

# A STUDY ON ARTIFICIAL INTELLIGENCE ON MARKETING- A SYSTEMATIC LITERATURE REVIEW

## A. Kavitha, R. Yuvaraj, P G Eandhizhai

Department of Commerce, College of Science and Humanities, SRM Institute of Science and Technology, Kattankulathur, Chengalpattu, Tamilnadu-603202, India

#### **ABSTRACT**

Artificial Intelligence has acquired significant capabilities to enhance the efficiency and effectiveness of businesses, enabling them to operate at a heightened pace and facilitate transformative shifts. The present study was undertaken to examine the impact of artificial intelligence (AI) on the marketing activities of businesses. The data for this study was obtained through a qualitative approach, which involved gathering information from scholarly publications, industry reports, and reputable blogs. This study aimed to investigate the concept of artificial intelligence (AI) within the context of marketing practices, including its current applications and potential future developments. The research study elucidates the advantages of integrating artificial intelligence (AI) into marketing strategies. This study investigates the impact of AIM technology on marketing decision-making. The research paper provides a comprehensive overview of the application of artificial intelligence in the field of marketing, catering to the interests of customers and academic researchers.

**Key words:** Artificial intelligence, marketing, promotion, branding, customer data

#### 1.1 Introduction

Artificial intelligence are recent technological disruptors that have provided digital options for drawing in and retaining customers. Utilizing AI for marketing purposes is now among the most recognized instances. Artificial intelligence assists marketing in predicting how their customers desire and is an essential ingredient to more enjoyable experiences for consumers. AI is frequently utilized in situations where quickness is critical, such as marketing. AI technologies leverage information and profiles of clients to interact with customers most effectively and provide customized communications at the appropriate moment, all while maximizing productivity and avoiding the need for human participation from advertising employees. Business stands to benefit greatly from artificial intelligence. It helps with the

ISSN:1539-1590 | E-ISSN:2573-7104 Vol. 5 No. 2, (2023) © 2023 The Authors

proliferation of avenues for data and facts, enhancing the data managerial abilities of applications, and creating complex and sophisticated computations. AI is transforming the manner in which buyers and sellers communicate with each other. The way that technology is used greatly depends on the kind of company as well as the kind of webpage. Now, marketing can concentrate entirely on the client and respond to their demands immediately. In the near future, artificially intelligent (AI) will turn into a crucial component of all businesses worldwide. Significant shifts in the AI ecosystem are reflected in the latest developments in AI-driven robotics. It is apparent in the reorganized concepts, pursuits, and financial commitments made by the company to the realm of AI implementation. (Bolton et al., 2018). A recently developed technology known as intelligent technology is frequently used by businesses to monitor information in real time, analyze it, and react quickly to client needs (Wirth, 2018). In the modern workplace, artificial intelligence sees usages across a variety of situations. Experts and researchers alike think that AI will shape how society functions in future generations. The globe is now an internet of interrelated systems due to the growth of technology. Investments into artificial intelligence using the analysis of large amounts of data to produce market intelligence resulted from the adoption of new technology. One of the greatest promising areas for progress is promotional activities, and it has been determined because implementing artificial intelligence for promotional purposes has the greatest chances for effectiveness and income (Fagella, 2019). Advances in technology have continuously resulted in long-term changes in the development of the advertising industry and have demonstrated how advertising and computational intelligence (AI) may collaborate to have an impact (Siau, 2017).

# 1.2 RESEARCH QUESTION

- To comprehend the idea of artificially intelligent marketing;
- To investigate the application of AI in marketing;
- > To execute out a systematic review of the literature on AI using reliable source

#### 2.LITERATURE REVIEW

#### 2.1 The use of artificial intelligence on marketing

Effective data processing made possible by algorithms machine learning and AI enables us to make the best decisions possible (Maxwell et al., 2011). To analyze consumer behavior, purchases, opinions, preferences, etc., artificial intelligence (AI) must be applied (Chatterjee et al., 2019). Creating profiles of customers and understanding the buying process have been made easier by

ISSN:1539-1590 | E-ISSN:2573-7104 Vol. 5 No. 2 (2023) AI. It enables brands to deliver insightful, specific material to a variety of different client profiles at every level of the advertising chain and across all channels, swiftly and simply. AI systems in internet advertising can identify which material is probably going to entice users to return to the website based on past data. AI determines which clients are inclined to cancel their subscriptions to a particular service and looks at the characteristics that unregistered users typically have in common. These statistics help advertisers plan their next initiatives and put in place strategies that encourage consumers to stay. Sha & Rajeswari (2019) presented an overview of the development of AI and showed off a system that is assisted by AI and is able to follow an individual's senses (experience, smelling, touching, seeing, and perception). The outcome demonstrated improved brand associations between consumers and products in the domain of e-commerce.

# 2.2 Intelligent AI applications in strategic planning and execution

With the use of artificial intelligence (AI), marketers can better understand their target audience and provide them with a more tailored experience by classifying and guiding them to the next stage of their journey. By analyzing customer data in-depth and understanding their true desires, marketers may boost return on investment without investing in futile endeavors. Additionally, they could prevent spending energy on boring advertising that annoys customers. AI is going to customize marketing in a number of ways. In order to better meet client requests, a lot of businesses already use AI to tailor their messages, videos, social media postings, websites, and other things. AI's main objective is to automate tasks that previously required human intelligence. There are major efficiency gains possible because less labor resources are needed by a business to complete a project or because people need not spend as much time on mundane tasks. By assisting with the process of segmentation, targeting, and positioning, artificially intelligent systems may assist businesses in developing their strategies and organizing their advertising efforts. (Huang & Rust, 2017). The intended client base can also be reduced by combining data optimisation strategies, artificial intelligence, and deterministic networks (Simester et al., 2020).

### 2.3 Pricing optimization with artificial intelligence

AI is used by marketers to boost customer demand. Machine intelligence-powered integrated applications provide a satisfying user experience for customers, purchasing are tracked, along with the location and time of the purchasing. It has the ability to assess data and send clients personalized marketing messages. These messages, which appear when an individual enters an adjacent retailer, offer advice and exclusive deals aimed at raising the consumer's average purchase

ISSN:1539-1590 | E-ISSN:2573-7104 Vol. 5 No. 2 (2023) value. A multiarmed robber programmer driven by artificial intelligence has the ability to change prices in actual time (Misra et al., 2019). A machine learning method using Bayesian inference can swiftly modify the point of purchase to correspond with the price of a rival in a marketing environment where prices change often, such as an online shopping site (Bauer & Jannach, 2018). In order to maximize price flexibility, Dekimpe (2020) claims that the optimum responsive priced algorithms incorporate supplier networks, competition strategies, and customer preferences.

## 2.4 Artificial intelligence's application to promotional handling

With greater accuracy, marketers can decide which clients to target and if they should include or eliminate them from the marketing effort. Consumers will be able to steer clear of uninteresting or unavailable goods and be more closely matched to those they are most probable to buy. By offering every consumer personalized material and incentives together with top-notch customer support, brands can use AI to enhance the customer experience. One technique business utilize with AI is predicting analytics for marketing. Search engine optimization, planning the media, multimedia planning, and advertisement management for campaigns are all included in promotion management. Promotional strategies are shifting from being tactile to being digital. Globally, digital transformation led to an increase in the use of social media campaigns and digital marketing. Customers choose the content, location, and timing in today's technologically advanced environment. AI provides message tailoring and customization based on the preferences and characteristics of the consumer (Huang & Rust, 2020).

## 2.5 Artificial intelligence applications in place administration

For increased client satisfaction, commodity accessibility and availability are crucial elements of the marketing mix. Both vendors and consumers benefit from the distribution process's standardization and mechanization. AI is useful not only for managing distribution but additionally for customer involvement in service contexts. When it comes to surface acting, service robots with emotive AI codes are useful (Wirtz et al., 2018). Customers are greeted and engaged with embodied robots, but for optimal customer satisfaction, human features must be integrated into the service environment. AI-powered service process automation is yet another chance to boost output and performance (Huang & Rust, 2018). Timna Bressgot and Thomas Davenport (2019) The study built a multifaceted structure to examine the impact of artificial intelligence in marketing. It included things like task kinds, robot intelligence integrated in it, and intelligence levels. The impact artificial intelligence on strategies for marketing, consumer behavior, etc., is

ISSN:1539-1590 | E-ISSN:2573-7104

another area of emphasis for the model. The researcher also covered data bias, privacy concerns, and ethical considerations while implementing and using AI.

### Discussion and conclusion

AI assists in tracking the behavior of their customers and utilizing their needs to improve the purchasing process. AI has the potential to be very significant in that it will track records, maintain all of the aforementioned records, and make recommendations. AI possess the capability to enhance and streamline the process of dynamic pricing. Artificial intelligence (AI) enables machines to gather sales and demand data, conduct analysis, and generate results within a short span of time. This facilitates the optimization of sales by dynamically adjusting prices during periods of high demand. The emails in question are computer-generated communications facilitated by artificial intelligence systems. Customers perceive that they are being regarded as unique individuals and receiving personalized attention. Research has demonstrated that the utilization of individualized or personalized emails has been shown to lead to a notable increase in both revenue and profit. Email personalization utilizes various techniques such as dynamic content, personalized content, browsing history, and anniversaries. Undoubtedly, the forthcoming era is centered on enhancing the customer experience as a means of maintaining viability amidst intense competition. Artificial intelligence will play a pivotal role in achieving success during the fourth industrial revolution. The imperative of AI arises from its capacity to harness and leverage the data it gathers, enabling it to swiftly analyses and generate outcomes. Understanding consumers, their requirements, their shifting preferences, and buying habits is beneficial for marketers. Artificial intelligence (AI) plays a pivotal role in predicting demand, understanding customer preferences, and providing personalized experiences that align with what customers want. This study endeavors to comprehend the concept of artificial intelligence (AI) and its significance in the domains of advertisements and analysis of predictions.

#### **Future research**

The present study was conducted using a qualitative research approach, which involved a comprehensive review of relevant literature. In future academic research, scholars may choose to employ quantitative research methods, such as utilizing survey-based data or other suitable approaches. Over the course of the next decade, it is anticipated that there will be a significant transformation in marketing strategies as a result of the advancements in artificial intelligence. Similarly, a corresponding shift can be noticed in customer behavior.

ISSN:1539-1590 | E-ISSN:2573-7104

Vol. 5 No. 2 (2023)

#### Reference

R.N. Bolton, J.R. McColl-Kennedy, L. Cheung, A. Gallan, C. Orsingher, L. Witell, M. Zaki Customer experience challenges: Bringing together digital, physical, and social realms Journal of Service Management, 29 (5) (2018), pp. 776-808

- 2. N. Wirth Hello marketing, what can artificial intelligence help you with International Journal of Market Research, 60 (5) (2018), pp. 435-438
- 3. Fagella, D. (2019). Machine Learning Marketing Expert Consensus of 51 Executives and Startups. https://emerj.com/ai-market-research/machine learning-marketing.
- 4. Siau, K. L. (2017). Impact of artificial intelligence, robotics, and machine learning on sales and marketing impact of artificial intelligence, robotics, and machine. Association for Information Systems AIS Electronic Library.

https://aisel.aisnet.org/cgi/viewcontent.cgi?article=1047&context=mwais2017

- H. Gacanin, M. Wagner Artificial intelligence paradigm for customer experience management in next-generation networks: Challenges and perspectives IEEE Network, 33 (2) (2019), pp. 188-194
- S. Chatterjee, S.K. Ghosh, R. Chaudhuri, B. Nguyen Are CRM systems ready for AI integration? A conceptual framework of organizational readiness for effective AI-CRM integration The Bottom Line, 32 (2019), pp. 144-157
- J.R. Saura, D. Ribeiro-Soriano, D. Palacios-Marqués Setting B2B digital marketing in artificial intelligence-based CRMs: a review and directions for future research Ind. Market.

Manag., 98 (2021), pp. 161-178

- S Sha Nazim, M Rajeswari Creating a Brand Value and Consumer Satisfaction in E-Commerce Business Using Artificial Intelligence with the Help of Vosag Technology International Journal of Innovative Technology and Exploring Engineering, 8 (8) (2019), pp. 1510-1515
- B. Peyravi, J. Nekrošienė, L. Lobanova Revolutionised technologies for marketing: theoretical review with focus on artificial intelligence Bus. Theor. Pract., 21 (2) (2020), pp. 827-834 M.H. Huang, R.T. Rust Technology-driven service strategy Journal of the Academy of Marketing Science, 45 (6) (2017), pp. 906-924

Vol. 5 No. 2 (2023)

ISSN:1539-1590 | E-ISSN:2573-7104

D. Simester, A. Timoshenko, S.I. Zoumpoulis Targeting prospective customers: Robustness of machine-learning methods to typical data challenges

Management Science, 66 (6) (2020), pp. 2495-2522

- K. Misra, E.M. Schwartz, J. Abernethy Dynamic online pricing with incomplete information using multiarmed bandit experiments Marketing Science, 38 (2) (2019), pp. 226-252
- J. Bauer, D. Jannach Optimal pricing in e-commerce based on sparse and noisy data Decision Support Systems, 106 (2018), pp. 53-63
- M. Dekimpe Retailing and retailing research in the age of big data analytics International Journal of Research in Marketing, 37 (2020), pp. 3-14
- M.H. Huang, R.T. Rust A strategic framework for artificial intelligence in marketing Journal of the Academy of Marketing Science, 49 (2020), pp. 1-21
- J. Wirtz, P.G. Patterson, W.H. Kunz, T. Gruber, V.N. Lu, S. Paluch, A. Martins Brave new world: Service robots in the frontline Journal of Service Management, 29 (5) (2018), pp. 907-931

ISSN:1539-1590 | E-ISSN:2573-7104

Vol. 5 No. 2 (2023)