Navigating banking transformation in the age of AI
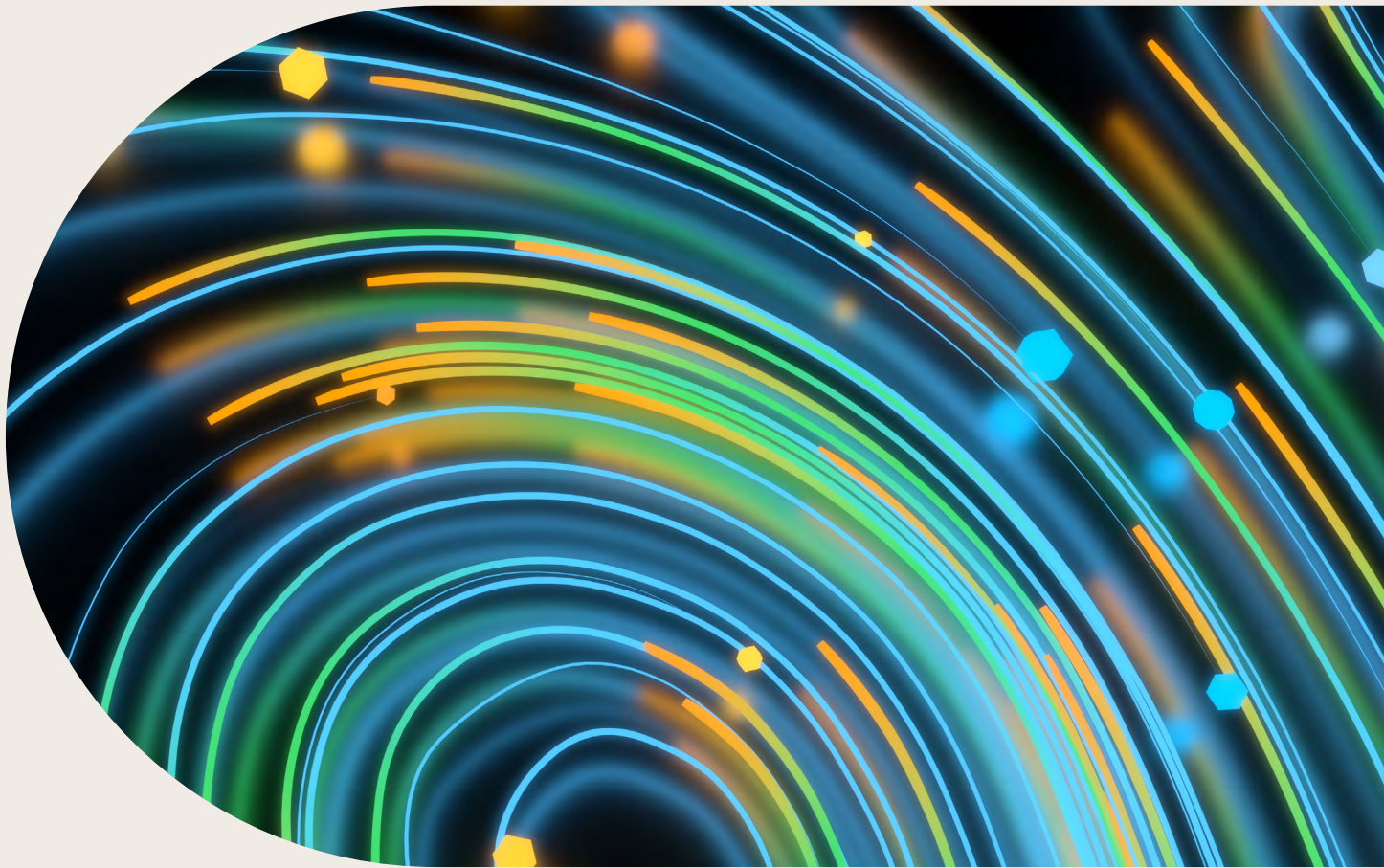
Artificial intelligence (AI) has the potential to revolutionize the financial services industry, enabling banks and other financial institutions to enhance customer service, streamline operations, and increase profitability.

With so many potential AI applications, it's unsurprising that financial services firms are some of the most aggressive early adopters. McKinsey recently reported that 41% of financial services organizations are dedicating at least 6% of their digital budget to AI initiatives, making the sector the second-most-active adopter, behind only the technology industry.[1]

Infosys consultants identified 135 potential AI applications within a single bank, showcasing the vast scope of AI's impact on financial services.

Complex journey

Although possibilities are tantalizing, critical questions need to be addressed if financial institutions are to be able to implement and manage AI effectively:

■ Financial institutions' increased adoption of AI must consider regulatory frameworks that are still evolving. Reliability and ethical use are critical priorities. A disciplined approach to governance and communication is essential.

■ AI training requires vast volumes of data and can produce biased and unpredictable results if data is of poor quality, inconsistent, or biased. Banks must adopt robust governance frameworks that regularly validate, test, and monitor models to ensure that they adhere to ethical and legal standards in areas such as privacy and data protection.

■ Regulators are increasingly scrutinizing AI use in financial services to ensure

that the models comply and don't introduce new risks. Financial institutions must implement transparency and explainability. They should also establish strong communication channels with regulators, stakeholders, and even competitors to ensure that rule changes are communicated and AI deployments are handled consistently.

AI-driven IT modernization

Infosys research found that banking executives' second-most-important strategic priority is transforming business models.[2] AI can play a critical role in modernizing technology infrastructures.

Legacy systems can be modernized with AI code assistants to transform decades-old systems, including mainframes, into cloud-native and composable microservices-based architectures. AI tools can also automate routine IT tasks such as system monitoring, patch management, and infrastructure optimization, reducing operational costs and freeing IT teams to focus on more strategic projects.

AI can be a powerful aid in improving data quality and preparing data for use in analysis and machine learning (ML) training. This capability is particularly important in financial services, because data quality directly impacts the reliability of the AI model. Applying AI to data management and data quality enables banks to deploy AI at scale more rapidly across the organization.

AI is already delivering significant bottom-line benefits for financial services firms.

■ Intelligent customer service tools such as chatbots and virtual assistants help banks reduce response times and enhance customer satisfaction. AI assistants can

capably handle routine queries such as summarizing documents and responding to requests for information, freeing human agents to focus on more strategic tasks.

- In the area of fraud detection, ML algorithms can analyze large volumes of transactional data to detect patterns that indicate fraudulent activities. This enables banks to respond quickly to security threats and mitigate risks.

- AI-driven risk management solutions help banks assess and manage risks more effectively.

- AI algorithms analyze customer behavior, preferences, and financial histories to offer customized product recommendations and highly relevant services that enhance customer loyalty and deepen relationships. AI-powered personalized banking is already reshaping customer experiences.

No time for complacency

The Infosys Bank Tech Index found that controlling costs is banking executives' No. 1 priority.[3]

Although this is important, fiscal restraint must be balanced with AI's unprecedented opportunities to reinvent the business. Some examples of the potential:

- JPMorgan Chase's 900 data scientists, 600 ML engineers, and 1,000 data managers have built more than 300 AI applications that collectively delivered $1.5 billion in value in 2023.[4]

- Bank of America is spending $4 billion on new technology investments led by AI this year.[5]

- Citi invested over $12 billion in technology last year, much of it to modernize legacy systems.[6]

The Infosys/AWS collaboration

The partnership between Infosys and Amazon Web Services (AWS) provides financial institutions with scalable, secure, and innovative cloud solutions tailored to the sector's unique challenges. The Infosys Cobalt suite of cloud services for digital transformation and AWS's robust infrastructure together empower financial institutions to modernize their core systems for greater agility, rapid deployment of digital banking solutions, enhanced data security, and compliance with regulatory requirements.

To revitalize businesses, it's essential to increase digital density, adopt a cloud-first approach, and embrace an AI-first mindset to drive disruption and growth. Infosys, a leader in this space, spearheads this transformation with Infosys Cobalt, which creates a strong digital foundation to increase digital density, and Infosys Topaz, which enables enterprises to be data-ready for AI and drive business growth. Infosys is uniquely positioned to help businesses navigate and achieve their cloud-powered, AI-first transformation, enabling unlimited potential.

1   The state of AI in early 2024: Gen AI adoption spikes and starts to generate value, McKinsey, May 30, 2024
2   How to make banking tech investment count, Infosys Knowledge Institute, February 9, 2024
3   Infosys Bank Tech Index, August 2024
4   https://www.jpmorganchase.com/content/dam/jpmc/jpmorgan-chase-and-co/investor-relations/documents/events/2023/jpmc-investor-day-2023/JPM-Investor-Day-2023-Final-Transcript_Global-Technology.pdf
5   https://qz.com/bank-of-america-bofa-ai-tech-spending-4-billion-q2-2024-1851594216
6   https://www.ciodive.com/news/citi-bank-technology-executive-tim-ryan-pwc/718510/

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