

A Study on Impact of Artificial Intelligence in Customer Relationship Management

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Abstract - Recent development in Customer Relationship Management (CRM) has undergone significant changes. Major companies have focused on using automation and Artificial intelligence (AI) tools to understand customer's buying behavior, to increase interaction of brand and customer, and to strengthen relationships. Companies have adopted Artificial Intelligent based CRM to respond to the customer queries effectively and enable in enhancing customer loyalty. The future of CRM will be to meet the ever-changing needs of their customers and their expectations as well as follow and sometimes foresee market trends. There are many AI use cases in CRM. While most companies have become increasingly good at collecting customer data, far from all of them are able to do the analysis, mining, and understanding that is required to make full use of this data. Artificial Intelligence can help companies automate routine tasks, deliver fast responses to customers and provide accurate insights to sustain business growth. This paper enables to study and analyzing the impact of customer relationship management.

Index Terms – Artificial intelligence (AI), Customer Relationship Management (CRM), Impact of AI, Market.

INTRODUCTION

Technology is evolving faster than ever. Cloud computing, social media, and mobile devices are found everywhere. Everyone and everything are getting connected: 4.6 billion internet users, 5.29 billion mobile users [1], and 11.3 billion connected devices [2] make up a network of information and interaction never before seen in history. But that's just the beginning.

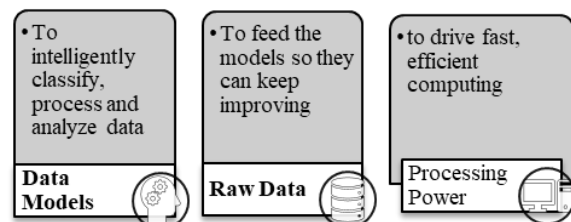
Artificial intelligence is the next major wave of innovation, driven by advances in computing power, the ability to store large volumes of data in the cloud at minimal cost, and easier access to advanced algorithms. And it will be more disruptive and powerful than any previous shift in technology

Artificial Intelligence is all around us. Perhaps the concept still comes as new to some, but it already has a huge impact in your daily routine. When you contact Alexa, Amazon or the voice assistants on your smartphone like Siri, Artificial Intelligence (AI) technology works to make life easier for you. Google harnesses AI to autocomplete search queries, predicting what you are searching for with great accuracy and without human involvement. Self-driving cars apply various AI techniques to avoid collisions and traffic congestion. All of these consumer apps have trained consumers to expect more from businesses.

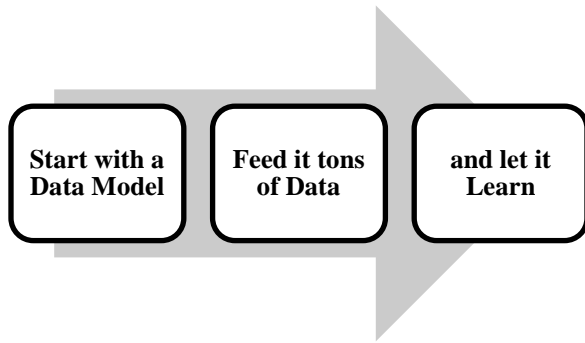
At a high level, AI is both understanding historical data and applying what is learned to current contexts to make predictions. This has the potential to make every business "smarter."

Computing has always been about data. It's written into the Oxford Dictionary's definition of a computer: "an electronic device for storing and processing data." From the beginning, computers were designed to fill in gaps in human intelligence by storing, classifying, retrieving, and applying huge amounts of data to help us solve problems faster using computing techniques / algorithms.

In order to implement AI based computing, computers needed three things:



The data models came first, with simple if-this-then-that logic evolving into increasingly complex problem-solving algorithms. The idea of machine learning is simple:



The more data the machine processes, and the more computing power it has, the faster and smarter it gets. Recent development in Customer Relationship Management (CRM) has undergone significant changes. Major companies have focused on using automation and Artificial intelligence (AI) tools to understand customer's buying behavior, to increase interaction of brand and customer, and to strengthen relationships. Companies have adopted Artificial Intelligent based CRM to respond to the customer queries effectively and enable in enhancing customer loyalty. The future of CRM will be to meet the ever-changing needs of their customers and their expectations as well as follow and sometimes foresee market trends. There are many AI use cases in CRM. While most companies have become increasingly good at collecting customer data, far from all of them are able to do the analysis, mining, and understanding that is required to make full use of this data. Artificial Intelligence can help companies automate routine tasks, deliver fast responses to customers and provide accurate insights to sustain business growth. This paper enables to study and analyzing the impact of customer relationship management.

AI POWERED CRM

A Customer Relationship Management (CRM) system allows businesses to monitor and analyze their relationships with customers, suppliers, and employees. It aims to increase sales efficiency and profitability by improving and maintaining these business relationships.

By collecting existing and potential customer data, CRM tools can access customers' interaction histories and sales data. This enables CRM systems to identify the required services and products to improve sales processes. Overall, the software helps businesses

understand their customers better. With a better understanding of customers, companies can:

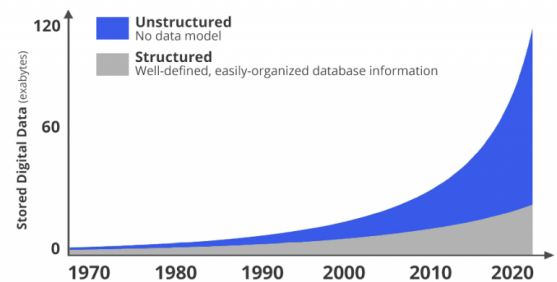
- Develop more effective marketing strategies
- Discover new sales opportunities
- Provide more effective support services

A study shares that 65% of a company's business comes from existing customers, and it costs five times greater to attract a new customer than to keep an existing one satisfied. Thus, it is critical to understand customers better and take accurate actions to maintain strong relationships with them and improve sales metrics.

Following are three main reasons for integrating AI into CRM tools: -

Processing increased volume of unstructured data

With the growing number of transactions, the size of customer data also increases. This increase can help businesses understand their customers better, as they can process more information about them. However, it also means that they need to work more to extract relevant information because the majority of the data remains unstructured. While it is challenging to understand unstructured data, which constitutes around 90% of the total data, AI tools can convert unstructured data to structured data.



After converting to structured data, machine learning algorithms can detect patterns and provide vital insights for businesses. Considering the growing amount of data, AI technology offers scalable solutions for companies and enables them to handle a higher volume of data rapidly and with fewer errors.

Increasing complexity of relationships

Besides the growing volume of data, the business processes and relationships also become more complicated with the increasing transactions. This complexity makes it harder to understand company relationships and analyze customer patterns

accurately. According to Xant [3], sales representatives spend over half of their time spent in CRM for trying to manage CRM tasks more effectively. AI technology can easily surpass this challenge by automating most of these tasks and offering valuable insights.

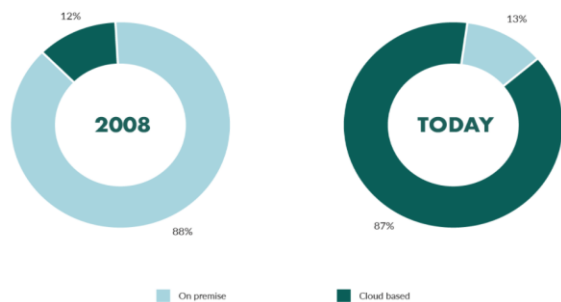
Increasing popularity

The interest in AI-powered CRM tools is expanding since the end of 2016. One can relate this increase to the following reasons:

The advances of AI enable this technology to be integrated into the CRM tools, and these tools are becoming more preferred by businesses.

The impact of AI in CRM tools is observed better as processes become more complex, and the amount of customer data increases.

In 2008, only 12% of businesses used cloud-based CRM - This figure has now increased to 87%!

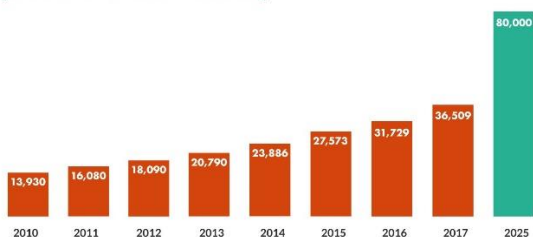


Major AI-powered CRM solutions in the Market

CRM vendor market includes a wide range of solutions to support your business. one can have the sortable list with more than 300 CRM companies [4].

A report by Gartner [5] found that CRM software revenues have now overtaken database management systems to become the largest of all the software markets!

**CRM SOFTWARE REVENUE FORECAST
(MILLIONS OF U.S. DOLLARS)**



Here are the leading CRM vendors that also leverage AI technologies in their solutions:

- Adobe Sensei
- IBM Watson
- Microsoft Cognitive Services and Dynamics
- Oracle AI
- Salesforce Einstein
- SAP Leonardo
- Sugar CRM
- Zoho

IMPACT OF AI POWERED CRM

Integrating these two technologies delivers more predictive and personalized customer information in all areas of business. Here are some reasons why one need to start thinking about an AI-driven CRM.

The main benefits include:

Increased sales: CRM tools offer valuable insights about customers and help businesses understand their sales processes. With these insights, companies can understand their customers better and develop new strategies that increase their sales. Salesforce shares that CRM applications can increase sales by up to 29% [6].

Customer Segmentation: AI algorithms simplify customer segmentation by automatically grouping customers based on the most crucial parameters including gender, age group, geographical location, and more. It lets you gain easy access to customer data whenever you require with minimal hiccups. Besides, you don't have to manually enter data, create groups, and reach out to your customers. AI-based algorithms automate customer segmentation lets you effectively target them with personalized offers, discounts, and loyalty programs.

Bots and Virtual Assistants: The advent of chatbots and virtual assistants is a pivotal endowment of AI to the modern-day CRM systems. A large number of businesses have implemented chatbots on their company websites or mobile apps to enhance customer experiences. It enables them to become available for their customers 24/7. AI-powered chatbots are capable of handling hundreds of customer interactions in parallel and are effective at addressing trivial customer

queries. For high-level queries, chatbots can connect the customer with a human executive for better assistance.

Virtual assistants are not as common as chatbots but their use cases are becoming more apparent every passing year. Nevertheless, a majority of enterprises are using virtual assistants to streamline their internal CRM operations rather than improving their customer service. However, there are a few exceptions like several medical consulting apps that provide AI-driven voice assistants to their users.

Data Analytics or Customer Behaviour Analysis:

Customer behavior analysis enables organizations to process and analyze their structured/unstructured data in an attempt to extract meaningful information. It includes their customers' browsing history, past purchases, mode of payment, and other transactional details. Analyzing this data aids in extracting valuable information about their customers' likes, preferences, and buying patterns. Accordingly, enterprises can take steps to improve their products, services, and website user experience to drive maximum customer engagement. At the same time, they can optimize their marketing campaigns for effective targeting to boost sales and conversions.

Personalized Customer Experiences: Having the right information about your customers' likes and buying habits at your disposal aids in delivering personalized customer experiences. Besides, it's a crucial step to gain your customers' loyalty and build healthy customer relationships that go a long way towards improving your brand's online presence. AI integration for Custom CRM software development unlocks new opportunities to engage your customers by delivering personalized experiences across devices.

Reduced time and costs: An AI-powered CRM can eliminate manual tasks like inputting and cleaning customer data, which would reduce human errors. By performing these repetitive tasks continuously and without any mistakes, these tools can handle hourlong tasks within a few minutes.

Improved customer satisfaction: Understanding customers is one of the main challenges of businesses.

Thanks to AI analyzing patterns in the customer data, companies can better understand their customers and take accurate actions accordingly. At the end, these actions will increase company revenue and improve customer satisfaction and loyalty.

Improved employee satisfaction: As AI can handle manual processes, employees don't need to spend time on manual tasks, reflecting on their satisfaction and performance

Automated marketing campaigns: Today's customers expect relevant, real-time experiences that are only possible through marketing automation. Create impactful marketing campaigns that drive results with the digital marketing automation tools available in the market.

Marketing automation is the process of software automatically sending campaigns to your customers and prospects based on triggers one defines. As opposed to one-off email campaigns that one creates and send to a whole list of people, automated emails are set up once and then sent out each time a subscriber meets one's pre-defined trigger. Few examples for Automated marketing campaigns are SMS, Ad Targeting, Push and In-App Notifications with Personalization and AI, Welcome email series, Reminder emails. Birthday or anniversary offer.

Amazon product recommendations email also an example for Automated marketing campaigns tailored via machine-learning algorithms.

CONCLUSION

Artificial intelligence is transforming the way most businesses work and operate. From manufacturing to supply chain and logistics, the impact of AI is apparent in all major industries worldwide. An increasing number of businesses use AI-driven techniques and analytics methods to capitalize on their valuable business data and customer insights. Having said that, it's evident that artificial intelligence has become an integral part of the present-day CRM systems. As a matter of fact, several retail, eCommerce, and manufacturing companies use business intelligence tools to strengthen their CRM systems and augment their sales efforts. Consequently, they are able to run effective marketing. So, the combination of AI and

customer relationship management is a gateway to a more profitable business.

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