GFER Publishers

International Journal of Applied Service Marketing Perspectives

ISSN (Print) 2279-0977
ISSN (Online) 2279-0985
Volume 14 Issue 1, 2025
Pages 16-31

Open Access

Examining the Influence of Artificial Intelligence on Service Marketing

Publication Details

Paper Received:
March, 11, 2025

Paper Accepted:
April 21, 2025

Paper Published:
April 27, 2025

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Abstract

Artificial intelligence (AI) has been on the rise in a number of sectors in recent years, including the scientific, commercial, medical, automotive, and educational communities. The use of artificial intelligence in advertising has also become commonplace. The study intends to investigate the extent to which AI is employed in marketing and the consequences this has for marketing professionals. The authors posed two study questions: what applications of AI exist in marketing, and what benefits does AI provide to marketing managers. The writers looked into secondary sources for the answers, citing AI instances in advertising. The examination of the collected instances demonstrates the widespread introduction of AI into the marketing industry, although with practical applications. Perhaps this is the result of cautiously testing the waters with the cutting-edge equipment. Caution in putting these advances into reality may also be influenced by the unknown results of AI application. The examples we gathered

show how AI affects every facet of the marketing mix, from the creation of ads to the administration of marketing departments. Implications for business are provided in the article, with specific attention paid to how to apply AI into marketing, how to develop innovations, and how to incorporate the new talents into a marketing team.

Keywords: AI framework; artificial intelligence; marketing action; marketing analysis; service marketing; strategy

1. Introduction

Increasing processing power, decreasing computing costs, the availability of large data, and the development of machine learning techniques and models have all contributed to the rise of artificial intelligence (AI) in marketing. Artificial intelligence is being widely used in many aspects of advertising. Prime Air from Amazon, for instance, employs drones to automate the delivery process. Domino's Pizza is trying out autonomous delivery vehicles and robots to bring pizza directly to customers' doors. Albert is an AI marketing tool that Red Balloon utilizes to find and connect with new consumers. Macy's On Call is a personal assistant service in-store that employs natural language processing to interact with consumers. Lexus's "Driven by Intuition" TV ad scripts are written by IBM Watson. Affectiva, which is built on affective analytics, can identify how viewers feel about advertising. Replika, a chatbot powered by machine learning, soothes customers' nerves by emulating their speech patterns. Some have even predicted that AI would have a dramatic impact on the future of advertising. The advantages of AI in marketing might be huge, but so far there is little in the way of concrete direction on how to make the most of this opportunity from the academic marketing research community.

There are essentially four distinct sorts of articles that may be found in the marketing AI literature. These include (1) the development of specialized AI algorithms for use in marketing (2) the psychological responses of consumers to the advent of AI (3) the impact of AI on employment and society (4) the management and strategic implications of AI. Although there have been some recent attempts to handle strategic marketing difficulties, consultants are now dominating the fourth literature stream, which deals with management challenges

relating to AI. Machine learning prediction for mobile marketing personalization; in-store technology (e.g., robots, smart displays, or augmented reality) for convenience or social presence; analytics for consumer value in healthcare; and AI for personalized customer engagement are just a few examples.

Researchers provide a three-stage framework for strategic marketing planning that incorporates AI, beginning with marketing research and ending with marketing strategy (segmentation, targeting, and positioning, STP) and marketing activities (4Ps/4Cs). This strategic AI framework is grounded on a deeper understanding of the evolution of AI technology, the results of existing research into the intersection of AI and marketing, and the potential uses of AI now and in the future. It may help with marketing strategy, data organization, and spotting knowledge gaps in the field of artificial intelligence marketing.

This study makes a contribution to the strategic use of AI in marketing by creating a framework that facilitates the systematic and actionable planning of AI in marketing. This is done through investigating what can be learned about managing AI in marketing by bringing together various AI literatures on algorithms, psychology, societal consequences, and management implications. As an applied discipline, marketing academics has a critical role to play in ensuring that the more basic literatures are used to influence marketing practice. Another important contribution of this work to the field of strategic marketing research is the methodical and rigorous way in which the gaps between strategic AI marketing practice and research are identified. The top uses of AI in service marketing are provided in Table 1.

Table 1. Top Uses of AI in Service Marketing

ACTIVITIES	OVERALL CONTRIBUTIONS (%)
Content personalization	56.5
Predictive analysis	56.5
Targeting decisions	49.6
Customer segmentation	40.9
Programmic advertising	38.3
Improving marketing	33.9
Conversational AI	25.2

1.1 The Loop of Marketing Analysis, Strategy and Execution

Based on the marketing research–marketing strategy–marketing action cycle, it is suggested a three-stage strategic planning framework. The plan-do-check-and-act cycle is similar, but it fails to account for strategy. Marketing research is the first step in our cycle, which then moves on to the development of strategies for segmentation, targeting, and positioning as well as the design of concrete marketing actions to put those strategies into action. The marketing activities are only the beginning of this cycle.

1.2 Multiple AI Intelligences

In all three of these phases of marketing strategy, AI may play an essential part. It demonstrates the marketer's ability to draw on the mechanical, cognitive, and emotional intelligences of AI. Rather than treating AI as a thinking machine, the multiple AI intelligence view considers that AI can be designed to have multiple intelligences, as humans do, for different tasks. We conceptualize AI as the use of computational machinery to emulate capabilities inherent to humans, such as doing physical or mechanical tasks, thinking, and feeling. In descending order of how challenging they are for AI to solve, we have mechanical, thinking, and emotional AI intelligences.

Automation of mundane or repetitive jobs is the primary goal of mechanical AI. Technologies such as remote sensing, machine translation, classification algorithms, clustering algorithms, and dimensionality reduction are all examples of what might be called "mechanical AI" today. Artificial intelligence that can think is built to analyze data and draw novel findings or take unusual actions. The information is usually in a disorderly format. Artificial intelligence that can think for itself excels in areas such as text mining, audio recognition, and face recognition. Some of the ways that modern thinking AI analyzes data include via machine learning, neural networks, and deep learning. Today's decision-making applications range from IBM Watson to expert systems and recommender systems.

Feeling AI is programmed to understand and respond to human sentiment in two-way conversations. Technologies such as sentiment analysis, NLP, text-to-speech, RNN, chatbots that mimic human speech, embodied and embedded virtual agents for human interactions, and robots with specialized hardware for sensing affective signals are all currently available. There are two caveats to keep in mind with this many AI intelligences perspective. First, although we define three intelligences, the primary factor in determining which intelligence various applications belong to is their intended function. This suggests that the three intelligences are fuzzy sets, since certain applications may share features with more than one. AI that tries to identify a person is an example of thinking AI, whereas AI that tries to infer an individual's emotional state from their expression is an example of feeling AI. Second, since we do not yet have pure feeling AI, thinking AI is often used to evaluate sentiment and interpret social interactions. Emotional data differ from cognitive data in that they are often multimodal, dependent on context, and unique to the person. Given the contextual nature of such data, it is essential that feeling AI integrate both contextual and individual-specific data when modeling a person's emotional state.

1.3 Multiple Benefits of AI

Mechanical AI is great for standardization, thinking AI is fantastic for personalisation, and feeling AI is perfect for relationalization, but all three may produce value. The reliability of mechanical AI makes it useful for standardization. Standardization has been achieved by the application of mechanical AI in marketing through the deployment of collaborative robots to aid in packing, drones to distribute physical items, self-service robots to give service, and service robots to automate social presence at the frontline. The end goal of each of these programs is to provide uniform, trustworthy results. The capacity of a thinking AI to identify patterns in data is useful for personalisation. Artificial intelligence should be considered for any marketing tasks or endeavors that might benefit from customized results. Personalized recommendation systems, such as those provided by services like Netflix and e-commerce platforms like Amazon, are among the most widely used marketing applications.

Due to its capacity to perceive and react to emotions, feeling AI may improve interpersonal connections. Customer service is only one example of a marketing function that might benefit from the use of emotional intelligence. Feeling AI may be used in a variety of marketing contexts, including those dealing with customer satisfaction, customer complaints, consumer moods, advertising emotions, etc.

2. The Strategic AI Framework

In order to reap the full advantages of artificial intelligence (AI), researchers have developed a three-stage strategic framework for using AI in advertising. Mechanical AI for data collecting, thinking AI for market analysis, and feeling AI for consumer understanding are all examples of how AI is utilized for market intelligence throughout the marketing research phase. Artificial intelligence (AI) is utilized in the marketing strategy phase to make informed choices about market segmentation, target audience, and product positioning. To be more specific, mechanical AI excels in mining unstructured data for unique consumer preference patterns, thinking AI excels at suggesting the most promising target segments, and feeling AI excels at communicating with those segments.

Standardization, personalisation, and relationalization are all aided by AI in the marketing action stage. Marketers must choose what artificial intelligence (AI) to use and for what purposes. Standardization using mechanical AI, such as automated payment and delivery tracking, may help improve processes like payment and delivery, for instance. Thoughtful AI, like different recommendation systems, may help bring individualization to digital marketing. Using emotional AI, such as social robots welcoming clients and conversational AI delivering support, may help to humanize front-line interactions and improve customer service. The marketing 4Ps/4Cs are used to structure the debate of the strategic use of AI in marketing activity, striking a good balance between the needs of the marketer and those of the customers.

3. Marketing Research

At this juncture, strategic AI applications range from data gathering through mechanical AI to market research via thinking AI to consumer comprehension via feeling AI (Figure 1).

Figure 1. Role of AI in Marketing Research

3.1 Mechanical AI for Data Collection

Market, environment, company, competitor, and consumer data collecting may all be automated with the use of mechanical AI. Market data is readily accessible in today's digitally linked society. Sensing, monitoring, and collecting data are examples of mundane, repetitive jobs well suited for mechanical AI automation.
Many existing research have shown diverse applications of mechanical AI for information gathering. Connected devices allow for the collection of customer intelligence in the form of data about consumers, their activities, and their environments; IoT allows for the visualization of product usage and consumption experiences; advanced technologies and analytics capture unstructured marketing activity data; in-car sensors track driving behavior for the purpose of calculating insurance premiums; and retail technologies like heat maps, video surveys, and RFID allow for the efficient and effective tracking of consumer preferences and purchases. Research like this demonstrates that mechanical AI can effectively gather data at scale because to the repetitive, regular, yet high-volume nature of market data.

Mechanical AI may be used to assist the collecting of survey or experimental data to capture customer psychographics, views, and attitudes, not only observable behavioral data. The need for human intervention in the management of ongoing surveys is one example. Commercial survey platforms like SurveyMonkey and SurveyCake streamline the survey creation and data gathering processes.

3.2 Thinking AI for Market Analysis

Rivals in a well-defined market, as well as outside possibilities in a new market, may be identified with the help of a thinking AI, and insights for a product's competitive advantages (i.e., how a product can better than rivals match consumer wants) can be derived from this analysis. Markets in which the structure is well-established and well-understood by marketers are good candidates for supervised machine learning, while markets in which the structure and trends are unstable and unknown to marketers are better suited to unsupervised machine learning, which can be used for tasks such as spotting outside options.

Predictive analytics are widely utilized in the marketing industry to foresee unpredictable market shifts and the preferences of a diverse consumer base. Examples include the fast fashion business Gap, which utilizes it to anticipate client requirements, and the e-commerce giant Amazon, which uses it to anticipate a customer's future purchases.

Various applications of thinking AI for market research have been shown in existing studies. Researching consumers, gaining marketing intelligence, and delving into the heuristics behind consumers' purchasing decisions are all areas where automated text analysis may be put to use. Different social media datasets may be analyzed using machine learning algorithms and lexicon-based text categorization. The use of big data analytics in marketing has also become commonplace.

Particular uses include assisting with social media content engineering by employing natural language processing algorithms that discover the associations between social media marketing content and user engagement, detecting copycat mobile apps by employing machine learning copycat-detection methods, and mapping market structures for large retail assortments by analyzing the co-occurrences of products in shopping baskets.

3.3 Feeling AI for Customer Understanding

Understanding the identities, wishes, and present solutions of current and future customers is possible with the help of Feeling AI. Customers' thoughts, feelings, preferences, and attitudes are frequently the emotional data that separates market analysis from customer knowledge. Because of its capacity to analyze emotional data, feeling AI can better comprehend clients than mechanical AI and cognitive AI.

Marketers may utilize emotion AI to find out whether their current clientele is satisfied with the goods and, if so, why. Customers who have previously purchased from a business tend to have more consistent tastes, and this information may be used to better understand the consumer base. To better

understand how drivers feel, Affectiva collaborated with Ford to develop AutoEmotive sentiment analysis.

Potential consumers' wants and needs, as well as the reasons they choose alternatives, may be better understood with the use of emotion AI by marketers. Predicting the needs and desires of potential clients is more challenging since less emotional data is known about them. Adgorithm's AI-driven marketing platform, Albert AI, has been put to use by companies like RedBalloon and Harley-Davidson. In both cases, the goal was to expand the company's customer base by finding and connecting with new people. Existing studies have proven a variety of methods for applying feeling AI to comprehend clients in academic study. Analytical mapping can be used to script appropriate response sequences that give the impression of a "conversation" between conversational AI and customers, consumer consideration heuristics can be used to predict how customers will react to a given product or service, and the sentiment expressed by consumers in social media (e.g., online reviews, tweets) can be analyzed to understand consumer responses using their own language.

3.4 Marketing Strategy (STP)

At this juncture in the marketing process, AI may be used for segmentation, targeting, and positioning. However, in order to make informed STP choices, marketers must first settle on an overarching strategic posture. A team of researchers proposes a technology-based method for determining where an organization's strategy falls along the standardization/personalization and transaction/relationship axes. A company can maximize efficiency through automated or robotic processes with a commodity strategy, build relationships with its current clientele to increase their lifetime value, use cross-sectional big data analytics to personalize products and services, or employ longitudinal customer data to personalize products and services in real time with an adaptive personalization strategy. Businesses will use this positioning strategy to inform their STP choices. If a company opts for static personalization, for instance, it could find it useful to have a large database of current and future customers that includes information about their preferences and buying habits, and then use this information as the starting point for ad targeting and product placement using

unsupervised machine learning. If a company opts for adaptive customisation, it may find that supervised machine learning is useful for tracking how satisfied or unsatisfied its current clientele is. However, businesses may depend more heavily on AI to investigate STP opportunities if they adopt a data-driven strategy.

Thinking AI is often more relied upon at this level of strategic choices because to its capacity to digest data and come at novel findings or judgments. It is important to emphasize, however, that the primary factor in categorizing applications according to their level of intelligence is the function they serve. In segmentation applications, for instance, artificial intelligence can become highly routined, taking on many of the traits of mechanical AI because it identifies patterns in data in a mechanical fashion without giving much thought to the end goal of doing so.

3.5 Segmentation

For example, the shoe market may be divided into male and female shoe segments based on gender; the airline industry can be divided into low-cost and premium carrier segments based on price and service quality; and so on. Mechanical AI, in particular the many mining and categorizing methods, excels in discovering previously unseen patterns in data. In the same way that AI segmentation may gather dispersed long tails into one segment, it can also disaggregate the market into segments of one. Using what has been learned about the distribution's head and transferring it to the data-poor tail, studies have shown that transfer learning can be utilized to model the tail. Marketers are able to determine the optimal segment size because to this granularity in aggregation and disaggregation.

Data mining, as shown by prior research, may be utilized to unearth patterns that are invisible to human marketers. Data mining can be used to obtain tourist segments based on the meaning of destinations to consumers, which is superior to the classic clustering methods; retail customers can be micro-segmented using text-mining and machine learning; automated text analysis and correspondence analysis can be used for psychographic consumer segmentation in the art market.

3.5 Targeting

To "target" is to choose the most appropriate market niche for a company's promotional efforts. Market segmentation is more routine and can be performed automatically by mechanical AI if the necessary data is available. Nonetheless, picking the proper portion calls for specialized expertise, discretion, and gut instinct. Search engines employ terms and browsing history to target search consumers, while social media platforms use users' interests, content, and relationships to target users of those platforms. Recommendation engines, which may provide many prospective targets for marketing managers to evaluate, and predictive modeling, which can be used to decide which group to target, are exemplary forms of AI for this choice. Existing research demonstrates that several types of thinking AI can be employed for this goal. The optimization of promotion targeting for new customers using various machine learning methods; the identification of the best targets for proactive churn programs from field experimental data; the profiling of digital consumers for targeting using online browsing data; and so on are all examples of customer targeting that make use of a combination of statistical and data-mining techniques.

3.6 Positioning

A product's positioning is the link between the product's features and the value it brings to consumers. Brand positioning and advertising positioning share this phrase since they both focus on communicating with consumers to uphold a certain image. Data mining approaches, as shown by Daabes and Kharbat (2017), may be utilized to extract a customer-based perceptual map in place of marketing expertise. A positioning statement or slogan is used in marketing communications to appeal to consumers' emotions as opposed to the more analytical segmentation and targeting. According to studies, leading locations' positioning slogans put an emphasis on appealing to visitors' emotions.

Some brand positioning statements assist products carve out a special niche in the eyes of consumers, contributing to the companies' long-term success. Advertisements like "Just do it" for Nike, "Be different" for Apple computers, and "I am loving it" for McDonald's all appeal to consumers emotionally.

Understanding what connects with target clients is essential for making this strategic choice, and here is where emotion AI, like feeling analytics, comes in. There is a lack of scholarly investigation into this choice, which highlights a knowledge vacuum in the area of using emotional AI to craft engaging positioning.

3.7 Marketing Action

Mechanical AI may be used for standardization, thinking AI for personalisation, and feeling AI for relationalization at this key juncture in marketing. A marketer may utilize a single AI intelligence or a combination of them to achieve their goals. We show how AI intelligences are being used now and in the future in many sectors of marketing and back up our examples with references from the relevant literature. To stress the importance of the 4P activities being able to give customer advantages, the debate is arranged around the marketing 4Ps (product, price, location, and promotion) and their related 4Cs (consumer, cost, convenience, and communication).

3.8 Product (Consumer) Actions

Offerings of products and services to consumers in order to satisfy their desires and requirements are referred to as "product" activities. The design, packing, branding, and return of products, as well as the accompanying customer service, are all examples of such behaviors. We use the selection between product/branding and customer service as an example. The product/branding side represents the producer, while the customer service side represents the consumer. A product's branding is its identity, including its name, symbol, and logo.

3.9 Product/Branding Focuses on Product Creation and Branding

The application of mechanical AI may help standardize product/branding activities. Marketers on a tighter budget may still benefit from AI-assisted branding, thanks to methods like decision-tree-like machine learning employing multiple-choice questions for brand logo creation. Automatic monitoring of product uptake and satisfaction is now possible. While previous research

acknowledges the standardization benefits of mechanical AI, it warns against automating product selections that have a direct bearing on customers' identities. Applications of intelligent machines include product/branding activities that may gain from individualization. Topic modeling can advance service innovation and design; adaptive systems can personalize service to each consumer's preference; deep learning can be used to personalize point-of-interest recommendations; and marketing analytics can predict market trends for product design that caters more precisely to the preferences of target customers.

Emotional AI has applications in product/branding campaigns that may gain traction via humanization. Brands can monitor their reputation with text and sentiment analyses of tweets, reviews, and social media posts, and conversational AI can be given a brand personality so that it can interact with customers on an emotional level by mimicking their communication patterns. In order to generate, convey, and provide customised offerings to clients, researchers present a comprehensive investigation of the function of AI in personalized engagement marketing. Research shows that emotional AI may be utilized to create meaningful interactions with clients.

Existing research also reveals that consumers have contrasting reactions and perspectives when exposed to AI goods. Personal medical AI, identity-based consumption automation, and anthropomorphized consumer robots are three examples of areas where consumers may be hesitant to embrace AI. These studies provide a limit for how far marketers may go in using AI into their product/branding activities for desired results with customers. Providing excellent customer service is an investment of both time and money. A marketer may manage customer service using the three AI intelligences to strike a good balance between service costs and customer happiness.

Online, text-based chatbots and other forms of mechanical AI are employed for a large portion of mundane customer care tasks. The vast majority of inquiries from customers may be handled by such bots. Such automation is simple to develop, cheap to maintain, and scalable as long as it does not include personal information about the clients. Chatbots based on natural language processing can accommodate a wider range of clients and their unique needs, including those

who speak several languages and may have complaints that vary depending on the circumstances. In this AI-powered take on the traditional phone menu, clients interact with chatbots rather than humans. While a recent survey suggests that consumers are not yet ready to have conversations with chatbots, we can anticipate their comfort level to grow with the popularity of artificial intelligence and the development of chatbots more generally. Using emotional AI systems like those developed by Cogito, customer service representatives in call centers may get in-call assistance to help them have more natural and engaging discussions with their callers by improving their own speaking cadence, energy, and empathy.

4. Conclusion

Incorporating AI technology into marketing has allowed for the creation of hyper-customer-specific profiles that can be utilized for demand forecasting and ad personalization based on those profiles. As a result, many companies in the financial services sector are embracing AI to boost productivity. Chatbots and virtual assistants, automated underwriting and lending choices, augmented relationship managers, detection of fraud, customized banking, process automation, credit scoring, and analytics are just some of the ways that artificial intelligence is being used in the financial services industry. Artificial intelligence, big data analytics, and blockchain technology have unique applications in the financial services industry. They are being put into practice at a pace never seen before, which presents new theoretical and management difficulties.

References

Akerkar, R. (2019). *Artificial intelligence for business.* Springer; 2019.

Arsenijevic, U., & Jovic, M. (2019). Artificial intelligence marketing: Chatbots. In2019 international conference on artificial intelligence: Applications and innovations (IC-AIAI) 2019 (pp. 19-193). IEEE.

Bock, D. E., Wolter, J. S., & Ferrell, O. C. (2020) Artificial intelligence: Disrupting what we know about services. *Journal of Serv Market, 34*(3), 317-34.

De Bruyn, A., Viswanathan, V., Beh, Y.S., Brock, J. K., & Von Wangenheim, F.

(2020). Artificial intelligence and marketing: Pitfalls and opportunities. *Journal Interact Market, 51*(1), 91-105.

Han, R., Lam, H. K., Zhan, Y., Wang, Y., Dwivedi, Y. K., & Tan, K. H. (2021). Artificial intelligence in business-to-business marketing: a bibliometric analysis of current research status, development and future directions. *Industrial Management & Data Systems, 121*(12), 2467-2497.

Jarek, K., & Mazurek, G. Marketing and Artificial Intelligence. *Central Eur Bus Review, 8*(2), 31-47.

Kaczorowska-Spychalska D. How chatbots influence marketing. *Management, 23*(1):251-70.

Klaus, P., & Zaichkowsky J. (2020). AI voice bots: A services marketing research agenda. *Journal of Serv Market, 34*(3), 389-98.

Kumar, V., Rajan, B., Venkatesan, R., & Lecinski, J. (2019). Understanding the role of artificial intelligence in personalized engagement marketing. *California Manag Review, 61*(4), 135-55.

Loureiro, S. M., Guerreiro, J., & Tussyadiah, I. (2021). Artificial intelligence in business: State of the art and future research agenda. *Journal of Business Research, 129*, 911-926.

Mogaji, E., Soetan, T.O., & Kieu, T. A. (2020). The implications of artificial intelligence on the digital marketing of financial services to vulnerable customers. *Australasian Market Journal*.

Shah, N., Engineer, S., Bhagat, N., Chauhan, H., & Shah, M. (2020). Research trends on the usage of machine learning and artificial intelligence in advertising. *Augment Human Res, 5*, 1-5.

Soni, N., Sharma, E. K., Singh, N., & Kapoor, A. Artificial intelligence in business: from research and innovation to market deployment. *Procedia Comp Science, 167*, 2200-2210.

Stone, M., Aravopoulou, E., Ekinci, Y., Evans, G., Hobbs, M., Labib, A., Laughlin, P., Machtynger, J., & Machtynger, L. (2020). Artificial intelligence (AI) in strategic marketing decision-making: a research agenda. *The Bottom Line, 33*(2), 183-200.

Rust, R. T. (2020). The future of marketing. *International Journal of Res Market, 37*(1), 15-26.