

AI IN CUSTOMER RELATIONSHIP MANAGEMENT

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Abstract

Artificial Intelligence (AI) is finally ready to challenge the human intelligence. Computers defeated human in complicated board games like Chess and Chinese game Go. AI is now ready to write poems, predict choices, interact with human in real time, mining trillions of data and providing solutions in less than milliseconds. Today AI is driving almost every business unit and Customer Relationship Management (CRM) is one area that is benefitting the most in leveraging better customer experience (CX). In this research paper studied various AI enabled tools for CRM, study the tool of Consumer Awareness, Effectiveness and Loyalty. AI's role in CRM by exploring its applications, benefits, challenges, and future trends.

Keywords: Customer Relationship Management (CRM), Artificial Intelligence (AI), Customer Experience (CX)

INTRODUCTION

Artificial Intelligence in [customer relationship management \(CRM\)](#) enables organizations to automate business processes by organizing and managing customer information with ease. The [predictive nature of AI](#) enhances workflow capabilities and helps organizations develop more personalized communications with their [customers](#). To help ensure that AI is used effectively in CRM, organizations must have data accuracy and privacy measures in place. The foundation of all customer relationships and [customer engagement](#) relies upon an organization's security and customers putting their trust in the organization.

New AI-based tools such as actionable meeting summaries, custom email templates and automated ticket routing have altered the CRM process. Other technology tools, such as using intelligent notifications provide insights into the sales pipeline. The customer experience is now at the crux of CRM and relies upon real-time data insights for the personalized and timely interactions expected by customers. Today Customer Relationship Management (CRM) is explicitly driven by emerging technologies.

Companies developing CRM systems and companies using CRM both are equally dependent on technology. Intrusive technologies are emerging that have started penetrating into the minds of the customers. The Usage of technologies like Artificial Intelligence (AI), Augmented Reality (AR), Virtual Reality (VR), Predictive Modeling, Deep Learning, Machine Learning, etc. have become essential for businesses to survive especially in the domains like Supply Chain Management (SCM), Production and CRM . The role of technology is not only limited to producing robots, keeping and managing billions of records, creating a knowledge management base, providing better after sales support to customers and decision making. The role has further extended to accessing the customer's needs and wants and offering products that customer may like to purchase with the applications of Artificial Intelligence (AI).

Companies like Amazon, Netflix, Google, Facebook and many more are utilize AI to know their customer comprehensively. AI is using customers purchase history, customers time spend on various products, customers social media presence and behaviour, accessing the similarities of customers with another buyers, for recommending new products. Through that they can analyse customer purchasing power pattern which will be help for the future prediction for sales and production.

GENERATIVE AI IN CUSTOMER EXPERIENCE

The [IBM Institute for Business Value](#) published a series of researched-backed guides called—The CEO's guide to generative AI—on topics ranging from generative AI in cyber security to customer experience. The IBM Institute for Business Value has identified 3 things every leader needs to know and what they can do about it:

1) The experience of generative AI is a shock.

It is possible to fully utilize CRM data and customize a customer experience by utilizing customer information from various departments of a company, including sales, marketing, and customer support.

Actions that leaders can take: When it comes to your objectives for utilizing AI capabilities, set high standards. All businesses may have access to generative AI. It all depends on how CEOs decide to apply this skill to their own business requirements. Give designers the opportunity to interact with AI technology and use generative AI to enhance content production. By creating use-case-specific rules and combining open models with an investment in proprietary data, generative AI can simplify things.

2. Customer trust is the new currency.

The promise of what generative AI can deliver to its customers relies on a foundation of trust from the company itself. IBM Institute for Business Value found that “80% of business leaders see explain ability, ethics, bias or trust as a major concern on the road to generative AI adoption.”¹

Action that leaders take : CEOs should be leading with empathy and prioritize ethical journeys. Build trust with customers by developing generative AI ethics specific to their concerns and give them a trustworthy experience that helps ensure customer satisfaction. Build generative AI into the user experience from the start, personalize marketing campaigns and direct customer outreach to further earn that trust.

3. Generative AI opens the door to reinventing the employee experience.

On average, 87% of executives expect job roles to be augmented by generative AI, not replaced. Generative AI promises to automate tasks that were previously too complicated for machines to handle. The success of a human-machine partnership is the core organizational change challenge when bringing in AI tools. CEOs need to carefully consider where to bring AI into the value chain and keep generative AI a consideration in all decision-making when it comes to employee impact and well-being.

Action that leaders take : Develop a human-machine partnership from the start that can create more value than either can do alone. Make a good impression with generative AI by providing positive messaging around how it can boost employees' efficiency and productivity. Integrate the AI tools, intelligent workflows and hybrid cloud platforms in a way that engages employees to perform at the highest level and involves employees in designing the AI implementation.

LITERATURE REVIEW

Suman Kumar Deb, Dr. Ruchi Jain, Varsha Deb (2020) studied in the research was to analyze the CRM in terms of the awareness, effectiveness and loyalty of the consumers for 5 AI enabled tools (Product Recommender, Virtual Agent, Email Management, Speech Recognition and Visual Perception). The analysis of the research data showed that people: Have awareness about the AI enabled tools that they are using in various company sites., The AI enabled tools are effective and possesses a positive CRM and also checked loyal and using these tools repeatedly and are recommending these tools to others also.

Ashok Kumar Reddy Sadhu, Maksym Parfenov, Denis Saripov, Maksim Muravev, explore in their study the ethical implications of AI-powered chatbots, particularly regarding data privacy, transparency in algorithm design, and potential biases within NLP models. Developing ethical frameworks and regulations for responsible chatbot development and deployment is crucial for building user trust and ensuring responsible AI practices.

Dr. Rashi, Dr. Biplab Kumar Biswal, Dr. Y. Srinivasa Rao, Navin Kamuni, Dr. Ramchandra D. Patil uses analytics based method for discovering other users with similar tastes and then making product recommendations to them. Cosine and user-item Finding comparable users from thousands of datasets relies on two primary factors: similarity and similarity. Integrating AI into customer relationship management allows for more efficient data

Benefits of AI in CRM :-

There are several key benefits to AI-powered CRM systems:

- Enhanced reporting and predictive analytics
- More personalization
- Enhanced automation
- Focus on sentiment analysis
- Better lead scoring
- Managed unstructured data

1. Enhanced reporting and predictive analytics :-

One of the best AI contributions to CRM is predictive analytics. AI CRM solutions have enhanced data analysis capabilities that analyze historical data and customer behavior. These factors help organizations with data insights, sales forecasting and streamlining which demographics to target.

It also provides the organization with unified intelligence and one voice for how data analysis is to be collected and used. The predictive tool can also help manage customer churn and identify necessary changes to the sales process.

2. More personalization :-

AI can draw in potential customers with its highly personalized experiences. The AI can analyze customer data through algorithms and recommend products or services that are individualized based on that customer's needs.

The personalized experience can be a significant selling point for sales reps and serves as an enormous sales opportunity. The approach can be done across all channels, such as in-app, online, via social media or in person.

3. Enhanced automation :-

AI and automation are separate tools, but both are highly valuable to one another. AI powered automation tools such as chatbots and virtual assistants can handle routine customer inquiries and round-the-clock support to customers. Separately, automation tools such as AI-powered chatbots can reduce response times and give employees more time to focus on challenging tasks.

4. Focus on sentiment analysis :-

The age of social media is upon us and one thing AI can help with is analyzing text and social media channels for customer reviews. Monitoring these channels in real time enables companies to give quick follow-up attention as needed and can contribute to long-term customer retention.

5. Better lead scoring :-

Teams can prioritize leads more efficiently and assess the likelihood to convert with AI-driven lead scoring. Factors such as demographics and behavior help salespeople target the best leads, increasing overall sales and upselling. In addition, AI can help segment leads and manage campaigns on the team's behalf.

6. Manage unstructured data :-

A CRM system handles an incredible amount of data, including unstructured data and complex enterprise data that is coming from several different communication channels.

AI in CRM can use tools, such as natural language processing (NLP) and machine learning (ML), to organize and sort data in a meaningful way that would otherwise be untapped. Also, it can accelerate the execution of plans based on the data being collected.

Challenges of AI in CRM

Implementing AI into CRM doesn't come without its challenges. The IBM Institute for Business Value finds that while 78% of executives say that their organization has an approach for scaling generative AI into customer and employee experiences, most are still figuring out how to ensure consistent quality. More than half (56%) report that they don't have a process in place to review generative AI output and resolve issues. These include:

1. Time:

The initial setup of an AI in a CRM system can be time-consuming depending on how large the organization is and what the specific needs of the business might be. For things to run smoothly in implementation, there needs to be effective team interaction. Another aspect is pricing. The more complex the AI in the CRM system the more money the company might be spending on setting up the technology.

2. Cybersecurity:

The path to quality customer service is maintaining external data and internal data entry. Much of this is sensitive personal customer data, and it must be securely contained and only collected in accordance with the law. Customers should also know that their data is being used and stored for the intended purpose for which it was collected.

3. A balance between AI and human services:

AI CRM can become highly automated and make for less human connection. Customers can then feel disconnected from the company and miss the personal interaction they once had with a traditional customer service department. Therefore, it's important for the organization to remind customers that the robot is for informational assistance and won't provide support.

AI in CRM use case examples

The use cases for AI in CRM are vast and vary depending on what the goals of the business might be. Some important ones are:

1. Business intelligence:

AI tools offer businesses a new approach for different areas of the business, including sales, marketing and customer service. AI provides analysis and insight into customer data that can help it make smarter long-term decisions and address customer needs.

2. Customer service:

AI tools, such as AI chatbots can be used in a business's customer service strategy to provide quick and accurate responses to inquiries. AI-powered chatbots can enhance customer service with 24x7 support for customers' queries.

3. Data management:

With AI in CRM it keeps customer data clean and accurate by automating the step-by-step processes, such as data entry, cleaning and enrichment. Furthermore, the AI-powered CRM can help maintain an accurate data foundation for all the AI processes spanning the business.

4. IT efficiency:

Within CRM systems, AI, along with automation, can automate routine tasks and make processes simpler. IT departments that use AI can automate mundane tasks, such as ticket routing and diagnostics.

5. Marketing personalization:

AI-powered CRM systems can personalize marketing material and segment customers based on incoming data points, including purchase history and engagement.

6. Lead management:

By using AI tools for lead scoring, the business can automate the lead qualification and scoring process within the CRM system. Separately, machine learning models can gather more insight into lead characteristics and behavior further tailoring the outreach approach.

7. Predictive customer analytics:

The data capabilities of AI are widespread, especially when it comes to AI in CRM systems. With AI, businesses can use historical data to make predictions about customer behavior and anticipate what a customer needs.

8. Process optimization:

When AI is brought into a CRM system for process, it helps direct the operation and find inefficiencies that might have otherwise gone unnoticed. Businesses can also use AI to analyze workflows and pinpoint bottlenecks in the system.

9. Sales optimization:

AI technology helps businesses improve their CRM sales modules by using predictive analytics to gain leads and prioritize high-value prospects. The automated workflows streamline sales processes, while the predictive analytics can help forecast customer behavior.

THE FUTURE OF AI IN CRM

Customer experience is only expected to grow in necessity as hyperpersonalization is now the high bar that has been set. Every company is selling a digital product and is competing for which digital experience is the most personalized and draws the most consumer attention.

This is where generative AI steps in and promises to elevate these expectations as customers demand personalized sale offers, recommendations and unmatched customer service. As AI technology evolves, businesses can only expect more advanced AI capabilities and AI-powered tools to bolster the CRM process.

The future of AI CRM seems bright as more AI tools continue to be developed, such as voice recognition and augmented reality, among others. AI has and will continue to revolutionize the way a business engages with its customers and will evolve the way the world looks at the customer experience. Organizations that adapt and build AI into their CRM process are staying ahead of the curve and will set themselves up to thrive in the customer relationship management space.

CONCLUSION

AI is transforming CRM by automating processes, enhancing customer experiences, and providing data-driven insights. However, challenges such as data privacy, integration, and ethical concerns need to be addressed. Future developments in AI will further enhance CRM capabilities, making it a critical tool for customer engagement and retention.

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