

Artificial Intelligence (AI) and Marketing

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Abstract: Artificial intelligence (AI) is being used in marketing better to understand the "journey" of the target consumer and to monitor and forecast their next purchasing decisions continuously. Big data, machine learning, and strong solutions are the three foundational components of AI that best demonstrate its capabilities. The idea of "big data" refers to the capacity of marketers to aggregate and categorize enormous volumes of data with little manual labor. By utilizing this information, companies can be certain that the right message will reach the right audience at the right time and through the preferred channel. Marketers can comprehend and make sense of vast data sets using machine learning (deep learning). They can forecast consumption patterns, monitor and analyze consumer spending, and forecast upcoming consumer behavior.

Making effective solutions indicates that we are in a time where machines fully comprehend the world in a manner analogous to humans. Machines are able to quickly recognize concepts and themes in a variety of data, decipher feelings and human communication, and produce acceptable responses for customers. They can quickly predict customer behavior and decisions, using that information to address problems down the road. More intelligent searches, cleverer ads, improved content delivery, reliance on bots, ongoing learning, preventing fraud and data breaches, sentiment analysis, image and voice recognition, sales forecast, language recognition, predictive customer service, customer segmentation, etc. are all ways that marketers can anticipate seeing a greater impact from AI in the upcoming years. This study looks into the potential interaction between marketers and AI systems in the future.

Keywords: Artificial intelligence; marketers; marketing; machine learning; big data; powerful solutions.

I. Introduction

Researchers have been exploring how technological improvements affect how well organizations are able to manage client wants and deliver offerings at an extremely rapid pace in their research on digital and technological evolution in marketing. In this regard, artificial intelligence (AI) is playing a bigger role in marketing. A growing number of businesses are improving their performance by implementing AI-based platforms (such as Microsoft Cognitive Services, Amazon Lex, Google Assistant, or IBM Watson), including Google, Rare Carat, Spotify, and Under Armour. This strategy improves market forecasting and automation while increasing customer connection across marketing channels. As a result, AI has been acknowledged as the most significant commercial technology, with growth projected to reach \$126 billion by 2025 from \$10.1 billion in 2018. According to a recent survey of company leaders, sales and marketing are priority areas for the application of AI, with 24% of US companies already utilizing it and 60% expecting to by 2022. (Bozidar Vlacic, 2021)

II. Objectives of study

1. To find out how Artificial Intelligence is used in Marketing.
2. To analyze the unique ways to sort Big Data through AI.
3. To understand how AI is used by companies for Business Forecasting.

III. Research Methodology

This Research is simply based on the information collected for the study is through various sources of publications as all mentioned under the section of Literature Review.

IV. Literature Review

(Sanjeev Verma, 2021) Blockchain, artificial intelligence, big data analytics, and other disruptive technologies have altered how organizations function. Artificial intelligence (AI) is the most recent technological disruptor and has the greatest potential to alter marketing. The greatest AI solutions for marketing functions are being sought after by practitioners all around the world. A thorough literature analysis, however, can emphasize the significance of artificial intelligence (AI) in marketing and suggest areas for future study.

(Ming-Hui Huang, 2021) Marketing research, strategy (including segmentation, targeting, and positioning, or STP), and actions can all be supported by AI. Mechanical AI, thinking AI, and emotional AI can all be utilized during the marketing research stage to collect data, analyze markets, and comprehend customers. Mechanical AI can be utilized for segmentation (segment recognition) at the marketing strategy (STP) stage, thinking AI for targeting (segment recommendation), and feeling AI for positioning (segment resonance). Mechanical AI can be utilized for standardization, thinking AI for personalization, and feeling AI for reationalization during the marketing action stage.

One area of the company that is undergoing this shift on a massive scale is marketing. Modern marketing has started experimenting with cutting-edge technologies like AI and integrating them into everyday operations to ensure rapid success. The article conducts a systematic literature review (SLR) to evaluate 57 relevant publications in the field of AI-powered marketing. It ranks the publications qualitatively and quantitatively according to their coverage, impact, and usefulness as well as their contribution to the field's knowledge. It then explains the findings in light of various industry contexts, research contexts, and scenarios.

(Shaik, 2023) The dynamics of today's business world have been significantly altered by the development of artificial intelligence (AI). The use of AI in marketing is one of its most important applications because it helps to improve performance. The current study tries to determine how AI affects marketing. An extensive literature review was highlighted, giving a solid understanding of AI and its application in marketing. In order to enhance company performance, attain profitability, and gain a competitive advantage, the study suggests integrating AI into marketing operations.

(Christina McDowell Marinchak, 2018) The market exchange process between buyers and sellers is changing fundamentally as marketers and consumers adopt artificial intelligence (AI) services and applications at the same time. The acceptance and dissemination rates of AI applications by marketers and consumers are reviewed in this article. The authors will discuss the most significant development affecting marketers' roles and responsibilities in the marketing process: the exponential rise in the number, diversity, and power of marketing applications, platforms, and services that perform, regulate, shape, and/or integrate virtually every marketing task and decision.

(Krystyna Jarek, 2019) Despite its operational-level uses, AI is widely used in the marketing sector. This could be the result of the careful use of the new technology, which is still in the experimental stage. AI implementation's unknown results can make people more cautious when putting these advancements into use.

(Yuan Liu, 2023) Because of the big volume of marketing data, a human analyst would be unable to uncover any useful information for marketing that could aid in the process of making a decision. Smart Data Mining (SDM), which is considered an important field of Artificial Intelligence (AI) is completely assisting in the performance of business management analytics and marketing information.

(Dan Dumitriu, 2020) The technological evolution of recent years has put the industries on the move. Marketing has reached a point in its evolution where adapting to digital trends is imperative. Although it seems to be a push for marketers, in fact, all automated applications and systems that are based on artificial intelligence only diminish the complexity of classic targeting and customization processes.

(V.kumar, 2019) The role of artificial intelligence (AI) in aiding personalized engagement marketing— an approach to create, communicate, and deliver personalized offerings to customers. It proposes that consumers are ready for a new journey in which AI is a tool for endless options and information that are narrowed and curated in a personalized way. It also provides predictions for managers regarding the AI-driven environment on branding and customer management practices in both developed and developing countries.

(Piyush Jain, 2020) Artificial Intelligence Marketing is a technique of optimally utilizing technology to enhance customer experience. In recent times it has become really important for companies to recognize and understand customer needs and their expectations in terms of products as well as services. With the help of AI, Marketers can process the huge amounts of data, carry out individualized sales, and Fulfill Customer expectations.

V. Analysis

Artificial Intelligence (AI) has had a profound impact on the field of marketing. It has revolutionized the way businesses interact with customers, analyze data, and make strategic decisions. Companies are using Artificial Intelligence in marketing to quickly analyze marketing data and draw swift conclusions based on

details and customer behavior. AI can also be used to enhance engagement between brands and consumers and improve customer experience. There are many ways to use AI in marketing like Social Media Listening, Content Generation, Automation, Audience segmentation and personalization, Data Analysis for Customer Insights, Personalized content deliveries, Automatic email marketing campaigns.

Customer Insights and Personalization: AI-driven tools, such as machine learning algorithms, help marketers analyze vast amounts of data to gain insights into customer behavior, preferences, and trends. This data is crucial for creating highly personalized marketing campaigns. AI can segment audiences, predict customer behavior, and recommend personalized content, products, or offers.

Content Creation and Optimization: AI-driven tools can generate and optimize content at scale. They can automate tasks like email marketing, social media posts, and ad copywriting. AI can also analyze content performance and recommend improvements to increase engagement and conversion rates.

Predictive Analytics: AI can forecast customer behavior, sales trends, and marketing campaign outcomes. Predictive analytics helps businesses make data-driven decisions, allocate resources effectively, and adjust strategies in real time to maximize ROI.

Email Marketing: AI is used to personalize email marketing campaigns, segment email lists, and send emails at optimal times for higher open and click-through rates. It can also help prevent email fatigue by ensuring that customers receive relevant content.

AI is populated on such a big scale that the total revenue for this technology is expected to increase from 7.4 billion US Dollars in 2018 to 89.85 billion in 2025. Marketers have discovered two major uses of AI Marketing which are Task Automation and Data Analysis. With increase in essence of customer data for marketers and marketing strategies, most of global marketing professionals are shifting or planning to shift for use of AI Marketing. Marketers require a detailed overview of evaluation as well as data and algorithm usage related to AI-run processes. Below mentioned are data of AI Marketing used across different regions across the globe. 51% of marketers are already using AI, while 27% of them are planning to incorporate it within their digital marketing strategy The global market for AI Marketing is estimated to grow at a significant rate between the forecast period of 2018 - 2023. This Table shows the execution of AI Marketing for various purposes in different regions across the globe.

Purpose	North America	Europe	Asia Pacific
Analysis of data	51	52	49
On-site personalization	27	23	23
Optimization and testing	26	18	19
Email marketing	24	19	34
Image recognition	22	19	20
Automated campaigns	19	18	20
Content creation	18	11	29
Programmatic advertising	15	28	22
Digital asset management	15	10	22
Video recognition	9	14	12
Creative and design work	8	13	23
Automated offers	8	10	11
Other	9	5	6

VI. Conclusion

With the advent of AI marketing, marketers are switching from marketing automation to marketing customization. Long-discussed marketing trends include the need for customization, reactive design, and dynamic engagement. The advent of AI has sped up this necessary change. The potential of AI in terms of marketing applications has expanded. This marketing era might be characterized as fascinating, difficult, and terrifying. Artificial intelligence marketing has replaced automated and traditional marketing strategies with things like personalization, speech and picture recognition, chatbots, churn predictions, dynamic pricing, and consumer insights. The capacity to use a variety of data has enabled marketers to conduct individualized sales and marketing and fully meet client expectations. AIM is still in its early stages, but given its rapid development, it is anticipated to drastically alter marketing tactics and company models. Since existing jobs will be replaced by robots and new, advanced ones that demand great aptitude and knowledge will be established, some market research themes may become irrelevant. AIM is predicted to significantly alter marketing tactics as well as consumer behavior in the near future. In the near future, AIM will undoubtedly burst with a lot more shocks.

VII. References

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