Monograph

TRANSFORMATION OF MARKETING DECISIONS THROUGH ARTIFICIAL INTELLIGENCE AND DIGITAL MARKETING

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ABSTRACT
Artificial Intelligence (AI) is ornamental to the strategic decisions of consumers and its competitive nature and has rapidly transformed the dynamics of the emerging digital world. The evolution of predictive marketing has increased the understating of consumer decision-making. Moreover, AI has enabled many businesses to predict big consumer data to fulfill customer expectations and provide customized products and services. AI’s role has been increased in operational marketing, such as design and selection of ads, customer targeting and customer analysis. Nevertheless, the role in strategic decision-making by employing machine learning techniques, knowledge representation, and computational intelligence improves efficacy. This article aims to provide a comprehensive understating of the role of AI in digital marketing to understand their target audience better. Secondly, it also accentuates the role of AI and predictive marketing in understanding complex consumer behavior by highlighting several solutions to predict the expectations of consumers. Moreover, the contribution of AI in managing customer relationships with an active role of managers is also one of the study's aims. The current study also discusses the future of AI in marketing and managers’ role in utilizing disruptive technology. This paper's managerial implications are pertinent because deploying AI in competitive businesses is key to improving decision-making.

Keywords: Artificial Intelligence (AI); Consumer Behavior; Digital Marketing; Big Data; Marketing Analytics.

INTRODUCTION
 Artificial Intelligence (AI) and Predictive Marketing (PM) is a new way of doing business that has completely transformed marketers’ perspectives. AI has proven its revolutionary

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contribution to increase productivity, quality of decision making, seeding the development of new products, and boosting economic growth (Abrardi, Cambini & Rondi, 2021). Moreover, AI influences marketing strategies, sales processes, consumer behavior models and customer service quality (Davenport et al., 2019). AI-based models offer a comprehensive understanding of complex consumer behavior, which is mandatory for marketers for customer attraction and retention. AI aids in transforming big data into valuable consumer insights to understand needs, wants, beliefs and attitudes (Kietzamann et al., 2018). Different factors are mentioned in the literature that is involved in the evolution of predictive marketing; those factors are: integrated and customized approaches are demanded by most of the customers; early adopters of PM perceive massive value addition through PM; availability of new technologies to capture data of existing and potential consumers, pattern recognition and use of customer data for the intersection at the physical and digital world (Artun & Levin, 2015). Likewise, AI has the capability to transform computers as smart as the brain of human beings. It has the ability to help marketers so that they can process the vast amount of data on sales of customers (Jain & Aggarwal, 2020). Moreover, the need of the customers will be easily predicted in a concise frame effectively by using Artificial Intelligence by different firms. Thus, AI is considered an asset for most businesses due to the benefits it offers. According to a report published by IBM, it is found that AI-based automation in consumer and retail products is expected to bound from 40% to 80% of the businesses in the next three years. AI is transforming business processes through various predictive analytic techniques such as Chatbots, Siri and Google Alexa. Therefore, AI and Machine Learning are becoming an essential part of business processes to strategize the digital experiences of consumers to increase customer loyalty and satisfaction (Jain, 2020).

The development of a novel relationship between customer and customer experience is addressed by Digital Marketing (Bouchra, 2021). AI and automated analytical tools better manage customer relations and experience. Artificial Intelligence is assisting the smooth functioning of the prevailing markets, levitating the attention towards antitrust policies, and shifting the efficiency and mode of competition. The increased role of data, extreme network effects, and strong economies of scale will likely be the main factors behind highly concentrated markets with few strong players (Cremer et al., 2019). ML Algorithms provide directions for better marketing strategies which result in a better understanding of the market players and customers (Mckinsky, 2016).

Various organizations use predictive marketing tools to deliver the desired benefits of goods and services through their marketing offerings. Digital Marketing allows customers to give
feedback on their experiences. Today’s consumers can expect a more consistent experience, which is one of the main changes in consumer behavior due to Digital Marketing (GUPTA, 2020). The benefit of using Artificial Intelligent agents is that sometimes human agents get distressed, so they do not respond to the customers accordingly, but this is not the case with using Artificial Intelligence agents. Based on the available data, Machine Learning is used for training which in turn helps in effective decision-making (Marr, 2019). According to the strategic management study, 79% of the CEOs that responded to the specific research reported that they believe in capitalizing on their skills and capabilities to maximize effectiveness in marketing (Schrage & Kiron, 2018). According to a report, there is an increase of almost 6% in the employment of marketing and promotion managers from 2019 to 2029 (US Bureau of Labor Statistics, 2020).

**REVIEW OF THE LITERATURE**

A different view of AI postulates that AI is a predictive technology based on ML employed to make decisions, predictions, and recommendations for physical or virtual realities. However, ML-based AI has some limitations, such as the future is predicted based on past data by following similar patterns. Secondly, AI is not a complete substitute for human predictions, as human judgments are still required to evaluate various functions (Taddy, 2019; Agrawal et al., 2018). Lastly, ML applications still need to be organized by human expertise and knowledge for a specific business structure or solutions (Taddy, 2019). Therefore, ML-based AI cannot completely substitute human brains, imaginary skills, intelligence, and intuition (Jarrahi, 2018). Despite these limitations, there is still an agreement on the revolutionary use of AI for breakthroughs in various sectors, including product and service automation, due to its automation capability, machine learning, predictive ability and decision making (Dawar, 2020).

Petrescu et al. (2022) researched AI-based innovation in B2B markets and provided an interdisciplinary framework for incorporating practitioner and academic perspectives. Since AI has facilitated the reconfiguration of organizational processes thus, there is a need to do comprehensive research on the mentioned area. Yang et al. (2022) have also called for more investigation in the area of AI in the customer decision-making process and call for more research for a better understanding of the area.

Mariani et al. (2021) conducted a detailed systematic review of the literature on the role of AI in consumer research and called for more research on AI and data analytics to respond to market and strategies accordingly. Thus, the present study aims to conceptually deliberate the role of AI in digital marketing, consumer behavior, marketing solutions and CRM.
Thematic Analysis

Artificial Intelligence in Digital Marketing

According to the Digital Marketing Institute, Digital Marketing is “the utilization of advanced innovations to make a coordinated, designated and quantifiable correspondence which assists with securing and holding clients while building further associations with them” (Smith, 2007). This certainly shows that the use of digital marketing helps managers to build long-term relationships due to a well-coordinated connection with their customers, which is profitable in return (Bouchra, 2021). New and improved technologies are adopted mainly by those firms who want effective marketing strategies that help and support their marketing plans. The computing-based advanced technologies allow analyzing customers’ needs and wants by considering modern trends. The new businesses and firms are encouraged by the availability of intelligent technology solutions for digital marketing, which will help understand and improve the customer’s experience using big data (Davenport, 2020). Artificial intelligence makes it easier for Digital Marketers to collect and analyze the data of their target audience.

Additionally, AI in digital marketing is employed for automated decisions with the help of customer-related data collection, analysis, and interpretation. Consumer data is collected using Artificial Intelligence technologies grounded on observations and socio-economic trends. While presenting the most advanced platform, Artificial Intelligence offers speed and reliability in Digital Marketing. Enormous sources are used to code new technologies into small programs which are more sustainable for long-term use (Gentsch, 2018). Interaction with customers is transformed through Artificial Intelligence (Bouchra, 2021). A considerable amount of unstructured data is used in the new marketing campaign as an Artificial Intelligence solution to find potential customers and dive into the relationship between customers and management. Therefore, for the marketing team, it is imperative to learn the Artificial Intelligence tools (Bouchra, 2021).

Online platforms such as social media and different websites are used to collect the most comprehensive form of data in Digital Marketing. Digital Marketing requires the tools of Artificial Intelligence to convert the data into the most proper readable format (Campbell, 2020). So, in Digital Marketing, the use of Artificial Intelligence is a modern way that enables firms to understand their target audience and to learn advanced consumer behavior. AI-based digital marketing is used for direct communication with customers by sending them messages, answering their queries, and sharing the information they need. Thus, small AI tools are used to reduce the level of human involvement in communication tasks. The use of Artificial
Intelligence in different forms in Digital Marketing includes data collection, analysis, and interpretation; robotic decision making; development of content; the processing of different languages and decisions related to buying media. The use of Artificial Intelligence reduces the involvement of human errors and risks, and at the same time, it improves the total outcomes of the digital marketing campaign of different businesses (Hall, 2019). Most of the AI operations in digital marketing use consumer data which is based on communication. Therefore, AI, combined with big data analytics, is used to make digital marketing plans successful, have a better response rate, and have an effective strategic implementation (Davenport, 2020).

**Artificial Intelligence in Marketing and Consumer Behavior**

Artificial Intelligence is already evolving every business and its functions in various industries. Businesses can attain a competitive advantage by employing Artificial Intelligence tools as the use is at boom. Syam and Sharma (2018) suggested that through digitization, automation, and artificial intelligence, we can gain insight into the fourth industrial revolution in the upcoming years, and this revolution will bring radical change in decision-making from humans to machines. Different businesses worldwide create new sources and forms of business values through Artificial Intelligence (Shaikh, 2022). Most firms and businesses are operating effectively through the adaption of Artificial Intelligence as they are the pioneers of adopting advanced technology (Ransbotham et al., 2018). According to research, an additional 13 trillion-billion-dollar output will probably be created at the end of 2030 through Artificial Intelligence, resulting in growing the global GDP by 1.2% each year (Bughin et al., 2019). The ROI of a marketing campaign will also be improved through Artificial Intelligence as it uses big data and machine learning to target the right audience (Hall, 2019).

The relationship between businesses and customers will not only transform in the future but the Artificial Intelligence will also take over the business manager. The Artificial Intelligence assistant will easily predict the customer preferences in the future, such as preference for the price, quality, and features, so marketing would be just like a battle about what to offer to customers (Dawar, 2020). Therefore, it is crucial for marketers to position the products through AI assistants and target audiences rightly. Most advanced technological firms use digital marketing tools to change customers' behaviors by discovering the wonders of Artificial Intelligence. The time required for implementing the marketing strategies can be minimized by using Artificial Intelligence in Digital Marketing (Miklosik, 2019). However, applying AI in digital marketing requires a few steps. Firstly, an alignment between marketing goals and business strategy is essential, meaning that marketing teams must formulate clear goals to
achieve through AI. An in-depth analysis of existing marketing processes is also required to know if any improvements are required to adopt marketing analytics. Key performance indicators (KPIs) should be identified for effective analysis by strictly observing data privacy and privacy standards. Therefore, it is necessary for marketing managers to employ the tools and processes of AI to improve decision-making regarding consumer preferences.

**Artificial Intelligence Solutions to Marketing**

Artificial Intelligence tools are used to communicate with customers and to learn the customer’s preferences. The first solution is the Chatbots, automated reasoning bots through which direct clients’ dedication can be recognized. Due to AI, business practices and operations of marketing at the strategic and tactical levels will be performed effectively and efficiently. Chatbots are used for contacting customers, gathering information about clients’ prerequisites and client care services, assisting them in purchasing or reserving a product or service and making them refreshed on their online orders. For example, Wall Street Journal (WSJ) created a Facebook Messenger chatbot and directly linked customers for direct delivery of content (Sameer, 2021).

The second solution is “Recommendation Algorithms”, which helps in recommending tailored solutions as per the needs, wants and preferences of the customers. Algorithms these days are more active and more innovative as they visual inclination of clients than item portrayals. This solution is defined as “Content personalization”, which is referred to as content delivery that gives clients a personalized experience, increasing their brand loyalty and revenues or organizations. Conventionally a mass marketing strategy was used to target the audience, but now computerized showcasing channels show customized messages based on your persona and allow you to focus on your purchasers exactly (Kardon, 2019).

SEOs also assist you in targeting narrowly based on gender, geography, occupation, income patterns, etc. Moreover, Artificial Intelligence sales forecasting solutions can also improve the scoring abilities. Sales forecasting helps businesses achieve their sales objectives, and anticipation of business stimulates intelligence agreements. Businesses can also distinguish between their potential customers through the progressive examination of authentic information (Marr, 2018). Lastly, Artificial Intelligence can be used in the form of “Pixel and Cookies” to enhance the tracking and reporting features. The method in which the data is taken is known as a pixel, while small amounts of data in computer files are known as cookies. The prime function of cookies is to recognize the visitors and track a site to improve its functioning of the site and to give data to advertisers for retargeting (Huang & Rust, 2021).
Customer Relation Marketing (CRM) is used to automate sales processes and customer services as per the definition of Payne and Frow (2005). Moreover, it is also essential for relationship marketing and the relevant fields, as AI plays a critical role in building a connection between the company and customers (Parvatiyar & Jagdish, 2001). The customer’s experiences and service touch points are also improved through Artificial Intelligence Marketing. Contrary to this, the invention and discovery of new technology have transformed the role of Marketing Managers worldwide due to companies’ swift response to meet the needs and wants of customers (Hall, 2019) because Artificial Intelligence helps Marketing Managers in calculated decisions. According to Customer Relation Management, stronger relationships should be developed with customers to better understand customers' needs and wants by following customer-driven strategies based on big data (Anshu & Tarun, 2019). AI assists in refining customer data by using the tool of machine learning to convert raw data into meaningful information to target customers effectively. It also helps companies store large amounts of customer data for longer, which is used for identifying customer buying patterns. The relationship between the current and the potential customers is closely interpreted by customer relationship marketing (CRM). The firm's sales efficiency and profitability are improved by implementing the customer relationship marketing (CRM) system. The historical sales data of the customers and clients are identified with the help of customer relationship marketing (CRM), which in turn helps identify the customers’ preferences (Dilmengani, 2021). With the help of customer relationship marketing (CRM), firms and businesses can develop marketing strategies effectively, point out more significant sales and profitability opportunities and give adequate support services to the customers.

The Future of Artificial Intelligence in Marketing

The sales and profitability growth level of the firms and organizations will definitely increase due to the effect of Artificial Intelligence in the area of Marketing. In the field of marketing, new opportunities are brought by Artificial Intelligence. With the help of Artificial Intelligence, we can predict the behavior of customers and clients as quickly as possible. Artificial Intelligence can identify the level of success of digital marketing campaigns, so the company can achieve a higher sales volume which means a higher return on investment (ROI). Artificial Intelligence will influence the company’s marketing strategies by looking at the insight of the customers (Davenport, Guha, Grewal, & Bressgott, 2019). The efficiency and productivity of marketing managers can also be improved through Artificial Intelligence, which is considered a practical tool (Kardon, 2019). This disruptive technology offers greater benefits for
organizations to increase customer and organizational value. The personalized customer experience is the ability of AI as it has the potential to provide greater benefits with the use of data. This will also assist consumers in making smart decisions that provide value in the long run, reducing the frequency of buying, which will drive them away from overconsumption.

CONCLUSION & RECOMMENDATIONS

Artificial Intelligence (AI) is emerging as a new technology to provide business solutions for a superior understanding of consumer behaviors as it helps to target a specific audience by employing better digital marketing techniques. It also assists in sharing a happy customer interaction which converts into strategic customer relationships. This certainly means that the use of AI in digital marketing is highly effective. Nevertheless, it is essential to have the infrastructure, organizational culture, the right set of skills and expertise, and the required technology to get the real benefits of AI. Another challenge for organizations employing mechanized processes is to provide training to their employees and motivate them to use the advanced technologies actively. According to a report by Harvard Business Review, if organizations start displacing employees, the results will be short-term; therefore, upgrading the technology alongside employees is in the organization's best interest. For the success of AI, it is important to retain the employees by providing them the training and scaling up their skills for using analytics for consumer insights and offering personalized products and services using advanced tools. Additionally, it is critical for companies to provide a superior and memorable virtual and physical customer experience by implementing artificial intelligence. Since the present study aimed at highlighting the significance of using AI for marketing management, future studies should explore the risks and challenges of adopting AI and doing quantitative studies to predict the effect of AI on digital marketing and consumer behaviors.

There are various managerial implications of deploying AI and big data analytics in marketing as it helps organizations to achieve a higher level of efficiency and market orientation. Firms in the automotive and communication industries should adopt advanced technology tools to boost performance by linking their products with the customers' contemporary needs. Below-average firms should invest in AI and big data and reward the employee for adopting the advanced technologies as it will help them to respond faster, create market intelligence and widen their organizational knowledge. The researchers have also emphasized to use the big data in tourism management for different decisions of customers. The academic literature on AI technology also invites research to explore the use of AI in various disciplines to foster mutually beneficial co-creation in AI innovation adoption.
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