

An Overview of the Applications of Artificial Intelligence in Business and Marketing Management

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Abstract: Artificial Intelligence is a cutting-edge technology that utilises a complex of data sets to analyse and give strategic implications. AI is capable of employing human intelligence. The emergence of Artificial Intelligence has started to create a potential impact on the business. Data driven technologies and computational agents enables the companies to formulate strategic decisions. The artificial intelligence-based systems can analyse and interpret the customer data. These technologies help in better understanding of the customers and improves the ability to make marketing decisions. AI technologies has enabled the marketers to get more diverse consumer data in a more efficient and faster way. AI powered services like chatbots, AI enabled language models like ChatGPT have emerged in a way that these technologies provide fastest solutions to the customers. This paper gives an overview about the application of Artificial Intelligence in various marketing functions like branding, customer engagement, customer relationship management, marketing communication etc.

Key Words: Artificial Intelligence, Data, Business, Marketing, Customer relationship, Branding.

1. INTRODUCTION:

Artificial Intelligence is a computer system that can imitate human intelligence. Artificial Intelligence based software can perform various functions similar to the human behaviour. This gives the capabilities to the computer systems that can be used for the tasks like the human beings (Nalbant, 2023).

Artificial Intelligence, big data, Internet of Things, Data analytics have emerged as a cutting-edge technology. These are highlighted as the technological disruptions where these applications are widely adopted in various business operations and marketing functions such as branding, customer satisfaction, value creation, sales, customer attraction etc. The emergence of Artificial Intelligence finds its usage in different fields like education, medicine, business, manufacturing etc (Wisetsri, 2021).

Artificial Intelligence is a cutting-edge technology that utilises a complex of data sets to analyse and give strategic implications. AI is capable of employing human intelligence such as learning, analysing and deciding for the execution of different business functions. The concepts of AI are machine learning, deep learning with inclusion of neural networks. AI utilises neural network models to analyse and interpret the information using mathematical and computational models (Sanjeev Verma, 2021).

The emergence of Artificial Intelligence has started to create a potential impact on the business. The application of AI in the field of marketing is creating new opportunities and pathways for the companies to interact with the customers. Data driven technologies and computational agents enables the companies to formulate strategic decisions and improve the customer experience (Nisreen Ameen, 2021).

The availability of information and data infused technologies supports the business to communicate with the customers and establish effective relationship with the customers. AI based technologies supports personalisation of services, thus enhancing the customer satisfaction. The data helps the managers to utilise the AI based technologies to make predictions and decisions (Barak Libai, 2020).

The applications of AI systems improve the efficiency of the business, thereby increasing the overall business value of the companies. The usage of AI based technologies such as machine learning and deep learning enables the companies to improve in areas of management and marketing (Ida Merete Enholm, 2022).

Artificial Intelligence has been playing an effective role in the various marketing functions like strategy planning, data management, creating customer engagement and customer experience etc. The artificial intelligence-based systems can analyse and interpret the customer data and allows the marketers to take informed decisions. The

companies gain the ability for efficient operations and supply chain management, thus enabling cost effective and time efficient delivery of the products to the customers (Nalbant, 2023).

Artificial Intelligence paves way for the marketers to obtain, analyse and get insights from the data and offers more personalised results compared to the conventional methods. AI technologies has enabled the marketers to get more diverse consumer data in a more efficient and faster way (Chen, 2021).

2. Artificial Intelligence in Marketing:

Marketing is a function of identifying and satisfying potential target customers by creating and delivering a value proposition. Market research connects the customer and the marketer that helps to identify market opportunities and design marketing strategies followed by the marketing evaluation (Mustak, 2021).

AI is employed in various marketing functions enabling the organisations for improved productivity. AI helps to work on the ultimate objective of marketing, which is customer satisfaction. Big data and data analytics help the marketers to segment the customers based on the strategic interpretations done by technologies of AI. The marketing effectiveness can be enhanced by employing AI to imply right marketing strategies to the customers. AI technologies improves customer interaction in various channels owing to the advancements in digital platforms (Vlačić, 2021). AI practices has taken a significant progress towards the sales and marketing functions.

The application of AI software has been increased among the business operations as these tools helps in efficient data conversions and data management. These technologies help in better understanding of the customers and improves the ability to make marketing and business decisions. Hence the management of the companies started emphasising the AI integration in various business functions (Shaik, 2023).

The big data analytics and AI lead to generation of intelligence related to marketing functions. The Artificial Intelligence is employed in various business processes by generating insights from the previous data through various disruptive technologies such as Machine learning, Nature language processing, Deep learning etc. Chatbots are one of the AI driven language processing technologies which is becoming a vital role in improving the customer experience and interactions. The algorithms of machine learning allow the marketers to formulate accurate decisions with respect to understanding the customer behaviour and purchase decisions (Sanjeev Verma, 2021).

Customer relationship management (CRM) is one of the integral marketing functions to establish customer relationships to increase customer satisfaction and customer retention. The overall value of the organisations can be improved by identifying the customer's needs and wants and providing services accordingly. CRM combined with AI systems has proved to be effective to build trust amongst the customers and increases the customer loyalty towards the brands and companies. AI incorporation is all the management functions substantially improves the business operations with the analysis of the customer data (Sheshadri Chatterjee, 2019).

The evolution of digital platforms has enabled the marketers to reach wider range of customers in marketing communications. The application of social media has paved way for effective customer engagement. Digital marketing uses technologies in Internet, social media, cloud computing, big data etc. in achieving integrated marketing communication (Lai, 2021).

3. Artificial Intelligence in Brand Management:

Brands and Branding is an integral function in marketing operations where the companies try to create a significant brand image for the customers. Brand management focus on the creation of unique and distinct brand image that helps for creating significant brand loyalty.

The branding function works on the entire cycle of purchase decision of the consumers. In recent times, the branding function has evolved to emphasising post purchase gratification and distinct value created for the customers. With the emergence of digital revolution, online and virtual platforms have become a critical factor for the customer engagement. The digital technologies provide an interactive space for the customers to directly interact with the companies, thus enhancing emotional engagement with the customers (Golob, 2020).

AI powered services like chatbots, AI enabled language models like ChatGPT have emerged in a way that these technologies provide fastest solutions to the customers. Many of the companies have started changing their customer service models to online chatbots services. This provides the customers to interact with service agents from any part of the world and at any time. This allows to create customised and deeper interactions with the customers contributing to brand image building and creating brand reputation (Cheng, 2022).

4. Artificial Intelligence in Customer Relationships:

Customer Relationship Management (CRM) refers to the capability of the companies to establish and build potential customer relationships by meeting their needs and creating a value proposition. The application of AI in business have become a next step towards efficient management of customer relationships and engagement.

AI enabled technologies started playing a fundamental role as the AI solutions helps the companies to gather and analyse customer data, thus resulting in better Customer relationship management. The development of chatbots helps in better handling of customer services including tackling complaints (Ledro, 2022).

The role of AI helps in an effective knowledge management contributing to rendering better sales support to the customers. These AI driven technologies extend its application to understanding the customer needs and wants. This helps in delivering products and services in an effective way thus improving the customer relationships.

Companies like Amazon, Netflix, Google etc., use AI enabled technologies to understand the customers. AI analysed the different customer factors such as purchase history, time spent on the websites, time spent on the products, social media engagement to recommend new products (Deb, 2018).

The consumer-based companies (B2C) use AI based technologies to identify new target market and establish better communication with the consumers. These digital technologies not only help in interacting with the customers but also helps to retain existing customers. AI gives customised services to the customers by providing accurate information about the products promoting the sales of the products. In addition, AI technology also supports to conduct customer surveys to understand the customer satisfaction (Li, 2023).

4. Artificial Intelligence in Marketing Communications:

The adoption of AI improves the competitive advantage for the companies where the marketers are able to deliver a more customised and continuous interactions with their customers. This has enabled the marketers to achieve effective marketing communications on a global level. The AI based technologies enables automation of various marketing activities. The effectiveness of the digital marketing has been improved as AI tools supports in marketing communications by sending a more personalised messages to wide range of customers in a short time (Peyravi, 2020). AI tools are employed in customised content creation for websites and email. Personal mobile assistants like Siri and Alexa have been used by the companies and customers for planning of activities. AI enabled language tools like ChatGPT can give a detailed strategies and solutions for marketing communications.

AI is used in different marketing aspects including choosing channel types and creating content appropriate for the different target customers. AI can also help to design a suitable images and texts for various market segments in different platforms. AI tools can help to create a more personalised response to the customers and provides speedy delivery of the content to the customers (Stone, 2020).

5. CONCLUSION:

The emergence of Internet has created a significant pathway for the business organisations to transform its processes employing digital solutions. Different tools were integrated into various business functions including production, supply chain management, strategic planning, marketing management etc. Customers have started prioritising convenience and quality in their products and services. Artificial Intelligence has changed the way the business functions that AI solutions can analyse and give meaningful and relevant solutions to the business problems (Vishnoi, 2018). The integration of AI in marketing processes has encouraged the business to give more personalised solutions to its customers. The employment of AI in digital platforms has created a new paradigm for business organisations to change its processes in digital marketing. The analysis and interpretation of data using AI tools has helped the marketers to design a more efficient and effective strategies in its marketing functions. This improves the competitive advantage and organisational performance thereby generating core competence.

REFERENCES:

1. Barak Libai, Y. B. (2020). Brave New World? On AI and the Management of Customer Relationships. *Journal of Interactive Marketing*, 51, 44–56.
2. Chen, H. C.-O. (2021). Consumers' perception on artificial intelligence applications in marketing communication. *Qualitative Market Research: An International Journal*, 25(1), 125-142.
3. Cheng, Y. &. (2022). Customer–brand relationship in the era of artificial intelligence: understanding the role of chatbot marketing efforts. *Journal of Product & Brand Management*, 31(2), 252-264.
4. Deb, S. K. (2018). Artificial intelligence—creating automated insights for customer relationship management. 2018 8th international conference on cloud computing, data science & engineering (Confluence), pp. 758-764.
5. Golob, U. D. (2020). Trending topics plus future challenges and opportunities in brand management. *Journal of Brand Management*, 27, 123-129.
6. Ida Merete Enholm, E. P. (2022). Artificial Intelligence and Business Value: a Literature Review. *Information Systems Frontiers*, 24:1709–1734.

7. Lai, Z. &. (2021). Research on digital marketing communication talent cultivation in the era of artificial intelligence. *Journal of Physics: Conference Series*, Vol. 1757, No. 1, p. 012040.
8. Ledro, C. N. (2022). Artificial intelligence in customer relationship management: literature review and future research directions. *Journal of Business & Industrial Marketing*, 37(13), 48-63.
9. Li, L. L. (2023). Investigating the effect of artificial intelligence on customer relationship management performance in e-commerce enterprises. *Journal of Electronic Commerce Research*, 24(1), 68-83.
10. Mustak, M. S. (2021). Artificial intelligence in marketing: Topic modeling, scientometric analysis, and research agenda. *Journal of Business Research*, 124, 389-404.
11. Nalbant, K. G. (2023). Development and transformation in digital marketing and branding with artificial intelligence and digital technologies dynamics in the Metaverse universe. *Journal of Metaverse*, 3(1), 9-18.
12. Nisreen Ameen, A. T. (2021). Customer experiences in the age of artificial intelligence. *Computers in Human Behavior*, 114, 1-14.
13. Peyravi, B. N. (2020). Revolutionised technologies for marketing: Theoretical review with focus on artificial intelligence. *Business: Theory and Practice*, 21(2), 827-834.
14. Sanjeev Verma, R. S. (2021). Artificial intelligence in marketing: Systematic review and future research direction. *International Journal of Information Management Data Insights*.
15. Shaik, M. (2023). Impact of artificial intelligence on marketing. *East Asian Journal of Multidisciplinary Research*, 2(3), 993-1004.
16. Sheshadri Chatterjee, S. K. (2019). Are CRM systems ready for AI integration? A conceptual framework of organizational readiness for effective AI-CRM integration. *The Bottom Line*, 32, 144-157.
17. Stone, M. A. (2020). Artificial intelligence (AI) in strategic marketing decision-making: a research agenda. *The Bottom Line*, 33(2), 183-200.
18. Vishnoi, S. K. (2018). Artificial intelligence enabled marketing solutions: A review. *Indian Journal of Economics & Business*, 17(4), 167-177.
19. Vlačić, B. C. (2021). The evolving role of artificial intelligence in marketing: A review and research agenda. *Journal of Business Research*, 128, 187-203.
20. Wisetsri, W. (2021). Systematic analysis and future research directions in artificial intelligence for marketing. *Turkish Journal of Computer and Mathematics Education*, 12(11), 43-55.