



# THE RISE OF AI & ML: IMPLICATIONS FOR BANKING AND FINANCIAL SERVICES

## Abstract

Online banking has undergone a dramatic transformation since its debut. Now, Artificial Intelligence (AI) and Machine Learning (ML) are poised to revolutionise the industry even further. This paper explores the potential benefits for both banks and customers, as well as the challenges that lie ahead. We will delve into the strategies that will unlock the full potential of AI in banking and explore emerging trends that paint a picture of an exciting future powered by intelligent technologies.



Back in 1999, online banking was a far cry from the friendly tellers behind the glass window, but undeniably thrilling. Online statements heralded a new era of efficiency. Fast forward to 2024. Online banking has evolved far beyond those clunky interfaces. Today, it is not just about efficiency; it is about having a

smart companion guiding you on your financial journey. This companion delivers personalised insights, proactively plans for your future, answers your queries 24/7 and even automates tasks like budgeting and saving.

This wave of change is powered by AI and ML, which are technologies that promise

to revolutionise banking, blending digital efficiency with a newfound layer of personalisation. But what does it mean for you? Is AI in banking a friend or foe? Let's explore the exciting possibilities of AI in banking and address potential concerns. Buckle up, because the future of finance is about to get a whole lot smarter!

## Comparing parametric vs. traditional insurance solutions

AI offers a clear win-win for banks and customers alike. Here's how:

- **Fraud prevention**

Fraud detection has made significant strides, moving from investigating customer reports of stolen cards to combating today's sophisticated cyber attacks. Early security measures were slow, static and reactive, easily outsmarted by fraudsters. Today, AI-powered intelligent systems proactively identify anomalies in real-time. This is a relief because INTERPOL predicts a surge in online financial crime fueled by our reliance on technology.

As Natalie Faulkner, Global Fraud Lead, KPMG International, states, "For banks to stay ahead of the game they need to be agile, hone technology, and look to next generation prediction, prevention, and detection solutions."

AI's capabilities align perfectly with what Faulkner highlights.

- **24/7 personalised service**

Before online banking, getting answers to your queries meant queuing up at your bank branch during limited service hours. For complex issues like loans or

investments, you needed appointments with specialists, adding extra steps and time. Online and mobile banking offered anytime, anywhere access, but personalised help was often lacking. Call centres and emails frequently resulted in frustration with long wait times and generic responses.

AI in banking has transformed service delivery with chatbots acting as tireless, 24/7 assistants. They provide instant, personalised services — from helping you find the right investment options to analysing your income and spending to

create a tailored savings plan. This frees up bank staff for more complex issues, ensuring you receive immediate help without the wait.

- **Easy loan processing**

Loan applications used to be a paperwork nightmare, requiring you to gather and submit stacks of pay stubs, tax documents, and proof of income/assets to a bank. Digitization brought relief with online forms and document uploads, but you still had to manually enter everything.

Now, AI in banking is a game-changer! These powerful systems can extract data from all sorts of documents, including financial statements and even free-form applications, with an incredible 99 per cent accuracy – in seconds! Compared to the old days, it is a whole new ball game. Not only is the application process streamlined, but AI also speeds up verifications and approvals.

- **Risk management**

Before AI, loan approvals were a pendulum swinging between overly cautious and recklessly impulsive. Credit scores and a limited set of documents were the main tools, often leading to:

- **Missed opportunities:** Good borrowers with limited credit history or non-traditional income streams could be unfairly denied.

- **Undue risk:** In some cases, banks loosened lending standards, which led to a surge in risky loans that eventually resulted in defaults and losses for both parties.

AI in banking steps in as the steady hand on the tiller. AI-powered systems analyse a vast amount of data with pinpoint accuracy. This includes income verification, spending habits and even alternative data sources. This comprehensive picture allows lenders to make more informed decisions, tailoring loan options to individual circumstances and risk profiles.

The result? Reduced risk for both banks and customers:

- Banks can confidently offer loans to qualified borrowers, minimising defaults and losses.
- Customers get access to the credit they need, with loan options that suit their unique financial situation.

- **Data-driven marketing**

Before AI in banking, financial product recommendations were often made with a shotgun approach. Banks relied on generic demographics and past product purchases to suggest loans, credit cards or investment options. This often led to:

- **Irrelevant pitches:** Imagine a young professional just starting their career

being bombarded with offers for high-risk investment products they are not ready for.

- **Missed opportunities:** Banks might overlook customers who could benefit from specific products but have not triggered the right keywords in their purchase history.

Now, AI systems can analyse your banking behaviour and preferences — such as spending habits, income streams, savings goals, etc. — before recommending any of these:

- **Financial products genuinely suited to your needs:** Say you are saving for a house – AI in banking might recommend a high-yield savings account you would not have otherwise considered.
- **Targeted solutions for better financial management:** AI could identify areas where you might be overspending and suggest budgeting tools or automated savings plans.

The result? A win-win. Banks can build stronger customer relationships through relevant recommendations, and you get the tools and products to manage your finances more effectively.

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## Addressing concerns

While AI offers a treasure trove of advantages, it is not without its challenges:

- **Job displacement jitters:** AI-powered automation will transform the skills needed in the banking industry. Banks need to acknowledge this and address it by reskilling and upskilling their workforce to adapt to the changing landscape.

- **Algorithmic bias:** AI algorithms are only as good as the data they're trained on, and biased data can lead to unfair loan decisions or discriminatory marketing practices. The industry needs to develop clear ethical guidelines to ensure fairness and transparency in AI development and usage.

- **Data privacy and security:** As AI relies heavily on customer data, ensuring its security and privacy is paramount. [Robust cybersecurity measures](#) are essential to protect customer data from unauthorised access or misuse. Data breaches can have devastating consequences for both banks and customers.

## The Human-AI partnership

The future of banking does not involve robots replacing human bankers. Instead, it is about a powerful synergy of humans working alongside AI. Here's how this collaboration can work:

- **Upskilling the workforce:** Banks need to invest in training programs that equip employees with the skills needed to work effectively with AI.

This can involve data analysis, critical thinking and problem-solving skills to complement the automation capabilities of AI.

- **Ethical AI development:** The financial services industry needs to take a proactive stance by establishing clear ethical guidelines for developing and using AI. These guidelines should

address issues like bias, transparency, and accountability in AI algorithms.

- **Prioritising data security:** Robust cybersecurity measures are essential to protect customer data from unauthorised access or misuse. Banks need to invest in cutting-edge security solutions and stay vigilant in the ever-evolving threat landscape.



## Shaping the future

The impact of AI on banking is a story that is continuously unfolding. Here are some emerging trends to keep an eye on:

- **Voice-activated banking:** Imagine managing your finances with simple voice commands. AI-powered voice assistants are poised to revolutionise how we interact with our banks. Just say "pay my bill" or "check my balance," and AI takes care of the rest.
- **Enhanced risk management:** AI is constantly learning and evolving. As AI algorithms become more sophisticated, they will be able to identify and assess even more

complex risks, leading to a more secure and stable financial ecosystem.

- **Hyper-personalization:** AI will become even more adept at understanding individual financial needs and goals. Jim Marous, banking and fintech influencer emphasises, "Bottom line, having a customer-centric culture is more than just a good thing — it's become a matter of survival". AI can help banks achieve this by providing hyper-personalised experiences, [tailored financial products](#), investment advice and budgeting tools, empowering

customers on their unique financial journey.

Generative AI (Gen AI) is poised to unlock a goldmine for banks. McKinsey predicts a \$200 billion to \$340 billion annual value jump (2.8 per cent-4.7 per cent revenue increase) fueled by AI-powered productivity gains. About 85 per cent of banking IT leaders have a clear AI plan for new products and services, and 80 per cent of senior executives globally agree that AI mastery will separate the winners from the losers.



## Embracing the AI revolution

The tide is turning in banking, and AI is at the helm. This powerful technology presents a golden opportunity for rapid innovation, like AI-powered fraud detection that keeps your finances safe. Imagine a future where banking translates to seamless transactions, personalised

financial plans tailored to your goals and ironclad security – this is the exciting promise of AI-powered banking.

But responsible deployment is key to ensuring this technology empowers everyone. Banks that prioritise ethical AI development not only redefine the

banking experience but also build a future of financial empowerment for all, while solidifying their market position. Are you ready to ride the wave of the AI revolution in banking? The future of banking is being written now, and it is brimming with possibilities.

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## How can Infosys BPM help?

Financial institutions face a dual challenge: shrinking margins and ever-changing regulations. To navigate this, they need to reevaluate their business models,

operations and technology. Infosys BPM's [services for the financial sector](#) can help financial institutions navigate challenges and achieve operational excellence in

a cost-effective manner. Explore our solutions and offerings to unlock the next wave of banking efficiency and customer satisfaction.

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



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