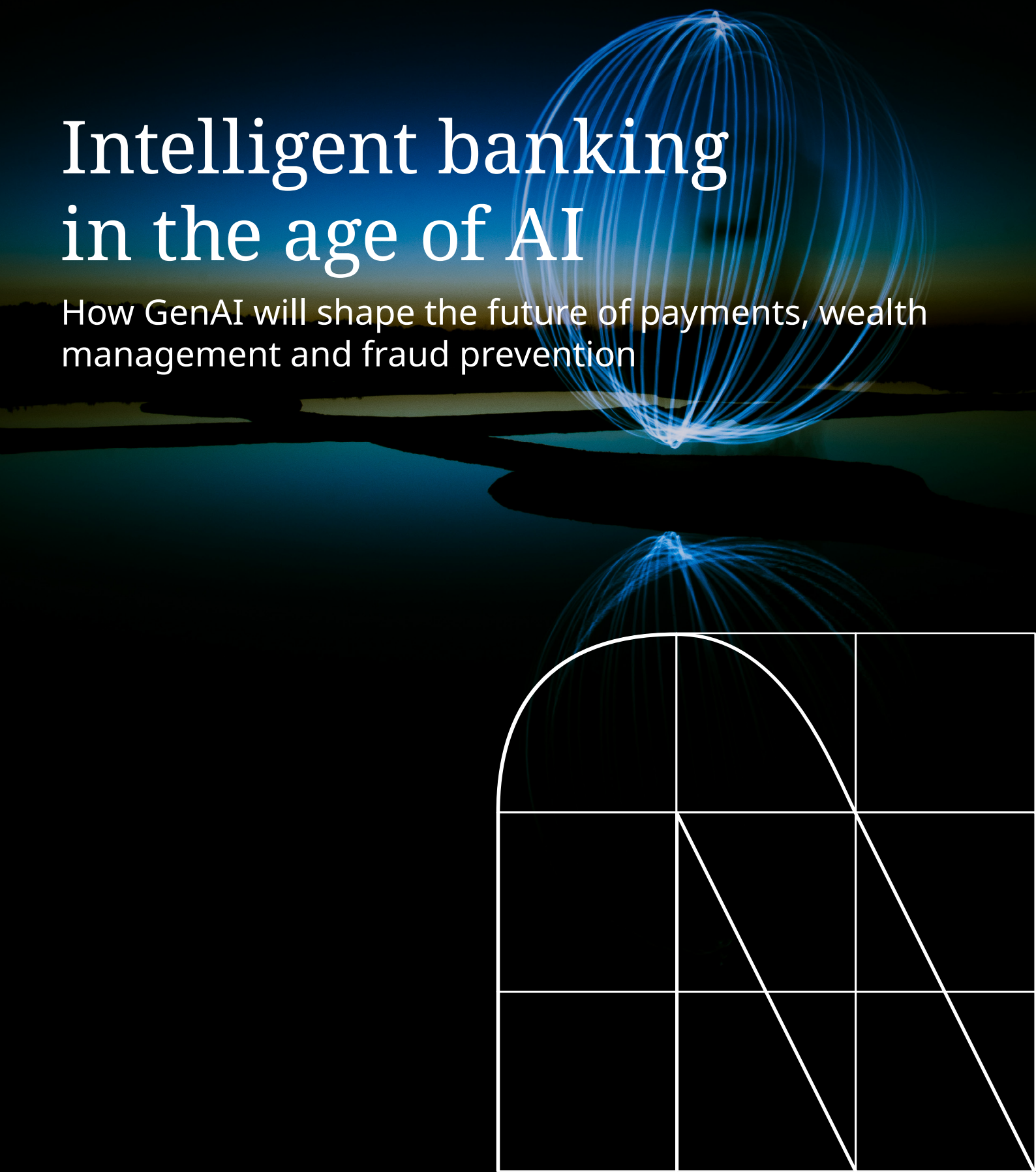
NTT DATA

Intelligent banking in the age of AI

How GenAI will shape the future of payments, wealth management and fraud prevention



Content

Introduction

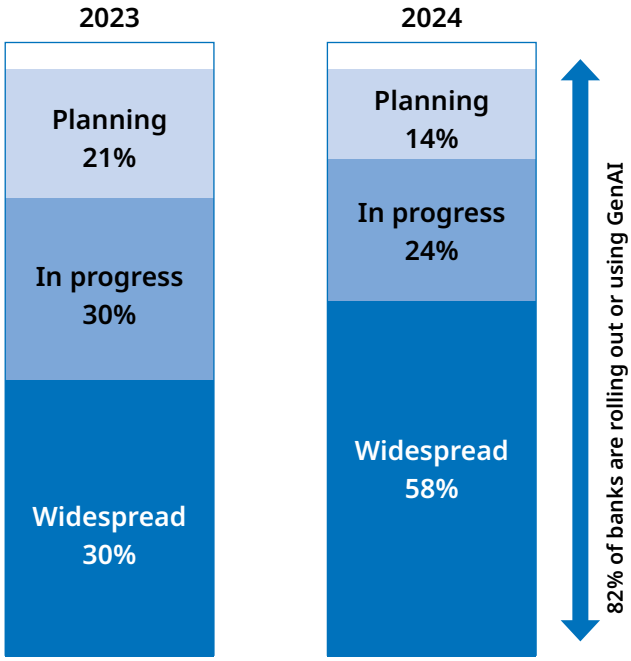
GenAI is revolutionizing the banking sector. It's driving a new wave of digital transformation that is impacting every banking department.

GenAI is more disruptive than any previous advance in banking technology due to its transformative ability to embed intelligence at every layer of financial services, from core banking to front end systems. It changes the relationship between banks and the data it holds, unlocking faster and deeper use of data, both structured and unstructured, to improve decision making.

> "GenAI embeds intelligence at every layer of financial services from core banking to front end systems."

NTT DATA commissioned research to look at how GenAI is changing banks in 2024. The research encompassed 810 senior technology decision makers at global banks across 14 countries. It found that in 96% of banks the drive to integrate AI is led by the C-suite.

There is an urgency to integrate the technology, with 58% of banks reporting it being widely adopted up from 45% one year ago.



Astonishing growth for a technology that only came on the radar of most executives in early 2023.

Banks are no strangers to AI. Machine learning models have powered essential functions like credit scoring, risk assessment, fraud detection, and trading systems since the early 2000s. However, these earlier models had their limits - they worked primarily with structured data and were designed for specific, narrow tasks. GenAI is changing the game, breaking free from those boundaries and opening up a world of new possibilities with their broad capabilities.

The question this paper seeks to answer is not whether GenAI is being rolled out at banks but *how* it is being implemented and the challenges being raised.

> "Almost all banks - an impressive 97% - have adopted a GenAI strategy, but scaling from pilots to enterprise-wide solutions remains a challenge due to regulatory hurdles and legacy systems."
>
> **Jason Gandy** | Senior Vice President of Financial Services, NTT DATA North America

The GenAI transformation is not just a technical challenge to embed it in banking systems, but a cultural, and operational shift that requires careful navigation. Regulation of GenAI models are nascent. Banks must not only ensure compliance with incoming regulations but also foster a culture of innovation.

Integrating AI means rethinking processes, upskilling employees, managing risks like data privacy, and building trust with customers, all while maintaining the integrity of traditional banking values.

We sought to find out how it's impacting different areas of bank to find evidence of its early impact:

- Within payments we're seeing improved efficiency and new features improving the customer experience.
- In wealth management banks are reducing the administrative burden on advisors so they can spend more time with clients.
- In fraud prevention banks are being forced to invest more heavily in fraud detection and advanced security measures to counter increasingly sophisticated fraud schemes.

A changing landscape for technology leaders

Technology leaders are seeing their roles evolve quickly as they are on the front line. Their roles are evolving quickly as they apply the power of GenAI, enhancing their ability to drive growth and improve security. But there is also pressure to innovate and ensure the bank isn't left behind in this rapidly changing technological landscape. The proper strategic implementation of GenAI will be crucial in navigating the future of banking.

By leveraging the power of GenAI, financial institutions can not only optimize their current operations but also build resilient systems capable of adapting to evolving threats and opportunities.

This whitepaper serves as a roadmap for embracing GenAI, providing a comprehensive understanding of its applications and benefits. Moving forward, the integration of GenAI will be essential for maintaining a leading position in the increasingly digital and data-driven banking industry.

> "GenAI isn't just a technology - it's a mindset shift. It offers cost efficiency, competitive advantage, and the potential to fundamentally transform how banks operate."
>
> **Niraj Singhal** | Group Senior Vice President, NTT DATA North America

Key findings

96%

of banks are already **implementing GenAI** at some level, driven by highly ambitious plans and C-suite leadership.

71%

of banks are **increasing their IT budgets** for GenAI, with an average rise of 11%.

63%

of banks say they have **highly ambitious** GenAI strategies.

50%

of banks measure GenAI success based on **improved productivity** and efficiency, while 49% focus **on reducing IT costs** and 48% on gaining a **competitive advantage.**

38%

of banks are looking to external consultants or advisors to guide them through their AI implementations.

51%

are integrating GenAI through **collaborative AI-human workflows** to enhance productivity and decision-making. **47%** are looking at **hybrid integration,** and **45%** are using **API integrations** for AI.

4x

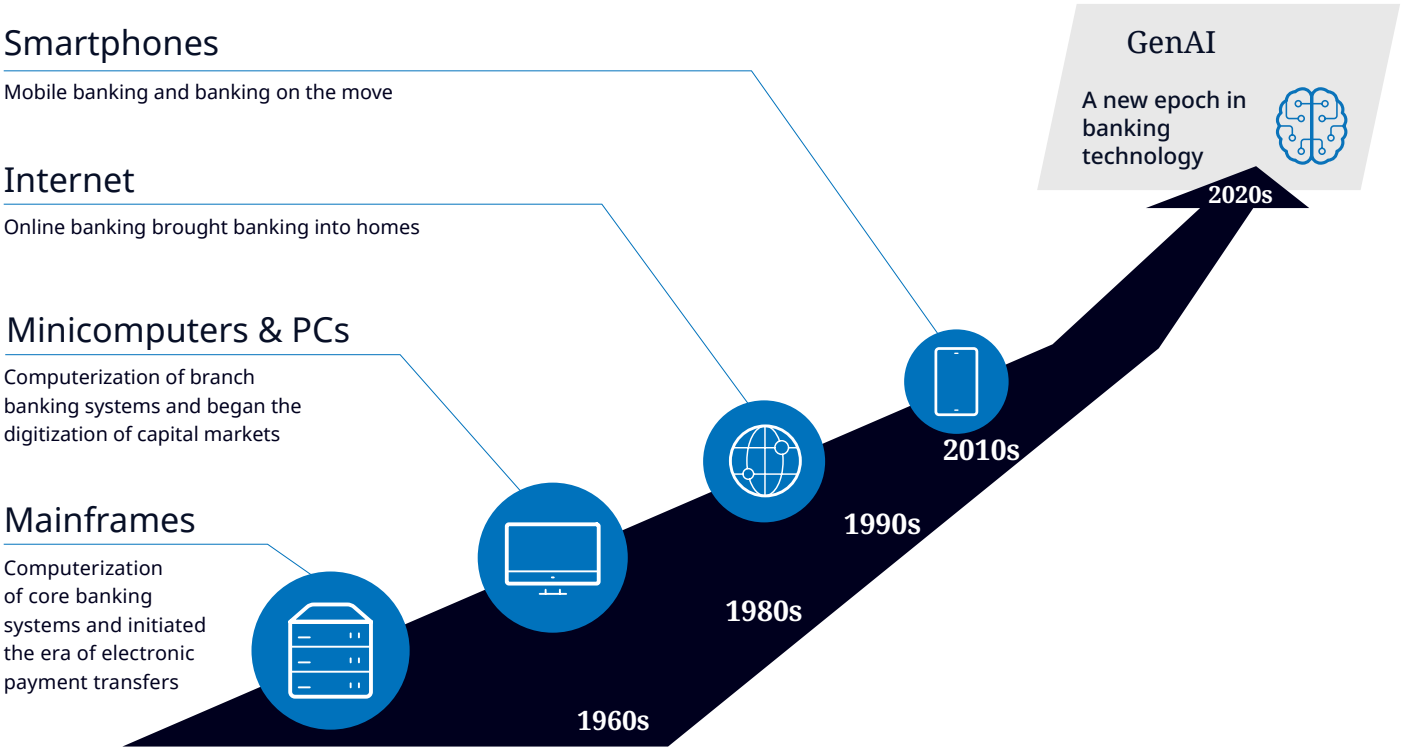
The proportion of European banks which report the CEO drives GenAI strategy compared to the US (20% vs 5%).

59%

of US banks prioritize GenAI for cost-cutting, while LATAM banks (48%) focus on gaining competitive advantage, and APAC banks (54%) emphasize improved productivity.

A new era for banking

Technology has changed banking immeasurably over the decades, from the early uses of computers in digitizing general ledgers and facilitating electronic payment transfers to the internet bringing banking into homes, and smartphones bringing about banking on the move.



GenAI is poised to bring about a new wave of transformation that is more impactful than previous technological shifts. Unlike earlier innovations that focused primarily on improving banking services and connectivity, GenAI is a step change in how banking operates.

It changes how banking operates and engages with customers in a smarter, more intuitive manner. This leap sets the stage for a future where banking is more predictive, interactive, and attuned to the unique needs of each user.

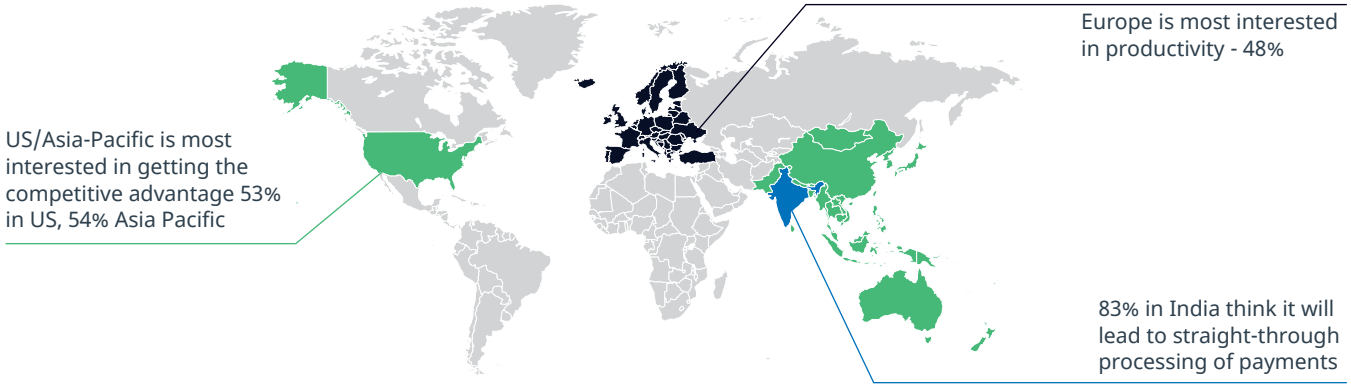
Global change with regional nuances

While the potential of GenAI is universally recognized, banks worldwide have different priorities and strategies for its implementation. The impact of GenAI on banking is global, yet regional differences influence how banks approach this technology.

In the US and Asia-Pacific (APAC), the focus is predominantly on leveraging GenAI for competitive advantage, with 53% of organizations in the US and 54% in APAC aiming to use GenAI to outperform competitors. These regions view GenAI as a critical enabler of innovation that can differentiate them in a crowded market.

There are significant regional variations

Only 16% of investment decisions are happening at the global level, leaving regions in control over the details.



In contrast, Europe's primary focus with GenAI is around productivity. Approximately 48% of European banking institutions are concentrating on how GenAI can streamline workflows and optimize operational efficiency. For them, the objective is less about competition and more about improving internal processes, reducing costs, and enhancing resource allocation. This focus reflects Europe's regulatory environment and conservative approach to technological transformation.

NTT DATA uses GenAI to achieve remarkable productivity gains across all stages of software development[1]

In Japan, NTT DATA used its "Coding by NTT DATA" code generation and conversation solution, combined with NTT's proprietary Japanese language LLM, "tsuzumi". The use of GenAI in coding has resulted in significant time savings.

tsuzumi Coding by NTT DATA

Meanwhile, in India, GenAI is primarily seen as a tool for straight-through processing of payments, with 83% of institutions in agreement. Straight-through processing, which minimizes manual intervention, is essential in a high-volume transaction environment, making GenAI a natural fit for improving the speed and reliability of transactions.

These regional variations underscore that while GenAI holds vast potential, there is no consensus on the primary opportunities it offers. Each region is tailoring its GenAI strategy based on specific market needs, regulatory landscapes, and consumer expectations, resulting in a mosaic of applications and priorities.

> “GenAI is making rapid strides across industries, and its prominence in banking strategy and budgeting continues to expand—rightfully so. This technology is no longer optional; neglecting to integrate a robust strategy in this domain would unquestionably compromise competitive positioning over the medium term.”
>
> **Carlos Estaca** | Chief Strategy Officer, Banking EU & LATAM, NTT DATA

A phased approach

The implementation of GenAI in banks is being carried out in a structured, phased manner to ensure a smooth transition and maximize the benefits of this transformative technology. A phased approach allows banks to manage risks, address challenges, and gradually integrate AI into their operations.

Phase 1: Pilot programs and proof of concept (14%)
In the initial phase, banks typically start with pilot programs and proof of concept projects. These small-scale implementations are designed to test the feasibility and effectiveness of GenAI in specific areas such as customer service, fraud detection, and risk management. By starting with pilot programs, banks can gather valuable insights, identify potential issues, and refine their AI strategies before scaling up.

Phase 2: Gradual integration and scaling (24%)
Once the pilot programs demonstrate positive results, banks move to the next phase, which involves gradual integration and scaling of GenAI across various departments and functions. This phase focuses on expanding the use of AI to more complex and critical areas, such as credit scoring, investment advisory, and personalized customer experiences. Banks also invest in upskilling their workforce to ensure employees can effectively collaborate with AI systems.

Phase 3: Wide deployment and optimization (58%)
In the final phase, banks achieve wide deployment of GenAI across their operations. This phase involves continuous optimization and enhancement of AI systems to ensure they deliver maximum value. Banks leverage AI to automate routine tasks, improve decision-making, and enhance customer engagement. They also focus on maintaining compliance with regulatory requirements and addressing data privacy concerns.

By adopting a phased approach, banks can effectively manage the complexities and challenges associated with GenAI implementation. This structured rollout ensures that banks can harness the full potential of AI while maintaining stability and security in their operations.

> AI-driven automation can reduce operational costs by 10–25% across functions like customer service and back-office operations. GenAI is not just about staying competitive; it's about unlocking significant financial and operational benefits, with potential incremental annual value reaching up to a trillion dollars globally for the banking industry."

Jason Gandy | Senior Vice President of Financial Services, NTT DATA North America

Even the act of evaluating success is varied

As banks invest in GenAI, they face the challenge of defining and measuring success. Unlike traditional banking metrics focused on cost savings or revenue growth, GenAI success is multifaceted and harder to quantify.

Banks are exploring a range of metrics to evaluate GenAI's impact, including customer satisfaction, efficiency improvements, and competitive positioning. However, there is no universal standard for success, and institutions are prioritizing different outcomes based on their strategic goals.

Banks have not settled on one single metric for success

- Improved productivity/efficiency - 50%
- Competitive advantage - 49%
- Cutting costs/reducing IT budget - 48%

> In many cases, GenAI is emerging within organizations in a decentralized manner. This approach, resulting from the lack of maturity inherent in the current stage of this paradigm, limits the potential for synergies and hinders go-live initiatives. Responding to current regulations, consolidating the partner ecosystem, and addressing global business priorities requires a unique strategy. Once a sufficient level of maturity has been reached, it may make more sense to begin de-centralizing functions."

Carlos Estaca | Chief Strategy Officer, Banking EU & LATAM, NTT DATA

Some banks emphasize customer-centric metrics, such as engagement levels and personalized service quality, while others focus on operational metrics like processing speed and error reduction.

The diversity of approaches reflects the varied potential of GenAI to impact multiple areas within banking. For decision-makers, this lack of a standardized measurement framework presents both a challenge and an opportunity. It encourages banks to define success in a way that aligns with their unique objectives and values, but it also complicates benchmarking and cross-industry comparisons.

> “The quickest route to success is when banking product leaders define what success looks like and guide the proof of concepts and uses cases, vs having technology leaders attempt to build solutions and ask for product feedback. Product leaders will know where automation will move the needle and what barriers they will need to overcome. However since the technology is new, product leaders tend to stay away from it.”

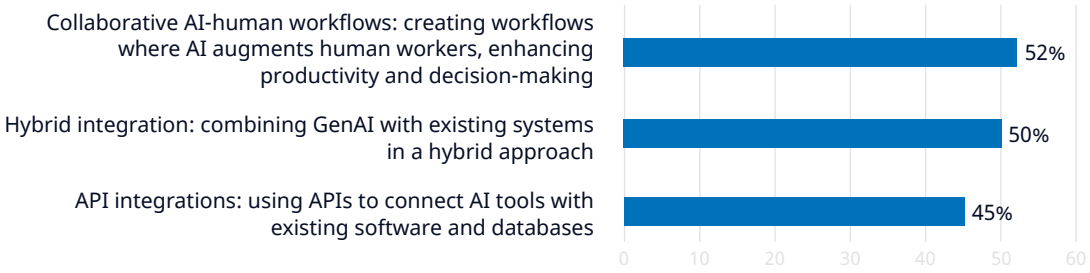
Peter Lowder | Managing Director, Financial Services & Insurance, NTT DATA North America

Collaboration is the most likely GenAI workflow

As financial institutions look to harness the power of GenAI, a collaborative approach between AI systems and human workers is emerging as the preferred workflow. The goal is not to replace human expertise but to enhance it, allowing AI to augment human capabilities in ways that improve productivity, decision-making, and overall operational efficiency.

Most banks see GenAI as a tool for collaboration rather than automation in isolation, with several integration strategies gaining traction.

Most respondents think GenAI will be integrated to create a collaborative AI-human workflow:



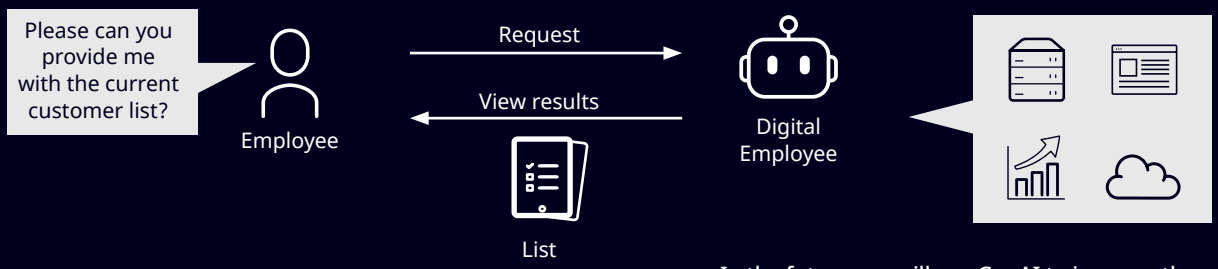
- **Collaborative AI-human workflows:** 52% of banking decision-makers favour an approach with a focus on creating workflows where AI works alongside human employees to augment their capabilities. In these setups, AI can handle data analysis, identify patterns, and generate insights, allowing human workers to make faster, more informed decisions. By reducing the time spent on routine analysis, GenAI empowers employees to focus on higher-value tasks, such as strategic planning and personalized client interactions. This collaboration enhances productivity across the organization, providing both efficiency and accuracy.
- **Hybrid integration:** Close behind at 50% is the hybrid integration model, where GenAI tools are combined with existing banking systems to seamlessly blend AI-driven insights and legacy functionalities. This approach is particularly valuable for institutions that have invested heavily in established infrastructures and want to enhance them with AI capabilities without overhauling their systems. By blending GenAI with existing systems, banks can leverage their current resources while benefiting from AI’s adaptability and intelligence, ensuring that they stay competitive and responsive to evolving customer needs.

- **API integrations:** 45% of banking decision makers are turning to API (Application Programming Interface) integrations to connect GenAI tools with their existing software and databases. Through API integrations, GenAI can tap into vast data repositories and interact with other applications, facilitating smoother data flow and communication across systems. This interoperability enables banks to extract insights from their data more efficiently and use AI-generated insights in real-time, without requiring a complete system overhaul. API integrations support flexible, scalable solutions that allow institutions to build a robust GenAI ecosystem over time.

> “Human and machine collaboration, coupled with ethical AI deployment, is critical. Leveraging human oversight to mitigate biases and regulatory risks ensures AI-driven innovations remain trustworthy and effective.”
>
> **Madhusudhan Magadi** | Managing Director, NTT DATA North America

NTT DATA’s Digital Assistant

The digital employee solution, developed at NTT DATA Japan in collaboration with IBM Japan, is applying GenAI to the daily tasks of FSI employees. Using connected services alongside IBM watsonx Orchestrate it acts as a virtual coworker to the employee to assist them with their day-to-day work.



In the future, we will use GenAI to improve the sophistication and accuracy of our work.

These collaborative workflows reflect the industry’s acknowledgment that GenAI’s greatest potential lies in enhancing human capabilities rather than fully automating complex decision-making processes.

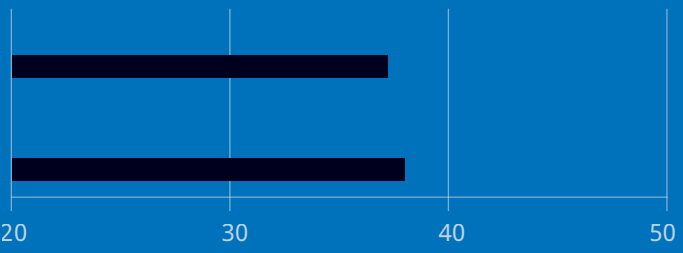
By implementing GenAI in a way that supports and strengthens human roles, banks can achieve a balanced, adaptive approach that leverages the best of both human and machine intelligence. This integration of collaborative AI-human workflows, hybrid models, and API connectivity is setting the foundation for a new, more dynamic era in banking.

Banks are looking to partners to support GenAI implementation.

Implementing GenAI in banking is a complex task that often requires external support. Many banks are turning to third-party providers to assist with various aspects of GenAI deployment, from data infrastructure and model training to compliance and cybersecurity. These partnerships are critical in overcoming the technical and regulatory hurdles that come with new technology such as GenAI.

Banks need support to implement GenAI:

- **Consultant-led implementation:** engaging external consultants or advisors to guide the implementation process and ensure best practices - 37%
- **Managed services:** outsourcing the management of GenAI solutions to external experts - 38%

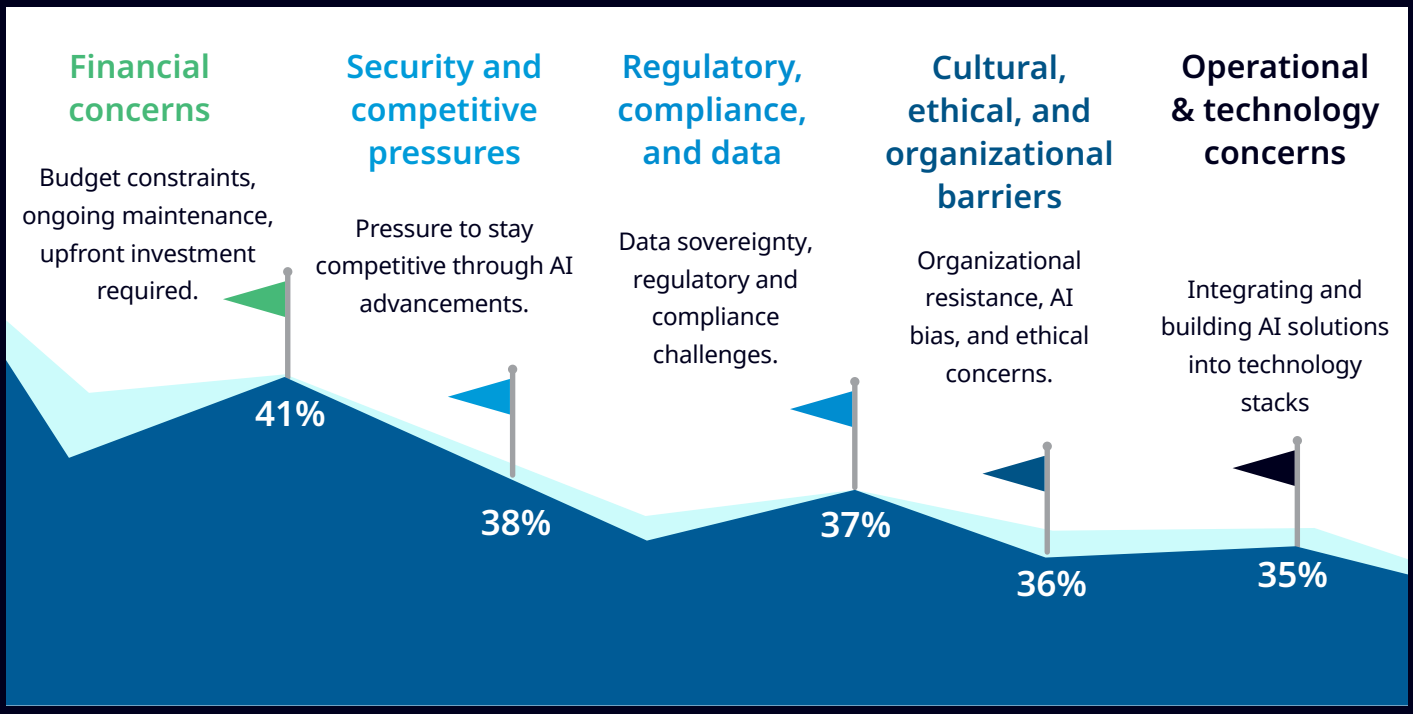


Banks recognize that partnering with consultants or systems integrators allows them to access the latest knowledge while ensuring compliance with industry regulations.

External partners help banks navigate data privacy concerns, a significant issue given the sensitive nature of financial data. By working with specialized providers, banks can maintain robust data protection measures, ensuring that GenAI implementations meet both internal security standards and regulatory requirements.

The challenges of implementing GenAI are complex and varied

Despite its vast potential, the journey to GenAI implementation is filled with challenges. For a technology with far-reaching implications, GenAI requires careful navigation and a structured approach.



Interestingly, operational and technological issues rank lower than many might expect, with only 35% of leaders identifying them as top concerns. The most pressing challenge, cited by 41% of decision-makers, is financial. Budget constraints, high initial investments, and the ongoing maintenance of AI systems strain financial resources.

Security and the need to stay competitive in a rapidly evolving market are close behind, with 38% highlighting these pressures. Regulatory, compliance, and data issues present another major hurdle, cited by 37%, as banks navigate complex regulations and data sovereignty requirements. Cultural and ethical considerations, including organizational resistance and AI bias, are noted by 36% of decision makers as significant obstacles.

This highlights that while technology itself presents its own set of challenges, the more significant obstacles to GenAI adoption lie in broader financial, strategic, and cultural barriers.

The impact of GenAI on payments

GenAI is transforming the payments industry by enhancing consumer experiences, optimizing transaction flow, improving security, and driving innovation.

Introduction

The payments industry is undergoing a transformation driven by GenAI. Once considered a back-office function, payments have become a strategic lever for businesses, enabling deeper customer insights, heightened operational efficiency, and new models of innovation. GenAI is not just a tool for automating tasks; it is reshaping the payments ecosystem by enabling personalized services, real-time fraud detection, and enhanced data-driven insights.

As consumer expectations continue to rise, financial institutions are looking to create more intuitive payment processes. From conversational checkout experiences to dynamic credit scoring, AI-powered solutions are allowing organizations to anticipate customer needs and deliver value in ways previously thought impossible.

At the same time, operational processes are being optimized, with AI streamlining everything from payment processing to working capital management, reducing costs, and boosting efficiency.

Front-end improvements

- More streamlined online checkout processes (e.g. conversational checkout) - 44%
- Improved/automated customer support and engagement - 44%
- A more personalized transaction experience - 41%

Back office improvements

- Optimization of working capital decisions through better value-added insights - 49%
- An improved ability to accurately forecast cash - 41%
- More efficient fraud detection and prevention - 41%
- More real-time analytics and reporting - 36%
- Enhanced security measures - 21%

But beyond enhancing customer experience and optimizing operations, GenAI is driving innovation across fraud detection, real-time analytics, and international payments. As organizations around the world adopt GenAI, they are seeing improvements in how payments are processed, analyzed, and secured.

However, this shift also comes with challenges—such as data privacy concerns, regulatory compliance, and integration complexities—which must be carefully navigated.

> “GenAI can help streamline fragmented payment systems by automating reconciliation processes, reducing manual errors by 70%, and speeding up end-to-end payment processing by 30–40%. This isn’t just about cost savings—it’s about elevating the customer experience.”

Jason Gandy | Senior Vice President of Financial Services, NTT DATA North America

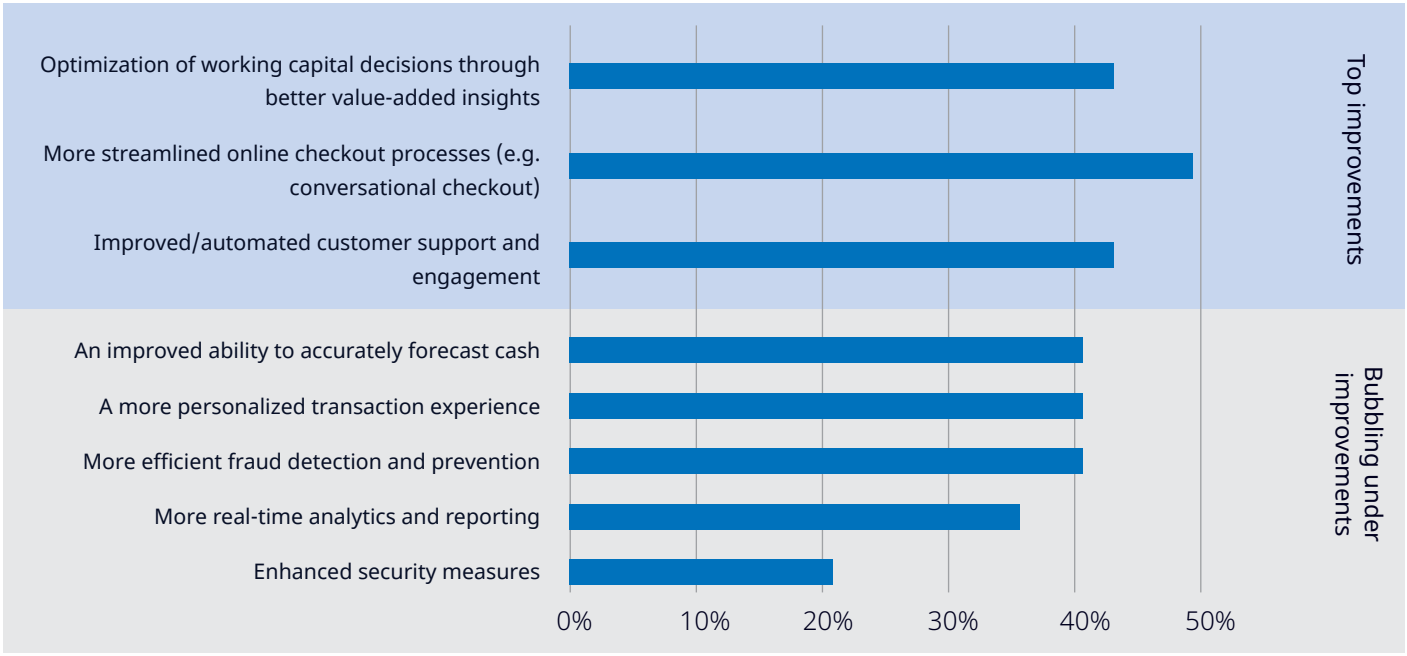
Optimization of transaction flows

GenAI is significantly enhancing operational efficiency in the payments industry.

AI can analyze transaction flow in real time or any sort of repetitive tasks while increasing precision and reliability. This helps organizations optimize their data analyses and increase productivity, saving time and resources. Simply put, there is a variety of operation benefits from implementing GenAI in payments.

Improving the checkout experience

GenAI is making inroads into the checkout experience, allowing institutions to process transactions faster, with fewer errors, more securely, and with less manual intervention.



Reported benefits of GenAI in payments

One of the most notable improvements is in optimizing working capital decisions; nearly half of decision-makers have credited AI-driven insights for better aligning cash flow management and resource allocation, contributing to smoother transaction experiences.

> “True financial inclusion is achieved by enhancing the ability to extend credit, thereby enabling businesses to invest and grow.”
>
> **Head of Payments at a Tier-1 bank**

These improvements extend to streamlining the checkout process itself, with 44% of banking leaders noting that GenAI has enabled faster, more intuitive online payments. Technologies such as conversational checkouts simplify the user journey, reducing friction and minimizing cart abandonment. This shift toward seamless, intelligent interfaces is transforming how customers engage with payment systems, fostering a more positive and efficient transaction process.

Equally impactful is the role of AI in customer support and engagement. With 44% of decision-makers emphasizing the benefits, AI-powered chatbots and virtual assistants now provide real-time assistance during checkout, ensuring that customers receive immediate, personalized support. This enhancement increases the likelihood of transaction completion, increasing revenue.

Further advances are emerging in areas like accurate cash forecasting and fraud prevention, both cited by 41% of leaders. These developments strengthen the financial ecosystem around the checkout process, making it not only smoother but also more secure. GenAI’s predictive abilities allow businesses to anticipate cash flow needs, while enhanced fraud detection mechanisms safeguard transactions, ensuring customer trust.

Personalization is another cornerstone of the improved checkout experience, supported by AI’s capacity to adapt to individual customer preferences. Real-time analytics, highlighted by 36% of respondents, contribute to this by enabling quick insights and operational adjustments.

Strengthening fraud detection and security

As bad actors and criminals adopt increasingly sophisticated techniques, fraud detection and security have become paramount in the payments industry. GenAI offers advanced tools for identifying and responding to fraudulent activity in real time, making it a critical asset in the fight against financial crime.

> “SEPA payments have revolutionized transactions in the EURO area, but the growth of digital payments has led to increasingly sophisticated fraud. With AI, we help clients detect and respond faster and more efficiently.”
>
> **Andrea Giuliani** | Head of Payments, NTT DATA Italia

Real-time fraud detection is one of the most impactful applications of GenAI in payments, with 45% of organizations utilizing these capabilities for cross-border transactions and card payments. Furthermore, 69% of banking leaders believe that GenAI significantly enhances their fraud detection capabilities by analyzing transaction patterns and detecting anomalies that could signal fraud. This proactive approach enables institutions to act swiftly to prevent losses and protect customer accounts.

Using GenAI to test payment scenarios

GenAI can be used to generate synthetic training data for a variety of use-cases. Synthetic data can create functional test cases for payment scenarios, or stress test fraud prevention systems with realistic attacks, helping banks to identify potential vulnerabilities.

Driving innovation in payments

Beyond efficiency and security, GenAI is a driving force for innovation within the payments industry. Payments generate a huge volume of data, and the ability to analyze and process large datasets in real time opens new possibilities for strategic decision-making and business growth.

> “Payments generate around 90% of banks’ useful customer data – information about who buys what, how much and when. All of this is creating new revenue streams for payment companies that can monetise that data, but it also exposes them to privacy concerns and risks.”
>
> **Nacho Nuñez** | Head of Payments Services, NTT DATA EU & LATAM

Through real-time analytics, GenAI empowers organizations with actionable insights, allowing them to adapt their strategies to changing market conditions. Already, 14% of organizations are using GenAI for advanced analytics and decision-making, while 36% have integrated real-time reporting into their payment systems. This data-driven approach enhances visibility into payment flows, providing financial institutions with the information they need to optimize operations and better serve their clients.

GenAI is not only enhancing efficiency but also revolutionizing access to financial services through innovations like dynamic credit scoring and instant loan approvals. Unlike traditional models, AI-powered credit scoring evaluates user behavior and transaction history in real time, allowing credit decisions to adjust to each individual’s circumstances. The impact is notable, with 39% of financial institutions integrating GenAI for credit scoring in retail payments, loans, and merchant financing. This approach enhances accessibility to credit while managing risk more effectively.

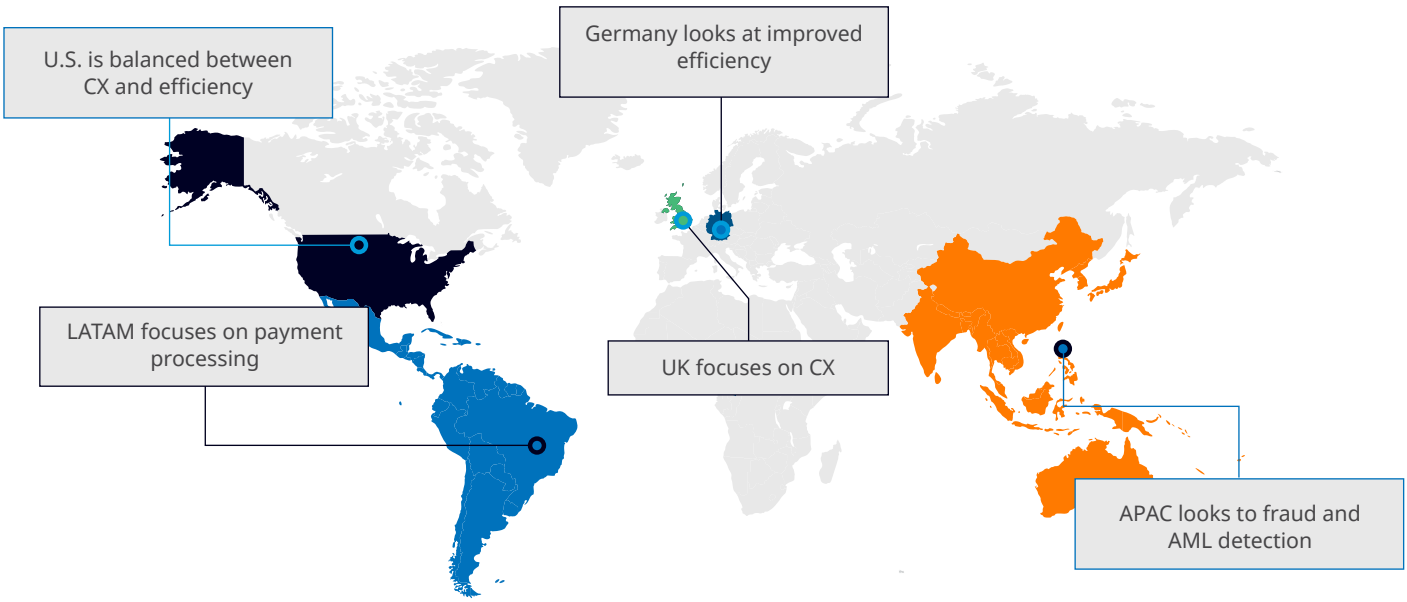
Swiss bank UBS has been weaving AI into the services and products it offers its clients, going live in 2023 with a pilot for instant credit geared towards small and mid-sized companies when they need liquidity.[2]

Around 33% of organizations are looking at using AI to automate currency exchange processes, reducing the complexity and expense associated with international transactions. This capability supports global business operations by providing cost-effective and efficient cross-border payment solutions, ultimately improving the client experience and expanding market reach.

Regional approaches to GenAI in payments

Payments have traditionally varied by region and country, shaped by local preferences, infrastructure, and cultural factors.

In Asia, mobile wallets like Alipay and WeChat dominate, while Europe leans towards bank transfers and card payments. In the US, credit cards and services like PayPal are widespread. In LATAM and parts of Asia, cash remains prevalent, but digital wallets and QR codes are rapidly gaining traction. These regional nuances influence not just how payments are made but also where GenAI is being prioritized to address unique market needs.

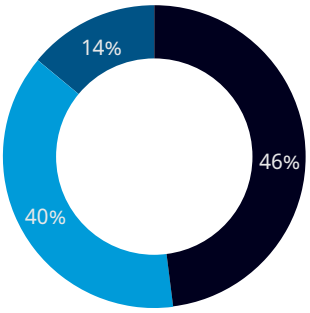


These regional differences are clearly reflected in how GenAI is leveraged across markets. In the UK, 52% of organizations prioritize GenAI-driven solutions to enhance the customer experience, focusing on personalized and user-friendly payment processes. This aligns with the UK's competitive market landscape, where meeting high consumer expectations is key to fostering loyalty. In Germany, 34% of organizations take a different approach, prioritizing automation to boost operational efficiency, reduce costs, and increase the speed and accuracy of payment processing.

The U.S. market adopts a balanced strategy, with efforts nearly evenly split between improving customer experience (44%) and streamlining operations through automation (38%). This dual focus helps U.S. organizations cater to both consumer demands for seamless experiences and internal pressures to enhance productivity.

Meanwhile, LATAM focuses heavily on streamlining payment operations with GenAI, addressing challenges such as inefficient payment systems and financial inclusion. In APAC, the spotlight is on using GenAI for real-time fraud detection and anti-money laundering (AML) checks, particularly in cross-border and card transactions, reflecting the region's growing role in global payment flows and its push for security.

Overcoming challenges in GenAI adoption



Challenges around GenAI in payments

- Technology challenges and integration
- Data privacy and security
- Regulatory compliance

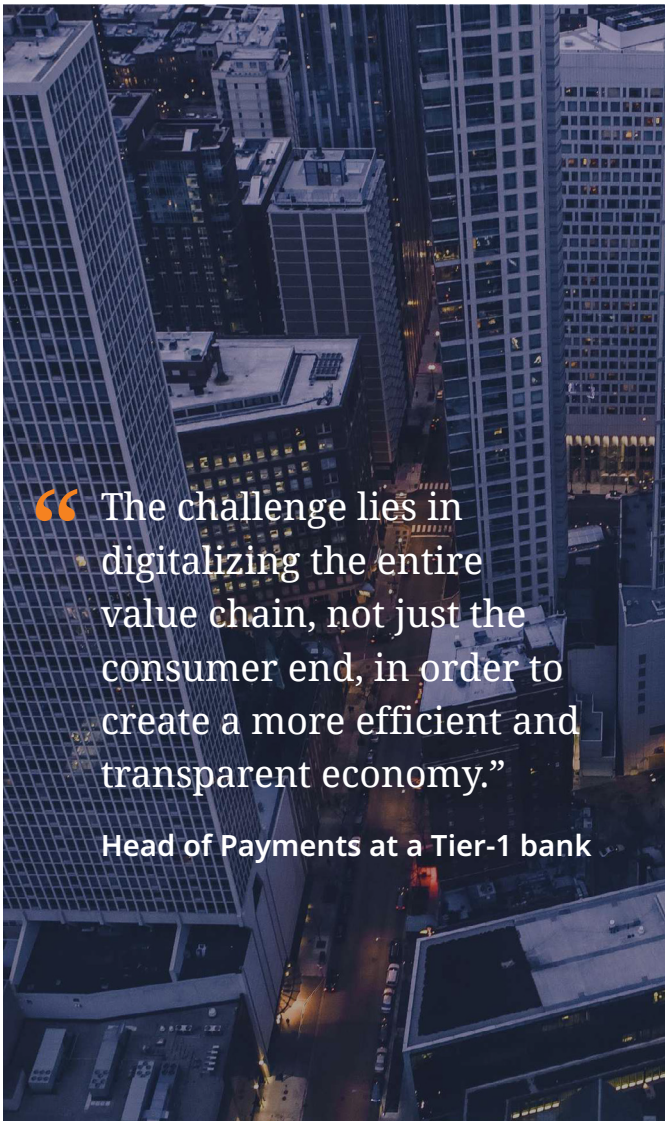
GenAI implementation in payment systems offers transformative potential accompanied by challenges. Technological integration is a major obstacle, with 45% of organizations struggling to adapt GenAI to existing payment infrastructure. Stability and reliability are critical, so any changes to infrastructure requires careful planning and testing to ensure seamless functionality and avoid service disruptions.

Resource constraints, including funding and skilled personnel shortages, hinder adoption. Many organizations are investing in training and recruiting AI talent to build internal expertise, but these gaps remain a pressing issue.

Regulatory compliance and data security concerns add complexity. Evolving regulations and the need to safeguard sensitive information demand robust data protection measures, with 38% of organizations prioritizing privacy. Addressing these challenges is essential to leveraging GenAI's transformative potential responsibly.

GenAI is proving transformative for the payments industry, enhancing customer experiences, operational efficiency, fraud prevention, and innovation. However, success depends on navigating the challenges of integration, resource allocation, and regulatory compliance.

By embracing GenAI with a strategic approach, financial institutions can harness its full potential to drive growth, resilience, and a superior payment experience.



The impact of GenAI on wealth management

In wealth management GenAI enhances financial advisory services, portfolio management, and client engagement.

Traditional wealth management has always been deeply rooted in personal relationships. Advisors and clients often meet face-to-face, building trust over time through personalized advice and meticulous service.

This model will be challenged as we enter the greatest wealth transfer in history, with trillions of dollars set to be passed down to a new cohort of clients: digital natives.

This younger generation of tech-savvy individuals is reshaping the wealth management landscape with their demand for digital services and platforms tailored to their needs and preferences.

No longer content with traditional approaches, they seek instant access, personalized digital experiences, and seamless online interactions that align with their everyday use of technology.

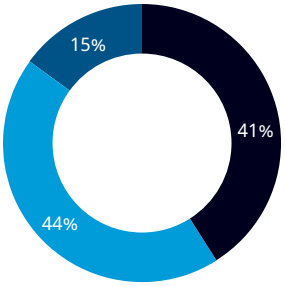
GenAI has emerged as a powerful solution to meet the evolving demands of digital natives, offering the tools necessary to transform wealth management from its traditional roots into a dynamic, technology and data-driven service.

It's therefore no surprise that NTT DATA research reveals GenAI adoption is more advanced in wealth management than in other banking sectors. According to the findings, 67% of banking IT decision-makers report widespread use of GenAI in wealth management, compared to 52% in other areas.

> "GenAI has the potential to fundamentally transform wealth management by providing highly personalized, data-driven insights tailored to the distinct needs of each client.
>
> Automation empowers wealth managers to redirect their focus towards offering value-added services and strategic, high-impact advice."
>
> **José Manuel España** | EU & LATAM Wealth Management Head, NTT DATA

Supporting every stage of client lifecycle management

GenAI has the potential to influence every stage of the client lifecycle, from onboarding through to regular engagements.

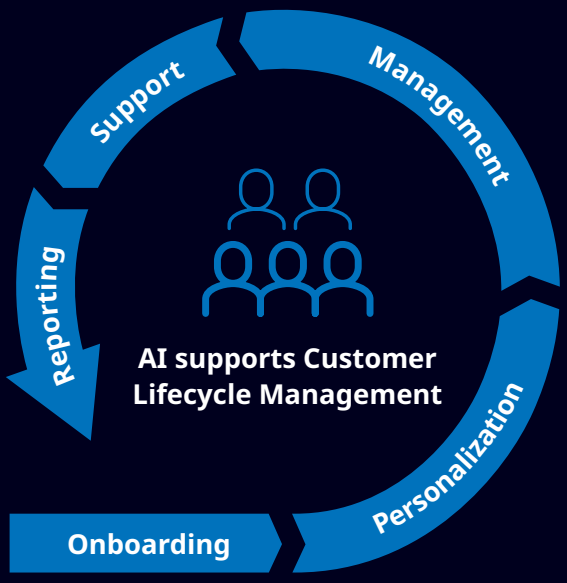


Is GenAI currently in use within your organization's Client Lifecycle Management processes?

- Yes, we are already using it with this group
- Not yet, but we plan to use with this group in the 1-2
- Not yet, but potentially in the next 2-5 years

Banks are leveraging GenAI in their Client Lifecycle Management processes to enhance personalized customer experiences and automate support. However, there is growing recognition that this technology serves as a powerful enabler, bringing deeper insights from customer and market data, aiding in more accurate investment strategies and improved customer retention efforts.

Supporting client lifecycle management



1. **Streamlined onboarding.** Automated document verification, streamlining dynamic e-KYC (electronic know your customer processes) and improving services around onboarding. 54% of banks are experiencing this benefit.
2. **Personalized suggestions.** Analyze customer data, preferences and behaviors to develop more accurate strategies to improve products and services, in addition to maintaining customer relationships. 52% of banks are experiencing this benefit, with 49% reporting an improving speed of responses.
3. **Portfolio management.** Automation of investment proposals and portfolio rebalance ideas, which reduce the manual effort required. 54% of banks are already using GenAI in this area.
4. **Automated support & adjustment.** Organizations are utilizing GenAI to provide training, support, and communications to enhance customer experience and satisfaction.
5. **Reporting and insights.** Report generation of standard documents such as financial reports/insights, market analysis, compliance/ regulatory documents, and investment summaries.

Using GenAI to support the work of advisors

Advisors are at the heart of wealth management. Despite the rise of digital platforms and robo-advisors, clients still value the expertise and empathy of a dedicated advisor when navigating complex financial situations.

Yet, advisors face increasing pressure from time-consuming administrative tasks, an increasing regulatory burden, and the need to offer ever more personalized insights that meet clients' requirements. GenAI has emerged as the perfect companion for advisors, streamlining workflows, improving their productivity, and enhancing client relationships, all while preserving the human touch that clients trust and depend on.

GenAI: the perfect companion for wealth advisors

GenAI is uniquely suited to supporting advisors by automating repetitive tasks, generating insights, and enabling advisors to spend more time directly with clients. This technology can transform the advisor's desktop into an intelligent, insight-driven workspace, providing real-time, data-informed recommendations that make advisors' work both easier and more impactful.

> "Tools that enable advisors to deliver personalized advice at scale are essential for future success. We're starting with low-risk examples which, applied across an advisor's portfolio, allow them to service more clients."
>
> **Joe Teno** | Financial Services Technology Consulting Director, NTT DATA North America

Roles that will benefit the most from GenAI	
Technology and IT operations	46%
Financial advisors and planners	40%
Client relationship management	38%
Product and strategy development	38%
Investment management	37%
Marketing and communications	36%
Risk and compliance	33%
Operations and support	33%

Data shows that financial advisors and planners stand to gain the most from GenAI, alongside roles like technology operations, client relationship management, and investment management. By automating document generation, producing next-best-action insights, and reducing administrative burdens, GenAI enhances client engagement and, critically, "client stickiness" - a top priority for 55% of banking IT decision-makers. These advantages make GenAI a strategic investment that can elevate the client experience while significantly boosting advisors' efficiency.

Key areas of impact for GenAI in wealth management

1. Enhanced client insights and next-best-action recommendations

Advisors can use GenAI to deepen their understanding of client needs, preferences, and behaviors. By analyzing vast data sources, GenAI delivers tailored insights, enabling advisors to offer personalized recommendations aligned with clients' financial goals and risk tolerance. Next-best-action models can suggest steps based on client interactions, milestones, and portfolio performance, providing up-to-date insights to guide decisions.

Recommendations might include adjustments to portfolios triggered by market changes or personal milestones, such as saving for education or retirement. This capability helps advisors deliver timely, proactive advice, enhancing client satisfaction, trust, and loyalty.

2. Automated document production

Administrative tasks, particularly documentation, consume substantial time and detract from client-focused activities. GenAI streamlines these processes by automating the creation of investment proposals, portfolio adjustments, and financial reports, requiring minimal manual input.

By swiftly pulling financial data, modeling scenarios, and generating tailored documents, GenAI reduces delays while maintaining high-quality outputs. Advisors can review and finalize materials, allowing them to focus on delivering value and engaging with clients.

3. Intelligent client desktops for improved productivity

GenAI is transforming advisor desktops by integrating client data, market insights, and financial tools into an intuitive interface. This "intelligent desktop" allows seamless navigation, reducing interruptions for manual data entry or retrieval.

AI-powered systems highlight key client insights and prioritize tasks, such as follow-ups, reminders, or portfolio alerts. By minimizing routine work and improving access to actionable information, GenAI desktops enhance productivity and workflow efficiency, resulting in better client service.

4. Automation in risk management and compliance

Operating in a heavily regulated environment, advisors face significant compliance demands. GenAI alleviates this burden by automating elements of risk management and compliance processes. It flags potential portfolio compliance issues, generates required documentation, and ensures actions align with regulations. This reduces manual workload, enabling advisors to dedicate more time to client relationships and advisory roles.

Morgan Stanley harnesses GenAI to transform wealth management[3]

Morgan Stanley has adopted GenAI to boost efficiency and client service. Its AI assistant provides financial advisors with quick access to the firm's knowledge base, while the Debrief solution automates meeting summaries and follow-ups, allowing advisors to focus on client engagement. Recently, Morgan Stanley introduced a platform to help institutional teams distill insights from over 70,000 proprietary research reports produced annually.

GenAI investment is critical in enhancing client stickiness

One of the primary motivators for investment in GenAI among banking IT decision-makers is enhancing "client stickiness" - the likelihood of clients remaining loyal over the long term. By equipping advisors with tools that improve efficiency and deepen client engagement, banks can make their services indispensable. GenAI allows advisors to deliver value in real-time, anticipating client needs, and providing a consistently high level of service. This proactive, personalized approach not only increases client satisfaction but also fosters a sense of trust and loyalty, reducing the likelihood of clients switching to other financial institutions.

Three strategic takeaways for banking technology decision-makers in wealth management

1. **Prioritize GenAI investments in advisor-facing applications:** Focus on tools that enhance client insights, automate documentation, and provide next-best-action recommendations to reduce administrative burdens and improve client interactions.
2. **Invest in AI-powered intelligent desktops:** Equip advisors with AI-enhanced desktop solutions that streamline data access, task prioritization, and decision-making to elevate both productivity and client service quality.
3. **Measure success through client stickiness and satisfaction metrics:** Track the impact of GenAI investments by monitoring improvements in client retention, satisfaction, and engagement levels, ensuring that technology investments are aligned with client-centric outcomes.

> "GenAI has reduced non-client-related tasks for advisors by 40%, allowing them to increase their client load by 15–20% without compromising service quality. This automation is redefining how advisors interact with clients, focusing more on personalized, strategic engagement."

Jason Gandy | Senior Vice President of Financial Services, NTT DATA North America

The impact of GenAI on fraud prevention

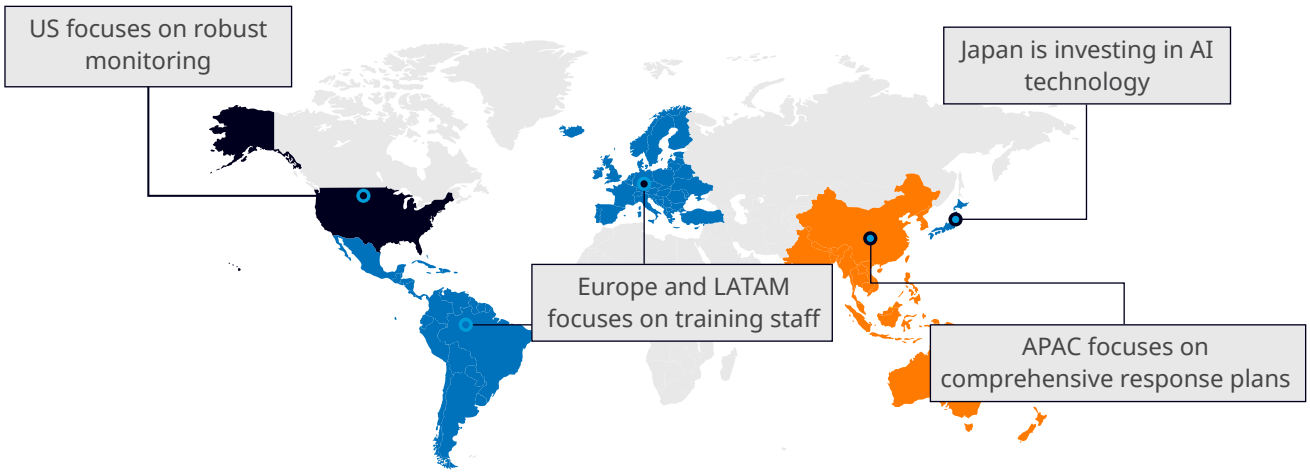
GenAI is the latest tool to combat increasingly sophisticated fraud and scam tactics, ensuring the continued security of financial transactions.

Fraud and fincrime – an evolving global threat

Fraud is becoming more sophisticated, driven by bad actors leveraging AI to enhance the complexity and frequency of their attacks.

This escalating threat underscores an urgent challenge for banks: staying ahead of rapidly evolving fraud tactics while safeguarding both their institutions and clients. In this high-stakes environment, traditional compliance methods are no longer sufficient, and banks must adopt cutting-edge solutions and tailor their strategies to meet both global and regional threats.

Regional approaches to fraud prevention



Across the globe, financial institutions are adapting their strategies to counteract specific regional threats:

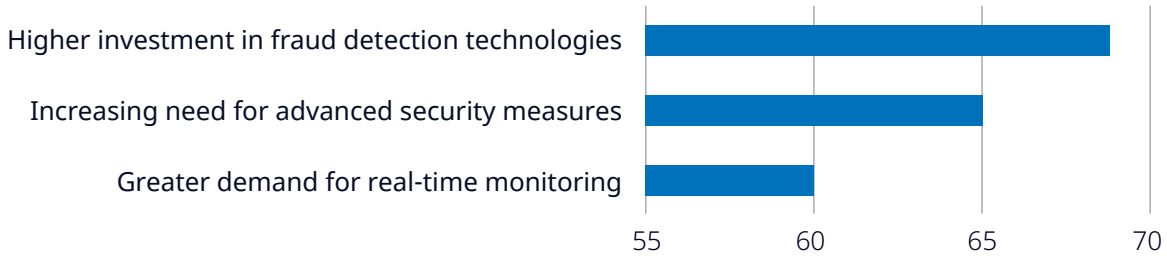
- **United States:** In the U.S., banks prioritize robust monitoring systems capable of real-time detection. This approach emphasizes speed and accuracy, aiming to identify and respond to threats as they happen. Real-time monitoring has become essential in a landscape where an immediate response can significantly reduce potential damage.
- **Europe and LATAM:** In Europe and Latam, the focus is on staff training. Financial institutions in both regions emphasize building internal expertise, ensuring that employees are well-equipped with the best tools to detect and respond to emerging fraud patterns. This human element is crucial for recognizing nuanced or unusual activity that requires deeper insight.
- **Asia-Pacific:** In APAC, banks are developing comprehensive response plans that combine rapid response with technical defenses. This approach supports a holistic fraud prevention strategy that covers immediate response and longer-term mitigation, ensuring institutions are prepared for both current and future threats.
- **Japan** In Japan there is an increased investment in AI technologies to improve fraud resilience.

Adapting IT infrastructure to counter new threats

In response to this evolving threat landscape, banks are overhauling their IT infrastructure with several key priorities in mind:

- **Additional investment in fraud detection technologies:** Banks are making substantial investments in advanced fraud detection tools. These technologies enable institutions to identify increasingly sophisticated fraud attempts, keeping pace with the capabilities of attackers who now use AI to evade conventional security measures.
- **Advanced security measures:** The rise of AI-driven fraud has created a demand for more sophisticated security protocols. Banks are implementing multi-layered security measures to guard against both traditional and emerging threats, strengthening defenses across all levels of their operations.
- **Real-time monitoring:** There is an escalating demand for real-time monitoring capabilities, allowing banks to act immediately upon detecting suspicious activities. This proactive approach is essential for minimizing losses and preventing potential breaches before they escalate.

Banks are changing their IT infrastructure in response to evolving fraud and fincrime threats



For banking decision-makers, the implications are clear: as fraud becomes more sophisticated, so too must the strategies for combating it.

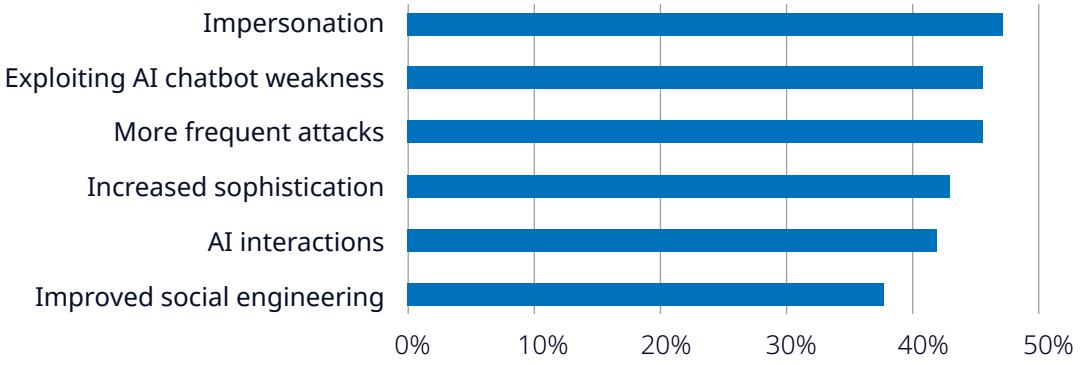
GenAI represents a powerful tool in this fight, with the potential to transform fraud detection and prevention efforts. By investing in GenAI-driven solutions, banks can enhance monitoring, automate detection, and bolster overall security—enabling a proactive, flexible response to a constantly evolving threat landscape.

> “Fraudsters are increasing the sophistication of attacks, which is consequently increasing the frequency of data breaches. Encryption, multi-factor authentication, and real-time monitoring are baseline measures, but identifying weaknesses allow firms to tailor defenses leveraging technologies such as AI.
>
> With growing regulatory scrutiny on consumer protection, cybersecurity investment not only safeguards profits and maintains customer trust, but it also prevents regulatory penalties.”
>
> **Arsen Aslanyants** | Managing Director, Risk and Compliance Practice Leader, NTT DATA North America

An evolving threat landscape

As financial institutions strengthen their defenses against fraud, criminals are continuously adapting their methods to bypass detection and exploit vulnerabilities, leveraging advanced technology, including AI. This chart illustrates several ways criminals are adapting their tactics to counteract detection mechanisms and make their attacks more effective.

Criminals are adapting their techniques to counter detection and leverage technology



Key Adaptations by Criminals

- **Better impersonation:** Criminals have refined their ability to mimic legitimate entities, whether individuals, organizations, or customer service representatives. Using AI-driven tools, they can impersonate voices, language patterns, and even writing styles, making it increasingly difficult for victims to discern between genuine communication and fraudulent contact. This trend reflects a sophisticated level of deception that can compromise both clients and banks.
- **Exploiting AI chatbot weaknesses:** AI chatbots are now common in customer service, including in banking. o However, attackers are exploiting vulnerabilities within these systems by manipulating chatbots to gain access to sensitive information or to deceive clients. Criminals often exploit gaps in the chatbot's knowledge base or its programmed responses, highlighting the need for banks to fortify their chatbots against these threats.
- **More frequent attacks:** The frequency of attacks is rising as criminals seek to overwhelm security systems and increase their chances of a successful breach. This persistent attack strategy is designed to exploit any momentary lapses in security or potential blind spots, testing the robustness and responsiveness of an institution's defenses.
- **Increased sophistication:** Fraudsters are employing more sophisticated tactics, often leveraging AI to simulate genuine patterns of client behavior or disguise malicious activities within legitimate-looking transactions. This level of sophistication challenges traditional detection methods, pushing financial institutions to adopt more advanced, AI-driven detection tools.
- **AI interactions:** Criminals are using AI tools themselves, creating interactions that mimic authentic engagement. By deploying AI to interact with banking systems or clients, fraudsters can gather information, test system vulnerabilities, and refine their methods without direct human involvement. This autonomous approach allows for highly scalable and efficient attacks, further increasing the pressure on financial institutions to stay ahead.
- **Improved social engineering:** With better social engineering techniques, criminals are becoming more adept at manipulating individuals within financial institutions or their clients. Leveraging AI to analyze social media, communication styles, and personal data, fraudsters craft highly convincing and tailored schemes that can deceive even the most cautious individuals.

> “GenAI undoubtedly introduces new risks to manage, presenting both a challenge for banks and a valuable opportunity for insurers to explore new business opportunities. Gartner recently coined the term “TRiSM” — “AI Trust, Risk, and Security Management” — to address these emerging challenges.”
>
> **Alejandra Romero** | EU & LATAM FinCrime Prevention Senior Director, NTT DATA

Implications for financial institutions

For banking decision-makers, these evolving tactics underscore the need to adopt advanced, proactive security measures. As criminals integrate AI and other technologies to increase the scale and success of their attacks, banks must respond by:

- Investing in sophisticated fraud detection and prevention tools that can recognize subtle signs of impersonation, social engineering, and other deceptive tactics.
- Continuously updating AI chatbots and customer interaction systems to close vulnerabilities and improve their resilience against malicious exploitation.
- Implementing real-time monitoring to identify and respond to frequent and sophisticated attacks quickly, reducing the risk of financial or reputational loss.

By understanding the advanced methods that criminals now employ, financial institutions can better defend against the evolving threat landscape and protect their clients’ assets and trust.

Fighting back with GenAI

Fraud is becoming more sophisticated, driven by bad actors leveraging AI to enhance the complexity and frequency of their attacks.

Banks and financial firms are turning to GenAI as a powerful ally in the fight against fraud.

> “GenAI’s predictive capabilities in fraud detection and AML have revolutionized accuracy, achieving 85–90% compared to the 60–70% offered by traditional methods. On the customer experience side, banks leveraging AI-powered chatbots have seen 30–40% improvement in customer query response times, driving customer satisfaction scores up by 20–25%.”
>
> **Jason Gandy** | Senior Vice President of Financial Services, NTT DATA North America

GenAI offers a range of capabilities that can help counteract the tactics used by criminals. Unlike traditional rule-based detection systems, GenAI uses data-driven models that can learn, adapt, and improve over time, making it well-suited to keep up with the constantly shifting techniques of fraudsters. By generating insights, automating detection processes, and strengthening security protocols, GenAI enables financial institutions to build a proactive, adaptive, and resilient defense against fraud and fincrime.

Key applications of GenAI in fraud prevention

1. Anomaly detection and real-time fraud prevention

Detecting unusual behavior is the foundation of effective fraud prevention. Modern AI-powered tools have evolved from rule-based systems to adaptive engines capable of learning from customer behavior and flagging suspicious activities. GenAI enhances this by analyzing transaction and behavioral data in real time, identifying subtle patterns often missed by traditional methods. It can also predict potential risks, helping institutions proactively address fraud before it occurs.

2. Alert management and investigative efficiency

Managing the flood of alerts and reducing false positives is a major challenge for operations teams, often demanding substantial resources. GenAI streamlines this process by automating data gathering, summarizing transaction histories, and generating clear, actionable reports. This allows teams to focus on higher-priority cases. Additionally, GenAI enhances security during client interactions by detecting fraud attempts in real time and protecting AI-powered chatbots from manipulation.

3. Regulatory compliance and data security

Meeting regulatory requirements is crucial in combating fraud tied to money laundering or terrorism financing. GenAI helps institutions comply by generating detailed, real-time reports and ensuring communication of critical signs or certainties. It also creates synthetic datasets for training fraud detection models, preserving data privacy while improving accuracy and compliance with data protection laws. These capabilities help institutions stay secure and build trust with regulators and clients.

4. Strengthening the fight against fraud

For banking decision-makers, investing in GenAI is not just a defensive move—it is a strategic necessity. GenAI’s ability to learn from vast data sets and adapt to evolving fraud tactics makes it an indispensable tool in modern fraud prevention. By integrating GenAI into their security infrastructure, banks can create a layered defense system that not only detects and responds to fraud in real time but also proactively identifies and mitigates future risks.

In a world where fraud is becoming increasingly sophisticated, GenAI empowers financial institutions to fight back with intelligence, agility, and resilience, ultimately safeguarding their clients and fortifying their own reputation.

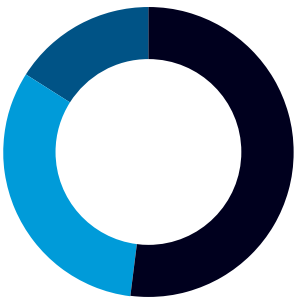
> “GenAI can assist organizations both in fraud prevention and management.
>
> It strengthens prevention models through the generation of synthetic data, as well as facilitating performance testing. Attack simulations can uncover potential vulnerabilities.”
>
> **Alejandra Romero** | EU & LATAM FinCrime Prevention Senior Director, NTT DATA

Building resilience against AI-driven fraud

To effectively counter the rise of AI-driven fraud, banks are increasingly turning to GenAI solutions as a core component of their detection and prevention strategies. As the sophistication of fraud tactics grows, so does the need for advanced and adaptable solutions. Recent data underscores the effectiveness of GenAI in combating fraud, with most institutions finding it to be a highly effective tool in this domain. Recognizing its potential, many banks are actively planning to implement GenAI, further solidifying its role as a key defense mechanism.

Effectiveness and adoption of genai in fraud prevention

According to NTT DATA’s research, a significant portion of banking decision-makers already regard GenAI as highly effective in fraud prevention, while others find it somewhat effective and are planning to expand its use. This widespread adoption reflects the industry’s confidence in GenAI’s ability to enhance fraud detection, particularly in identifying patterns that traditional systems might miss.



Effectiveness of GenAI in fraud detection/prevention

- Highly effective
- Somewhat effective
- Planning to use it

Strategic measures to strengthen fraud resilience

in response to AI-driven threats, banks are implementing comprehensive measures to enhance their resilience:

48%

Developing comprehensive response plans: Nearly half of banks are crafting detailed response plans specifically aimed at AI-driven fraud. These plans outline the protocols for detecting, managing, and mitigating fraud incidents, ensuring that institutions can act swiftly and effectively in the event of an attack.

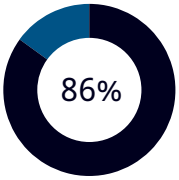
45%

Training IT staff and fraud prevention teams: Banks recognize that human expertise is essential in understanding and combating AI-driven fraud. Consequently, many institutions are investing in training for IT and fraud prevention teams, equipping them with the latest knowledge and tools to counter emerging AI-driven tactics. This training strengthens the institution's overall fraud prevention capabilities, combining human judgment with GenAI's analytical power.

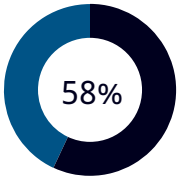
43%

Enhancing data security and privacy measures: Given the importance of data security in a digital landscape, banks are placing a strong emphasis on protecting sensitive information. Strengthened data privacy protocols and security measures are being implemented to prevent unauthorized access and safeguard client data from exploitation by fraudsters.

Role of banks in shaping fraud regulations



86% of respondents say that the banks should be **more involved** in the **development of fraud regulations.**



58% cite **higher return on investment** as a motivator for GenAI implementation.

with 86% of respondents believing that banks should play a greater role in the development of fraud regulations, it's clear that the industry is seeking a more active voice in shaping policy.

This proactive stance reflects an understanding that regulations need to keep pace with evolving fraud tactics, particularly as AI continues to transform the threat landscape. Banks have a unique perspective on fraud prevention, making their involvement crucial for creating effective regulatory frameworks.

Return on investment as a motivating factor

For 58% of banking decision-makers, the drive to implement GenAI for fraud prevention is also tied to its potential for a higher return on investment. GenAI not only reduces losses from fraud but also streamlines operations by automating aspects of fraud detection and response. This dual benefit—improved security and operational efficiency—makes GenAI an appealing investment for financial institutions looking to maximize both security and profitability.

Conclusion

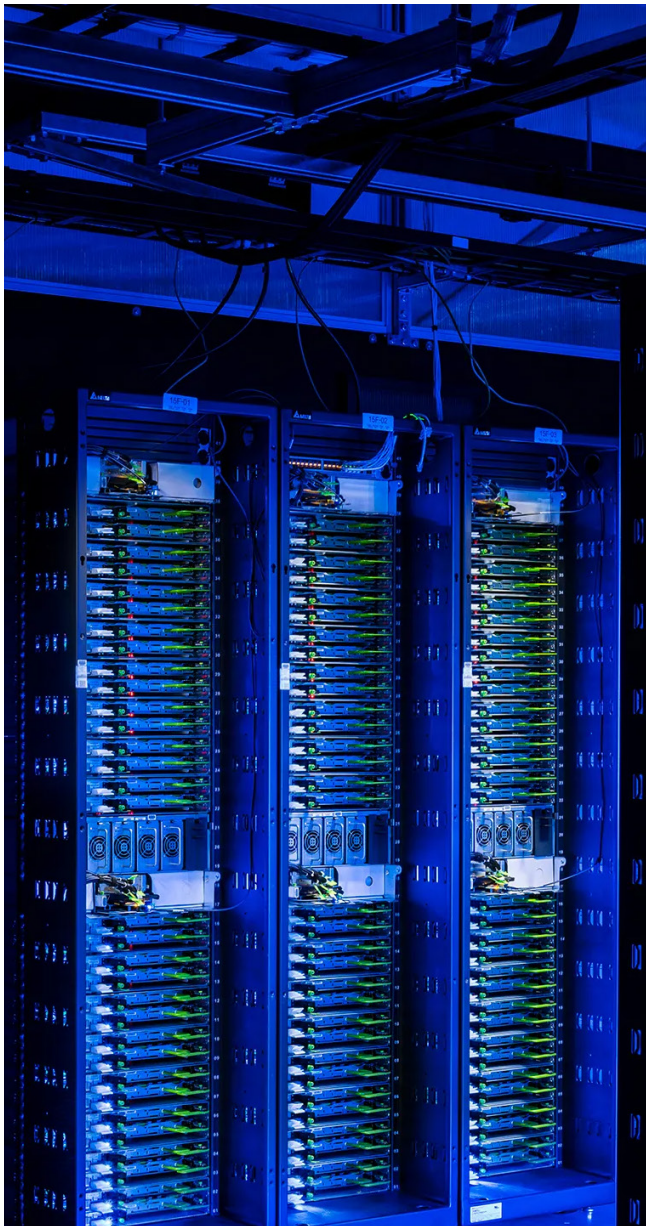
GenAI is revolutionizing the banking sector, embedding intelligence at every layer from core banking to front-end systems. This transformation is driven by the urgency to integrate AI, with 58% of banks already reporting widespread adoption. The road ahead presents challenges, as integrating GenAI is not just a technical challenge but also a cultural and operational shift that requires careful navigation.

The impact of GenAI is evident across banking: in payments, it enhances efficiency and customer experience: in wealth management, it reduces the administrative burden on advisors, allowing them to spend more time with clients: in fraud prevention, banks are investing heavily in advanced security measures to counter increasingly sophisticated fraud schemes.

Technology leaders are at the forefront of this change, leveraging GenAI to drive growth, improve security and meet growing demands to innovate. The adoption of GenAI is accelerating, with 63% of respondents expressing optimism about their AI initiatives. The responsibility for strategy and governance is spread across the C-suite, reflecting the broad interest in GenAI.

The integration of GenAI is expected to create collaborative AI-human workflows, enhancing productivity and decision-making. Banks are also looking to external partners for support in implementing GenAI, recognizing the complexity and regulatory challenges involved.

GenAI is proving transformative for the banking industry, enhancing customer experiences, operational efficiency, fraud prevention, and innovation. However, success depends on navigating the challenges of integration, resource allocation, and regulatory compliance. By embracing GenAI with a strategic approach, financial institutions can harness its full potential to drive growth, resilience, and a superior banking experience.



> “The transformative potential of GenAI is enormous, and we are only at the dawn of this revolution. To succeed, banks must focus first on internal use cases like fraud prevention and security, building the necessary maturity before advancing outward.
>
> Strategic partnerships will be indispensable in navigating this complex landscape and achieving the full potential of GenAI.”
>
> **Carlos Estaca** | Chief Strategy Officer, Banking EU & LATAM, NTT DATA

Appendix

Country of respondent

US	150
UK	100
Germany	100
Spain	60
Italy	40
Japan	40
Thailand	40

Vietnam	40
Australia	40
India	40
Singapore	40
China	40
Brazil	40
Mexico	40

Number of employees in organization

Total	810	810
1,000 - 4,999 employees	1	0%
5,000 – 7,999 employees	83	10%
8,000 – 9,999 employees	44	5%
10,000 – 14,999 employees	197	24%
15,000 – 19,999 employees	124	15%
20,000 or more employees	361	45%

Respondent position in the organization

Total	810	810
Board member; C-level	243	30%
Senior management; senior manager of unit, function or department	516	64%
Mid-level management; manager of team or silo	51	6%
Junior management; supervisory and frontline managers	0	0%

Annual business revenue of organization

Total	810	810
$10 billion - $50 billion	791	98%
More than $50 billion	19	2%

Banking services provided by the respondent's organization

Total	810	810
Commercial Banking	539	67%
Investment Banking	484	60%
Retail Banking	382	47%
Wealth Management	360	44%
Corporate Banking	308	38%
Private Banking	223	28%
Other	0	0%

Core banking services the respondent is currently involved in

Total	810	810
Capital markets	603	74%
Retail/corporate banking	580	72%
Payments	485	60%
Fraud, financial crime and regulation	427	53%
Wealth management	308	38%

Technology and digital responsibility

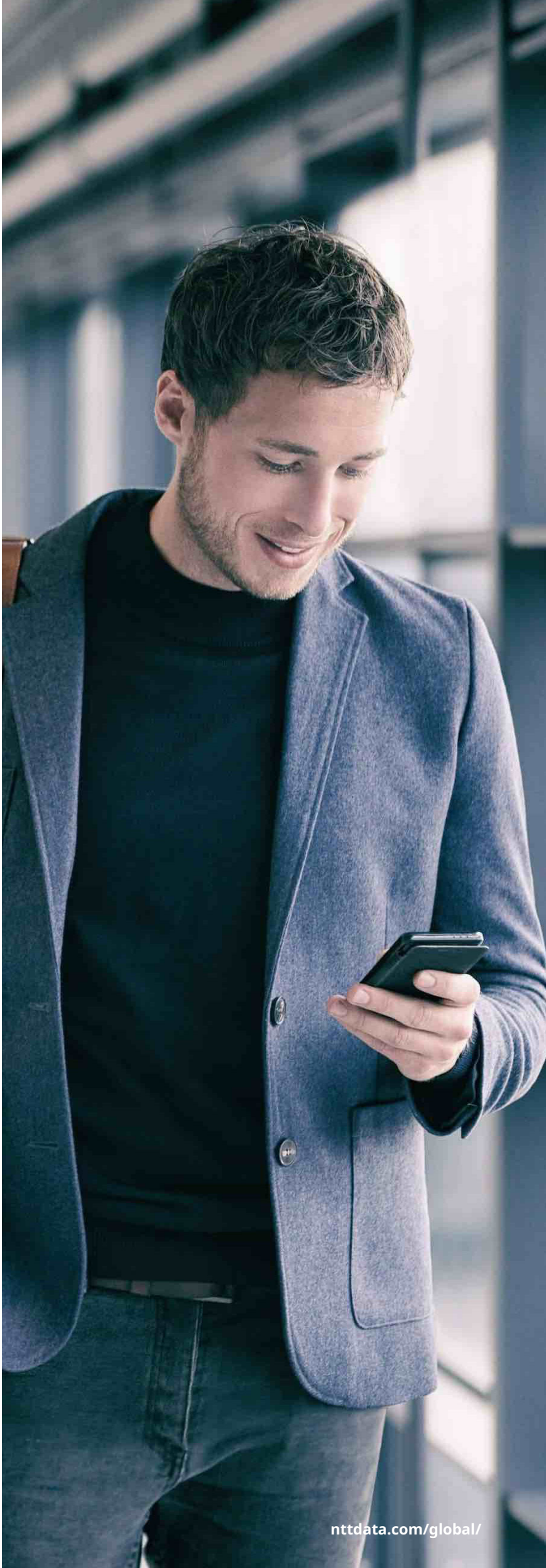
Total	810	810
I set the strategy and have overall responsibility for digital/technology decisions in my organization	526	65%
I am involved in strategic decisions and have some responsibility for any digital/technology decisions in my organization	282	35%
I am not involved in strategic decisions, but have some responsibility for digital/technology decisions in my organization	2	0%

Sources

1. **Leading business with GenAI: Latest examples for enterprises.** August 9, 2024. NTT DATA. https://www.nttdata.com/jp/ja/trends/data-insight/2024/0809/

2. **AI is changing banking, UBS executive says.** July 2, 2024. Reuters. https://www.reuters.com/technology/artificial-intelligence/ai-is-changing-banking-ubs-executive-says-2024-07-02/

3. **Morgan Stanley Wealth Management Announces Latest Game-Changing Addition to Suite of GenAI Tools.** Jun 26, 2024. Morgan Stanley. https://www.morganstanley.com/press-releases/ai-at-morgan-stanley-debrief-launch



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