



## Exploratory study of Artificial Intelligence in Customer Relationship Management

Bushra Siddiqui, Research Scholar, Department of Commerce & Business administration,  
A.K. Malviya, (Ph.D.), Department of Commerce & Business administration,  
University of Allahabad, Prayagraj, Uttar Pradesh, INDIA

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### Corresponding Authors

Bushra Siddiqui, Research Scholar,  
Department of Commerce & Business administration,  
A.K. Malviya, (Ph.D.),  
Department of Commerce & Business administration,  
University of Allahabad,  
Prayagraj, Uttar Pradesh, INDIA  
shodhsamagam1@gmail.com

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Exploratory study of Artificial Intelligence in Customer Relationship Management Bushra Siddiqui Research Scholar Department of Commerce & Business administration, University of Allahabad, Prayagraj Prof A.K. Malviya Professor Department of Commerce & Business administration, University of Allahabad, Prayagraj Abstract Background-Customer Relationship Management (CRM) has evolved significantly in recent years.

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### ABSTRACT

**Background:** Customer Relationship Management (CRM) has evolved significantly in recent years. Many businesses have emphasised the use of automation and artificial intelligence tools to better understand their consumers' purchasing behaviours, boost brand-customer contact, and build customer relationships. Artificial intelligence has been used to automate CRM, allowing companies to engage consumers based on their inquiries and the information they require, efficiently reply to customer questions, and boost customer loyalty.

**Aim:** The major goal of this research is to add to the body of knowledge on what changes have been made to CRM functions as a result of AI integration, and how these changes have impacted marketing managers' roles.

**Results:** The study's findings reveal a link between the two components, mainly artificial intelligence and customer relationship management.

**Contribution:** This research provides marketing managers with recommendations on how to apply AI effectively and how it enhances overall performance.

### KEYWORDS

Artificial Intelligence, Social Networks, Marketing, Customer Relationship Management.

### INTRODUCTION

#### Artificial Intelligence

"The art of making machines intelligent is artificial intelligence. "The word "artificial intelligence" refers to a computer-assisted

analytical process that aims to create intelligent automated systems. It's an automated system that inserts data to help intelligent beings do jobs with a higher success rate (Shahid and Li 2019). AI is now widely used in marketing and is often considered as a significant source of innovation (Rust & Huang, 2014; Brynjolfsson, et al. 2018; Schwab, 2017). The major approaches utilised in AI include machine learning, deep learning, neural networks, supervised learning, semi-supervised learning, and unsupervised learning. They serve as the technological foundation for the advancement of artificial intelligence. AI may aid in customer segmentation by assisting in the collection of data from customers, organising and analysing data in real-time, and providing tailored and customised service and goods based on customer segmentation (Yang & Siau, 2018).

### **Customer Relationship Management**

The CRM revolution that emerged in the 1990s was heavily reliant on technology. Improved production techniques offered mass customisation, while input and storage technology permitted corporations to begin gathering and storing data on individual consumers, and then assess their profitability over time (Blattberg et al. 1994). The relevance of the customer retention then, an underappreciated metric—as a crucial driver of a firm's profitability was recognised in research conducted by top consulting companies. Marketers began using a customer lifetime value strategy to manage consumers with the initial wave of advancements in data gathering, storage, and analytical capabilities.

### **Artificial Intelligence and Customer Relationship Management**

The adoption of AI technologies is advantageous to all aspects of the customer relationship management process, including making it simpler for customers to receive more tailored goods and services while also enhancing companies' profitability (Kumar et al., 2019, Rust and Huang, 2014, Gupta et al., 2020). Facilitating human-like interactions between AI-driven systems and clients would enable for the mass supply of tailored services at cheap cost, perhaps changing the character of customer service as a result (Kaplan and Haenlein, 2019, Hoyer et al., 2020; Grewal et al., 2020). Artificial intelligence (AI) marketing is essentially the use of technology to enhance customer's experience. Similarly, the work of marketing managers has been influenced by the use of information technology, particularly artificial intelligence (AI), as it is now more vital to understand consumers better or risk losing them to rivals who respond to their requirements and wants (Hall, 2019).

### **Research Motivation**

Numerous experts believe that if AI-technology is applied in a company's marketing function, it may reap significant benefits, particularly when it comes to machine learning (Faggella, 2019). Marketing, according to Artificial Intelligence Research, is one of the most growing corporate functions to adopt AI in due to the abundance of data and the fact that marketing has a direct influence on an organization's revenue development. Customer relationship management, in particular, aids in a better understanding of consumers' wants and habits, allowing for the development of deeper ties with them (Anshu & Tarun, 2019). A Customer Relationship Management (CRM) system, according to Dilmegani (2021), allows firms to actively monitor and evaluate interactions with current and future customers, contractors, and employees. The main goal of using this method is to improve and maintain solid business connections in order to increase sales efficiency and profitability. CRM technologies assist sales and marketing departments in examining customers' interaction histories and sales data, which in turn helps firms uncover customer preferences and enhance sales processes by providing what consumers want.

Companies can create even more successful marketing tactics by:

- Developing marketing methods that are even more effective.

- Identifying higher sales opportunities.
- Improving customer services by making them more efficient and effective.

### Research gap

When we looked into the literature on the effects of AI on CRM and decision making, we discovered that AI is not only changing the dynamics of various areas in business, but it is also requiring advanced skillsets from marketers, particularly marketing managers, in order to understand and utilise the actual benefits that can be derived from integrating AI into marketing as a whole. However, there are currently just a few studies and papers that look into how AI is changing the position of marketing managers. Managers, according to Jarrahi (2018), must be informed of current AI breakthroughs while also being prepared to respond to these changes. Concentrated on the functions of marketing analysts, they claim that because marketing analysts deal with both marketing managers and IT workers in many companies, they must be well-versed in both also, as CRM and decision-making become more and more automated as a consequence of AI, it's critical to figure out how to incorporate these into managers' practical and intuitive understanding. The role of marketing managers must evolve with the integration of AI in their study, but more research is needed because these developments are ongoing and the AI revolution encompasses even more areas, such as AI assistants, which will necessitate a more in-depth analysis to reach a conclusion.

### Research Aim

The main goal of this study is to see how Artificial Intelligence improves customer relationship management. The influence of these developments on the function of marketing managers will next be investigated by establishing a link between AI, marketing, and decision-making. This study will accomplish two goals: first, it will add to the body of knowledge about the types of changes that AI is bringing to CRM, and secondly, it will provide insight into what skill sets are becoming increasingly important for marketing managers to possess in order to stay competitive in their performance and produce effective results from their decisions.

### Research Questions

1. What impact does AI integration have on Customer Relationship Management?
2. What is the importance of AI in retaining Customers?
3. How will AI improve Customer Relationships?

### Research Objectives

1. To apprehend the role of AI in the CRM
2. To understand the importance of AI in the marketing and customer relationship management.
3. To suggest the measures of implementation of AI in improving Customer relationship management.

### Review of Literature

The study begins gives us a brief understanding of AI in marketing before delving into each of the AI approaches used. Machine learning, artificial neural networks, deep learning, and predictive data analytics are examples of these approaches. It then goes on to explain how each of these AI approaches is used in modern marketing. We consolidated our understandings under the section consequence for competition to clarify the relationship between AI break throughs and the market rivalry they cause. The function and responsibilities of marketing managers are then described, as well as the role of AI in improving customer relationship management and the consequences of AI in marketing.

## **Marketing and AI**

To be competitive in today's market, all firms must employ current marketing strategies. Marketers cannot make the right decisions or rely on them for success unless they have a comprehensive awareness of client preferences and demands (Marketing Evolution, 2020). As a result, they must be quick to get the necessary information about their clients and act on it quickly (Marketing Evolution, 2020). In terms of future AI marketing insights, it is projected that AI would affect marketing tactics, as well as company models, customer service, sales alternatives, and consumer behaviours (Davenport, et al. 2019). According to studies, AI can help marketing managers and marketers improve their efficiency and productivity by using predictive analytics, automated email, chats, lead scoring, and consumer insights, among other things. In artificial intelligence, data ingestion is a critical component. Artificially intelligent systems have to deal with a lot of data. The artificial intelligence system collects and analyses large amounts of data based on the requirements. Organizations like Google and Amazon manage a massive quantity of data that is hard for people to comprehend. In addition, an artificially intelligent system stores data from numerous sources about multiple individuals and equipment. All of this displays asynchronously or concurrently on the system (Verma et al. 2021).

## **Machine Learning**

Machine learning is a technique for swiftly processing massive volumes of data by looking for patterns and forecasting future events based on those patterns. Machine learning is well suited to putting enormous volumes of data (increasingly collected via linked devices and the internet of things) into context for humans to comprehend (Mahdavejad, et al., 2018). The term "machine learning" covers a wide range of topics. Artificial neural networks are the result of the construction of an interconnected web of artificial intelligence "nodes" (Frankenfield, 2020)

## **Artificial Neural Networks**

As more data becomes available, artificial neural networks have self-learning skills that help them produce better outcomes (Frankenfield, 2020). Artificial neural networks are utilised for voice recognition, learning, and vision, to mention a few applications (Frankenfield, 2020). Artificial neural networks also employ deep learning and predictive data analytics approaches.

## **Deep Learning**

Deep learning is a subset of machine learning that utilises neural networks to do complex reasoning. (Fain 2020) summarised his conclusions in his article "How deep learning is revolutionising marketing" to look at how deep learning helps marketing. Deep learning, he claims, performs best when precise prediction and analysis are required.

## **Predictive Data Analytics**

Predictive analytics is frequently used to personalise content and obtain customer insights. These future forecasts are based on past data that has been pre-analyzed by machine learning algorithms, making them a useful tool for businesses to make educated decisions. Predictive data analytics, in particular, may be extremely beneficial in marketing for increasing campaigns, forecasting consumer behaviour, and providing customised marketing for each category (Martin, 2019)

## **Implications for Competition**

Digital giants such as Facebook, Apple, Amazon, Google, and Microsoft are the forerunners in artificial intelligence (AI), with plans to perform more AI in 2019 and beyond. This has provided them a significant competitive edge, since these major corporations are pioneers in delivering highly individualised services and focusing on targeted advertising and marketing strategies to attract clients.

## Customer Relationship Management (CRM)

Customer relationship management (CRM) is a collection of marketing techniques and procedures for building and managing customer connections (Optimove, 2020). CRM's major goal is to strengthen and augment customer relationships so that organisations may achieve customer loyalty, revenue growth, and customer lifetime value through retaining customers (Optimove, 2020). CRM use is increasing in firms, since it is critical to keep up with the newest developments in a highly competitive industry (Cole, 2019). Key CRM functions have been improved by top CRM suppliers like as Salesforce, Oracle, and SAP (Cole, 2019). Each of these CRMs has the power to increase conversion rates, increase revenue, collect accurate data, and improve customer satisfaction (Cole, 2019). In terms of customer service, the general consensus appears to be favourable. While there is concern about job losses in the increasingly automated service sector (West, 2018), AI tools are seen as advantageous to all aspects of the customer relationship management procedures: making it easier for customers to acquire more personalised goods and services while also increasing firm profitability (Kumar et al., 2019, Rust and Huang, 2014, Gupta et al., 2020 ).

### Ways in which AI is transforming CRM

- **Data ingestion and data extraction:** According to Fatemi (2019), AI has the potential to complement rather than replace the human part in sales. This indicates that in the future, salespeople will use artificial intelligence to augment their professional practises and skill sets (Fatemi, 2019). Manual data input is no longer necessary by sales professionals thanks to AI integration, which saves several hours of extra work and wasted time spent on other tasks (Fatemi, 2019). Not only that, but AI can help to centralise various client databases while also saving the entire customer lifecycle information, whether it's received by email, phone, or chatbots (Fatemi, 2019).
- **Sentiment Analysis:** As numerous customer interactions take place online through mediums that don't reflect consumers' body language or facial emotions, it's tough for salespeople to build trust and a solid relationship with them (Fatemi, 2019). Fortunately, artificial intelligence provides a viable answer to this issue. AI-powered systems can analyse interactions and evaluate clients' emotional conditions using sentiment analysis (Fatemi, 2019). According to Fatemi (2019), an excellent example of this is Cogito, which offers in-call speech analysis to assist salespeople understand their clients' emotional states and respond to them as effectively as possible.
- **Data reliability:** An AI-integrated CRM system may assist in decision making by recognising any flaws in the system, removing duplicated data, reporting any inaccuracies so that users can remedy them, finding any missing data in other systems, and providing advice on updating any old data.
- **Transforming leads into customers:** Artificial intelligence has pushed sales teams to shift away from rule-based lead scoring and toward predictive lead scoring (Fatemi, 2019). Because AI can assess millions of various historical and real-time factors including demographic data, regional data, activity, and online behaviour, it can assist salespeople in determining a customer's purchase readiness (Fatemi, 2019). When AI is coupled with CRM systems, it may analyse the ratio of won to lost sales to spot patterns that can be used to recommend predictive lead scoring approaches. When a better accurate model is discovered, it becomes the default immediately (Fatemi, 2019).
- **Targeted exhortation for salespeople:** CRM are data collection sources (Fatemi, 2019). When artificial intelligence (AI) is combined with CRM systems, they take on a new and more helpful position as a trusted adviser (Fatemi, 2019). A CRM with AI integration may provide salespeople with customised suggestions. When a salesperson receives the "why" aspect from an artificially

intelligent CRM, they are better informed about the logic behind particular mandated courses of action (Fatemi, 2019).

## Research Methodology

This chapter explains how we went about finding answers to our research questions and completing the study's goal. This section outlines the research methodologies we used, as well as our research methodology, research strategy, and research design.

## Philosophy of research study

Researchers must have a philosophical viewpoint to formulate specific research questions, research methodology, and the right approach to seeking answers to the research question in order to conduct a comprehensive study (Berryman, 2019).

## Ontology

Ontology is assumed to exist regardless of human perception and aids researchers in determining the existence and character of the items they are studying (Moon & Blackman, 2017). Furthermore, while ontology may or may not appear to be in accordance with the researcher's aims, it is a part of the entire study from beginning to end owing to its very nature of being a reality (Saunders, et al. 2016). Our study's major goal is to determine how CRM has improved as a result of AI's usage in marketing hence, we are presenting real insights that we were able to find in relation to the adjustments.

## Epistemology

Epistemology is concerned with issues such as the legitimacy, extent, and numerous methods for attaining knowledge (Moon & Blackman, 2017). It raises concerns about the validity of the knowledge claim, the ways by which knowledge may be obtained, and the extent to which gained information can be conveyed (Moon & Blackman, 2017). Optimist assumptions, in our viewpoint, do not explain our investigation into the different changes that AI has brought to marketing and customer relationship management. This is because the dearth of prior study on the issue prevents us from testing any specific ideas; instead, we want to provide some useful insights into our research question.

## Research Strategy

For the purposes of our study, we conducted extensive secondary research to learn more about how AI is affecting marketing and consumer interactions. We may look at how little past study has been done on the changes AI has brought to marketing and CRM. We look at how AI's increasing skills to manage customer relationships might lead to differential treatment of consumers and the consequences thereof. Enhanced personalisation can provide businesses with well-documented economic benefits (Khan, et al. 2009). Over the last two decades, the difficulties of recognising and harnessing potentially considerable variances in lifetime value between customers have been central to customer relationship management (Rust, et al. 2004). Furthermore, the concept of "customer-centricity" necessitates the identification of a consumer minority that should receive more marketing attention than other customers (Fader, 2012).

## Customer Relationships Acquisition

In most cases, companies pick prospects based on internal data. (Tillmannsx et al. 2017) suggested a machine-learning approach to choose customer acquisition targets utilising data from an external vendor that included personal, home, and neighbourhood information in a recent research. While these data are currently significant, we anticipate closer integration of external data sources with individual purchasing behaviour and preferences, as well as broader availability at a big scale with greater variety and breadth. Furthermore, we anticipate AI-CRM to garner more detailed insights into

the quality of acquired customers by analysing the path by which the customer is acquired; that is, learning about current customers' decision journeys (Batra & Keller, 2016) allows optimising acquisition paths not only in terms of the number of newly acquired customers but also in terms of their quality (i.e., CLV).

Another potential advantage of predictive AI is its capacity to foresee wider patterns and movements and, as a result, assist in the formulation of value propositions. Several recent research utilising text-mining techniques have shown that massive amounts of external data, such as User-generated content (UGC), can provide rapid and useful insights.

### **Development and Retention**

Following the acquisition of customers, two parts of customer relationship management are critical to the development of customer profitability: Customer development refers to efforts to boost per-period profit from existing customers by boosting margin, frequency, cross-selling, or upselling. Customer retention refers to attempts to make the customer-firm relationship last longer. These two processes can be intertwined, and we'll talk about how they can change in light of a few trends we're seeing in markets where AI-CRM solutions are being used. Many of the AI capabilities that were highlighted in the context of client acquisition are equally applicable to customer development and retention. This section, on the other hand, concentrates on three fundamental topics that are especially important for development and retention: personalisation, habit formation, and the impact of social networks (Libai, B. et al., 2020)..

### **Personalization**

Following our concept of AI-CRM systems as those capable of sufficiently flexible adaptation, one notable application of such systems is to enable businesses to engage in a more personalised dialogue with customers, taking into account the latter's purchasing history and interactions, and tailoring the marketing mix elements to the individual customer (Kumar et al., 2019). While AI systems now execute mostly mechanical and analytical activities, they will gradually transition to communicative jobs requiring the replication of human intuition and empathy (Huang & Rust, 2018). Marketers are also encouraged to be judicious about which clients they intend to revive due to variances in predicted customer profitability (Kumar et al., 2015). Similar factors apply when deciding whether or not to cultivate a client, especially when some customers aren't lucrative to begin with. As a result, consultants advise businesses to concentrate their cross-selling efforts on high-value consumers (Senior et al. 2016).

### **Habit formation**

When contemplating the function of technology in customer retention and development, it's necessary to address what has recently surfaced as a critical issue in our knowledge of why consumers continue to do what they do, referred to as habit formation (Shah et al. 2014). Because new technologies play a distinct role in habit formation, AI is expected to have an impact on how habits influence (or do not influence) consumer decision-making. Managers are increasingly being challenged to change their mindsets and focus on client habits rather than customer loyalty as a driver of market success (Lafley & Martin, 2017). That viewpoint is consistent with a growing emphasis on habits as essential drivers of consumer behaviour in the business and academic literature. Firms can improve contemporary algorithms' ability to send the right product to the right client at the right time as buyers' trust in the seller grows and data becomes more readily available (Li et al. 2011). As a result, we anticipate that the AI-CRM-driven "habit economy" would boost companies' capacity to cultivate their consumers. AI-CRM systems will aid in the prevention of non-successful cross-selling and will improve incentive for profitable cross-selling operations.

## Role of Social Networks

New research suggests that social impact has a role in customer development and retention. Owing to the predicted homophily in buying patterns among social network participants, data on social network members and their consumption might be useful in determining which items are most suited for the growth of focused consumers. Given the research on the social impact of customer turnover (Nitzan and Libai, 2011), social network information may be used to forecast and control attrition.

Despite the well-established importance of social networks in customer decision-making and profitability (Lamberton and Stephen, 2016, Muller and Peres, 2019), most marketers are still underutilizing customer connectivity data due to the challenges in identifying and analysing customer networks for specific products.

Because of the pervasive use of smartphones, location-based data can improve the capacity to detect consumer social networks when combined with modern machine learning algorithms to evaluate vast amounts of data. This network data may then be utilised to improve the personalization of client interactions. Customer acquisition, development, and retention are all affected by the utilisation of social network information. In the marketing literature, the importance of social network analysis in maximising customer acquisition, particularly in the context of new product growth, has received a lot of attention (Muller and Peres, 2019, Nitzan and Libai, 2011).

## Outcomes

**Customer-Related Outcomes:** We evaluate consequences for consumers, enterprises, and markets in general, starting with customers, given AI's aforementioned powers. Many customers may benefit from improved personal service, which is anticipated to become less expensive as technology allows businesses to replace humans in an increasing number of service occupations. However, as previously discussed in relation to selective acquisition, development, and retention, AI-CRM is unlikely to provide such benefits to all customers equally. We then go into the reasons behind this.

**Customer Prioritization:** Companies have historically evolved toward customer prioritising, in which clients are handled differently based on predicted profitability, as customer databases began to offer signals of customer profitability concentration. Customer prioritising is seen as a valuable method for managing customers in general (Rust et al. 2011). Indeed, research from a variety of industries reveals that service standards are linked to customers' projected profitability (Safdar, 2018), and that the gap may have worsened in recent years (Safdar, 2018, Schwartz, 2016). Differing treatment can apply to any aspect of the marketing mix, including service quality, pricing, and promotion; it can even result in customer churn. Better CLV prediction by AI-CRM, it is usually anticipated, would allow for improved discrimination throughout the CLV distribution. Because the customer profitability distribution resembles a Pareto distribution more than a Normal distribution (Fader & Toms, 2018), AI-predictive CRM's capacity will encourage businesses to concentrate their efforts and expenditures on a small portion of the CLV distribution. As a result, the same CLV distribution may exacerbate inequity (O'Neill, 2016, Wertebroch, 2019).

Marketers have enhanced their capacity to identify and monitor individual clients as data collecting and mining tools have advanced (Andrews et al., 2016, Ngai et al., 2009). Marketers will gradually be able to overcome such challenges thanks to AI-CRM solutions. AI-CRM will facilitate rapid response personalization resulting from improved customer identification, quicker and more accurate updates of profitability using machine learning (Martinez et al. 2018), and, more broadly, the ability to obtain individual-level information from the paths that customers leave on their journeys (Martnez et al. 2018), and, more (Padilla et al. 2019). It will allow for quick, time-sensitive decisions to be made about where to invest in the ideal customers and how to grow and retain them (Libai, B. et al., 2020).

**Income Inequality and Prioritization:** The significant growth in income disparity in several regions of the world over the last three decades (Piketty & Saez, 2014) inevitably leads to larger inequalities in consumption (Aguiar & Bils, 2015), skewing CLV distributions even further. Customer priority, in general, promotes inequality in the population and encourages a more polarised society, in which certain consumers will receive better and perhaps lower-priced items than others. Machine learning techniques, for example, have been deployed on mortgage data from millions of borrowers to allow for more accurate default risk pricing and, as a result, a higher supply of credit. However, the advantages of lower mortgage rates favour the wealthier borrowers disproportionately. According to recent study, such approaches can even assist detect defaulting borrowers based on the wording they type when applying for a loan. Overall, unequal treatment of less affluent customers will pose serious moral and political considerations concerning the influence of AI-CRM systems on a polarised society (Libai, B. et al., 2020).

**Role of Consumer Technology Skills:** Due to the customer's restricted range of purchases and capacity to take advantage of market possibilities, it has long been documented that disadvantaged consumers may spend more than higher-income customers. It's reasonable to believe that AI systems can assist such customers. They may employ AI-based smart assistants to gather and evaluate their preferences in order to aid consumers in navigating increasingly complicated marketplaces. In this way, those customers at the bottom of the pyramid who are historically less able to take advantage of value-based market possibilities might utilise such helpers to acquire higher value for a lower price (Libai, B. et al., 2020). Consider, for example, Alexa and the Echo smart speakers. Together, they make it feasible for customers to order things quickly and at a reasonable price, laying the groundwork for a smarter domestic purchasing environment. Nonetheless, the market potential attracts a bigger percentage of better-income individuals than others (Kinsella, 2018). One reason for this is because even this seemingly basic IoT environment needs some technical know-how (e.g., creating a home profile), which may pose a barrier for disadvantaged populations.

**Transition Period:** While AI may one day produce a faultless service environment, the shift from traditional CRM to AI-CRM will be bumpy. While chatbots may be more cost-effective than human employees, the service experience they deliver in the early stages might be substandard, causing customer dissatisfaction (Kannan, 2019). Users' technological expertise, as well as their aptness, or resistance, to the new technology, will likely be influenced by characteristics such as age, gender, and socioeconomic level, as with previous self-service systems. Furthermore, it has been discovered that older and lower-income people are more likely to accept innovations later and regard them as less valuable (Laukkanen, 2016). This will have an impact on how quickly disadvantaged customers accept and begin to use AI-driven technologies.

**Firm-Related Outcomes:** In line with the resource-based approach, that enterprises with better resources will obtain a competitive advantage, which might lead to monopolies or oligopolies. Big data, suitably qualified people, managerial agility, and greater processing power, as well as proprietary usage of top-performing algorithms, are all important resources in the context of AI. While the majority of AI-CRM benefits are related to improved value propositions, AI-CRM can also lower the cost of serving customers, as emerging technologies in many industries allow for the replacement of human labour with cheaper machines and automated decision making to optimise interactions with customers at various points along their journeys. As previously said, the more the scope and diversity of data, the better the organisation may learn about individual wants and preferences. This insight may then be used to provide greater value propositions to these people, not just in the product but also in other areas.

As a result, we expect the competitiveness among businesses at the acquisition stage to heat up as AI-CRM enables companies to gain greater value (on average) from consumer acquisition by using

customer data across numerous product categories. Furthermore, we anticipate additional mergers and acquisitions that emphasise the value of combining (or purchasing) customer data above other business skills. Finally, the rising significance of quick, direct access to customer data might provide direct-to-consumer firms a longer-term competitive edge over traditional retail brands.

**Regulation:** Market concentration is typically linked to authorities interfering and dismantling current systems. However, recent examples, such as the US aviation sector, have demonstrated that this is not always the case, at least for a time. The problem is particularly severe in the case of AI, because the usual rationale of protecting consumers from price gauging caused by monopolies is frequently ineffective, as many enterprises in this field supply their services for free (e.g., Google, Facebook). For non-free services, the competitive advantage of greater resources may enable monopolists to provide more value to consumers by combining superior value (e.g., owing to network effects) with cheaper costs (e.g., due to economies of scale, fewer marketing expenditures). Because antitrust enforcement is more difficult due to decreased costs, corporations may be able to fully use their market dominance, causing authorities to be concerned. The question is whether regulation will even be viable at that point.

The concern, though, is the selective discrimination we outlined earlier: most businesses would forsake consumers who are regarded unprofitable or marginally profitable. As a result, new rivals specialised in this sort of client base may emerge, as well as more severe competition among enterprises that have abandoned them. (Subramanian et al. 2014). Receiving repeatedly poor service may also encourage such low-value clients to fabricate their online data and create bogus online accounts. As the recent debate about fake news has shown, such material is inherently difficult to identify.

All of this entails that smart consumers will take use of AI's capabilities to become more strategic themselves (Haenlein, 2017, Lewis, 2005). Customers will learn how to effectively bargain with businesses, how to utilise their personal data strategically, and how to move value capture away from businesses in general. Customers will be assisted in these activities by automated and AI-enabled solutions.

## CONCLUSION

For decades, a data-intensive society in which clients are managed individually and demand is accurately forecasted has been envisioned. However, before AI technologies were available, development was slow, and much of this futuristic vision has yet to come to fruition. As this future vision swiftly becomes our new reality, we believe that marketers should pay attention not just to how new methods of consumer engagement are carried out, but also to their broader implications for the basic ways in which companies form "relationships" with customers.

We're heading toward an economic system in which consumer priority may come to dominate much of customer relationships, and only a small percentage of customers will be able to take use of new technology. While some marketers will discover that discriminating against customers is not always the most cost-effective strategy (Ukanwa & Rust, 2018), this will not necessarily be the case in the majority of situations. We anticipate that this prioritising will have an impact on certain categories of people, regardless of where they consume. As a result, AI-CRM systems may become a source of worry for both regulators and human rights organisations. Because of their expertise and understanding in this area, marketing academics have a unique obligation to be an active voice that tracks the development of AI-CRM systems, detects issues, and provides recommendations on how to meet the new customer relationship environment that we all confront. To sum up, we believe that there is plenty of room for more research into the function of AI in customer relationship management, and that as new technologies emerge, academics' ability to contribute to knowledge in this sector will only grow.

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