

Five generative AI use cases for the financial services industry

Google Cloud



Generative AI has the potential to revolutionize the way we live, work, bank, and invest.

From daily interactions with customers through to back-end financial analysis and operations, gen AI delivers a range of game-changing opportunities to organizations in the finance sector. Opportunities that add up to between [\\$200 billion and \\$340 billion in value](#).

There are productivity gains to be had from the rapid discovery and summarization of complex contractual information, such as mortgage-backed securities contracts or customer holdings across asset classes.

There are customer service wins, through the delivery of more timely and helpful responses to customer enquiries — powered by the capabilities of foundational models.

And then there are the efficiencies offered by gen AI to help address some of the most acute talent issues in the industry, such as software developers, risk and compliance experts, and front-line branch and call center employees.

1. Google Cloud Gen AI Benchmarking Study, July 2023

Insight

82%

of organizations considering or currently using gen AI believe it will either significantly change or transform their industry¹



Reaping the value of gen AI

According to McKinsey, gen AI will deliver up to \$80 billion in business value to retail banks alone.² Leaders are leveraging it to enable and enhance a range of use cases — and, in doing so, are reshaping experiences for both employees and customers.

In this ebook, we explore five powerful applications of gen AI for the financial services industry.

Explore them all or jump straight to your area of interest:

- 1 Financial document search and synthesis →
- 2 Enhanced virtual assistants →
- 3 Capital markets research →
- 4 Regulatory code change consultant →
- 5 Personalized financial recommendations →

Financial document search and synthesis

Insight

78%

of financial services orgs believe gen AI will be extremely or fairly valuable in financial document search and synthesis¹

Bankers spend a significant amount of time looking for and summarizing information and documents internally. This can mean less time spent with clients.

Gen AI can help bank employees effectively find and understand information in contracts (e.g., policies, credit memos, underwriting, trading, lending, claims, and regulatory) and other unstructured PDF documents (e.g., "summarize the regulatory filings of bank X").

Bank analysts can use gen AI to accelerate report generation by researching and summarizing thousands of economic data or other statistics from around the globe. Corporate bankers can use it to better prepare for customer meetings, by creating comprehensive and intuitive pitch books and other presentation materials that drive engaging conversations.

Up to

\$35bn

in business value from gen AI when optimizing processes like internal search and capital markets research²

See how you can build a gen AI application for fast, effective Q&A with your data.

 [Watch demo](#)

Enhanced virtual assistants

Insight

80%

of financial services orgs believe gen AI will be extremely or fairly valuable as virtual assistants¹

Sometimes, customers need help finding answers to a specific or unique problem that isn't pre-programmed in an existing AI chatbot, or available in a customer support agent's knowledge library. A common example here is when a customer calls to resolve a fraudulent transaction.

Gen AI excels in finding answers from within large corpuses of data. It can then summarize its findings, and help customer agents or AI chatbots deliver a response in conversational, easy-to-understand language. These capabilities help improve customer service experiences by giving customers the answers they need, faster.

Up to

\$20bn

in business value from gen AI for seamless pre- and post-sales customer support²

See how gen AI can quickly resolve a fraudulent transaction on a customer's credit card.

 [Watch demo](#)



Capital markets research

Insight

72%

of financial services orgs believe gen AI will be extremely or fairly valuable for capital markets research¹

To fully understand global markets and risk, investment firms must analyze diverse company filings, transcripts, reports, and complex data in multiple formats. From all this, they need the ability to quickly and effectively query the data to fill their knowledge bases.

In capital markets, gen AI tools can serve as research assistants for investment analysts. Such assistants can help sift through millions of event transcripts (e.g., earnings calls), company filings (e.g., 10-K or 10-Q forms), consensus estimates, macroeconomic reports, regulatory filings, and other sources to identify and summarize key information.

Learn how to extract and summarize valuable information from complex documents — such as 10-K forms, research papers, third-party news services, and financial reports — with the click of a button.

 [Watch demo](#)

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Regulatory code change consultant

Rules and regulations are changing all the time in the financial services industry, requiring developers to interpret new requirements and ensure compliance. This often meant manually sifting through the changes in order to implement them, as well as cross-checking the changes against a code repository and providing documentation.

Not anymore. Gen AI can give developers context about the underlying regulatory or business change that requires updated code by providing summarized answers with links to further detail. It can also help automate coding changes, with humans in the loop, as well as cross-checking code and providing documentation.

For example, developers who need to make coding changes to meet Basel III international banking regulation requirements could use gen AI to sift through the thousands of pages of documentation, understand the context, identify the suggested changes, and check the new code against the Basel III coding repository.

3. Accenture. (2023). [“3 Ways Generative AI Will Transform Banking”](#).



39%

of work at banks has a high potential to be automated by AI³

66%

of financial services orgs believe gen AI will be extremely or fairly valuable for regulatory code changes¹



Personalized financial recommendations

While existing machine learning (ML) tools are well suited to predict the marketing or sales offers for specific customer segments based on available parameters, it's not always easy to quickly operationalize those insights.

For example, creating marketing emails or in-app messages with specific financial recommendations can be time-consuming. Gen AI can help in the creative process of one-to-one personalized messaging at scale using conversational language — which ultimately helps improve customer experience, retention, and cross-sell opportunities.

71%

of customers expect banks and companies to deliver personalized interactions⁴

76%

of financial services orgs believe gen AI will be extremely or fairly valuable for personalizing financial recommendations¹

4. McKinsey & Company. (2022). ["Winning in digital banking"](#).

Real-world example

Deutsche Bank accelerates financial decision-making

Deutsche Bank is testing Google's generative AI and LLMs at scale to provide new insights to financial analysts, driving operational efficiencies and execution velocity. There is an opportunity to significantly reduce the time it takes to perform banking operations and financial analysts' tasks, empowering employees by increasing their productivity.



[Watch the full video](#)

“Generative AI is transforming how we find, sort and analyze information at scale — helping us to support our client’s global ambitions.”

Bernd Leukert

Chief Technology,
Data and Innovation Officer,
Deutsche Bank



Deutsche Bank



Stay true to your financial roots.

No technology ever takes away the fundamentals of your value proposition or the core value chain of the financial services sector.

What can change, though, is how you use gen AI to empower your teams to work more productively and meaningfully — to improve core offerings, solve fundamental problems that get in the way of delivering them, and unlock new opportunities for your financial institution.

Hit the ground running with generative AI.

Financial services leaders are no longer just experimenting with gen AI — many are already building and rolling out their most innovative ideas. You can, too.

The use cases above can come to life using Google Cloud's Vertex AI Search and Conversation as their core component. With Vertex AI Search and Conversation, even early career developers can rapidly build and deploy chatbots and search applications in minutes.



Ready to go?

Use our interactive Gen AI Navigator for personalized recommendations on how to get started.

→ <https://genainavigator.withgoogle.com/>

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