Banking

Your quick-start guide to generative AI

Take risks? Or manage them?

$200-340B

Global economic potential of gen AI in the banking industries[1]

The global economic impact will benefit banking segments:[1]

- **$56 billion** in gains for corporate banking
- **$54 billion** in gains for retail banking

The banking landscape is quickly evolving. While banking leaders face pressure to provide customized and intuitive customer experiences, they need to do so in a way that drives growth, automates operations, and improves risk management.

$40-80B

Economic potential of gen AI in retail banking industry (North America)[2]

Generative AI can help tackle these challenges and capture the opportunities — by leveraging personalization, transforming the efficiency of back-office operations, and managing financial risk. Leaders who embrace gen AI are already driving revenue while cutting costs.

That's not all. The banking industry is expected to have one of the largest opportunities for economic growth. But for banks to realize the full potential of this economic impact, they need to solve their data, risk, and governance challenges.

In this guide, we explore the most promising use cases of gen AI for financial services and share the critical considerations for starting your journey today.

1. McKinsey. (2023). Capturing the full value of generative AI in banking.
2. McKinsey. (2023). The economic potential of generative AI: The next productivity frontier.

Consider these strategies to realize value from gen AI in your organization.

1. Drive growth through personalization and transforming distribution →

2. Streamline and automate middle and back office operations →

3. Improve operational and financial risk management →

Ready to go?

01 Drive growth through personalization and transforming distribution.

From 360-degree views of financial portfolios to hyper-personalized marketing content, the banking industry finally has the tools needed to address pain points that are sometimes decades old.

A focus on personalization and transforming distribution could not only help banks drive growth but increase market share. From bespoke customer marketing to personalized support responses, gen AI can be a gateway to boosting innovation, growth, and revenue.

The writing is on the wall. For banks that excel at personalization, gen AI can help them generate up to 40% more revenue than average players.[3] It can help them discover faster insights in real time and enable more accurate Know Your Customer (KYC), improving their time to value.

Commercial banking may be ripe for disruption from gen AI due to its high-touch relationship management model and complex unstructured data. Gen AI could improve manual data entry through automation, flag missing data for risk review, and reduce excessive handoffs and other toil challenges.

3. McKinsey. (2023). What is personalization?.

45% of Gen Z and millennials said they are somewhat or very comfortable with gen AI-powered applications if they provided better customer experiences[4]

76% of users said that receiving personalized communications was a key factor in prompting their consideration of a brand, thus enhancing engagement and brand loyalty[5]

3x increase in cross-selling for global banks that promote and use omni-channel, conversational engagement[6]

4. PR Newswire. (2023). Google Cloud's New Banking Survey Finds C-Suites and Boards More Involved in Tech Decisions Due to Heightened Interest in Gen AI.
5. McKinsey. (2021). The value of getting personalization right—or wrong—is multiplying.
6. McKinsey. (2023). Integrated channels: The next frontier beyond omnichannel distribution.

Getting started
Personalization

Pursue quick wins.

Following in the footsteps of the world's largest consumer brands, banks have an opportunity to increase engagement with their customers via digital channels. And gen AI is helping banking leaders do it.

By tapping into more timely and relevant customer information, gen AI can create a more unified omnichannel experience and help enhance personalization.

Embedded finance solutions thrive on personalization, where gen AI can draw insights on customer behavior and needs quickly and match it with the products and services at offer. For example, in personal budgeting

apps, gen AI powered personal financial management features can quickly categorize and generate insights on customers' spending patterns, by sifting through their banking transactions data gathered by the app. Additionally, gen AI can enhance customer experience by providing hyper-personalized recommendations using the insights generated, customer goals and subsequent queries.

Gen AI can also help accelerate end-to-end marketing campaigns by generating customer profiles from large data sets, and drafting personalized messages and content.

Key use cases

- 👥 Customer segmentation
- ✎ Creative development and personalized marketing
- 💬 Conversational banking
- 📖 Investment portfolio construction and optimization

2×
improvement in results expected for banks that invest in optimizing and improving customer journeys[7]

82%
of organizations considering or currently using gen AI believe it will either significantly change or transform their industry[8]

7. McKinsey. (2023). Five ways to drive experience-led banking.
8. Google Cloud. (2023). Five generative AI use cases for the financial services industry.

Getting started
Personalization

Balance the risk-reward trade-off.

When it comes to the financial services industry, the breadth of risk impact of front-line and marketing use cases can be broad and have long-lasting brand implications. Using Gen AI at scale can help accelerate time to value, but this fast adoption can come with risks.

Put operational controls and guardrails in place to help ensure accuracy, explainability, and regulatory compliance. Guardrails could include humans-in-the-loop who continuously assess model outputs as well as letting customers know when they are interacting with a gen AI chatbot. For virtual assistants, it will be important to ensure adherence to content policies and appropriateness of responses by deploying safeguards like safety filters.

Embed security and data privacy requirements across all tools to help remain compliant with regulations and keep consumer trust. Gen AI tools can help accelerate data security and threat detection.

> Google Cloud's gen AI solutions can help prioritize security and compliance, and let customers control how their data is used.

> **56%**
>
> of banking executives said addressing data security issues — like leaking confidential company data to the AI language model — was their top reason for adopting gen AI[9]

> Google's responsible AI guidelines offer recommended practices for communicating AI usage with customers.

9 Google Cloud. (2023). Google Cloud's New Banking Survey Finds C-Suites and Boards More Involved in Tech Decisions Due to Heightened Interest in Gen AI.

Getting started
Personalization

Help your customer-facing teams capture data value.

Build a dedicated team structure tto help accelerate the adoption of gen AI and coordinate strategy, cross-functional pods, and technical foundations. Early collaboration with business teams can be critical to yielding operational insights on high-impact opportunities, data availability, and implementation requirements.

Ensure continual cross-functional dialogue throughout the prototyping and deployment phases. This helps enable models to learn from real business scenarios and uncover potential risks.

Support experimentation to help keep up with fast-changing technology. Designating a small team to constantly engage in proof-of-concept tests and track the latest research may help you do this.

dun&bradstreet

Dun & Bradstreet is leveraging GCP's gen AI to power its new AI Virtual Agent: They have designed it for use in certain of its data-driven software solutions for small businesses and other customers, to guide entrepreneurs through the steps to establish a new business, and to deliver tailored recommendations for needed services to launch and manage their business.

[Read the full story](#)

02 Streamline and automate middle and back office operations.

For banks looking to scale and skyrocket growth, streamlining middle and back-end operations is a must. Gen AI helps enable banks to give customers the user experience they crave, while also enhancing internal productivity — resulting in lower costs and seamless workflows for employees.

For retail banking consumers, gen AI can enhance the overall quality of the product experience by autonomously generating multi-modal explanatory content related to evolving retail banking products.

For commercial banking customers, gen AI can help enhance the onboarding experience and help their relationship managers better understand their situations, risk profiles, and goals.

For customer service employees, gen AI automates routine tasks and delivers service quality at scale by driving higher first-contact resolution rates. This reduces resolution time as well as escalation requests to speak to a manager by 25%.[10]

For banks, gen AI elevates operational efficiency by enabling tasks to be completed significantly faster, offering banks the opportunity to boost both ROI and productivity.

20%
of consumers think retail banks should leverage smarter, more helpful AI chatbots[11]

49%
of banking executives say gen AI will increase operational efficiency and cost savings[12]

10-20%
increase in ROI with gen AI[13]

30-90%
improved productivity in core CIB activities depending on the AI application[14]

10. NBER. (2023). Generative AI at Work.
11. PR Newswire. (2023). Google Cloud's New Banking Survey Finds C-Suites and Boards More Involved in Tech Decisions Due to Heightened Interest in Gen AI.
12. Google Cloud. (2024). AI dividends: Financial firms want to capitalize on gen AI. Here are the best places to start.
13. McKinsey. (2023). In search of cloud value: Can generative AI transform cloud ROI?.
14. McKinsey. (2023). Been there, doing that: How corporate and investment.

Getting started
Streamlining operations

Adapt to changing customer needs.

When it comes to service, today's customers have sky-high expectations — all centered around speed and remote query resolution. It's been hard for traditional customer care operations to keep up with this evolving need. Yet organizations know how important it is.

Customer service has the biggest impact on customer loyalty, and getting it right can yield major benefits for businesses. For this reason, banking leaders are innovating, automating, and streamlining their legacy operations.

Gen AI can help improve the customer service experience by finding answers in large banks of data, summarizing them, and assisting customer agents or chatbots.

Key use cases

💬 Knowledge assistant (agent, banker, advisor, analyst)

<> Developer productivity

👥 Customer service modernization

📄 Financial document intelligence

#1
factor affecting customer loyalty is customer service[15]

73%
of business leaders say customer service and chatbots are a priority gen AI use case for 2024[16]

15. McKinsey. (2023). *The economic potential of generative AI: The next productivity frontier.*
16. Pre-event survey of 113 *Google Cloud Next '23 Leaders Circle attendees.*

Google Cloud   11

Getting started
Efficient operations

Prioritize quick wins while laying strong foundations.

For fast ROI, start by piloting high-value, lower-risk gen AI use cases to realize value quickly, especially those that are repetitive, time-consuming, and high-volume.

In parallel, explore use cases that can deliver the highest ROI, but may require some time to set up. Depending on your business, this could be something like real-time suggestions for next actions, or applications using voice or video. Work with your team to determine the right areas to invest in, remembering that you may need to reevaluate your tech stack and strategy to support these use cases.

To set yourself up for long-term success, embed gen AI into core functions to strengthen the foundation of the enterprise and realize long-term efficiencies.

82%
of organizations considering or currently using gen AI believe it will either significantly change or transform their industry[17]

9-15%
productivity increase of the banking industry's annual operating profits with gen AI[18]

17. Google Cloud. (2023). Five generative AI use cases for the financial services industry.
18. McKinsey. (2024). Banking's gen AI opportunity.

Getting started
Efficient operations

Understand the risks involved.

All new technologies come with inherent risks. It's important to assess the severity of risks associated with gen AI. These include concerns related to the use of proprietary data, bias that impacts hiring decisions, and model hallucinations.

Assessing these potential harms means building the right risk infrastructure — incorporating cross-functional perspectives to ensure robust AI governance.

Establish best practices and consider using technical approaches to proactively flag and filter outputs that violate policies. Seek input from communities early in the development process to develop an understanding of societal contexts. And finally, test early gen AI outputs with a variety of audiences, continuing to test and adjust regularly.

Adversarial security testing, also known as "red teaming", is a stress-test approach to internally identify vulnerabilities to attacks. Google uses these "ethical hacks" to test its AI systems and support its new Secure AI Framework.

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Getting started
Efficient operations

Tap into your biggest asset: data.

Educate employees about your evolving ecosystem.

Data is a strategic asset. And banks have compounds of customer data that include transaction history, investment portfolio, income, and demographics. Think creatively about what sources of data your competitors do not have and create a strategy that includes curation, cleaning, and monitoring for accuracy. Then, use multimodal data to generate more actionable insights.

> Google's multimodal model, Gemini, can combine text and visual inputs and translate between modalities.

Invest in gen AI skills training so your employees can derive actionable insights from new gen AI tools.

Coaching around prompt generation, when to leverage AI tools, and how to use them safely in customer-facing environments will be critical to effective deployment of gen AI.

And then, reskill employees as job roles transform. For example, customer service agents will need to act as a 'human-in-the-loop' — providing expert guidance on complex cases, preventing bias, and keeping interactions real. It's important to encourage them to flag issues where they see them, especially during pilot phases.

> **99%**
> of banks are actively hiring for AI-specific roles[19]

> Vertex AI helps employees find information across internal systems with one interface, ensuring efficient knowledge retrieval and analysis.

19. PR Newswire. (2023). Google Cloud's New Banking Survey Finds C-Suites and Boards More Involved in Tech Decisions Due to Heightened Interest in Gen AI.

Getting started
Efficient operations

Solve employee pain points.

Banking leaders should be using gen AI to solve what employees care about most. Developers need tools that help them identify coding errors and streamline manual writing and documentation in order to drive productivity and creativity, and speed up high-quality coding.

Solutions that allow for tool customization are a priority for developers, their coding efficiency, and their ability to provide an integrated experience across the software development lifecycle.

> Vertex AI helps developers tune and customize underlying models and connect them to the Gemini experience.

Prioritize trust and security.

Gen AI can accelerate data security and threat detection. Update governance to tackle data privacy and third-party security issues, including the risk of developers unintentionally exposing confidential information through tool prompts.[20]

Consumer trust comes hand in hand with this. Embed security and data privacy requirements across all tools to remain compliant with regulations and help preserve consumer trust.

> Google Cloud's guidelines for gen AI provide best practice recommendations and solutions to help integrate policies on data governance and privacy, security and compliance, and sustainability across the ML lifecycle.

Know your AI technology.

Learning about the tech tooling providers helps you understand how the solution will integrate with your existing infrastructure and back-end systems. This will drive seamless workflows and data exchanges. Before integration, it's important to identify the appropriate technical assets that gen AI solutions will rely on and assign the right employees to gather this information.

20. McKinsey. (2023). Unleashing developer productivity with generative AI.

Moody's

Moody's partnered with Google to enhance enterprise search for financial data: It will introduce Vertex AI Search to increase efficiencies by automating manual workflows and combining multiple data sets for easier summation, deeper insights, and overall improved productivity.

Read the full story
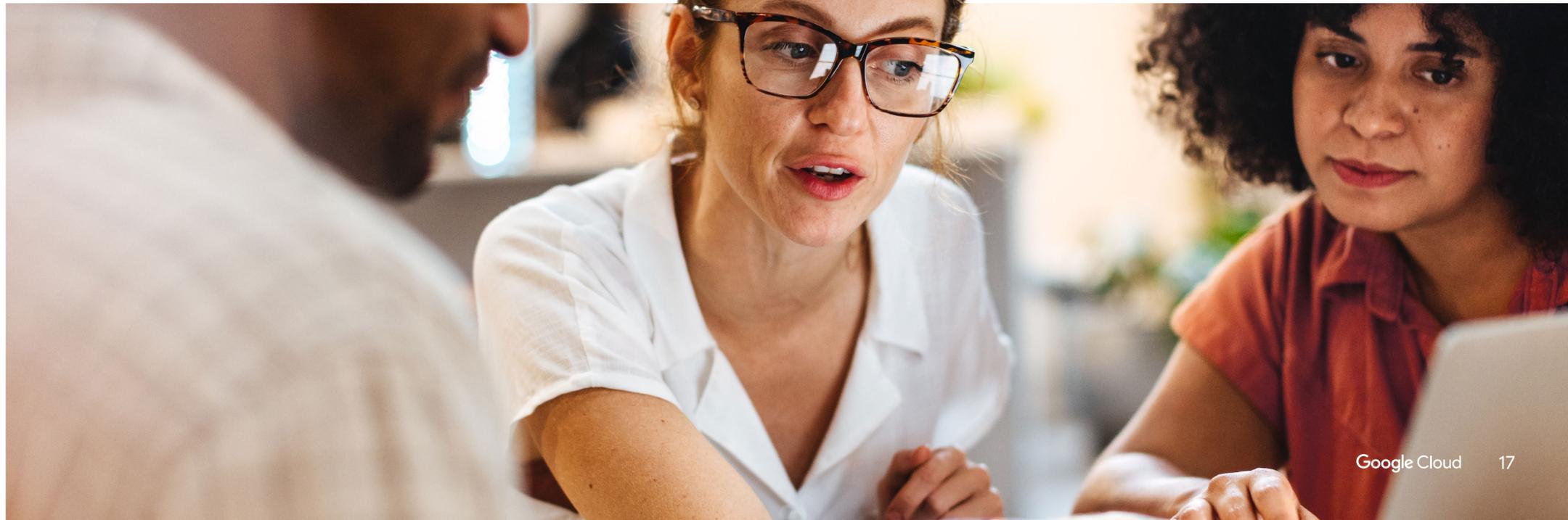
03 Improve operational and financial risk management.

How can leading financial services companies better manage risk and prevent fraud? With gen AI.

For customers, gen AI has the potential to improve transaction security with faster and more accurate fraud detection in real time. Plus, gen AI-powered virtual assistants could enable faster 24/7 issue and complaints resolution.

For banks, gen AI tools could boost operational and security excellence and help future proof businesses. It also may enable more efficient and accurate KYC and anti-money laundering (AML) operations with real-time transaction monitoring and insights. Thanks to gen AI, today's banking leaders can have faster fraud detection, a higher fraud prevention rate, and effective complaints management processes.

21. Google Cloud. Anti Money Laundering AI benefits.

2-4x
higher detection of confirmed suspicious activity with gen AI[21]

Getting started
Improve risk management

Cultivate the trust and security banking customers expect.

Risk executives have three imperatives when it comes to gen AI:

1. Enabling advancement in risk and compliance capabilities

2. Managing risks from across the organization

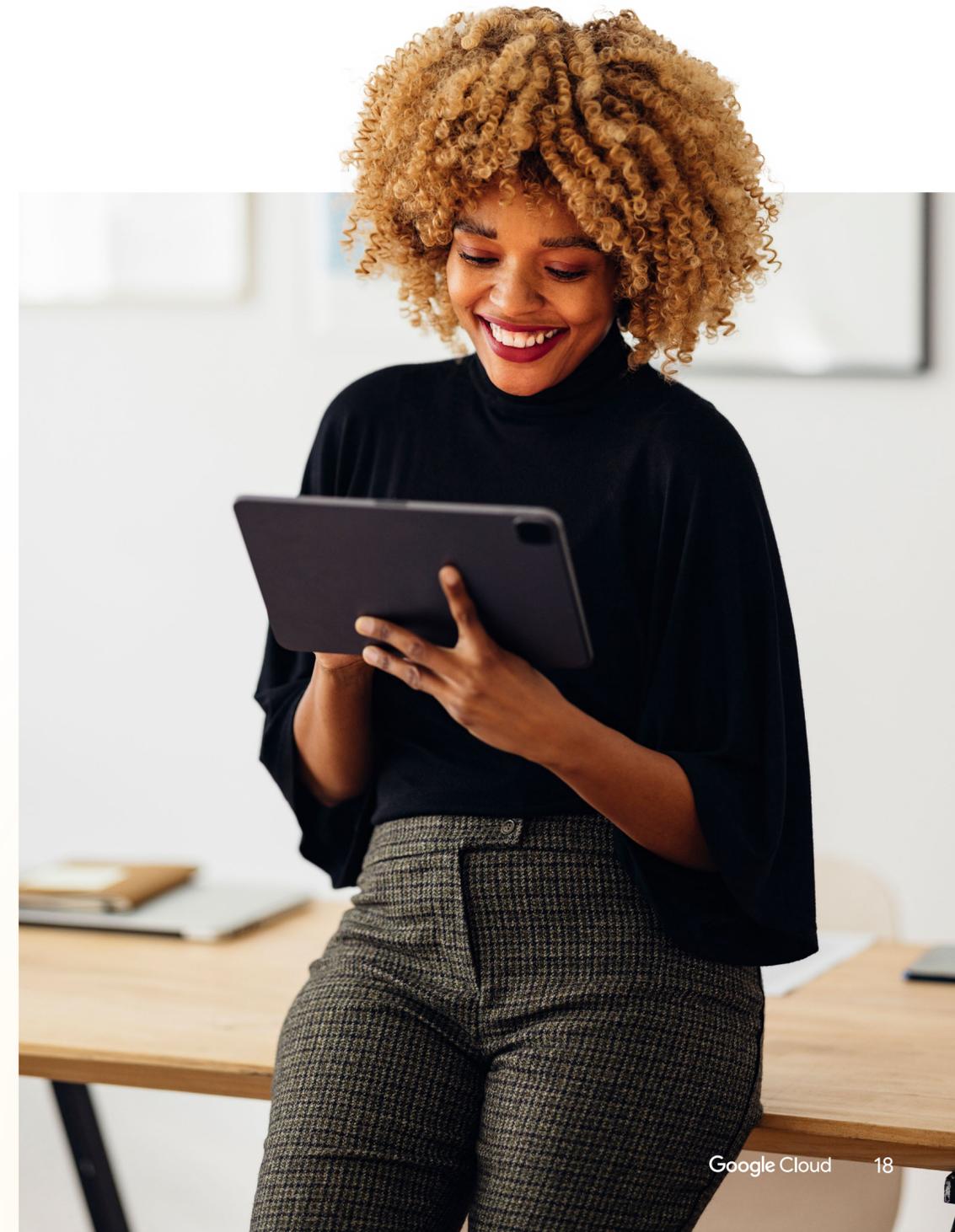3. Automating processes to decrease manual work

Instead of turning to legacy AML monitoring tools — which are reliant on manually-defined rules — banking leaders can consider turning to gen AI-powered risk management tools.

But that doesn't mean there aren't security threats associated with gen AI. However, gen AI can disproportionately help defend against cyberattacks — more than it enables the attackers. Banking companies can leverage these advances to help mitigate risks associated with malicious actors in the ecosystem.

Key use cases

✓ Regulatory compliance companion

! Cybersecurity risk management

🔍 Financial crime detection

📈 Financial forecasting and risk modeling

Google's Anti Money Laundering AI can help increase risk detection, lower operational costs, and gain auditable and explainable outputs to support regulatory compliance and internal management.

Getting started
Improve risk management

Prioritize quick wins while charting out a long-term plan.

For banks, financial crime and credit risk are key areas expected to benefit the most from gen AI. How? By helping advance crime detection, risk management, and compliance capabilities. And when it comes to banking, there are a number of short-term gains that can compound to pay off substantially in the future, too.

Here are a few areas your organization can explore right away:

- **KYC.** Banks are using gen AI to quickly derive insights from images and videos to expedite customer onboarding with KYC-compliant identity document verification.

- **Issue management.** Through analyzing issue inventory with high monthly volumes, and detecting real-time issues and recurring themes, gen AI can help prioritize and resolve issues faster.

- **Cybersecurity.** Banks can use gen AI to both defend against and resolve threats. Its tools can enable even non-experts to detect, investigate, and respond to cyberthreats with confidence.

Monitor, evaluate, and iterate.

Gen AI isn't a one-and-done implementation. It is a continuously evolving toolkit. But how can you determine whether it's effective in enhancing your business processes?
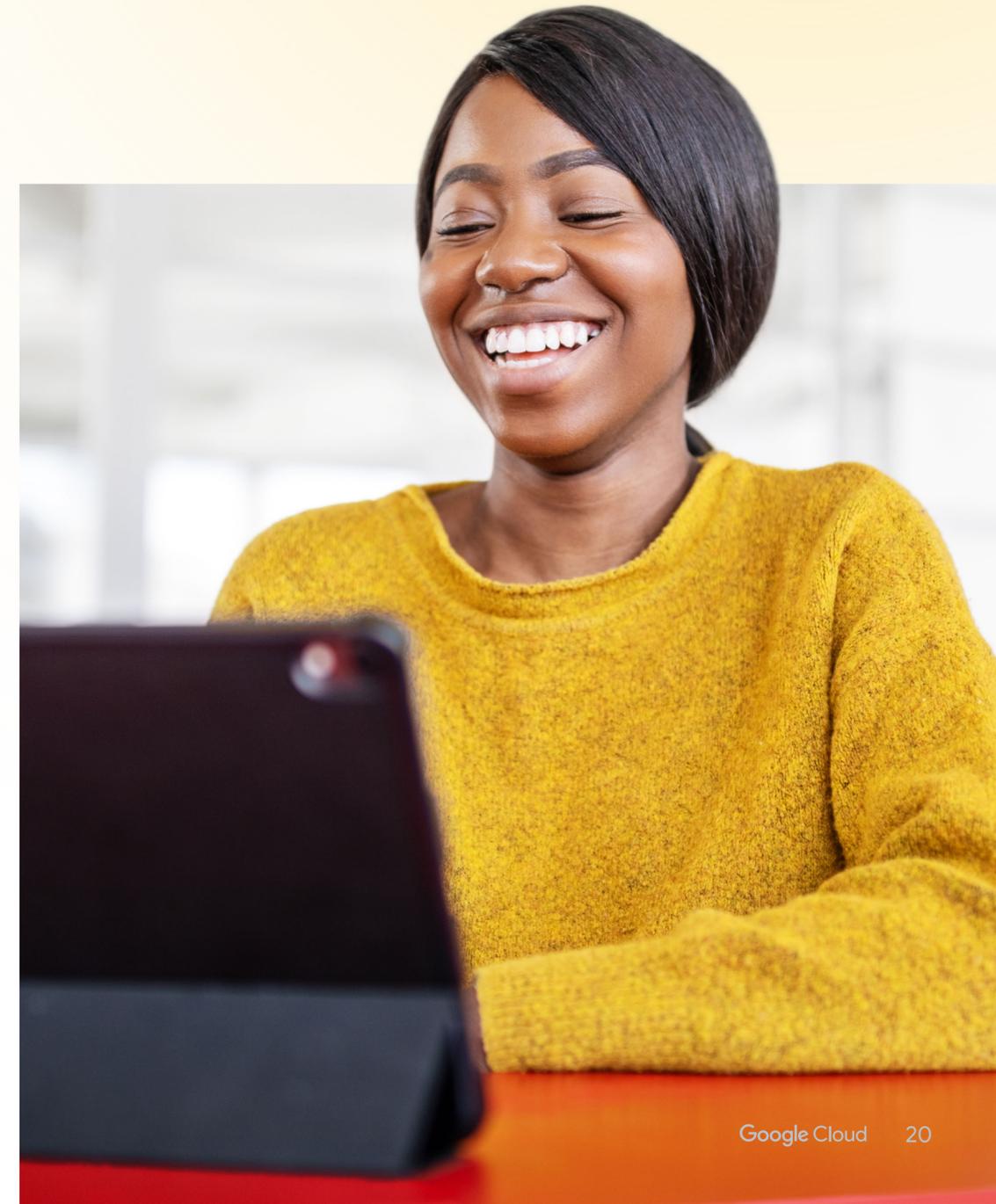
Develop a dynamic dashboard to continuously track and measure progress. This can help you monitor the improvement in accuracy of alerts and the reduction in frequency of security incidents. To further evaluate what's working and what needs improvement, have a team dedicated to the ongoing refinement of the system.

bud

Global financial companies use Bud Financial Ltd ('Bud')'s APIs to combine transactional data from any source so they can harness the power of Bud's data intelligence to open up more financial opportunities for their customers. Throughout this journey, Bud has always relied on Google Cloud to develop and scale their technology. Google Cloud makes it easy for them to demonstrate that they are meeting industry compliance and security requirements with self-serve, painless reports such as SOC 2 and ISO 27001. The Operations Suite (formerly Stackdriver) gives them visibility into all of their data assets, making tracking and management easier. They always know what data is where, who has access to what, what data is interacting with other elements of the platform, and how. This traceability is key.

Additionally, the affordability checks and credit risk insights Bud provides mean that every customer can get faster access to the products that are right for them. Banks and financial institutions can use this data to improve their decisions around areas like credit affordability and application processes. Bud uses DataStax Astra DB on Google Cloud to handle this data volume and run this critical service for banking customers. With DataStax Astra DB on Google Cloud, Bud developers can take full advantage of different data models and APIs to accelerate new product and service launches. This frees up their developers to focus on banking data services rather than operational database tasks. Moreover, Bud only pays for the time and compute resources it uses.

Read the full story

Get started with gen AI for financial services.

We've covered a number of considerations for adopting gen AI in your organization. Here are some key steps that you can prioritize, today:

Align on vision and commitment from the leadership team. By prioritizing key domains, based on impact and transformation feasibility as well as business and P&L implications.

Assess foundational capabilities for gen AI to make sure you have the right people, technology, and models in place.

Create a roadmap by identifying pilot use cases in prioritized domains and planning for scaled use cases.

Plan for company-wide adoption ensuring skill building and responsible AI practices are at the core.

Time to take action with gen AI?

When a new technology moves as fast as gen AI, it can be hard to keep up. Google Cloud helps you solve for all the considerations outlined in this guide.

Our gen AI tools are backed with frameworks, tools, and governance structures to help you hit the ground running.

→ **Contact us** to set up time to discuss how to get started on your gen AI journey.

Google Cloud