

Understand AI Driven Marketing Capabilities: Empowering Customer Experience and Deliver Value with Intelligent Tools and Technologies



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Abstract

The knowledge potential of a business can be improved with technology, and such technological advancements can also help in improving customer interactions. Intelligent technologies, such as artificial intelligence, are transforming businesses by gathering and analyzing huge amount of data which further improves customer interaction and experience. The biggest growth opportunity for companies nowadays is the customers' transition from offline to online; being tech-savvy consumers, they spend most of their time online, and this also calls for a great online experience which today's customers want. Companies are creating influential customer experiences, as with the advancements in technology, the complex things have become much easier with a single click. In order to provide enhanced customer experience, companies are utilizing artificial intelligence. Artificial intelligence (AI) is a disruptive technology enabling machines to mimic human and cognitive functions. The term is also used to represent the various capabilities of a learning system which are representative of the intelligence level perceived by humans. The different capabilities can be of different types like processing of natural language, automating, predicting, decision making, etc. Applications of artificial intelligence also include image and video recognition, understanding natural language, generating natural language, smart automation, interactive agents, analytics, and predicting. Artificial intelligence (AI) can perform various tasks like solving various problems and reasoning as using this technology machines can mimic human effective and cognitive which is required for performing such tasks. In order to take real-time decisions like predicting and other marketing-related actions, machines present, learn, and store the information on the basis of past and present knowledge as well as experience. Machines learn while assessing the decisions, and this enables machines to respond and adapt as per the dynamic business environment which was not possible earlier with traditional approaches.

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AI is being widely used in different fields, and certainly it has changed the entire landscapes, especially in marketing where a transition has happened from traditional approaches to digital approaches like usage of chatbots, etc. Artificial intelligence has multiple things to offer like personalization, automation, prediction, and recommendation which has brought a revolution. AI has unfolded various avenues of competitive advantage, but AI has its limitations and challenges too. The challenges include complex designing, privacy compromise, etc. In order to draw a conclusion, data can be processed from various platforms with the help of AI technology. With the emergence of modern marketing, the power has shifted from industry to consumer. Companies are increasingly focusing on their customers' interests and spending heavily on marketing designing appropriate marketing strategies to reach out to their customers. With extensive data available on social media platforms, companies are taking more interest in what their customers are feeling, liking, and buying. This data can quickly be converted in real time which can be easily modified for maximum effectiveness. Further, deeper insights can easily be availed for optimizing digital advertising and account-based marketing. The use of artificial intelligence in one or the other form is widespread. Car voice interfaces are being widely used in automotive. Companies like BMW are even working on providing premium and more natural experience by introducing gesture and gaze recognition capabilities in their 2021 series. People are using AI to interact with the government as well; students are benefiting from the introduction of artificial intelligence in the education sector. Chat interfaces are being used for resolution of government (policies) related queries. Especially during the COVID-19 pandemic, chat interfaces were widely used in French cities to assess health symptoms. In countries where native languages are being spoken more than English, daily interactions have grown.

The Main Technologies Empowering Customer Experience are:

- **Big Data Analytics** - The power of data is significant today and has the ability to transform different sectors on the basis of compiled data. The data gathered provides crucial information which helps managers to make good decisions. With the unprecedented increase in online shopping, a huge amount of data is available online which can be utilized by AI tools to understand choices and preferences, track location, identify dislikes and feedback, etc. Such information can also be utilized for the purpose of forecasting demand, estimating the next purchase pattern, modifying products, track online orders, etc. Most of the companies are nowadays using big data for making such big decisions and providing their customers a seamless experience. With utilizing such advanced technologies, Amazon's giant retailer in order to surprise their customers they implemented anticipatory shipping which deals with delivering those products which they could think of buying in the near future. Big data analytics also enables companies to develop a competitive advantage by utilizing such new technologies.
- **Recommendation Systems (RS)** - Due to online platforms, there is so much information in the form of data that is available on ecommerce platforms. However, the availability of data in large amount may create dissatisfaction in decision making. AI tools provide solutions to such dissatisfaction to the customers by recommending them what they should buy as per their taste and choice. With such recommendations, customers end up buying the right products.

- **Conversational Agents (CA)** - Another tool of artificial intelligence is the conversational agent that is transforming businesses. It is a form of communication that the customers can easily make with brands through digital assistants. Consumers are buying through conversational agents nowadays and are very satisfied. This is also called a conversational commerce. Digital assistants or personal assistants like Alexa, Siri, and Google Assistant are widely used by customers for listening music, ordering food, etc. People consider these assistants as their companions at home and at the office.
- **Service Robots** - Robots equipped with AI features are used for various services to enhance the customer experience. Such robots are built with features like image processing and biometrics. They may be physically present or in virtual forms in the future. Common questions of customers can be dealt with by such robots in shopping malls, hospitals, hotels, airports, etc. Service robots can be physically embodied robots and can be in virtual formats in the future. These robots can also be used for the purpose of dropping parcels to customers which will also be very cost effective and environment friendly.
- **Internet of Things (IoT)** - The connected things or their network which is capable of connecting with humans with the help of the Internet is IoT. Various electronic devices use sensors for operating automatically like air conditioners, washing machines, microwaves, etc. Such technologically intelligent devices are capable of ordering on their own if something falls short, for example, refrigerators can order food, fruits, vegetables, etc., according to the stock left. Devices are becoming smarter and advanced with the use of the Internet, and one can operate them by sitting far away from home. Imagine your refrigerators showing information related to price, important dates, specifications, etc. Technological advancements like the Internet of Things are transforming the shopping experience immensely. IoT has immense potential to transform the shopping experience. With the help of IoT, information like price, usage, manufacturing date, specifications, expiry date, etc., through smartphones with the help of the Internet. Extended reality (XR), augmented reality (AR), virtual reality (VR), and mixed reality (MR) technologies give customers a unique experience by enhancing their view of the real world. Computer-generated information provides an entirely different view utilizing AR, for example, Lenscart uses a 3D mirror where users can try different glasses as per their face and can actually see how it looks on them. Another virtual reality technology provides an entirely virtual environment using 3D wearables. VR technology is widely used in the gaming industry, but now it is widely used in healthcare, education, and retailing for giving seamless experience to the customers. Businesses are developing AI-driven customer journey in order to provide a magical experience to their customers.

Significant Applications of Artificial Intelligence (AI) for Marketing

Artificial intelligence is delivering relevant information to clients on the basis of their preferences. The information delivered is being examined by AI technologies, which has made things easier and more accessible. It may be considered as a tool to guide marketing programs to achieve high-end objectives. Undoubtedly, artificial intelligence is assisting marketing managers to reach out to modern customers at individual levels by using hyper-personalization including timely and relevant messages.

- **Tracking and Assessing Technology** has the ability to track and assess a visitor's activity on-site and quickly show the material which is highly individualized. The data being collected is utilized for future content updates and modifications as per the visitor preference. Sellers are being leveraged with this personal data which empowers them to focus on outcomes. The purchasing patterns, desires, and goals are being utilized to understand the purchase influence or decision making while purchasing using artificial intelligence.
- **AI-Enabled Customer Support.** Artificial intelligence provides customers with support throughout the journey, which is intelligent yet convenient to customers. For a seamless customer experience, it is critical as well. Marketing automation is transforming the way marketing programs are handled with the help of AI operations. The technology is capable of interpreting data in real time. It makes complex data easier by separating sorting and prioritizing the data. Platforms like AI are addressing the needs of the next generation by providing hyper-personalized offerings to clients.
- **Customer-Centric Choices AI** - utilizing the advanced technology gathers valuable insights in order to understand their customers and make choices which are customer-centric. AI systems provide market information to the marketers by evaluating and analyzing different platforms on the Internet, which enables marketers to develop personas of consumers. Developing personas needs information like purchasing patterns and habits, interests, referrals, previous interactions and communications, etc.
- **Customize Shopping Processes** - By making simulation models and interacting with virtual assistants, artificial intelligence can customize the shopping process as per customer convenience. Various companies are using AI technology to interact with their customers. These technologies are intelligent as they can propose the inventory by utilizing the data on previous purchases and searches made by the customers. AI is outperforming humans in varied areas and growing rapidly. They can predict the market trend more precisely and provides valuable inputs for decision making. The user experience can be enhanced immensely utilizing the information provided by AI.
- **High Conversion** - Companies are able to improve their operational efficiency with the help of these intelligent technologies, making the customer experience better. The target customers can easily be identified utilizing the data made available by AI, and the conversion rate can also be improved with minimum effort.
- **Customer Preferences** - Demographic data of the customers and data on their preferences can be availed by using AI tools, and marketers can target the customers with personalization and customization. Future marketing strategies can easily be built on the information availed through AI tools to make the customer experience better and more seamless.
- **Timely Delivery of Message** - A better understanding of the customers through AI enables marketers to give away the right message to the actual and potential customers. A comprehensive profile of each consumer can be prepared with the help of AI while having an interaction with the customer. Utilizing this profile, personalized content can be created and forwarded to the customers. With the advancement of technology and tools like AI, data can be collected from various sources easily, as on the Internet, it is present everywhere like profiles of consumers, browsing history, keyword searches, etc. *Artificial intelligence can be used for identifying and forecasting trends for the future by the marketers, as on the basis of this forecasting, they can take significant decisions like allocating budgets and target audience. Spending on advertising can be done cautiously, especially digital marketing, and more focus can be done on other important works. AI plays a crucial role in all the phases from planning to the conversion and finally to the loyalty phase.* Marketing strategies or campaigns designed utilizing AI having more chances of success. Thus, companies can also develop a competitive advantage using AI to those in the industry not utilizing it. With the help of AI, marketers can generate engaging content like short stories and videos targeting their audience.

Artificial Intelligence Tools Used for Engaging Customers. A variety of AI tools can be used at different touchpoints to interact with customers. A few among them are as follows:

- **Voice Assistant** is one of the technologies that engages customers as it provides hands-free operations of the devices. The technology can interact with humans by responding to the spoken commands. Voice assistants are capable of recognizing the voice and providing expected response to the one who is interacting through the system of IVR, that is, interactive voice response which functions as a virtual digital assistant. With the emergence of such platforms, customers are expecting and looking forward for more such options and opportunities where they can interact solely.
- **Chatbots** - Another AI technology, chatbots are conversational software which have the ability to replicate human behavior. Chatbots being conversational are widely used in different fields like healthcare, education, etc. Chatbots are also being used in businesses on a large scale in order to interact with the customers. These are activated on the basis of text and queries rather than speech. Every type of request requiring information is being fulfilled by chatbots as they have the ability to use the stored information while replying to the query. Chatbots have the ability to learn continuously and use the already stored information to give the appropriate answers to the queries asked. Effective use of chatbots in business is capable of providing positive impact and high engagement with the customers.
- **Sentiment Analysis** - Online conversations using digital devices are very significant as they provide valuable insights on customers' choices, interests, and preferences. In fact, while having online conversations, sentiments of the consumers can also be known and can be utilized for framing marketing strategies. AI tools for sentiment analysis have the ability to capture sentiments from sources like posts on social media, reviews, survey, blogs, etc. Attitude toward brands can easily be identified as this will help marketers to frame their messages in such way which is more appealing to customers. The text-mining tool can assess emotions and assist in optimizing customer service to engage loyal customers.
- **Facial Recognition** - AI tools like facial recognition is a smart technology and capable of matching faces accurately from the digital database. Facial recognition can easily detect the face of a person from an image as well. This technology extends a variety of information about a person after recognizing the face like gender, age, visit frequency, etc. Such information about an individual is very crucial for marketers as it provides the opportunity for designing personalized messages and marketing programs. Personalized messages can be sent to the customers suggesting options for eyewear or cosmetics as per their facial features.
- **NLP** - It is the process of converting human language in such computer structured programs that it can be understood by computers. The computers understand the human language and provide output accordingly which helps in understanding customer requirement that too with no challenges of syntax error. Furthermore, businesses can derive meaningful insights from what customers say in their own words and make more relevant strategies based upon these insights.
- **Visual Search.** In this search, people can search with the help of images and not text. Customers can simply search with the image of what they have captured or found online. AI tools respond to the picture by identifying the picture in the image and suggest results on the basis of the image put to search. Visual search offers convenience to customers and curated results as per customer requirement. Thus, this tool enhances overall customer experience.
- **Kiosks** are touchless devices integrating voice and gesture control features. Kiosks are able to understand different requirements of a customer. They can perform their tasks with greater efficiency and more accuracy while interacting with the customers. Kiosks are capable of providing engaging customer experience.

AI and Personalization. Companies are using automation and data points to target customers and provide them with a personalized message so that customers can have better experience and get engaged; this form of target marketing is also known as personalized marketing. Previous researches have proved that developments in artificial intelligence helped companies to better target their customers by providing them with individualized and personalized content. Micro marketing through artificial intelligence enables companies to meet individual needs of the customers. Companies can adjust and modify their marketing strategies as per customer views without getting into their privacy zone. *Customers are increasingly making interactions through chatbots as they can ask any information and query anytime, anywhere. This interaction with chatbots collects data about the nature of queries, products and services preferred, content usage and preference, etc.*

AI and Hassle-Free Service. Every customer wants a hassle-free experience while purchasing; it should be systematic and trouble-free so that the customers get their needs fulfilled without any problem or barrier. Previous researchers have proved that AI can be used to improve digital marketing and serve customers better without any confusion throughout the process. Customers found their experience with chatbots more flexible as the interaction is more accessible. Customers need not wait for a long period of time for long durations for any response, which makes this interaction hassle-free.

AI and Service Quality - Artificial intelligence is also improving the quality of service (QoS) which is the overall experience a customer experience during the journey of purchase.

Challenges - The following are the challenges in applications of AI:

- AI systems have high-speed ability to compute and require organizations to have good infrastructure and fast processors. Such systems are not easy to set up and maintain as artificial intelligence systems need a stable and adaptable environment for applications to function.
- Another challenge is the budget requirement which organizations fail to deploy for AI applications. The installation and maintenance of advanced software and huge hardware are a big challenge for organizations that are not fund sufficient. Requires Huge Budget Another challenge is that businesses do not have funds for deploying AI technology. Funds required for AI are a big hindrance for companies to reap the benefits of AI tools and applications.
- In order to analyze the data and provide information for decision making, AI needs unified data. To arrange and unify the dispersed data from across all the different platforms is a huge challenge. This is required for taking crucial decisions on segmentation, targeting, pricing, and framing effective marketing strategies. Skill human resource is another issue in order to utilize the data of AI. An existing talent pool is insufficient in properly installing and interpreting the results generated by AI. Companies need to provide proper training to the employees to make them skilled so they can interpret the data and provide better results to the organization.
- Human interaction will always be preferred, and AI can never replace that human touch in the interactions. Also, customer service agents are required to handle human queries and requests that AI cannot handle. Customers especially in high-involvement products prefer to have an interaction with humans and not with AI chatbots as it provides a feeling of human touch as compared to a machine voice.
- The privacy of the customers is at stake as the data of each and every move is collected from online platforms. The ethical concerns and privacy concerns are somewhere at stake. The data is the backbone of the system, and collecting it from various platforms may hurt the sentiments of the customers.

Conclusions

In this era of advanced technology, companies are working on providing better customer experience. Customer experience is something which cannot be quantified; it can only be felt. Earlier researches have proved that AI contributes positively toward enhancing customer experience. In this highly competitive market, AI tools are helpful in understanding and retaining customers.

The information gathered and analyzed by AI tools help marketers in framing and modifying marketing strategies. *Technologies like virtual reality and augmented reality are capable of providing virtual environment for enhancing customer experience. AI tools help marketers to understand their customers better, and with the power of data availability, hyper-personalization can be done by marketers, which will provide the wow factor to the customers as the only desired products and services will be available to them.* This also provides implications for marketers and practitioners in designing effective marketing mix strategies in order to enhance customer experience. It also has implications for researchers and academicians in terms of understanding and designing new technologies in the marketing domain where customer satisfaction is of paramount importance.

Customer satisfaction is the main parameter for companies to consider in this customer-centric era, but the cut-throat competition has made it even more significant for companies. Intelligent and advanced technologies are widely used by companies to better understand their customers by collecting data on purchase patterns, searches, keywords, preferences, etc., from various online sources. Companies are providing more personalized experience to customers in a hassle-free way by utilizing various tools and techniques of artificial intelligence.

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