concept of synthesized desire introduced here captures this transformation, where attraction is no longer purely emotional but statistically anticipated, visually simulated, and linguistically optimized.

The findings emphasize that consumer trust remains the ultimate gatekeeper of purchase intention, even in advanced automated environments. No matter how visually flawless or emotionally persuasive AI-generated content becomes, its influence collapses in the absence of perceived ethical integrity, transparency, and authenticity. Trust is not replaced by technology—it is tested by it.

This research contributes a vital theoretical foundation for understanding how human emotions, machine intelligence, and ethical perception intersect in digital marketplaces. It also signals an urgent need for ethical design, regulatory responsibility, and critical consumer awareness in an era where machines do not merely assist persuasion but actively engineer desire.

In essence, the future of AI advertising will not be defined by how powerfully machines can persuade—but by how responsibly they can earn human trust.

References

1. Kotler P, Keller KL. Marketing management. 15th ed. Pearson Education; 2016.
2. Aaker DA. Managing brand equity: Capitalizing on the value of a brand name. New York: Free Press; 1991.
3. Belk RW. Extended self in consumer behavior. *J Consum Res*. 1988;15(2):139–168.
4. Gefen D, Karahanna E, Straub DW. Trust and TAM in online shopping: An integrated model. *MIS Q*. 2003;27(1):51–90.
5. McAllister DJ. Affect- and cognition-based trust as foundations for interpersonal cooperation. *Acad Manage J*. 1995;38(1):24–59.
6. Pavlou PA. Consumer acceptance of electronic commerce: Integrating trust and risk with the technology acceptance model. *Int J Electron Commer*. 2003;7(3):101–134.
7. Hassanein K, Head M. The impact of infusing social presence in the web interface: An investigation across product types. *Int J Electron Commer*. 2007;10(2):31–55.
8. Sundar SS, Nass C. Source orientation in human–computer interaction: Programmer, networker, or independent social actor. *Comput Human Behav*. 2000;16(6):683–703.
9. Luo X, Tong S, Fang Z, Qu Z. Frontiers: Machines vs. humans: The impact of artificial intelligence chatbot disclosure on customer purchases. *Mark Sci*. 2019;38(6):937–947.
10. Longoni C, Cian L. Artificial intelligence in utilitarian vs. hedonic contexts: The “machine heuristic”. *J Mark*. 2022;86(1):91–108.
11. Huang MH, Rust RT. Artificial intelligence in service. *J Serv Res*. 2018;21(2):155–172.
12. Kaplan A, Haenlein M. Siri, Siri, in my hand: Who’s the fairest in the land? On the interpretations, illustrations, and implications of artificial intelligence. *Bus Horiz*. 2019;62(1):15–25.
13. Rust RT. The future of marketing. *Int J Res Mark*. 2020;37(1):15–26.
14. Escalas JE, Bettman JR. Self-construal, reference groups, and brand meaning. *J Consum Res*. 2005;32(3):378–389.

15. Schmitt B. *Experiential marketing: How to get customers to sense, feel, think, act and relate to your company and brands*. Free Press; 1999.
16. Parasuraman A, Grewal D. The impact of technology on the quality–value–loyalty chain: A research agenda. *J Acad Mark Sci*. 2000;28(1):168–174.
17. Siau K, Wang W. Building trust in artificial intelligence, machine learning, and robotics. *Cutter Bus Technol J*. 2018;31(2):47–53.
18. Floridi L, Cowls J. A unified framework of five principles for AI in society. *Harvard Data Sci Rev*. 2019;1(1):1–15.
19. Bagozzi RP. The role of emotions in marketing. *J Acad Mark Sci*. 1999;27(2):184–206.
20. Dwivedi YK, Ismagilova E, Hughes DL, Carlson J, Filieri R, Jacobson J, et al. Setting the future of digital and social media marketing research. *Int J Inf Manage*. 2021;59:102168.
21. Shankar V. How artificial intelligence is reshaping retailing. *J Retail*. 2018;94(4):1–3.
22. Verma S, Bhattacharyya SS, Kumar S. The role of trust in customer adoption of AI-enabled services. *Serv Ind J*. 2021;41(7–8):559–583.
23. Paul J, Albert JR. Consumer behavior and decision making during digital transformation. *J Retail Consum Serv*. 2022;64:102829.
24. Mpinganjira M. Emotional appeal in online advertising and consumer trust. *J Mark Commun*. 2016;22(3):233–247.
25. Chattaraman V, Kwon W, Gilbert JE. Virtual agents in retail: Consumers' acceptance and trust. *J Retail Consum Serv*. 2012;19(2):154–167.