



# THE AI REVOLUTION: RESHAPING THE FUTURE OF BANKING AND PAYMENTS

## Abstract

According to the McKinsey Global Institute (MGI), AI, particularly generative AI, has the potential to contribute between \$200 billion and \$340 billion annually to the global banking sector through enhanced productivity, equating to 2.8% to 4.7% of the industry's total revenues. However, the transformative power of AI in banking and payments extends beyond this efficiency, promising personalised experiences and real-time risk management.



The financial sector, traditionally known for its cautious approach, is now undergoing a dramatic revolution driven by artificial intelligence (AI). In 2023 alone, the financial services sector allocated around 35 billion US dollars to AI investments, with the banking industry contributing about 21 billion US dollars of this total.

The adoption of AI in banking has particularly revolutionised customer interactions. AI-powered [chatbots and virtual assistants](#) are now at the forefront, offering instant, 24/7 customer support. These intelligent systems can handle a vast array of inquiries in multiple languages, troubleshoot issues, and even help with simple transactions, reducing the need for human intervention and thereby significantly lowering operational costs.

AI is also helping financial institutions streamline processes. Repetitive tasks like loan processing, document analysis, verification, and account management that once clogged banking operations are now being automated by AI-powered

tools like [robotic process automation \(RPA\)](#), eventually freeing human staff to focus on complex customer needs and strategic initiatives. These back-office applications of AI are especially transformative for business process outsourcing (BPO) services. The cost savings and productivity gains from AI-powered BPO banking enable financial institutions to drive innovation and allocate resources more effectively.

Beyond automation, AI in finance is also enhancing security and fraud detection. Machine learning algorithms can be used to analyse vast amounts of transaction data to identify patterns and detect anomalies in real time, unlike traditional methods that take hours or days to flag suspicious transactions. One of the best examples is Visa's AI-powered security systems that helped financial institutions prevent around 25 billion dollars in annual fraud in 2019, safeguarding both customers and financial institutions.

AI also plays an equally pivotal role in regulatory compliance. The complex and ever-changing landscape of financial regulations requires constant monitoring and adaptation. AI systems can track regulatory changes and ensure that financial institutions remain compliant, minimising the risk of non-compliance and the associated penalties and providing peace of mind.

Risk management is another critical area where AI is making substantial inroads. Traditional risk assessment methods are often time-consuming and prone to human error. AI systems, however, can process large datasets quickly and accurately, identifying potential risks and opportunities. For instance, AI can analyse market trends, economic indicators, and company performance metrics to provide insights that help financial institutions make informed decisions. This capability is particularly valuable in the volatile financial markets, where timely and accurate information is crucial.

AI's role in enhancing financial inclusivity marks another noteworthy development. AI-powered platforms can assess creditworthiness based on alternative data sources, such as data on utility payments, social media activity and mobile phone usage. This enables financial institutions to extend credit to individuals who may lack traditional credit histories, thereby promoting financial inclusion.

AI in finance also extends to personalisation, offering tailored services to customers based on their unique preferences and behaviours. By analysing customer data, AI can suggest personalised financial products, investment opportunities, and spending advice. This not only enhances customer satisfaction but also increases the likelihood of product adoption. For example, a customer who frequently travels might receive tailored credit card offers with travel rewards, making it more likely for the customer to buy it.

Additionally, AI can help analyse spending habits and predict future expenses, allowing customers to better manage their finances. For instance, an AI assistant might suggest transferring funds to a savings account to meet an upcoming bill based on the spending patterns.

When it comes to the payment landscape, AI not only optimises payment processing but also reduces the time and cost associated with transactions. For example, AI can help predict the best times to process payments to avoid network congestion and minimise delays. AI is also increasingly replacing traditional passwords with fingerprint and facial recognition technologies, offering a more secure and user-friendly way to verify your identity during online transactions.

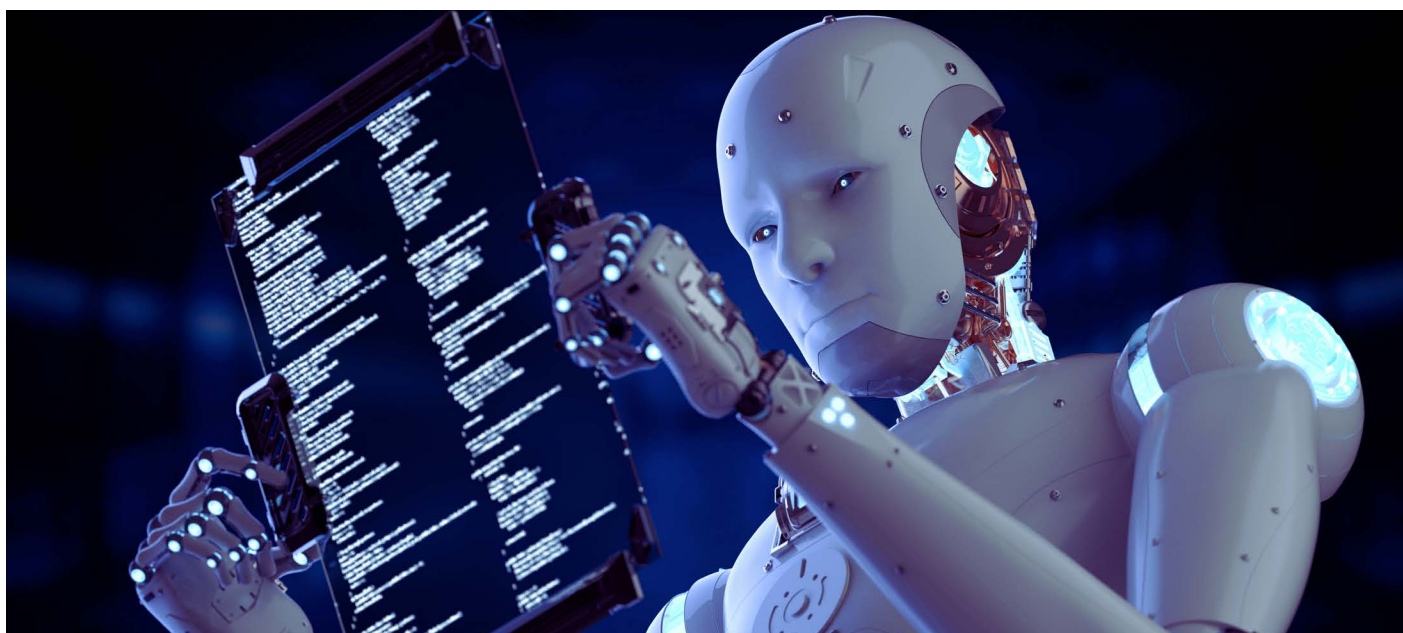
However, the benefits of AI in finance are not limited to operational efficiencies and customer experiences. AI-driven insights can also help banks improve their marketing strategies. By analysing customer behaviour and preferences, AI can determine the best channels and messages for marketing campaigns. This targeted approach increases engagement and conversion rates, ensuring that marketing efforts are both effective and cost-efficient.

From this, it's clear that AI is gradually revolutionising all facets of finance. However, its adoption still faces some significant challenges. Data privacy and security are paramount concerns. Financial institutions must ensure that their AI systems comply with

data protection regulations and that customer data is securely stored and processed. Additionally, there is the underlying challenge of integrating AI with existing systems. Banks often rely on legacy systems, which can be difficult to modernise and integrate with new AI technologies.

Despite these challenges, the benefits of AI in finance far outweigh the drawbacks. The future of AI in payments and banking looks promising, with ongoing advancements poised to tackle these issues. AI-driven innovations such as blockchain integration and advanced cybersecurity measures have already started boosting the incorporation of AI in finance.

In conclusion, the AI revolution is at the cusp of reforming the banking and payments industry, offering unprecedented opportunities for efficiency, security, and personalisation. The integration of AI in finance is not just a trend, but a fundamental shift that is here to stay. As AI continues to evolve, its impact on the financial sector will only grow, ushering in a new era of innovation and growth.



## How can Infosys BPM help?

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For more information, contact [infosysbpm@infosys.com](mailto:infosysbpm@infosys.com)



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