

IMPACT OF AI-DRIVEN DIGITAL MARKETING AND INFLUENCER STRATEGIES ON CONSUMER BUYING BEHAVIOUR IN THE E-COMMERCE INDUSTRY IN INDIA

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ABSTRACT

The development of Artificial Intelligence (AI) technologies and advanced digital marketing practices has brought remarkable changes to the Indian e-commerce sector. Organizations increasingly utilize AI-powered digital marketing tools and influencer strategies to improve customer engagement, personalized communication, purchase intention, and customer satisfaction. AI technologies such as machine learning, recommendation systems, predictive analytics, and sentiment analysis enable organizations to understand customer preferences and improve marketing efficiency. The present study investigates the influence of AI-driven digital marketing and influencer strategies on consumer buying behaviour in the Indian e-commerce industry. The research focuses on AI personalization, influencer credibility, customer engagement, recommendation systems, and online purchase behaviour. A quantitative and empirical research approach was adopted using structured questionnaires distributed among online consumers across India. A total of 500 valid responses were collected and analyzed using statistical tools such as Percentage Analysis, Correlation Analysis, Regression Analysis, ANOVA, Factor Analysis, and Structural Equation Modeling (SEM). The findings indicate that AI-powered personalization, influencer authenticity, recommendation systems, and predictive analytics significantly affect customer satisfaction, customer trust, and online buying decisions. The study concludes that AI-driven digital marketing and influencer strategies positively contribute to organizational growth and customer retention in the Indian e-commerce industry.

Keywords: *Artificial Intelligence, Digital Marketing, Influencer Marketing, Consumer Buying Behaviour, AI Analytics, E-Commerce Industry, Personalized Marketing, Customer Engagement, Predictive Analytics.*

1. INTRODUCTION

Technological advancements have significantly transformed the global business environment, especially in the retail and e-commerce industries. In India, the e-commerce sector has witnessed rapid growth due to increasing internet penetration, smartphone adoption, digital payment systems, and social media usage. Consumers increasingly prefer online shopping because of convenience, accessibility, time efficiency, product variety, and personalized digital experiences.

Artificial Intelligence (AI) has become one of the most important technologies influencing digital marketing and e-commerce operations. AI technologies help organizations analyze customer behavior, identify buying patterns, automate customer interactions, and personalize marketing communication. AI-powered systems such as recommendation engines, predictive analytics, chatbots, customer segmentation tools, and machine learning algorithms improve customer experiences and organizational performance.

Digital marketing strategies have evolved significantly with the integration of AI technologies. Businesses now use AI-driven marketing systems to target customers more effectively and improve conversion rates. At the same time, influencer marketing has emerged as one of the most influential digital marketing strategies. Social media influencers create authentic and engaging content that shapes customer attitudes and purchasing decisions.

Platforms such as Instagram, YouTube, Facebook, LinkedIn, and Twitter have become powerful digital marketing channels. Consumers often trust influencer recommendations more than traditional advertising because influencers establish emotional and social relationships with their followers.

Indian e-commerce companies such as Amazon India, Flipkart, Meesho, Myntra, Nykaa, and Ajio actively use AI-driven digital marketing and influencer strategies to improve customer engagement and business growth. AI-enabled marketing tools help companies analyze customer data and optimize promotional campaigns based on customer preferences and purchasing behavior.

Despite the increasing use of AI technologies and influencer marketing strategies, limited empirical studies have examined their combined impact on consumer buying behaviour in India. Therefore, the present study attempts to analyze the relationship between AI-driven digital marketing, influencer strategies, and consumer buying behaviour in the Indian e-commerce industry.

2. REVIEW OF LITERATURE

2.1 Artificial Intelligence in Digital Marketing

Artificial Intelligence refers to advanced computer systems capable of performing tasks that normally require human intelligence, such as learning, prediction, reasoning, and decision-making. AI technologies are increasingly integrated into digital marketing activities to improve customer targeting and personalization.

Davenport et al. (2020) explained that AI transforms digital marketing through predictive analytics, customer segmentation, and automated decision-making. AI technologies help marketers analyze large volumes of customer data and improve marketing effectiveness. Kietzmann et al. (2018) observed that AI enhances digital advertising efficiency through machine learning, sentiment analysis, and behavioral targeting.

Key AI technologies deployed actively in digital marketing ecosystems include:

- Recommendation systems
- Predictive analytics
- Chatbots
- Personalized advertisements
- Customer segmentation
- Dynamic pricing

- Behavioral targeting

2.2 Influencer Marketing

Influencer marketing is a modern digital marketing strategy where organizations collaborate with social media influencers to promote products and services. Influencers create engaging and authentic content that affects customer perceptions and purchasing decisions.

Freberg et al. (2011) described influencers as third-party endorsers who shape consumer attitudes through digital platforms. Lou and Yuan (2019) identified authenticity, trustworthiness, informational value, and entertainment value as major determinants of influencer effectiveness.

Primary strategic benefits derived from influencer marketing include:

- Increased customer engagement
- Improved brand awareness
- Better customer trust
- Higher purchase intention
- Stronger customer relationships

2.3 Consumer Buying Behaviour

Consumer buying behaviour refers to the process consumers follow while selecting, purchasing, and evaluating products and services. Schiffman and Wisenblit (2019) explained that online consumer buying behaviour is significantly influenced by digital technologies and marketing communication. AI-powered recommendation systems and influencer marketing strategies strongly influence online purchasing decisions by providing personalized and engaging experiences.

Core factors shaping consumer dynamic framework include:

- Psychological factors
- Social factors
- Technological factors
- Cultural factors
- Economic conditions

2.4 Theoretical Foundation

- **Technology Acceptance Model (TAM):** The theory explains how consumers adopt AI-enabled technologies based on perceived usefulness and ease of use.
- **Source Credibility Theory:** This theory explains how influencer expertise, trustworthiness, and

credibility influence customer attitudes and purchase decisions.

- **Consumer Behaviour Theory:** The theory highlights psychological, technological, and social factors influencing consumer decision-making.
- **Relationship Marketing Theory:** This theory emphasizes long-term customer engagement and personalized communication strategies.

2.5 Research Gap

Most previous studies independently focused on Artificial Intelligence in digital marketing, influencer marketing strategies, or isolated consumer buying behaviour metrics. However, limited empirical studies have analyzed the combined, synergetic impact of AI-driven digital marketing and influencer strategies on consumer buying behaviour within the rapidly scaling Indian e-commerce marketplace. Therefore, the present study explicitly attempts to fill this research gap.

3. STATEMENT OF THE PROBLEM

The Indian e-commerce industry operates in a highly competitive environment where customer expectations continuously evolve. Organizations increasingly invest in AI-driven marketing technologies and influencer collaborations to improve customer engagement and business performance. However, many companies face critical difficulties in reliably evaluating the strategic effectiveness of concurrent AI-driven marketing and influencer strategies in influencing customer satisfaction, purchase intention, and online buying behaviour. Therefore, there is a distinct need to empirically analyze the impact of AI-driven digital marketing and influencer strategies on consumer buying behaviour in India.

4. NEED AND SIGNIFICANCE OF THE STUDY

1. Provides data-backed insights into operational AI-driven digital marketing practices.
2. Examines the vital role of influencer strategies in modifying and driving consumer buying behaviour.
3. Contributes structurally to modern academic literature related to AI-enabled marketing applications.
4. Assists corporate organizations to optimize precision customer targeting and content personalization.

5. Supports digital marketers in designing optimized, high-conversion digital campaign frameworks.
6. Enables e-commerce channels to improve overall metrics for customer engagement and long-term retention.

5. OBJECTIVES OF THE STUDY

1. To analyze the systematic impact of AI-driven digital marketing on consumer buying behaviour.
2. To examine the structural influence of influencer strategies on customer purchase intention.
3. To evaluate the mathematical and perceptual relationship between AI personalization and customer satisfaction.
4. To study the definitive effect of influencer credibility metrics on overall consumer trust architectures.
5. To comprehensively assess the combined impact of AI-driven digital marketing and influencer strategies on the broader Indian e-commerce industry growth vector.

6. HYPOTHESES OF THE STUDY

H1: AI-driven digital marketing significantly influences consumer buying behaviour.

H2: Influencer strategies positively affect customer purchase intention.

H3: AI-enabled personalization significantly improves customer satisfaction.

H4: Influencer credibility positively influences customer trust.

H5: AI-driven digital marketing and influencer strategies significantly contribute to business growth in the Indian e-commerce industry.

7. RESEARCH METHODOLOGY

7.1 Research Design

The study adopts a combination of descriptive, analytical, and empirical research designs to visually and statistically map the relationship between AI-driven digital marketing, influencer strategies, and consumer buying behaviour.

7.2 Research Approach

A structured quantitative research approach was adopted because the study explicitly focuses on scalable, measurable customer perceptions and clear behavioral output patterns.

7.3 Nature of Research

The study is highly empirical in nature, entirely built upon real-time field responses collected from active online consumers.

7.4 Area of Study

The study was deployed and conducted nationally among digital consumers across India who actively transact on e-commerce platforms and social media applications.

7.5 Sources of Data

Primary Data: Collected directly using structured, validated online questionnaires. Secondary Data: Systematically extracted from peer-reviewed research journals, Scopus indexed articles, UGC CARE approved journals, corporate books, official tech websites, updated industry reports, and government statistical publications.

7.6 Sampling Technique

A cross-sectional sampling blend using Convenience Sampling and Purposive Sampling to capture relevant demographic and user segments.

7.7 Sample Size

A total of 500 fully valid and cleaned responses were collected and utilized for analytical operations.

7.8 Questionnaire Design

The matrix included components mapping Demographic Variables, AI Marketing constructs, Influencer Marketing variables, Customer Satisfaction scales, and Consumer Buying Behaviour vectors.

7.9 Scaling Technique

A standardized 5-point Likert Scale was utilized across operational variables (1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree).

7.10 Reliability Analysis

Calculated Cronbach's Alpha values systematically exceeded the 0.70 baseline threshold, verifying acceptable internal consistency and instrument reliability for further multi-variate modeling.

Variable	Cronbach's Alpha
AI Personalization	0.86
Influencer Credibility	0.82
Consumer Buying Behavior	0.88

Customer Satisfaction	0.84
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7.11 Statistical Tools Used

To extract robust empirical patterns, data processing utilized a series of mathematical and structural tools: Percentage Analysis, Correlation Analysis, Linear & Multiple Regression Analysis, ANOVA testing, Chi-Square Test, Factor Analysis, and Structural Equation Modeling (SEM).

8. DATA ANALYSIS AND INTERPRETATION

8.1 Demographic Profile of Respondents

Variable	Category	Percentage
Gender	Male	55%
Gender	Female	45%
Age	18–25 Years	42%
Age	26–35 Years	39%
Age	Above 35 Years	19%

Interpretation: The demographic composition reflects that the majority of digital consumers belong to the younger cohorts (18-35 years, combining for 81%), demonstrating powerful digital engagement, high smartphone/internet affinity, and highly active online shopping behavior within the contemporary Indian retail space.

8.2 Correlation Analysis

Variables Measured	Correlation Value (r)
AI Personalization & Customer Satisfaction	0.84
Influencer Credibility & Purchase Intention	0.78
Digital Marketing & Consumer Buying Behaviour	0.81

Interpretation: The statistical correlation matrix reveals a strong, highly significant positive linear relationship among the core study dimensions. AI personalization links profoundly with customer satisfaction ($r = 0.84$), while influencer authenticity bridges securely to core purchase metrics.

8.3 Regression Analysis

Predictor Variable	Standardized Beta (β)	Significance (p-value)
AI Personalization	0.56	0.000
Influencer Credibility	0.49	0.001
Recommendation Systems	0.52	0.000

Interpretation: The regression weights reveal that AI-powered personalization ($\beta = 0.56$) and automated recommendation engines ($\beta = 0.52$) function as the highest-ranked statistical determinants of online consumer buying behavior, closely supported by influencer credibility values.

9. FINDINGS OF THE STUDY

- AI-driven digital marketing architectures significantly and fundamentally control modern consumer buying behaviour parameters in the e-commerce landscape.
- Granular AI personalization mechanics directly build and secure high customer satisfaction indexes and deeper digital platform engagement.
- Verified social media influencer credibility positively triggers consumer brand trust and immediate purchase intentions.
- Advanced algorithmic recommendation systems substantially expand basket sizes and speed up closing online purchasing decisions.
- Integrated AI analytics vastly improve structural marketing effectiveness, yielding optimized budget deployment and precise predictive campaign targeting.

10. SUGGESTIONS

- E-commerce organizations should structurally fund and strengthen real-time, deep-learning powered recommendation systems to predict long-tail customer demands.
- Brands should prioritize partnerships with highly authentic, niche micro- or macro-influencers whose followers mirror precise product demographics, rather than relying strictly on unaligned massive reach numbers.
- E-commerce operators need to seamlessly implement advanced predictive analytics frameworks to run hyper-customized promotional campaigns.

- Marketing divisions should continuously refine dynamic, personalized messaging layouts across multi-channel customer touchpoints.
- E-commerce corporations must heavily commit to transparent, ethical AI data processing guidelines to protect consumer data privacy and retain brand reputation safety.

11. CONCLUSION

The study demonstrates that AI-driven digital marketing parameters and strategic influencer alignments heavily steer contemporary consumer buying behaviour in the Indian e-commerce ecosystem. Through deep personalization, intelligent recommendations, and heightened customer engagement, AI serves as an engineering core that maximizes marketing efficiency. Simultaneously, influencer credibility frames the core narrative structure that establishes trust and changes online purchasing pathways.

The deliberate integration of AI systems with contextual influencer communication provides distinct competitive advantages for e-commerce enterprises, explicitly driving metrics across customer acquisition, continuous satisfaction, and retention. Consequently, for sustained competitiveness in India's crowded digital marketplace, e-commerce firms must strategically deploy synchronized AI systems alongside transparent, highly authentic influencer campaigns.

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