



Today's finance leaders: blazing the trail for GenAI transformation



Financial executives, including chief financial officers (CFOs), chief accounting officers (CAOs), and controllers, may be among the early users of artificial intelligence (AI) and early adopters of generative AI (GenAI), the subset of AI gathering so much attention and investment.

A 2023 fourth quarter KPMG survey found that financial executives are accelerating AI adoption with GenAI being a top priority. Among survey findings, 52 percent of financial executives said their companies are already piloting or deploying GenAI, while 37 percent are in the research and planning phase.¹ This is not surprising given how effective GenAI can be for activities such as generating financial analyses and even detecting fraud. In addition, establishing effective business and financial process control environments is part of the finance function's "DNA," which helps address stakeholder concerns coming from the C-suite and the board that GenAI is deployed responsibly. These are some of the reasons why we're seeing finance as a leader for GenAI initiatives.

AI use cases for finance

The finance department conducts research, analyzes data, and generates reports—all tasks AI can support. In a supporting role, AI can help the entire finance department run better and more efficiently. Here are some areas where AI excels in a supporting role for finance:



Fraud detection: AI algorithms can analyze patterns in transaction data to detect fraudulent activity, helping businesses prevent financial losses and maintain the trust of their customers.



Financial analysis: Using AI, analysts can sift through financial data faster to identify trends, predict future performance, and make investment recommendations.



Compliance assistance: GenAI can help automate the process of identifying and flagging potential compliance issues, as well as create audit trails and maintain records for internal controls.



Scenario risk management: GenAI ability to leverage historical and current financial data makes the tool potentially efficient and effective at risk management. It could be used to summarize risk factors, dependencies, and potential impacts, all equipping financial officers to make better, faster decisions.



Internal audit support: AI can automate repetitive tasks such as data entry and reconciliation, so internal auditors can focus on more complex tasks that require human judgment and analysis. AI can also learn from previous years' audit engagements and identify areas for improvement.



Financial reporting: GenAI promises amazing improvements in financial reporting speed, quality, and insights. However, it also comes with new demands on corporate governance, internal controls, and auditing to ensure that the technology is used responsibly.

AI versus GenAI

AI and GenAI are interrelated technologies. AI features rule-based logic that is deterministic. Generative AI is based on more advanced, complex probabilistic algorithms that synthesize large amounts of data using an artificial neural network. In short, it's an artificial brain.

¹ "AI and Financial Reporting Survey – what are companies doing and where do you stand?," KPMG LLP, October 2023

Reshape finance to leverage AI

While AI can improve efficiency, consistency, and accuracy, it cannot replace the finance staff. Financial professionals bring a wealth of knowledge and experience to the table. Finance should consider an upskilling program on AI for these professionals. Over time, AI and GenAI will change the size, structure, and talent composition of finance departments. The skills needed include digital fluency, deep learning, AI ethics, and governance. Other valued skills include strategic thinking, adaptability, and intellectual curiosity. KPMG believes AI and automation can raise the floor on the work that financial professionals do, enabling future professionals to focus more on synthesis and anomalies with less time spent on routine tasks.

Finance activities also intersect with stakeholders, including management, the board, and external auditors. Our research shows that finance has the backing of leadership and the desire to help lead AI. That is the support and inner drive that financial executives will need to play a greater role in driving enterprise-wide transformation in the next three years.



The balance of roles and responsibilities between AI and finance professionals will evolve over time. There won't be a one-size-fits-all model, particularly between industries. Companies should be thoughtful about finding the right balance that's suited for their organizations given their operating models and related risks."

—Frank Albarella, Jr.
U.S. Sector Leader,
Media & Telecommunications
KPMG LLP



Responsible AI is critical

AI, especially GenAI, comes with both promise and risks. Organizations should treat AI risks like other risk areas that can be managed responsibly. Some of the risks include:

▶ Black boxes

One of the most significant concerns is the lack of transparency in some AI models, such as the artificial neural networks that drive many large language models in the GenAI space. The so-called “black box” problem is particularly relevant in the context of accounting and auditing.

In cases where AI is deployed, complex machine learning models analyze financial data and identify patterns or anomalies. For auditors and regulators, it can be difficult to understand how the models arrived at their conclusions. That calls into question the accuracy and completeness of the findings. Errors in the data can lead to incorrect conclusions or decisions.

▶ Data leaks

Employees who use AI tools such as ChatGPT may inadvertently leak confidential information or corporate secrets. It happens easily. A staffer types in confidential information or source code into a public GenAI tool, which then may become accessible to people beyond the organization. The framework for managing risk should cover the issue of data leaks.

▶ Data privacy

Data used in GenAI can contain personal identifiable information (PII), including names, addresses, and phone numbers. Companies must ensure they have data protection measures in place to safeguard sensitive information.

▶ AI biases

A major issue with AI is what is known as “AI bias.” This refers to the systematic errors or unfairness that can be introduced into an AI system due to the biases inherent in the data used to train the large language model or the algorithms used to create it. Some of the risks associated with AI biases include discrimination, inaccurate predictions known as hallucinations, amplifications of existing biases, and loss of trust.

Each of these risks can be managed and addressed, but the ways of mitigating AI risks may be different in many cases to traditional risk management methods over software. For instance, organizations may need to regularly test their AI tools for bias, inaccuracies, and other problems, particularly if the underlying model is learning and adapting to new information. It is critical to create robust internal controls and policies to mitigate risk and promote acceptable AI use.

AI as transformative technology for finance

AI in all its forms, from chatbots and cloud computing to the new and exciting GenAI, will transform finance. Along with efficiencies gained, risks will be mitigated and strategies implemented to ensure safety and security.

The best use of AI is not in replacing finance personnel; it is about leveraging AI to make staffers more efficient and accurate in carrying out their financial responsibilities.



The appropriate use of AI could offer real advances in how we work. However, inherent biases in AI results are real and could lead to unintended conclusions and actions. We need comprehensive strategies that not only account for AI's inherent biases, but also deliver on governance, controls, and risk management."

—Katie Hilkemeyer
U.S. Audit Sector Leader,
Technology
KPMG LLP

Probabilistic versus deterministic technology

GenAI especially comes with new risks because it is a probabilistic technology rather than a deterministic technology. Deterministic technologies are based on a set of rules with outputs that are locked down and do not vary.

On the other hand, probabilistic technologies such as GenAI work based on probability theory and statistical models. It makes predictions or decisions that may result in different outcomes even when the same initial data is used. This is why most use cases involving GenAI will require a human reviewer to check results.

Uncertainty with GenAI requires a framework for managing risk, such as evaluating how the new technology impacts the company's system of internal controls. Existing frameworks should be used to govern the use of AI and account for GenAI's probabilistic technology.

Three overarching considerations should be considered by management:

- Understand the direct and indirect effects of GenAI and determine how its use by finance impacts the risk assessment
- Consider how GenAI will analyze transactions for patterns or anomalies, assess the completeness of the in-scope internal controls over systems, and design a sufficient and appropriate internal control response
- Conduct a robust process to select, develop, operate, and maintain controls related to the organization's use of GenAI.

Auditors will likely play a key role. According to the KPMG report, "AI's Role in Enhancing Trust in Financial Reporting and the Capital Markets," 72 percent of financial reporting leaders believe that external auditors are ahead of financial reporting functions on using AI and expect AI to enhance audit quality.²

Even so, applying transformative technology to finance activities may require several lines of defense: first, operational management and staff; second, risk management, compliance, and internal audit; and third, external auditors and third-party evaluators. For instance, in a world of large-scale AI implementation, we believe external AI attestation may be helpful to help manage risk with a range of activities, including testing, validation, and monitoring to help assure accurate and fair results.

How KPMG can help

To fully leverage AI in your finance operations, insightful investment, executive leadership, and a professional relationship with knowledgeable providers such as KPMG are key. We've built a Trusted AI Framework based on 10 pillars to help ensure the safe, ethical, and fair deployment of AI in our own operations.³ We encourage you to connect with us at KPMG. Together, we can help make sure your AI deployment is not just technologically advanced but also rooted in good ethical and governance principles.



² "AI's Role in Enhancing Trust in Financial Reporting and the Capital Markets," KPMG LLP, October 2023

³ "KPMG Trusted AI," KPMG LLP, January 2024

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