

Artificial customer service to take prominence in the future of the automotive finance sector

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THE GLOBAL FINANCE AND LEASING INDUSTRY witnessed substantial growth after recovering from the worldwide economic crisis, and since, has been offering new, innovative methods of financing and leasing automobiles for companies and individuals across the globe. Over the past decade, we have seen a number of structural and technological disruptions that have completely reshaped the finance and leasing industry.

Financial Technology, or Fintech, pertains to technologies used and applied in the financial services sector. Fintech companies adopt innovative efficiencies and use technology to enter or more deeply penetrate markets and increase their customer base and reach. The fintech sector is now a global multi-billion dollar industry.

China has been completely dominating the fintech industry. Ant Financial (formerly known as 'Ali Pay') is an affiliate of Alibaba Group and is currently the world's largest fintech company. The mobile and online platform has 870 million active users, with 600 million in China and 270 million across the rest of the globe.

Additionally, with a domestic AI industry worth almost US\$150bn, China is aiming to become a global leader in the field by 2030. The country is stated to have accounted for more than half of all worldwide global AI investment over the previous five years.

With the rising impact of fintech organisations, the automotive sector has been considerably depending on a vast and diverse assortment of financing options featured by emerging digital technologies. These technologies provide digital users with an unprecedented amount of control over their purchasing decisions.

For automotive finance providers that have long relied on highly developed infrastructure, high switching costs and worldwide networks as their only competitive differentiators, this new connected marketplace creates real challenges. All of a sudden, consumers have come to expect flexibility, speed and personalisation from the financial services industry as well and they are more than willing to vote with their wallets if their expectations are not met. This is the era of customer experience.

The modern customer journey is complex. Traditionally, the path to conversion followed a linear route down the sales funnel. If a prospect would recognise the need for a particular product or service, they would gather information about different businesses

that could service the need. Once the business is identified, they would choose there a particular product or service that met their requirements in terms of pricing and quality.

Today, the same buyer might spend up to 60%–70% of their time researching different brands through both offline and online channels on multiple devices, before they ever reach a purchasing decision. At each of these touch points, consumers will expect you to have detailed information available for their perusal, with consistent branding and messaging across each platform.

Financial service providers can no longer hope to engage and retain customers through online banking apps and other automated transaction tools. While these platforms might offer speed and convenience, they do not offer personalisation that digital users are looking for. In fact, data from Deloitte shows that 72% of banking customers still visit their local branches to seek out advisors that can point them towards more tailored financial products and services. Imagine if you could create similar relationships through your digital customer service channels.

In a Global Captive Finance Survey conducted by KPMG in 2017, 100 top managers of automotive finance providers were surveyed about the market situation and their expectations. When respondents were asked regarding the top three criteria driving customer experience in automotive finance in their respective country, the majority selected a fully digitised and real-time customer interface including credit application processing.

70% of the managers surveyed believe that in the next five years, mobility offerings and digital services will account for up to a quarter of their revenue. The decisive factor is the customer journey, and for this reason, it is imperative that companies offer their customers an Omni-channel environment and increased digital touch points. The new customer journey consists of fully integrated mobility and digital services and this is expected to contribute a significant portion of net sales in the future.

Transforming business models alongside investing in IT technologies and infrastructure will enable captives to satisfy the needs of buyers and ensure a more enhanced customer experience. Of course, this raises the question – how do you deliver a seamless, personalised customer experience across multiple digital touch points without investing millions in UX and customer support? You use artificial customer service.

Artificial intelligence and customer service. The intersection of technology and customer service is nothing new. For years, businesses have automated their relationship management with the help of CRM systems that offer a unified view of customer data across the enterprise. From purchasing preferences and feedback to personal details, these integrated databases provide in-depth insights about each customer, which were used to develop more targeted marketing and sales strategies. However, at the front-end, interactions were generally still handled by live representatives that could service specific customer requests in person or through phone calls and emails.

Chatbots and other conversational interfaces have been championed by tech insiders since the launch of Siri back in 2011. However, until recently these tools only proved useful for extremely simple actions. For example, you might use a chatbot to determine the departure time for an airline booking, or to ask about the day's weather conditions. Any attempt to gather more detailed information was usually met with irrelevant replies or repeated refrains of, *"I did not understand your question"*. With these sorts of limitations in place, it makes sense why 40% of chatbot interactions gave failed to move past the first line of conversation.

Still, the potential for chatbots cannot be ignored. Online messaging has been our primary method for years now, and any technology that can reach customers through these channels on a consistent basis offers a significant competitive advantage to any business. Thankfully, a spate of innovation has begun to push chatbots and conversational AI, in general, in a more user-friendly direction.

Smarter artificial intelligence for the automotive finance industry. Deep learning. Traditional conversational interfaces reference user requests against a set of pre-programmed responses. Each response is triggered by specific user inputs that then dictate the ensuing conversational flow. The chatbot will reference a user input against its database, and if a match is found then the corresponding action is initiated. While this works well when users require quick, basic information, as the conversation goes on, the chatbot is forced to switch between different logic trees, which usually results in a failed response. In order to demonstrate the power of deep learning in natural language processing, we are currently working on a customer service chatbot using Google's deep learning capabilities. The chatbot could list cars for car owners, book cars for renters, answer FAQs and support the renter and owner in solving their frequent requests. This chatbot is being trained on different possible interactions that could take place between the aforementioned parties.

Deep learning offers a completely new model for artificial customer service. By being able to detect irregular data, identifying fraudulent activities and spotting differences in financial data, Deep Learning is far ahead in spotting errors than humans and Machine Learning techniques. This technology uses neural networks that are modelled on the processes of the human brain. Each component of the network can analyse data for specific characteristics and determine how inputs should be classified based on this assessment. When you apply these capabilities to the wealth of customer data flowing through financial service providers, the possibilities are endless.



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INFORMATION TECHNOLOGY

Financial management. A number of third-party vendors have begun to integrate virtual assistants into their financial management applications. Tools such as Plum or Cleo can track customer spending habits across multiple bank accounts and analyse where individuals are spending too much of their income, as well as where they could be saving more. Some of these apps also have voice functionality, so users can actually interact directly with their financial information to find out how much they have spent over a particular period, or implement certain limits to help move them towards their financial objectives. The Bank of America's new chatbot, Erica, provides similar functionalities and gives you the ability to make quick fund transfers through its voice interface.

How artificial customer service can benefit your business. In the Global Captive Finance Survey carried out by KPMG in 2017, when asked regarding which automotive finance sales channels would be predominantly used in the next five years, 40% stated that the internet/real-time online sales would be the dominating channel.

According to Gartner, at least 40% of all customer service interactions may be resolved through AI by the year 2019. It further foresees customers managing 85% of their relationship with enterprises without interacting with a human by 2020.

Still, how will these implementations help to differentiate your brand in practice?

Reducing call volume. More than half of customer service calls involve routine requests that can be dealt with within a few minutes. These tasks could range from password change requests to cancelling transactions and basic troubleshooting. Instead of employing a large roster of support specialists, highly effective conversational platforms can be positioned to monitor social media, apps and website interfaces to provide 24/7 assistance with these issues.

This is particularly helpful for companies with a strong millennial audience. Younger customers prefer to tackle technical

product and service issues on their own, and chatbots perfectly cater to these self-service tendencies.

Instead of maintaining complex knowledge base portals and FAQs on your website, companies can simply filter this information through an intuitive artificial customer service agent that can provide detailed support to customers of all types, at any time.

Predictive services. If you have ever been offered relevant product recommendations on Amazon or Netflix, then you have already had some experience with predictive analytics. This technology is used to identify patterns in customer behaviour, which are then used to inform a number of proactive actions. The following explains a use case of machine learning we have recently worked on:

Problem statement: Not all customers of an auto finance company would come back for another contract. Hence, an AFC would want to focus on customers that are more likely to return to them for another contract or switch their car. Moreover, existing customers are easy to keep rather than gaining new ones since they know the finance company well. This created a need for a system that can shortlist/identify those potential repeat customers who the AFC can reach out to, offering them financial products and cars tailored to their financial history and profile.

Solution: Machine learning was used to predict customers likely to switch from one car to another/initiate another contract, based on customer demographics, financial history and vehicle data with a precision of 92%. In addition to that, we were able to predict the term, with a two-months window, the customer will switch in with 86% accuracy. Another model was trained which predicted the right car, the customer is likely to finance with a new contract, out of the top three cars output by the model with a 92% accuracy.

The accompanying model shows the architecture used to serve the machine learning models.

From a customer service perspective, predictive analytics could influence the way financial service chatbots deal with users, depend-

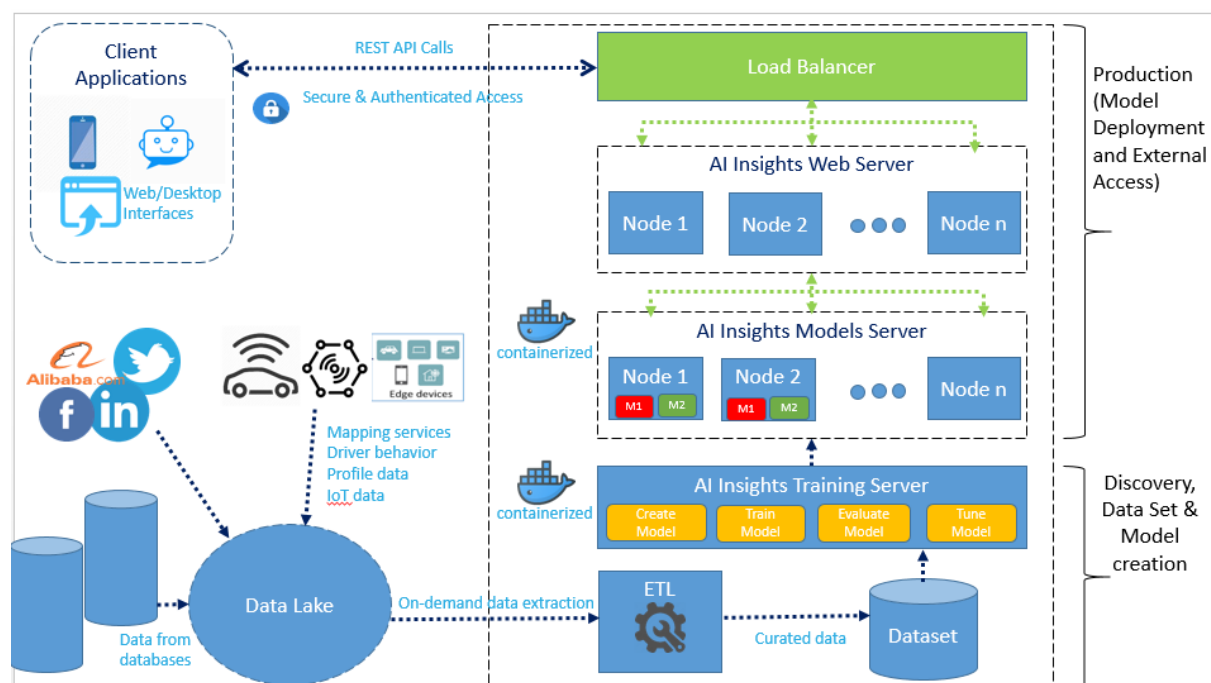
ing on their level of familiarity with the company. For example, if you are a first time visitor to a company's website, you might be welcomed with a basic greeting and invitation to learn more about the company's products and services. However, if you are a repeat visitor with items in the check-out basket, then the chatbot might offer a more personalised greeting, which is designed to move you along towards a conversion.

Similarly, your chatbot can be trained to identify distress signals that are linked to poor customer experience issues. If a customer has communicated negative feedback on a product, or they are navigating through your website FAQ section, the chatbot can offer proactive assistance based on the user's history.



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Architecture for machine learning models



Increases live agent effectiveness. Chatbots should not be seen as a complete customer service solution. Ideally, AI-enabled agents should augment your existing team of front-end specialists. While AI works to automate and streamline many of the mundane tasks associated with sales and support, your agents should be able to dedicate the bulk of their time to more complex complaints and technical issues.

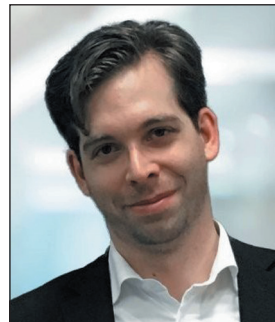
Again, many of these cases require more empathy and attention than chatbots can provide. However, chatbots can be trained to identify these issues and escalate them to available live agents. In a world where one out of six customers in the financial services sector reports unsatisfactory interactions with call centre agents, these capabilities could be extremely helpful.

Cost-effectiveness. Chatbots allow you to scale up your customer service offerings without increasing expenditure. In fact, you can actually streamline your support team to only a small cadre of highly trained specialists. Since the average call representative costs over \$8,000 to train and hire, these savings represent a massive boost to your bottom line. As your product and service line expands, you can also update your AI platforms with ease. This helps to ensure that customers are always provided with the most accurate information at all times.

Summing it up. AI is truly set to be the next revolution in customer services across industries globally, and the auto finance sector is no exception. The extraordinary cognitive computing

power AI provides enables auto finance companies to provide their customers with speed and efficiency, and enhance every part of the buying journey, including product and service knowledge, customer acquisition and after sales support services.

The rapid speed at which AI retrieves information and communicates it to users is a significant and essential transformation in the quality of customer service. This swift availability of information and instant resolution to dilemmas greatly impacts and rises customer satisfaction and AI enables the flow in the correct path to get increased conversion rates.



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