

ROLE OF AI-DRIVEN ONLINE MARKETING ECOSYSTEM IN SHAPING CONSUMER BUYING BEHAVIOR PATTERNS: AN EMPIRICAL STUDY

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ABSTRACT

In today's world online marketing has changed a lot. Now marketing is not about traditional methods and limited to just informing the people about the availability of the product and inducing them to purchase. It is about how businesses connect with people. There has been significant change in the way businesses communicate with consumers today, because of the advancements in technology, internet accessibility and AI which has given rise to an integrated online marketing ecosystem. This study looks at how AI driven components of this ecosystem like social media, online reviews, influencer marketing and personalized advertisements affect how people buy things. Primary data was collected from 50 respondents using a structured questionnaire asking about their buying habits. Study reveals that online reviews have the major impact on what people buy while Social media and personalized advertisements also play significant role. Influencers have some impact not much but they contribute indirectly to purchase decisions.

The study further highlights the evolving role of Artificial Intelligence in shaping consumer behavior. AI-driven tools such as recommendation systems, chatbots, predictive analytics, and targeted advertising significantly enhance personalization, improve customer interaction, and influence purchase intentions. Influencer marketing, although showing moderate direct impact, contributes significantly to building brand trust and perception.

Overall, the study concludes that the integration of AI within the online marketing ecosystem strengthens the effectiveness of all components by enabling data-driven decision-making and hyper-personalized consumer experiences. Businesses that strategically leverage AI alongside social media, eWOM, and influencer marketing are more likely to succeed in today's competitive digital marketplace.

Keywords: : AI in Marketing ,Online Marketing Ecosystem, Consumer Behavior, eWOM, Social Media Marketing, Influencer Marketing, Personalization,

1. INTRODUCTION

The internet has changed the way how businesses talk to customers. Now it's not just about companies sending messages to people. It's about people interacting with businesses online. People search for information compare things, read reviews and share their experiences. This makes marketing more customer-focused.

Social media is important for finding products and talking to brands. Online reviews are also important since people decide what to buy based on it. Influencers help brands connect with people in a way.

Delivering customized advertisements, recommendations, and content based on individual preferences and behaviour has lead the way for businesses to include personalization in their

ecosystem. With the use of data analytics, Businesses can now show people more personalized ads and recommendations that they like. This makes people more likely to buy.

Recently, Artificial Intelligence (AI) has become a critical component of this ecosystem. AI enables businesses to analyze vast amounts of consumer data, predict behavior, and deliver real-time personalized experiences.

AI-powered recommendation systems (such as product suggestions), chatbots for customer service, and predictive analytics tools allow businesses to better understand consumer preferences and tailor their marketing strategies accordingly. This has led to a shift from mass marketing to precision marketing.

This study aims to analyse how these components including AI collectively shape consumer buying behavior patterns and to compare their relative influence.

2. LITERATURE REVIEW

The major focus of the research is to study the impact of AI driven online marketing ecosystem on consumer behaviour which includes components like social media marketing, electronic word-of-mouth (eWOM), influencer marketing, personalization and Artificial Intelligence (AI).

Social media platforms enables customer to know about the product and interact with brands and serves as important tool for communication and engagement thereby playing a significant role in the awareness and interest stages of the buying process.

Customers while shopping online depend on online reviews, ratings and feedback, often trusting peer opinions more than traditional advertising. Like this Electronic word-of-mouth (eWOM) is widely recognized as a critical factor influencing purchase decisions.

Influencer marketing is now used as a modern promotional strategy. With relatable and engaging content influencers help in shaping consumer perception and increasing brand trustworthiness. However, their impact is generally stronger on brand perception than on direct purchase decisions.

Personalization has now become an effective digital marketing driver by helping businesses in analysing consumer data, and delivering tailored recommendations to targeted advertisements. Personalized marketing helps in improving user experience, increases engagement, and improves the chance of purchase.

Recent studies highlight that AI enhances personalization through machine learning algorithms, strengthens eWOM analysis through sentiment analysis, improves influencer targeting, and optimizes social media campaigns using predictive analytics and acts as an enabler of all these components.

Thus, AI does not function independently but amplifies the effectiveness of the entire marketing ecosystem. Overall, these components are interconnected and collectively influence consumer behavior. However, their relative impact varies, making comparative analysis essential.

3. OBJECTIVES OF THE STUDY

1. To examine how social media marketing affects buying behavior
2. To analyse the impact of reviews
3. To evaluate the role of influencer marketing

4. To study effects of personalization
5. To assess the role of Artificial Intelligence in enhancing marketing effectiveness
6. To compare how much each component affects buying behavior

4. RESEARCH METHODOLOGY

4.1 Research design and data collection

The study adopts a descriptive research design where primary data is collected through structured questionnaire

4.2 Sample Size

50 respondents

4.3 Sampling Technique and tools used

Convenience sampling and analysed data using percentages and comparisons

5. DATA ANALYSIS AND INTERPRETATION

5.1 Social Media Marketing

Most of the respondents agreed that social media advertisements influence their purchase decisions and help them find products.

Interpretation:

Social media is good at creating awareness and influencing the initial stage of the buying process

5.2 Electronic Word-of-Mouth (eWOM)

Majority of the respondents said that they read online reviews before purchasing the product and trust them more than advertisements

Interpretation:

eWOM is a highly influential factor, as consumers rely on peer-generated content for decision-making

5.3 Influencer Marketing

Significant number of respondents trust brand recommendations of influencers and believe that they shape positive perception of brands

Interpretation:

Influencer marketing helps in building a high level of trust and credibility, making it effective in influencing brand perception. However, its direct impact on purchase decisions remains moderate compared to eWOM, as consumers still rely more on reviews for final decisions.

5.4 Personalization

Majority of people said personalized advertisements and product recommendations affect their buying behavior.

Interpretation:

Personalization surely enhances the relevance of marketing content by increasing consumer engagement and purchase likelihood.

5.5 Artificial Intelligence

Most respondents showed positive responses toward features like product recommendations, chatbot assistance, personalized suggestions

Interpretation:

AI significantly enhances consumer experience by delivering real-time recommendations, improving customer interaction and predicting consumer needs. Thereby AI acts as a core driver that strengthens personalization and decision-making.

5.6 Comparative Analysis of Factors

- Online reviews have the highest impact on purchase decisions
- Social media and personalization are also have strong influence
- Influencer marketing have some impact but high trust influence
- AI has the emerging Influence

Interpretation:

While eWOM drives decision-making followed by social media marketing and Personalization, influencer marketing plays a critical role in building trust and shaping brand perception, which indirectly influences consumer buying behavior. AI enhances all components, making the ecosystem more efficient and consumer-centric.

6. FINDINGS

The findings of the study reveal that the AI driven online marketing ecosystem significantly shapes consumer buying behaviour as consumers rely heavily on reviews for their decision-making. Comparative analysis reveals that eWOM is the most influential factor.

Social media marketing plays an important role in finding the product. Personalization enhances consumer experience by providing relevant and tailored content, increasing the likelihood of purchase. Influencer marketing, although showing moderate impact on purchase decisions, demonstrates a high level of consumer trust. Consumers tend to believe recommendations made by influencers, which significantly enhances brand credibility and indirectly supports purchase behavior.

AI strengthens personalization and consumer decision making by giving real time recommendations by understanding their preferences through customer interactions and predicting their needs.

These results indicate a shift toward a consumer-driven marketplace where trust, authenticity, and personalization are key determinants of purchase behaviour and AI-driven strategies improve decision-making accuracy

7. SUGGESTIONS

- Focus on managing online reviews and ratings
- Improve social media engagement
- Use personalization to enhance customer experience
- Collaborate with influencers for brand building

- Invest in data-driven marketing strategies
- Invest in AI-driven marketing tools and implement AI chatbots and recommendation systems

8. CONCLUSION

The study concludes that among the key components, eWOM has the strongest influence, followed by social media marketing and personalization, while influencer marketing has a moderate impact. Which in turn helps to conclude that online marketing ecosystem plays a significant role in shaping consumer buying behavior patterns.

Importantly inclusion of AI has transformed online marketing ecosystem into more informed, efficient, predictive and personalized system. AI has enabled the businesses to deliver highly customized and data driven experiences.

The findings highlight the growing importance of peer validation and personalized experiences in influencing consumer decisions, reflecting a shift toward a more informed, digital, AI powered and customized marketplace and businesses which effectively integrate AI into their marketing strategies will do better in this evolving digital landscape.

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