

# The Use Of Artificial Intelligence In Digital Marketing And Its Impact On Customer Targeting

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## ABSTRACT

*The use of Artificial Intelligence (AI) in digital marketing has significantly transformed the way businesses identify, target, and engage customers. This study explores the impact of AI-driven tools and techniques on customer targeting and marketing effectiveness. AI enables marketers to analyze large volumes of consumer data, predict behavior patterns, and deliver highly personalized content in real time. Technologies such as machine learning algorithms, chatbots, recommendation systems, and predictive analytics have improved the accuracy and efficiency of marketing campaigns. The study also examines how AI enhances customer segmentation by identifying specific audience groups based on interests, behavior, and preferences. Furthermore, it highlights the influence of AI on consumer decision-making, showing that personalized and relevant marketing content increases engagement and purchase intention. However, concerns related to data privacy and ethical use of consumer information remain significant challenges. The research is based on both primary and secondary data to understand consumer perceptions and industry practices. Overall, the study concludes that AI plays a crucial role in modern digital marketing by improving customer targeting, enhancing user experience, and increasing business performance.*

**Keywords:** Artificial Intelligence, Digital Marketing, Customer Targeting, Personalization, Consumer Behavior, Machine Learning, Predictive Analytics

## I. INTRODUCTION

In the 21st century, the rapid advancement of digital technologies has significantly transformed the way businesses operate and communicate with their customers. Among these advancements, Artificial Intelligence (AI) has emerged as one of the most influential and disruptive technologies, particularly in the field of marketing. The integration of AI into digital marketing has not only enhanced the efficiency of marketing processes but has also redefined how organizations understand and target their customers.

Artificial Intelligence refers to the capability of machines and computer systems to perform tasks that typically require human intelligence, such as learning from data, recognizing patterns, making decisions, and solving problems.

In the context of digital marketing, AI is used to analyze vast volumes of structured and unstructured data generated by users across various digital platforms, including social media, websites, search engines, and mobile applications. This data-driven approach enables marketers to gain deeper insights into customer behavior, preferences, and buying patterns.

Digital marketing itself has evolved from traditional forms of advertising to a more interactive, data-centric approach. Earlier, marketers relied on broad segmentation techniques based on demographic factors such as age, gender, and location. However, these methods often lacked precision and failed to address individual customer needs. With the emergence of AI, digital marketing has shifted towards a more personalized and customer-centric model. AI technologies such as machine

learning, natural language processing, and predictive analytics allow businesses to deliver highly relevant and customized content to individual users. Customer targeting is a crucial aspect of digital marketing that involves identifying potential customers and delivering appropriate marketing messages to them. Effective customer targeting ensures that marketing efforts are directed towards the right audience, thereby increasing the chances of conversion and improving overall marketing performance. AI has significantly enhanced this process by enabling real-time data analysis, dynamic segmentation, and predictive modelling. It helps marketers not only understand who their customers are but also anticipate their future needs and behaviors.

One of the key advantages of AI in customer targeting is personalization. AI-powered systems can track user interactions, analyze browsing history, and recommend products or services tailored to individual preferences. For example, e-commerce platforms use recommendation engines to suggest products based on past purchases, while streaming services provide personalized content suggestions. This level of personalization improves customer satisfaction and builds long-term relationships between businesses and consumers. Moreover, AI facilitates automation in digital marketing processes. Tasks such as email marketing, ad placement, content creation, and customer support can be automated using AI tools, reducing human effort and increasing efficiency. Chatbots and virtual assistants, for instance, provide instant responses to customer queries, enhancing user experience and engagement. Despite its numerous benefits, the use of AI in digital marketing also presents certain challenges.

Issues related to data privacy, security, and ethical use of customer information have become increasingly important. Consumers are often concerned about how their data is collected and used by organizations. Additionally, the implementation of AI technologies requires significant investment and technical expertise, which may not be accessible to all businesses.

This research study aims to explore the role of Artificial Intelligence in digital marketing and analyze its impact on customer targeting. By combining both primary and secondary data, it seeks to provide a comprehensive understanding of how AI influences marketing strategies and customer behavior. The findings of this research will help in identifying the benefits, challenges, and future potential of AI in enhancing customer targeting in digital marketing.

Overall, the integration of AI into digital marketing represents a paradigm shift from traditional marketing approaches to more intelligent, automated, and customer-focused strategies. As technology continues to evolve, AI is expected to play a more significant role in shaping the future of marketing and redefining how businesses connect with their customers.

## II. LITERATURE REVIEW

In recent years, researchers and scholars discussed extensively about the use of artificial intelligence (AI) in digital marketing. The literature demonstrates how AI has changed traditional methods of marketing into ones that are more data-driven, effective, and customer-focused. The contributions of numerous writers and research on AI in digital marketing and its effects on customer targeting are reviewed

in this. Search engines, social media, email, and websites are examples of digital platforms that are now crucial tools for consumer and commercial communication. Philip Kotler (2017) asserts that through interactive channels, digital marketing enables businesses to generate value and create solid client relationships. Customers are more engaged because to this interactive feature, which also allows companies to get feedback and refine their products.

Chaffey (2020) emphasized that digital marketing has evolved significantly with the introduction of advanced technologies such as AI and big data analytics. According to him, AI enables marketers to process large volumes of customer data quickly and accurately, which helps in understanding customer behavior and preferences. He also highlighted that tools such as predictive analytics and automated marketing platforms allow businesses to deliver personalized content, thereby improving targeting efficiency and customer engagement.

Kotler and Keller (2016) discussed the shift from mass marketing to personalized marketing in their work on marketing management. They argued that modern marketing focuses on creating value for individual customers rather than targeting large, undifferentiated groups. AI plays a crucial role in this transformation by enabling marketers to segment customers more precisely and deliver tailored messages. Their study suggests that personalization driven by AI leads to higher customer satisfaction and loyalty.

Ryan (2017) highlighted the importance of digital technologies in modern marketing and discussed how AI contributes to automation and efficiency. He stated that AI tools such as programmatic advertising

and automated email marketing help marketers reach the right audience at the right time. This not only improves targeting but also reduces marketing costs. Chatbots and virtual assistants are two of the most common uses of AI in digital marketing. These AI-powered solutions are made to mimic human speech and offer prompt answers to consumer questions. Huang and Rust (2021) claim that chatbots improve customer experience by providing round-the-clock assistance, speeding up response times, and increasing service effectiveness. They have analyzed the future of AI in marketing and proposed that AI can perform tasks related to mechanical, analytical, and intuitive intelligence. They argued that AI not only improves efficiency but also enhances creativity in marketing strategies.

The availability of an enormous amount of data, or "Big Data," in the modern digital ecosystem has greatly improved artificial intelligence's marketing powers. Big Data comprises both structured and unstructured data gathered from a variety of sources, including websites, mobile applications, social media platforms, and consumer transactions. Mayer-Schonberger and Cukier (2013) propose that Big Data helps businesses find previously hard-to-find patterns, correlations, and trends.

The shift from static segmentation to dynamic and micro-level targeting has been made possible by AI. Businesses can continuously analyse client data and update customer profiles in real time by using machine learning algorithms. Instead of depending only on past data, this strategy, called dynamic segmentation, enables marketers to target consumers based on their present behaviour. Data-driven segmentation greatly improves marketing performance by increasing

campaign efficacy and targeting accuracy, as noted by Wedel and Kannan (2016).

Recent studies have also focused on machine learning and data mining techniques in customer targeting. These technologies allow marketers to predict customer behavior, identify patterns, and optimize marketing campaigns. AI-driven recommendation systems used by companies like e-commerce platforms and streaming services demonstrate the practical application of these concepts. Despite the numerous benefits, several researchers have pointed out challenges associated with AI in digital marketing. Martin and Murphy (2017) emphasized concerns related to data privacy and consumer trust. They argued that misuse of personal data can negatively impact customer relationships.

Overall, the literature suggests that AI has a profound impact on digital marketing and customer targeting. It enhances data analysis, improves personalization, and increases marketing efficiency. However, challenges related to privacy, ethics, and cost must be addressed for sustainable adoption.

### III. RESEARCH METHODOLOGY

Research methodology refers to the systematic process used to collect, analyze, and interpret data for the purpose of achieving the research objectives. In this study, an appropriate methodology has been adopted to examine the role of Artificial Intelligence in digital marketing and its impact on customer targeting. The study is based on both primary and secondary data to ensure comprehensive and reliable results.

The present study is based on a descriptive research design. Descriptive research is

used to describe characteristics of a population or phenomenon being studied. It focuses on providing an accurate representation of variables related to the research topic without manipulating them. In this case, the study focuses on understanding how AI is used in digital marketing and how it influences customer targeting. The descriptive design is suitable because it helps in analyzing current trends and practices in digital marketing, allows the researcher to describe consumer awareness and perceptions, provides a detailed understanding of the relationship between AI and customer targeting. The research follows a structured approach, where data is collected, organized, analyzed, and interpreted to draw meaningful conclusions.

The study is based on both primary data and secondary data, which provides a balanced and well-supported analysis. Primary data was collected directly from respondents through a structured questionnaire. The questionnaire was designed to gather information about respondents' awareness, experience, and opinions regarding AI in digital marketing. The primary data for this study was collected from a total of 70 respondents. A convenience sampling technique was used to select participants, making it easier to gather responses from individuals who were readily accessible. The data was collected through both online and offline methods, with Google Forms being used for the online survey and structured questionnaires used for offline responses. The questionnaire mainly consisted of multiple-choice questions, Likert scale questions, and close-ended questions to ensure clear and measurable responses.

The questionnaire included questions designed to understand various aspects of consumer behavior and awareness related to Artificial Intelligence in marketing. These questions focused on the level of awareness of AI in marketing, respondents' experiences with personalized advertisements, and the impact of AI-driven marketing on their purchasing decisions. In addition, the survey also explored consumer opinions on important issues such as data privacy and security, along with other related concerns, to gain a comprehensive understanding of user perceptions.

Secondary data was collected from various reliable and authentic sources to support the primary findings. These sources include Books on digital marketing and AI, Research papers and academic journals, Websites, blogs, and online articles, Industry reports and case studies, etc. Secondary data helped in building the theoretical framework and understanding previous researches on the topic.

The collected data was analyzed using simple statistical tools to interpret the results effectively. Percentage analysis was used to present the proportion of respondents for each response, making the data easy to understand and compare. In addition, tabular representation was used to organize the data in a clear and systematic manner, which helped in presenting the responses in a structured format. Furthermore, graphical representation was applied through charts such as bar graphs and pie charts to visually display the data. This made the interpretation of results more simple, clear, and effective by allowing better visual comparison of different variables. These tools helped in simplifying complex data and drawing meaningful conclusions.

#### **IV. OBJECTIVES OF THE STUDY**

The main objectives of this research study are to understand the concept and application of Artificial Intelligence (AI) in digital marketing and how it is being used by businesses in modern marketing practices. The study also aims to analyze how AI contributes to customer segmentation and personalization, helping companies target the right audience more effectively. Another objective is to examine the impact of AI-based marketing on consumer behavior and purchase decisions, particularly in digital environments where users are constantly exposed to personalized content. The research further evaluates the effectiveness of various AI tools such as chatbots, recommendation systems, and predictive analytics in improving customer engagement and marketing efficiency. In addition, it assesses the level of awareness and perception of consumers towards the use of AI in digital marketing, highlighting how users respond to AI-driven experiences. Finally, the study seeks to identify the key benefits of using AI in marketing activities, including improved efficiency, better targeting, and enhanced customer satisfaction.

#### **V. SCOPE OF THE STUDY**

The scope of the study defines the extent and boundaries within which the research has been conducted. This study specifically focuses on the application of Artificial Intelligence (AI) in digital marketing, while excluding its use in other industries. It primarily examines how AI influences customer targeting and shapes consumer behavior in digital environments. The research is based on

both primary data collected from 70 respondents and secondary data gathered from relevant academic and industry sources. It further includes respondents who actively use digital platforms such as social media, e-commerce websites, and other online services, ensuring that the data reflects real digital user experiences. In addition, the study analyzes current trends, tools, and practices related to AI-based marketing strategies to understand how businesses are adopting and implementing these technologies. However, the scope is limited to understanding consumer perceptions, attitudes, and experiences rather than focusing on the technical development or implementation of AI systems.

## VII. LIMITATIONS OF THE STUDY

Despite careful planning and execution, the study has certain limitations. The sample size is limited to 70 respondents, which may not represent the entire population. The use of convenience sampling may lead to biased results, and the study is also limited to a specific geographical or demographic group. In addition, the accuracy of the findings depends on the honesty and understanding of the respondents. Some participants may also have limited knowledge of AI, which could have affected their responses. Time constraints restricted the depth of data collection and analysis. The study does not include advanced statistical tools, which may limit detailed analysis. Furthermore, the secondary data used in the research may contain biases or inconsistencies from original sources.

## VIII. HYPOTHESIS

In this research, hypotheses are formulated to examine the relationship between Artificial Intelligence (AI) in digital marketing and its impact on customer targeting, buying behavior, and customer satisfaction. These hypotheses help in testing the assumptions of the study in a scientific and structured manner.

### Hypothesis 1

- **H<sub>01</sub> (Null Hypothesis):** There is no significant relationship between the use of Artificial Intelligence in digital marketing and the effectiveness of customer targeting.
- **H<sub>11</sub> (Alternative Hypothesis):** There is a significant relationship between the use of Artificial Intelligence in digital marketing and the effectiveness of customer targeting.

### Hypothesis 2

- **H<sub>02</sub> (Null Hypothesis):** AI-driven personalized marketing has no significant influence on customer buying decisions.
- **H<sub>12</sub> (Alternative Hypothesis):** AI-driven personalized marketing has a significant influence on customer buying decisions.

### Hypothesis 3

- **H<sub>03</sub> (Null Hypothesis):** The use of Artificial Intelligence in digital marketing does not significantly improve customer satisfaction.
- **H<sub>13</sub> (Alternative Hypothesis):** The use of Artificial Intelligence in digital marketing significantly improves customer satisfaction.

## **IX. DATA ANALYSIS AND INTERPRETATION**

The analysis of the data collected from 70 respondents reveals that a significant majority, 71.4% of respondents, are aware of Artificial Intelligence in digital marketing, while 28.6% are not aware of it. This indicates that AI has gained considerable recognition among users of digital platforms. The level of awareness suggests that people are increasingly exposed to advanced marketing technologies and have a basic understanding of how AI is being used in advertisements and online interactions. When analyzing the frequency of AI-based advertisements, it was found that 50% of respondents frequently encounter such advertisements, 34.3% encounter them sometimes, and 15.7% rarely notice them. This clearly shows that AI-driven advertising is highly prevalent across digital channels. The frequent exposure to such ads indicates that companies are actively using AI tools to reach customers on a regular basis. Further, a large proportion of respondents, 82.9%, reported that they have noticed personalized advertisements, while only 17.1% have not. This highlights the effectiveness of AI in delivering customized content to users. Personalized advertisements are designed based on user preferences, browsing history, and behavior, which makes them more relevant and noticeable to consumers. In terms of the impact on purchasing behavior, 68.6% of respondents stated that personalized advertisements influence their buying decisions, whereas 31.4% reported no significant influence. This indicates that AI-driven marketing not only attracts attention but also plays a crucial role in shaping consumer decisions.

Personalized ads make products and services more appealing by aligning them with individual needs and interests.

The study also examined the platforms where respondents experience the most targeted advertisements. It was found that 48.6% of respondents identified social media platforms as the primary source of targeted ads, followed by search engines (27.1%) and e-commerce platforms (24.3%). This suggests that social media is the most effective platform for AI-based marketing due to its high user engagement and data availability. Regarding the usefulness of AI-based recommendations, 75.7% of respondents found these recommendations helpful, while 24.3% did not find them useful. This indicates that AI tools such as recommendation systems enhance the user experience by providing relevant suggestions, thereby assisting customers in making better purchase decisions.

When it comes to data privacy, 58.6% of respondents expressed comfort in sharing their data for personalization, while a significant 41.4% were not comfortable. This highlights an important concern associated with AI in digital marketing. Although many users accept personalized experiences, a considerable number are still worried about how their personal data is collected and used. A strong majority of respondents, 74.3%, agreed that AI improves customer targeting accuracy, while 25.7% disagreed. This suggests that AI is perceived as an effective tool for identifying and reaching the right audience. Accurate targeting helps businesses deliver relevant messages and improves marketing efficiency.

Similarly, 77.1% of respondents believed that AI enhances customer experience, whereas 22.9% did not share this view.

This indicates that AI contributes positively to customer satisfaction by offering personalized interactions, quick responses, and relevant content.

Finally, in terms of overall satisfaction with AI-based marketing, 31.4% of respondents were highly satisfied and 42.9% were satisfied, while 14.3% remained neutral and 11.4% were dissatisfied. This shows that the majority of users have a positive perception of AI in digital marketing, although there is still scope for improvement.

Overall, the findings suggest that Artificial Intelligence plays a significant role in enhancing customer targeting, improving personalization, and influencing consumer behavior. However, issues related to data privacy and user trust need to be addressed to ensure the sustainable and ethical use of AI in digital marketing.

## X. HYPOTHESIS TESTING

- Hypothesis

Since 74.3% agree that AI improves targeting accuracy, there is a significant relationship.

$H_{01}$  rejected,  $H_{11}$  accepted.

- Hypothesis

As 68.6% respondents are influenced by personalized ads, AI affects buying decisions.

$H_{02}$  rejected,  $H_{12}$  accepted.

- Hypothesis

Since 77.1% agree AI enhances customer experience and most are satisfied, AI improves satisfaction.

$H_{03}$  rejected,  $H_{13}$  accepted.

## XI. CONCLUSION

The current research on the "The Use of AI in Digital Marketing and Its Impact on Customer Targeting" emphasises AI's

growing role as a revolutionary force in modern marketing techniques. Businesses are transitioning from old marketing tactics to more advanced, data driven strategies as digital platforms expand quickly and consumer data becomes more readily available. It clearly demonstrates that Artificial Intelligence has become a crucial tool for organisations to remain competitive, allowing them to better analyse customer behaviour and offer more successful marketing efforts. One of the most important findings of this study is that AI has significantly increased the effectiveness of customer targeting. Businesses may now use technologies like machine learning, predictive analytics, and data mining to better segment their audience and offer more relevant marketing messages. Unlike traditional techniques, AI-driven targeting takes into account behavioural, psychographic, and real-time data, resulting in increased precision and engagement. The study's findings suggest that customers are more likely to respond to personalised information, resulting in better marketing outcomes and higher conversion rates.

However, the study highlights the technical and ethical problems involved with AI in digital marketing. Consumers continue to have serious concerns about data privacy, security, and openness. While many consumers like personalised experiences, they are hesitant to share personal information. Furthermore, high implementation costs and a lack of technical skills may impede the adoption of AI, particularly among small and medium-sized businesses. In short, artificial intelligence has substantially altered digital marketing and customer targeting by making marketing techniques more accurate, efficient, and customer-

centric. The study demonstrates that AI improves marketing performance, client engagement, and satisfaction. However, in order to succeed long-term, businesses must strike a balance between technological innovation and ethical responsibility. The future of digital marketing depends on the effective and responsible use of AI, and organisations that embrace this transition will be better positioned for long-term growth and competitive advantage.

10. Various research articles, journals, and online sources related to AI and digital marketing.

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