Artificial intelligence (AI) use cases in finance

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1. Introduction

Across different areas of finance, from large banking institutions to boutique wealth and asset management services, it's clear that new technologies such as artificial intelligence (AI) and machine learning (ML) are transforming the industry at large.

Artificial intelligence has found significant value across different facets of finance. From the consumer-facing side when it comes to customer service and churn to financial organizations operations, risk and compliance, AI's versatility makes it a strong investment.

There are many ways to leverage this technology, from using predictive analytics for forecasting and trends, to natural machine learning for compliance and risk mitigation. As AI use cases in finance continue to grow, it's clear that there is more extensive scope for its applications.

Although perhaps a traditionally conservative industry, finance has embraced AI because of its many benefits.

As it stands, 70% of financial service firms report using machine learning in some context or another, demonstrating the technology's versatility. 54% of financial service organizations with over 5,000 employees are using AI in their business operations, reinforcing its value for both enterprise and smaller organizations

2. How can AI help the finance industry?

The introduction of machine learning and other AI technologies such as natural language processing are creating a new form of operating in finance, rooted in data-driven decision-making and improved processes. From automation to risk mitigation, there is scope for artificial intelligence across different parts of finance, and new and innovative ways are emerging in how the technology is applied.

AI in finance can help with:

- Removing biases in finance
- Mitigate risk through accurate forecasting and predictive reporting
- Increase compliance and financial security
- Automates key customer service functions
- Offers customers a hyper-personalized approach.

As technology continues to evolve, the need for AI will significantly increase in the finance sector overall. The success seen in the industry at large is now driving financial service and organizations to integrate AI into their own processes, and leverage the transformational qualities of this technology.

3. Artificial intelligence (AI) use cases in finance

Dedicated risk management

Overall, risk management is one of the biggest reasons finance is willing to adopt AI.

With AI at the helm, it can take out the error and issues around risk management, allowing financial institutions to operate better in the short-term and the long-term.

Forecasting

Using AI on the revenue side allows financial institutions to shorten the amount of time needed to calculate and process data to understand the genuine issue of risk. Real-time activity management and data processing is only possible because of AI, and the technology offers far better forecasting capabilities than before.

Financial planning

Overall, integrating AI has made financial planning better than ever. AI is increasingly being used in key functions. and has led to significant improvements in business planning increasingly being used, risk cases, and warnings future issues and there is scope for more. Using AI, finance can mitigate risk and better control crucial financial planning processes, including revenue. Using predictive reporting, more insight can be gained on what revenue streams are doing well, and issues are flagged early on.

Increasing product security

Across customer products such as fraud and credit and loan decisions, AI has become instrumental in making financial products more secure due to its ability to analyze thousands of data points simultaneously, allowing for a more holistic process.

Reducing bias

AI is used for improving credit and loan decisions, ensuring the process is unbiased and smooth for borrowers. Lenders and credit rating agencies can routinely analyze data to get credit approvals done faster. Loan approvals are also using AI and data processing to ensure an objective review of evidence and biases are removed from the process.

[AI will also be vital for emerging markets](#) in this respect. Because of the ease of processing large volumes of internal and customer data, it can take the place of formal processes. Rather than relying on internal data, AI can use publicly available data and other sources like SMS in these situations, democratizing finance globally.

Fraud detection

Furthermore, AI has become an invaluable resource in fraud detection. It has helped in reducing money laundering and corruption while increasing the overall compliance of financial institutions.

It can also monitor suspicious transactions and credit card fraud and trigger security mechanisms based on history and data to detect fraud. As machine learning continues to improve in data processing and analysis, it can provide a more precise snapshot of customer behavior that helps eliminate fraud with minimal manual intervention. Ultimately, AI is used in finance to remove much of the vulnerability around fraud for financial institutions without disrupting the customer experience.

Better financial trading capabilities

Data-driven trading is becoming the norm, and AI is able to provide real-time data that enables fast trading decisions. By processing structured and unstructured data, AI algorithms can generate reading recommendations and transactions with increasing accuracy.

The technology can also validate data on a much larger scale than ever before, which has led to increased financial gain and stable revenue streams. Stock performances have gone significantly up now that AI is being instituted due to far faster processing time than ever before.

Revenue prediction

Within financial trading, accuracy and speed are paramount. Because AI can provide this with ease, it has meant that financial institutions have been able to offer a safer investment and trading experience to customers overall. The technology ensures a stable market for transactions overall and more mechanisms to detect and warn for volatility.

Predictive reporting and revenue planning are also relevant here because improved trading capabilities influence overall revenue. Between commissions and gains, banking has much to gain with the influx of AI-powered robo-advisors and increased access to rapid data analysis to help with decision-making.

Personalized banking like never before

On the customer side, AI offers a new and innovative approach to personal banking, giving consumers more control of their financial data. Using technology, financial institutions have been able to create a hyper-personalized experience for customers in various ways. For example, AI technology is used to generate financial advice and help customers set and achieve financial goals, leading to higher financial literacy rates.

Customer service

Most notably, AI is being used to power chatbots and self-help solutions to lessen call centers' load in this respect. Central banks also use it for reminders and other features to provide a whole new form of banking. Alexa's voice-controlled virtual assistants are also becoming an essential part of personal banking, especially for simple tasks such as bill payment reminders and scheduling.

Customer segmentation

The other way AI is helping to hyper-personalize the customer experience is through in-depth customer segmentation. AI offers a granular level of customer information that just cannot be done through other means. Because of the technology's ability to analyze thousands of data points and derive insight, customer segmentation has become a core functionality for this sector.

The customer data can shed light on customer churn, loyalty and retention and current customer behavior. This allows financial institutions to uncover patterns in behavior and connect different segments to develop nuanced demographic information. With this knowledge, organizations can build tailored products for key customer segments and create relevant marketing campaigns that resonate with their audience.

Through AI customer segmentation, organizations are able to see granular customer information that helps connect patterns, behaviors to tailor campaigns, and financial product marketing.

4. Conclusion

Ultimately, AI is a force of good for the financial sector and allows for a transformation like never before. Using the data on-hand, AI can understand key relationships and patterns, provide a new way forward for automation, and improve financial institutions' operations overall.

Artificial intelligence truly shines when it comes to exploring new ways to provide additional value to its end-users and creating a better overall experience based on data-driven decision-making. These benefits

are then passed on to the customer in the form of improved financial products, higher retention and satisfaction rates, and a safer financial experience overall.

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