



Generative AI is here:

How are banks embracing
this disruption?

Contents

01

Executive Summary

02

How GenAI Will Transform Banking

- Unlocking Efficiencies in Banking Operations
 - Optimizing Mid and Back-Office Operations
 - Boosting Employee Productivity
- Hyperpersonalized, Intuitive Customer Interactions
 - Natural Language Conversations
 - AI-Generated Pitchbooks
 - Customized Financial Advice
- Risk Management and Fraud Prevention
 - Assessing Creditworthiness
 - Fraud Detection
 - Risk Mitigation
- Staying Compliant With Emerging Regulations
 - KYC Automation
 - Continuous Monitoring of Evolving Regulatory Rules

03

The Tricky Terrain of Generative AI

- Privacy and Probable Data Breaches
- Ethical Constraints
- Data Accuracy and Intellectual Property Protection
- Operating Model Update
- Talent Scouting and Management

04

The Way Forward

- A Balanced Approach
- Well-Defined Goals
- A Gradual Scale-Up
- A Robust Control Mechanism

Executive Summary

The banking and finance sectors were the early patrons of Deep Learning and Machine Learning, generally considered traditional AI. Pandas, or Python for Data Analysis, gained significant acceptance in the **late 2000s**. Banks rode on the ML wave to streamline areas such as customer service, consumer behavior tracking, trend analysis for market intelligence, risk assessment by automating credit score calculations, trading based on algorithmic inputs, fraud detection, and primary preventive measures, etc.

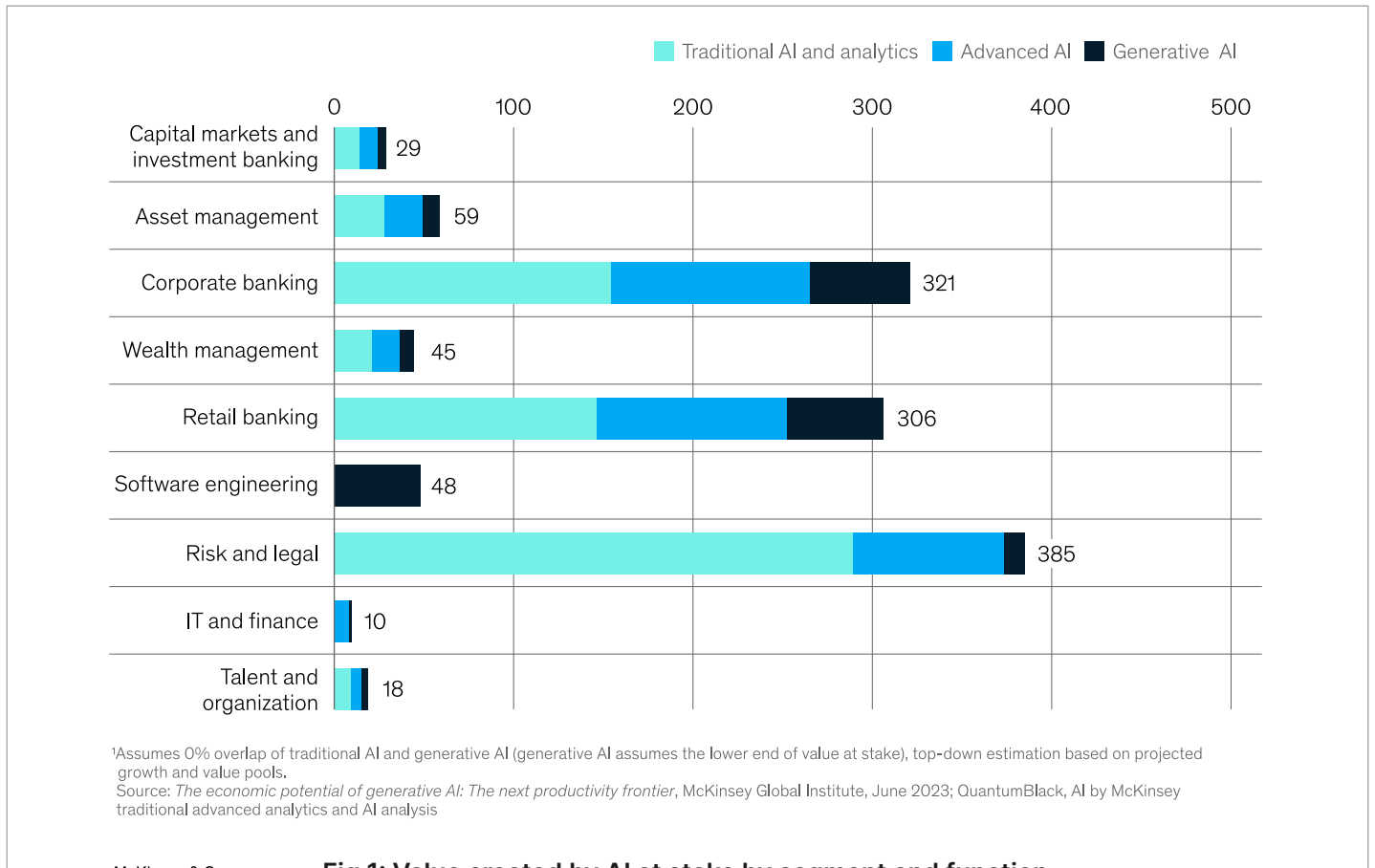
However, traditional AI fell short in deciphering natural language, analyzing unstructured data, and coming up with actionable insights. Enter Generative AI (GenAI).

GenAI is the new impetus for the ever-evolving banking and financial services landscape. The US Bureau of Labor Statistics and the Occupational Information Network conducted a study that found AI-driven Large Language Models (LLMs), like ChatGPT, can reduce work time by 73% in the banking sector. The research data further suggests that 39% of all banking functions can be automated, while 34% of work that requires interpersonal skills, expert validation, or proactive thinking can be augmented using this technology.

Whether GenAI will change banking fundamentally remains to be seen. Still, this technology will be the driving force behind making money lending, deposits, and payment management more agile and autonomous.

How GenAI Will Transform Banking

McKinsey's estimates (**Fig 1**) show that there is clearly a lot of value to be added. Let's explore some key segments where GenAI is set to make a significant impact.



A. Unlocking Efficiencies in Banking Operations

1

Optimizing mid and back-office operations

Backed by Goldman Sachs' research that estimates that Generative AI could add **\$7 trillion to global GDP**, many early adopters are leveraging GenAI to drive operational efficiency. Banks are leveraging GenAI to generate insightful reports from unstructured data, summarize customer conversations, expedite loan processing and post-trade operations, etc. For instance, a reputed global bank has implemented an AI and ML-led email routing system that can eliminate around 40% of email traffic in the first year. Morgan Stanley is experimenting with a GenAI tool called Debrief that has the potential to summarize client meetings, automate follow-up emails, and schedule upcoming meetings.

2 Boosting employee productivity

McKinsey Global Institute predicts that the banking sector can increase annual profits by **\$200-\$340 billion** with GenAI-led productivity improvements, mainly in retail and corporate banking. For instance, GenAI-led CRM tools can empower frontline sales teams with real-time data that enhances customer interactions. Similarly, GenAI copilots can guide employees through complex operations and tricky decisions or train new employees on the job to get productive faster. However, for GenAI to integrate effortlessly into banking workflows it needs the right data and connectivity foundation. We have been **helping banks overcome challenges with their legacy IT systems** and processes and integrate data across the enterprise to create a 360° view of customers through data on cloud initiatives.



1 Natural language conversations

While banks have deployed Artificial intelligence (AI) chatbots to provide round-the-clock customer service, the interactions were limited by the bots' capabilities. GenAI chatbots, on the other hand, bring in the ability to have natural language and intent-based conversations, making the interaction much smoother for customers. **Wells Fargo's** GenAI-supported virtual assistant Fargo is expected to scale up their customer interactions 5x. These virtual assistants can also lend a hand to frontline employees by recommending tailored actions based on an in-depth analysis of massive amounts of consumer data.

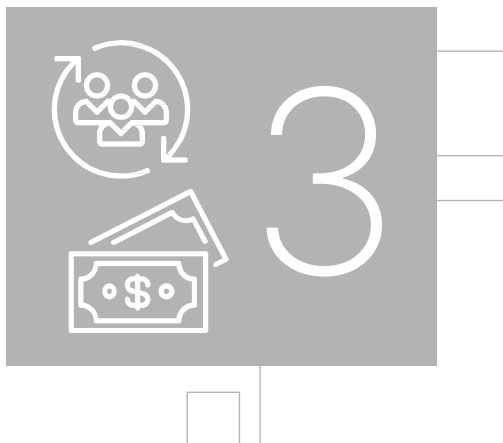
2

AI-generated pitchbooks



The pitchbook is one of the most effective tools for relationship managers in the highly competitive investment banking industry. However, creating an informative pitchbook is significantly time-consuming. Junior employees must search through heaps of unstructured internal and external data, analyze it, and put it into the appropriate formats. Generative AI can expedite the entire process- from accumulating, analyzing, and summarizing information to preparing draft reports for assessment and eventually generating the final output.

Imagine a chat assistant that can give access to a rich resource of 100,000 documents and research reports to about 16,000 investment bankers. Leveraging OpenAI's GPT-4, **Morgan Stanley's newly launched AI assistant** can deliver financial reports on the fly.



Customized financial advice

Generative AI has the potential to create individual customer personas that allow both the marketing team to generate targeted communication and the product team to come up with hyper-customized service offerings. For instance, wealth managers can quickly devise custom financial plans and recommend exactly what each customer needs.

C. Risk Management and Fraud Prevention

1



Assessing Creditworthiness

Generative AI models can summarize information from credit memos and generate credit reports that allow banks to estimate default and loss probabilities for individual cases.

2



Fraud Detection

Riding on revolutionizing technologies like GAN and VAEs, Generative AI models can act as virtual experts for investigating probable data breaches. They can detect fraudulent intentions by decoding locations, devices, and transaction patterns. Mastercard's recent GenAI-driven innovation is expected to help banks improve their fraud detection cases anywhere from **20% to 300%**. The credit card giant uses 125 billion annual card transactions to train the AI model.

3



Risk Mitigation

Generative AI can automatically compose reports on environmental, social, and governance (ESG) issues, in addition to the sustainability sections of annual reports. Being a code accelerator, GenAI could offer code snippets, deploy unit testing, and use high-resolution maps to anticipate physical risks. It automatically gathers data for counterparty transition risk assessments and sends out early warning signs induced by data-backed triggers.

1 KYC automation

A mandatory yet cumbersome exercise for banking professionals is to perform customer due diligence by extracting information from personal customer data. GenAI-led automation process can conduct risk assessments and reduce customer onboarding time while meeting all KYC requirements.

While the potential of GenAI in banking is undeniable, navigating this transformation is not without its challenges.

2 Continuous monitoring of evolving regulatory rules

GenAI can not only automate standard compliance protocols like GDPR, AML, and eIDAS but also update any changes in real time to ensure that banks stay abreast of any regulatory modifications. [Citigroup recently utilized GenAI's](#) superpower to summarize the US Federal Regulator's 1089-page new capital rules.

The Tricky Terrain of Generative AI

Along with the potential upticks, every technological disruption comes with associated challenges. The 'red flag' zones for GenAI that must be managed cautiously include:

1 Privacy and Probable Data Breaches

GenAI models run the risk of involuntarily revealing personal customer data, historical transactions, and account details. Fraudsters can use the technology for phishing, mock-up browsers, and fake impersonations. In addition, Gen AI's tendency to hallucinate could deliver responses to customers.

2 Ethical Constraints

Customized GenAI models produce algorithmic outputs based on data used for training purposes. If the input data is insufficient or incorrect, then it can churn out biased analytics that can lead to erroneous credit decisions for banks.

3 Data Accuracy and Intellectual Property Protection

Open-source Generative AI models may not have access to real-time updates on specific matters. This makes them prone to providing inaccurate information that has associated performance risks. Further, they are susceptible to copyright infringement and plagiarism issues, as their primary source of data is the internet.

4 Operating Model Update

Legacy modification is a time and cost-intensive challenge for banks trying to integrate GenAI into their existing systems. The management is tasked with making the critical decision to overhaul the entire mechanism or develop foundational models that align with the overall AI and IT strategy.

5 Talent Scouting and Management

Being a relatively new domain, finding talent with subject-matter expertise is a major human resource challenge. Top management has to strike the right balance between upskilling existing manpower and recruiting fresh talent.

The Way Forward

Banks are delicately poised at the confluence of the traditional digital technology they have used for decades and the potential revolution Generative AI promises. Professionals involved in this cultural transformation should be well-versed in the latest technology, the associated risks, and strategies to navigate past the hurdles. From new product development at reduced cost to workflow automation that leads to enhanced operational efficiency and better compliance management, GenAI is the game-changer for banks and financial institutions.

A future-forward approach to embrace this disruption would entail the following:

1 A Balanced Approach

The transformative potential of Generative AI can have a euphoric effect. However, keeping the probable challenges and the magnitude of a revamp in mind, banks need to take a balanced approach. This entails assessing the interoperability of GenAI tools with the existing infrastructure and a thorough evaluation of technology and human adaptation capabilities.

2 Well-defined Goals

A strategic road map with a clear vision and a priority list is essential for the holistic adoption of Generative AI models. Everyone, from top management to the implementation team, should work towards specific short-term and long-term objectives.

3 A Gradual Scale-up

Instead of gunning for a comprehensive overhaul of existing systems, a progressive scaling-up method based on pilot projects would work well. This allows room for restructuring the models to achieve the desired outcomes.

4 A Robust Control Mechanism

The management must employ a stringent trust and governance framework that mitigates risks by ensuring the ethical adoption of GenAI technology.

While a phased adoption seems to be the strategic approach, it will be fascinating to observe how banks embrace this technological phenomenon in the near future.

About Us

SLK is a global technology services provider focused on bringing AI, intelligent automation, and analytics together to create leading-edge technology solutions for our customers through a culture of partnership, led by an evolutionary mindset. For over 20 years, we've helped organizations across diverse industries - insurance providers, financial service organizations, investment management companies, and manufacturers - reimagine their business and solve their present and future needs. Being A Great Place To Work Certified, we encourage an approach of constructively challenging the status quo in all that we do to enable peak business performance for our customers and for ourselves, through disruptive technologies, applied innovation, and purposeful automation. Find out how we help leading organizations reimagine their business at <https://www.slksoftware.com/>

© SLK Software Pvt. Ltd. 2024

www.slksoftware.com

