A Review Study on Impact of Artificial Intelligence on Marketing

Mr. Sangam, Assistant Professor, Department of Management Studies, Aravali College of Engineering and Management, Faridabad

Mr. Mahender Singh, Assistant Professor, Department of Management Studies, Aravali College of Engineering and Management, Faridabad

Abstract:

This study provides a comprehensive review of the impact of artificial intelligence (AI) on marketing practices across various industries. The rapid advancements in AI technologies have revolutionized how marketers understand consumer behavior, personalize marketing strategies, and automate repetitive tasks. Through an extensive review of existing literature, this paper synthesizes the key findings and identifies the major ways in which AI is transforming marketing practices. This study is an overview of how AI technologies are reshaping marketing practices, offering valuable insights for academics, practitioners, and policymakers alike.

Keywords : Marketing, Artificial Intelligence, Marketing Efficiency

Introduction

Marketing is the lifeblood of any organization, serving as the bridge between products or services and consumers. It plays a pivotal role in shaping brand perception, driving sales, and fostering customer loyalty. Effective marketing strategies not only create awareness but also communicate the value proposition, differentiation, and benefits of a company's offerings. By understanding market needs and preferences, marketing helps businesses tailor their products or services to meet customer demands, thus gaining a competitive edge. Moreover, marketing facilitates relationship building with customers, fostering long-term connections and repeat business. In essence, marketing is essential for any organization as it fuels growth, sustains relevance in the market, and ultimately contributes to the overall success and profitability of the business.

Marketing refers to the set of activities, processes, and strategies undertaken by organizations to create, communicate, deliver, and exchange offerings that have value for customers, clients, partners, and society at large. It involves understanding customer needs and preferences, developing products or services to meet those needs, promoting them effectively, and ultimately fostering exchange relationships that benefit both the customer and the organization. Marketing encompasses a wide range of functions, including market research, product development, pricing, distribution, advertising, branding, and customer relationship management, all aimed at satisfying customer demands and achieving organizational goals. In essence, marketing is about identifying, anticipating, and fulfilling customer needs profitably while building and maintaining strong relationships with customers and other stakeholders.

"Marketing is the activity, set of institutions, and processes for creating, communicating, delivering, and exchanging offerings that have value for customers, clients, partners, and society at large."
           - **American Marketing Association (AMA)**

The functions of marketing encompass a wide range of activities aimed at creating value for customers and facilitating exchange between buyers and sellers. These functions are essential for businesses to understand and implement in order to effectively promote their products or services. Here are the key functions of marketing:

- **Product/Service Management**: This function involves developing, designing, and managing products or services to meet the needs and wants of target customers. It includes activities such as product development, packaging, branding, and quality control.
- **Market Research:** Market research is the process of gathering, analyzing, and interpreting information about a market, including customer needs, preferences, and behaviors. It helps businesses understand their target audience and identify opportunities for growth.
- **Marketing Planning and Strategy:** Marketing planning involves setting objectives, identifying target markets, and developing strategies to achieve business goals. It encompasses activities such as market segmentation, targeting, positioning, and setting marketing budgets.
- **Distribution/Channel Management**: Distribution management involves managing the movement of products or services from production to consumption. It includes decisions about distribution channels, logistics, inventory management, and channel partner relationships.
- **Promotion and Advertising:** Promotion and advertising activities are aimed at communicating the value of products or services to target customers. This includes advertising campaigns, public relations, sales promotions, and other promotional tactics to attract and retain customers.
- **Pricing:** Pricing is a critical function of marketing that involves determining the right price for products or services based on factors such as costs, competition, demand, and perceived value. Pricing strategies may include premium pricing, penetration pricing, or price skimming.
- **Selling and Sales Management**: Selling involves personal or direct communication with customers to persuade them to purchase products or services. Sales management involves planning, organizing, and directing sales activities to achieve sales targets and maximize revenue.
- **Customer Relationship Management (CRM):** CRM involves managing relationships with customers throughout the customer lifecycle to build loyalty and retain customers. It includes activities such as customer service, feedback management, and loyalty programs.
- **Market Analysis and Competitive Intelligence**: Market analysis involves monitoring and analyzing market trends, competitor activities, and industry developments to identify opportunities and threats. Competitive intelligence helps businesses understand their competitive landscape and make informed strategic decisions.
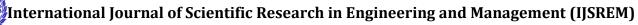
By effectively performing these functions, businesses can create value for customers, build strong brands, and achieve long-term success in the marketplace.

Artificial Intelligence

Artificial intelligence (AI) is a branch of computer science focused on creating systems that can perform tasks that typically require human intelligence. These tasks can include understanding natural language, recognizing patterns, learning from data, making decisions, and solving problems. AI encompasses a wide range of techniques and approaches, including machine learning, neural networks, natural language processing, computer vision, and robotics.

AI has applications in various fields, including healthcare, finance, transportation, entertainment, education, and more. It's increasingly being integrated into everyday technologies like virtual assistants, recommendation systems, autonomous vehicles, and medical diagnosis tools.

The development of AI raises ethical, social, and economic considerations, including concerns about job displacement, bias in algorithms, privacy issues, and the potential for misuse. As AI continues to advance, it's essential to address these challenges responsibly to ensure that AI technologies benefit society as a whole.

Artificial Intelligence and Marketing

AI has revolutionized marketing by providing innovative tools and strategies that enhance customer experiences and drive business growth. Through advanced data analytics, AI helps businesses understand consumer behavior, preferences, and trends, enabling personalized marketing campaigns. AI-powered chatbots offer instant customer support, improving engagement and satisfaction. Furthermore, AI optimizes advertising efforts by analyzing vast amounts of data to target the right audience at the right time, leading to higher conversion rates. Overall, AI is transforming marketing practices, making them more efficient, effective, and customer-centric.

Aim of the study is to know the contribution of AI in different functions of marketing in any firm. Purpose of the study is to provide valuable insights into how AI technologies are transforming various aspects of marketing practices.

Review of Literature

I.V. Alyoshina (2019), G.C. Tanase (2018), and K. Jarkek & G. Mazurek (2019) found that (148-49-50), AI algorithms can analyze large volumes of data from various sources, including customer interactions, website behavior, and social media engagement. This analysis provides valuable insights into customer preferences, trends, and patterns, enabling marketers to make data-driven decisions. And AI-powered marketing automation platforms can create highly personalized experiences for customers by segmenting audiences based on demographics, behaviors, and preferences. This allows marketers to deliver targeted content, product recommendations, and offers tailored to individual interests, increasing engagement and conversions."

D. Shah, E. Shay (2019) & N. Syam & A. Sharma (2018) found that, (126-129), AI enables hyper-personalized marketing experiences by analyzing vast amounts of data to understand individual preferences, behaviors, and interests. This allows marketers to deliver tailored content, product recommendations, and offers across digital channels, increasing engagement and conversions.

A. De Bruyn, V. Viswanathan, Y.S. Beh, J.K.U. Brock (2020) & S. Moudud-UI-Huq (2014) found that 137-39, AI algorithms can handle diverse data sources, including structured data (e.g., sales figures, customer demographics) and unstructured data (e.g., social media posts, customer reviews). Through data preprocessing techniques, AI cleans, organizes, and integrates data from multiple sources for analysis. And AI employs machine learning and statistical techniques to identify patterns, correlations, and trends within market data. By analyzing historical data and real-time inputs, AI can uncover insights about consumer behavior, market dynamics, and competitive landscapes.

Studies of I. Pedersen, A. Duin (2022) & L.T. Khrais (2020) found that 168-169, AI algorithms analyze customer preferences, purchase history, and browsing behavior to deliver personalized product recommendations. Whether through website recommendations, email campaigns, or personalized ads, AI ensures that customers see products tailored to their interests, increasing the likelihood of purchase and enhancing user experience.

D. Vrontis, M. Christofi, V. Prereira, S. Tarba, A. Makrides, E. Trichina (2022) & M.V.V. Yawalkar (2019) found that 185-186, AI predicts demand for products by analyzing historical sales data, seasonal trends, and external factors. By accurately forecasting demand, AI helps businesses optimize inventory levels, reduce stockouts, and minimize excess inventory, ensuring that customers have access to the products they want when they want them.

T.S. Kumar (2020) found that (170), AI enables businesses to create targeted marketing campaigns that resonate with individual customers. By segmenting audiences based on demographics, behaviors, and preferences, AI ensures that marketing messages are relevant and engaging, leading to higher conversion rates and customer loyalty.

M. Nalini, D.P. Radhakrishnan, G. Yogi, S. Santhiya, V. Harivardhini, (2021) found that 165, AI accurately predicts future demand based on historical data, market trends, and external factors, enabling businesses to

anticipate customer needs and optimize inventory levels. AI dynamically adjusts stock levels in real-time to balance factors like cost, service levels, and supply chain risks, minimizing stockouts and excess inventory holding costs.

Y.K. Dwivedi, L. Hughes, E. Ismagilova, G. Aarts, C. Coombs, T. Crick, M.D. William (2021) & H. Gungor (2020) found in their studies that 175& 177, AI significantly enhances customer experience (CX) by personalizing interactions, streamlining processes, and providing proactive support. AI analyzes customer data and behavior to deliver personalized product recommendations, content, and offers, enhancing relevance and increasing the likelihood of conversion. And AI-powered chatbots and virtual assistants provide instant assistance to customers, answering inquiries, resolving issues, and guiding users through the sales funnel 24/7, improving accessibility and responsiveness.

I.M. Enholm, E. Papagiannidis, P. Mikalef, J. Krogstie (2021) & V. Bader, S. Kaiser (2019) found that 178-179, AI empowers marketers by enhancing efficiency, effectiveness, and personalization across various aspects of marketing strategy and execution. AI enables hyper-personalized marketing experiences by segmenting audiences, delivering targeted content, product recommendations, and offers tailored to individual preferences, increasing engagement and conversions

R. Dubey, D.J. Bryde, C. Blome, D. Roubaud, M. Giannakis (2021) & J. Lies (2019) found that 194 & 197, AI plays a crucial role in identifying, understanding, and engaging target audiences more effectively. AI analyzes vast amounts of data to segment audiences based on demographics, behaviors, interests, and preferences, enabling marketers to create highly targeted campaigns tailored to specific audience segments. And AI helps marketers develop detailed buyer personas by analyzing customer data and identifying common characteristics, pain points, and motivations within target audiences, allowing for more personalized messaging and content.

R. Li, Z. Cao, H. Ye, X. Yue, (2021) & R. Zhao, Y. Cai (2021) found that 198 & 200, AI significantly enhances communication with customers by enabling personalized interactions, proactive support, and seamless experiences across various channels. AI analyzes customer data and behavior to deliver personalized product recommendations, content, and offers via email, SMS, or push notifications, increasing relevance and engagement. AI-powered voice and visual search technologies enable customers to search for products or information using natural language or images, enhancing the search experience and providing more intuitive ways to interact with businesses.

A. Farrokhi, F. Shirazi, N. Hajli, M. Tajvidi (2020) & R.S.K Boddu, A.A. Santoki, S. Khurana, P.V. Koli, R. Rai, A. Agarwal (2022) found that 191-192, AI significantly influences marketing decisions by providing data-driven insights, optimizing strategies, and enhancing campaign performance. AI algorithms analyze large volumes of data from various sources, including customer interactions, market trends, and competitor activities, to uncover actionable insights and inform strategic decision-making. And AI enables predictive modeling to forecast future trends, customer behavior, and campaign performance, helping marketers anticipate opportunities, identify risks, and optimize resource allocation for better outcomes.

M.V.V. Yawalkar & S. Sahai, R. Goel (2021) found that 186-187, AI plays a pivotal role in building predictive models for marketing, enabling businesses to forecast customer behavior, anticipate trends, and optimize marketing strategies for better outcomes. AI gathers and integrates data from various sources, including customer interactions, demographics, purchase history, website behavior, and external factors like market trends and competitor activities, to build comprehensive datasets for analysis. And AI employs advanced algorithms to extract relevant features and variables from the data, identifying patterns, correlations, and relationships that can be used to predict customer behavior and outcomes.

Research Methodology

Objectives of the Study –

- To find the role of marketing in any firm

- To find the different features of Artificial Intelligence
- To find the valuable contribution of AI in the marketing practices
- To find the suggestions to improve marketing practices with help of AI.

Research Design : Exploratory Research Design

Data type : Secondary Data is used

Sources of Data : Analyze existing research, case studies, and industry reports to identify trends, challenges, and opportunities arising from the integration of AI in marketing activities.

Contribution of Artificial Intelligence in Marketing

The literature review examines the existing research on the impact of AI on marketing. AI has significantly impacted marketing across various fronts, revolutionizing how businesses interact with customers, analyze data, and execute campaigns. Here are some key ways AI has influenced marketing:

- **Data Analysis and Customer Insights:** AI enables marketers to gather, analyze, and interpret vast amounts of data from various sources, including social media, websites, and customer interactions. This data helps in understanding customer behavior, preferences, and trends more accurately, allowing for personalized marketing campaigns.
- **Personalization:** AI algorithms can process large datasets to create personalized marketing messages and recommendations tailored to individual preferences and behavior. This enhances customer experience and improves the effectiveness of marketing efforts, leading to higher conversion rates and customer satisfaction.
- **Predictive Analytics:** AI-powered predictive analytics forecast future trends and behaviors based on historical data. Marketers can use these insights to anticipate customer needs, optimize pricing strategies, and identify potential opportunities for growth.
- **Content Creation and Curation:** AI tools can generate and curate content efficiently by analyzing data patterns and user preferences. This includes writing product descriptions, creating social media posts, and even generating articles or blog posts. AI can also assist in content curation by identifying relevant articles, images, and videos for targeted audiences.
- **Chatbots and Virtual Assistants**: AI-driven chatbots and virtual assistants provide instant support and engagement to customers, addressing their queries and guiding them through the sales process. These automated systems enhance customer service and streamline communication, leading to improved customer satisfaction and retention.
- **Marketing Automation:** AI automates repetitive tasks such as email marketing, lead scoring, and campaign management, saving time and resources for marketers. Automated systems can analyze customer interactions, segment audiences, and trigger personalized responses, allowing marketers to focus on strategy and creativity.
- **Optimized Advertising Campaigns:** AI algorithms optimize advertising campaigns by analyzing performance data in real-time and adjusting targeting, messaging, and bidding strategies accordingly. This improves ad relevance, reduces costs, and maximizes ROI for advertisers.
- **Voice Search Optimization:** With the rise of voice-enabled devices like smart speakers and virtual assistants, AI helps marketers optimize their content for voice search queries. This involves understanding natural language patterns and optimizing content to match user intent, increasing visibility and traffic from voice search.
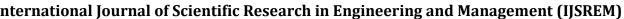
Artificial Intelligence and Different Functions of the Marketing

AI is revolutionizing various functions of marketing by providing innovative solutions that enhance efficiency, effectiveness, and customer engagement. Here are the key functions of marketing:

- **Product/Service Management**: AI has emerged as a game-changer in product management, revolutionizing how businesses develop, launch, and improve their offerings. By leveraging AI-powered analytics and insights, product managers can gain deeper understanding into market trends, consumer behavior, and competitive landscapes. This enables them to make data-driven decisions throughout the product lifecycle, from ideation to optimization. AI also facilitates the automation of repetitive tasks, allowing product managers to focus on strategic initiatives and innovation. Moreover, AI-powered algorithms can predict demand, optimize pricing, and personalize recommendations, leading to enhanced customer experiences and increased sales. Overall, AI empowers product managers to streamline processes, improve efficiency, and drive product success in today's dynamic and competitive market landscape.

- **Market Research:** AI has revolutionized market research by providing advanced tools and techniques to gather, analyze, and interpret vast amounts of data quickly and accurately. Through natural language processing (NLP) and machine learning algorithms, AI enables researchers to extract valuable insights from unstructured data sources such as social media, customer reviews, and online forums. This allows businesses to understand consumer sentiments, preferences, and trends in real-time, empowering them to make informed decisions. AI also automates the process of data collection and analysis, saving time and resources while ensuring consistency and reliability. Additionally, AI-powered predictive analytics can forecast market trends, identify emerging opportunities, and mitigate risks, enabling businesses to stay ahead of the competition. In essence, AI is transforming market research by enhancing efficiency, accuracy, and agility, thereby enabling businesses to make strategic decisions that drive growth and success.

- **Marketing Planning and Strategy:** AI is playing an increasingly vital role in marketing planning and strategy, offering powerful tools to optimize decision-making processes and drive successful outcomes. Through sophisticated algorithms and machine learning capabilities, AI can analyze vast amounts of data to uncover valuable insights about consumer behavior, market trends, and competitive landscapes. This enables marketers to develop more accurate buyer personas, refine targeting strategies, and personalize messaging to enhance engagement and conversion rates. AI also facilitates predictive analytics, allowing marketers to forecast future trends, anticipate customer needs, and allocate resources effectively. Moreover, AI-powered automation streamlines routine tasks such as campaign optimization, content creation, and performance tracking, freeing up valuable time for strategic planning and innovation. Overall, AI empowers marketers to make data-driven decisions, optimize marketing ROI, and stay agile in an ever-evolving digital landscape.

- **Distribution/Channel Management**: AI plays a crucial role in distribution and channel management, offering innovative solutions to optimize supply chain processes, enhance efficiency, and improve customer satisfaction. Through advanced data analytics and machine learning algorithms, AI enables businesses to forecast demand accurately, optimize inventory levels, and streamline logistics operations. This ensures timely delivery of products to customers while minimizing costs and reducing wastage. AI-powered algorithms also facilitate dynamic pricing strategies, enabling businesses to adjust prices in real-time based on market demand and competitor pricing, thereby maximizing revenue and profitability. Additionally, AI enhances decision-making in channel management by identifying the most effective distribution channels and optimizing channel partner relationships. By providing valuable insights into customer preferences and behavior, AI enables businesses to tailor their distribution strategies to meet evolving market demands and deliver superior customer experiences. Overall, AI transforms distribution

and channel management by driving efficiency, agility, and competitiveness in today's rapidly changing business landscape.

- **Promotion and Advertising:** AI has revolutionized promotion and advertising by offering advanced tools and techniques to create targeted, personalized campaigns that resonate with consumers on a deeper level. Through machine learning algorithms and predictive analytics, AI enables marketers to analyze vast amounts of data to understand consumer preferences, behaviors, and purchase patterns. This allows for the creation of highly customized promotional messages and advertisements that are more likely to capture the attention of the target audience and drive engagement. AI-powered platforms also facilitate automated ad placements and optimization, ensuring that ads are delivered to the right audience at the right time and through the most effective channels. Furthermore, AI enables marketers to measure the effectiveness of their campaigns in real-time and make data-driven adjustments to improve performance. By leveraging AI in promotion and advertising, businesses can enhance brand visibility, increase conversion rates, and ultimately drive revenue growth in today's competitive marketplace.

- **Pricing:** AI has become a pivotal tool in pricing strategies, offering businesses the ability to optimize pricing decisions in real-time based on dynamic market conditions and consumer behavior. Through advanced algorithms and machine learning techniques, AI analyzes vast amounts of data including competitor pricing, historical sales data, and market trends to identify optimal price points that maximize revenue and profitability. AI-powered pricing solutions also enable businesses to implement dynamic pricing strategies, adjusting prices dynamically based on factors such as demand fluctuations, supply constraints, and customer segmentation. This level of flexibility allows businesses to capture additional value during peak demand periods while remaining competitive during slower times. Moreover, AI facilitates personalized pricing strategies, tailoring prices to individual customer segments or even individual customers based on factors such as purchase history, preferences, and willingness to pay. By leveraging AI in pricing, businesses can enhance pricing agility, improve revenue management, and ultimately drive profitability in today's fast-paced and competitive markets.

- **Selling and Sales Management**: AI plays a pivotal role in selling and sales management, revolutionizing how businesses approach customer interactions, lead generation, and conversion optimization. Through advanced algorithms and machine learning capabilities, AI analyzes vast amounts of customer data to identify patterns, predict behaviors, and personalize sales approaches. AI-powered sales tools enable sales teams to prioritize leads based on their likelihood to convert, thereby optimizing sales efforts and increasing efficiency. Moreover, AI-powered chatbots and virtual assistants provide instant support to customers, answering queries, resolving issues, and facilitating sales transactions round-the-clock. Additionally, AI enhances sales forecasting accuracy by analyzing historical data and market trends, empowering businesses to make informed decisions and allocate resources effectively. By leveraging AI in selling and sales management, businesses can streamline processes, improve productivity, and drive revenue growth in today's competitive marketplace.

- **Customer Relationship Management (CRM):** AI is transforming customer relationship management (CRM) by offering advanced capabilities to analyze customer data, personalize interactions, and enhance customer experiences. Through machine learning algorithms and predictive analytics, AI enables businesses to gather insights from diverse data sources, including customer interactions, purchase history, and social media activity. This enables businesses to create detailed customer profiles and anticipate their needs and preferences, allowing for more targeted and personalized communication. AI-powered chatbots and virtual assistants provide immediate support to customers, resolving queries and issues efficiently, and enhancing customer satisfaction. Furthermore, AI facilitates predictive lead scoring, helping businesses identify high-value prospects and prioritize sales efforts effectively. Overall, AI empowers businesses to build stronger relationships with customers, increase loyalty, and drive revenue growth by delivering exceptional experiences across every touchpoint in the customer journey.

- **Market Analysis and Competitive Intelligence**: AI is reshaping market analysis and competitive intelligence by providing businesses with powerful tools to extract actionable insights from vast amounts of data. Through advanced algorithms and machine learning techniques, AI can analyze diverse data sources such as market trends, consumer behavior, and competitor activities to uncover hidden patterns and opportunities. AI-powered analytics enable businesses to gain a deeper understanding of market dynamics, identify emerging trends, and forecast future developments with greater accuracy. Moreover, AI facilitates real-time monitoring of competitor activities, allowing businesses to stay agile and respond quickly to changes in the competitive landscape. By leveraging AI in market analysis and competitive intelligence, businesses can make informed decisions, mitigate risks, and gain a competitive edge in today's fast-paced and dynamic markets.

Conclusion

Artificial Intelligence (AI) has revolutionized the landscape of marketing, reshaping strategies and customer interactions with unparalleled precision and efficiency. From personalized recommendations to predictive analytics, AI empowers marketers to understand consumer behavior on a deeper level, enabling targeted campaigns tailored to individual preferences. Machine learning algorithms analyze vast amounts of data in real-time, unveiling valuable insights into trends and patterns, facilitating informed decision-making. Chatbots powered by AI provide instant customer support, enhancing user experience and fostering brand loyalty. Moreover, AI-driven tools optimize ad placements and content delivery across various channels, maximizing ROI and minimizing wasted resources. As AI continues to evolve, its integration into marketing strategies promises to further elevate the effectiveness and reach of campaigns, creating more meaningful connections between brands and consumers.

Implications and Recommendations:

The study concludes with practical implications and recommendations for marketers looking to harness the power of AI in their marketing efforts. It highlights the importance of investing in AI talent and infrastructure, as well as continuously monitoring and adapting to technological advancements in the field.

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