



Why finance should lead the adoption of generative AI



Chief financial officers are ideally positioned to lead enterprise adoption of generative AI. It is a natural extension of their existing responsibilities for business strategy, digital transformation, and risk management.

Introduction

Since its emergence as a commercial product in late 2022, generative AI has quickly evolved from a futuristic curiosity to a valuable business tool and catalyst for re-imagining how to improve operations. According to an October 2023 KPMG Survey of corporate leaders in finance roles, nearly half have already deployed or are piloting generative AI while 37 percent are in the research and planning phase.¹

There are multiple factors that make finance an ideal candidate to lead the enterprise's adoption of generative AI. For instance, 65 percent of finance leaders² already use traditional AI for the financial reporting function, which demonstrates an early embrace of new technologies. Additionally, many finance activities align with early generative AI use cases, such as producing financial reports, and analyzing data to identify developing best practices for governance and partnerships.

The CFO can play at least three pivotal roles to ensure success with generative AI. They should be the lead architect an enterprise-wide AI transformation, co-sharing key aspects of the overall transformation to maximize ROI. Additionally, they should accelerate the finance function's transformation by spearheading the adoption of generative AI within their own function. And finally, they can manage stakeholder confidence, proactively, communicating facts and trends to the CXO, board, and investors.

Finance should own the strategy that fully considers generative AI's opportunities, risks, and impact on the workforce.

¹ [AI in Audit Survey](#)

² [AI in Audit Survey](#)

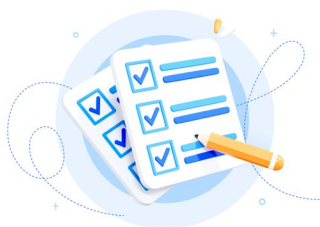
Why finance should lead

Because finance touches so many aspects of the business, the function is optimally positioned to lead the organization in generative AI adoption. As this capability matures, generative AI adoption will become a survival imperative. To ensure that the enterprise fully harnesses its transformational potential, the CFO should not only lead the charge in overseeing the transformation of the finance function but also spearhead workforce change across the organization. Key responsibilities of the CFO in leading this charge are five-fold:

- Evaluate impact on enterprise strategy, business model, operations, and workforce
- Lead refresh of strategy and targets, considering opportunities, risks, and tradeoffs
- Lead more agile, effective allocation of enterprise investments
- Facilitate development of best practices for governance, alliances, and usage
- Scale adoption within finance leading to preserve and create enterprise value

To demonstrate the value of generative AI in supporting these critical tasks and empowering finance to lead the way, we will explore real-world use cases that illustrate how these capabilities can streamline operations, improve accuracy, and drive innovation across industries:

- 1 Forecasting, budgeting, and reporting**
- 2 Generating strategic insights**
- 3 Detecting anomalies/fraud protection**



Key questions for CFOs

- What is the impact on our revenue streams?
- How can we use generative AI to increase our competitive advantage?
- How can we optimize return on investments in AI?
- How can we balance sustained value creation vs. immediate cost savings?
- What is the right interaction model for managing generative AI across the C-Suite and functions?
- Where should we prioritize investments across the enterprise and within finance?
- What will be the impact on productivity and capacity?
- What skills and capabilities do we need? How will we fill capability gaps?
- How are should we mitigate the risks—commercial, operational and financial?
- How will we ensure responsible and ethical development and deployment?

1

Forecasting, budgeting, and reporting

By leveraging generative AI, finance and accounting functions can improve the accuracy and efficiency of forecasting and budgeting for measurable outcomes. Possibilities include integrating predictive models, generating scenarios, and gaining actionable insights more efficiently.

Enhanced insights and intelligent tax forecasting for a global technology company

Challenge

The tax team at a large, global technology firm needed a more accurate and smarter multi-year forecast for federal tax income compliance. They faced several challenges:

- Their forecasts were used by other teams who needed higher quality forecasts.
- The forecasts were needed both at a more granular level and for a longer time period.
- Other teams also needed a better understanding of what drove the forecast results without creating a burden on the tax team.
- Reduce the amount of time required to review financial results and create a first draft.

To address these challenges, we developed a more sophisticated approach that provides accurate and smarter multi-year forecasts for federal tax income compliance, while also delivering clear insights into the drivers of forecast results.

Approach

Our team utilized a methodology of layering generative AI on top of traditional AI capabilities to create an integrated solution. This involved leveraging years of detailed ERP data for each tax entity, in addition to other internal and external signals, to improve the

forecasting accuracy and capabilities for the client tax team. Working side by side, we advised the client on time series forecasting best practices to select the best combination of signals to improve the symmetric mean absolute percentage error (SMAPE) metric, maintain interpretability, and expand the forecasting horizon.

In addition, we leveraged a machine learning platform to transform the forecasts into commentary. We configured prompts to the large language model to provide explanations and insights to users, which helps users understand the drivers and implications of the forecasted federal tax income.

Benefits

KPMG worked with the client tax team to help them deliver a variety of enhancements to their stakeholders, including:

- A more accurate, longer-term, and higher granularity forecasts with multiple levels of granularity (e.g., legal entity, aggregate).
- Greater performance reliability over a future multi-year time period.
- Automatically generated explanations of forecasts to assist team members in better understanding the “why” behind the forecasts.

2

Generate strategic insights

By analyzing data from internal and external sources and partnering with other functions, finance can provide valuable insights from customer relationship management (CRM) or enterprise resource planning (ERP) systems to share across the business. This collaboration allows finance to make strategic decisions and solve pressing issues with pricing, performance, and benchmarking metrics. Leveraging finance's unique position enables organizations to gain a competitive advantage by using data to inform key business decisions.

On-demand analytics and insights for large finance team of U.S. organization

Challenge

The client's finance team needed to quickly and efficiently answer ad-hoc questions from leadership and provide insights about key business metrics. The finance team had limited bandwidth to rapidly respond to specific questions, and needed a tool that could:

- Provide insights and commentary on key metrics for both ad hoc requests and month-end review.
- Run statistical analyses to assess trends and generate insights.
- Swiftly generate answers to questions from leadership.

Approach

Our team developed a chatbot tool driven by generative AI and LLMs (GPT-4) to help the client's finance team swiftly and efficiently provide insights and commentary, and run statistical analyses to spot trends and answer ad-hoc requests. Leveraging the past 12 months of data, we built out automatic statistical analyses to assess performance metrics, underlying patterns, and actuals compared with planned performance. Generative AI and large language models provide answers based on the data and statistical analyses.

Our solution enabled the team to provide better insights into trends and drivers with less work, providing answers that the team could quickly review and use to answer leaderships' questions or generate presentation content.

Benefits

With our solution, the client enjoys:

- Greater efficiency across finance and accounting teams by reducing manual efforts for ad-hoc insights and month-end review.
- Easier production of summarized insights that were readily available to users as needed, providing more consistent analysis to better meet leadership demand.
- Greater visibility and accessibility to statistical insights for F&A leadership.
- An easy-to-use interface to rapidly provide subject matter experts with the information they need.

3

Detect anomalies/fraud protection

Generative AI shows great promise as a tool for detecting errors and spotting potential fraud. It can quickly compare new data or activity with past patterns to identify anomalies. The same technique can improve the quality of financials by continuously monitoring transactional data.

Once senior leadership signals that it is ready to roll out its generative AI solutions, finance should utilize training resources to equip staff with the necessary skills and knowledge to successfully deploy the technology. Such critical success factors include selecting the right data sets to train the AI models and ensuring that AI-generated outputs are being validated and verified to be accurate and reliable. Other such factors might be having the right technical infrastructure in place, ensuring alignment with the organization's business strategy, and managing potential risks and challenges associated with taking on a new technology.

For the CFO, asking relevant stakeholders and team members the right tactical and strategic questions will

make a difference when developing and rolling out a successful generative AI program.

As eager as some are to get started, it is wise to remember that generative AI is evolving rapidly with breakthroughs and development that will require course corrections. In the near future, generative AI will enable a whole new set of solutions that integrate with a company's proprietary data. Language models are being retrained and optimized for specific purposes. And capabilities across the body of media inputs and outputs—pictures, video, text, voice—are becoming multimodal (i.e., text in, video responses out). What is important now, though, is getting started with the business use cases that exist today.

Implementation challenges

While investing in generative AI is now a board-level mandate for many companies, it is crucial to balance the potential benefits with the inherent risks. These include competitive risks, such as changes in customer or competitor behavior that impact revenue and cost competitiveness, as well as operational risks, including the possibility of failing to capture the full potential of generative AI or encountering negative consequences during implementation. Additionally, IT, cyber, and legal risks must be considered to ensure that AI technology is used responsibly.

To address these risks, companies can leverage responsible AI frameworks that provide guidelines for the ethical and responsible use of generative AI. By investing in robust governance and compliance frameworks, companies can manage both business-related risks, such as reputational damage, as well as technical and talent management

challenges. By taking a thoughtful and strategic approach to generative AI adoption, the finance function can lead the way to harness the true potential of this transformative technology.

For example, the European Union's AI Act presents comprehensive rules and safeguards for trustworthy AI. In the U.S., President Biden's Executive Order on AI is designed to position the U.S. at the forefront of safe, secure, and trustworthy AI that will be used in a responsible and equitable way. Ensuring compliance with these regulations may require companies to make significant changes to their AI strategy and operations, which can be costly and time-consuming.

Fully understanding the complexity involved in implementing a viable generative AI strategy for long-term success is critical. In the following section, we take a closer look at each challenge:

Data privacy/protection

Ensuring data privacy and protection is critical with generative AI. Data used can contain personal identifiable information (PII), including names, addresses, and phone numbers—all of which are protected by data privacy regulations. When selecting generative AI partners and vendors, it is also essential to ensure they meet rigorous data protection standards—this requires diligence and process discipline, including thorough assessments of data-handling practices and robust security measures.

AI bias

AI bias 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 language models. Some of the risks associated with AI biases include discrimination, amplification of existing biases, and loss of trust.

Intellectual property

Protecting intellectual property rights can be a challenge with generative AI. Large language models use information that has been posted online, and it can be difficult to determine the provenance of generative AI results. Alleged IP theft by generative AI has already sparked lawsuits.

Understanding data

It is hard to understand limitations in the data output of large language models when you do not control them. When using open source or off-the-shelf generative AI solutions, companies sacrifice transparency into underlying training sets and the algorithms that power generative AI. Teams need to build compensating controls to mitigate negative impacts. As organizations begin to integrate their own data into the models, evaluating this data will take precedence.

Workforce transformation

Generative AI is expected to fundamentally change how people work. As the technology is integrated across functions, processes, and workflows and generative AI tools are applied to various tasks, jobs will need to be redesigned. Before this happens, finance needs to develop a workforce-centric mindset that harnesses the power of generative AI by focusing on measurable value and accelerated adoption.

Top leaders across industries are committing to generative AI. In a recent KPMG American Worker Pulse Survey, 72 percent of CEOs said that investments in generative AI are a top priority.⁴ To make those investments pay off, it is essential for employees to embrace generative AI as a talented assistant—and not a competitor for their jobs. We know from other leadership surveys that top leaders are increasingly thinking about how to use generative AI to extend and enhance employee capabilities. This is a positive development, but leaders should not underestimate how disruptive the new technology may be as it reshapes functions and roles across the organization.

To realize the payoff of generative AI investments—in productivity, speed, cost savings, and competitive advantage—companies need to approach adoption with a workforce-centric mindset. This means developing a roles-based strategy for adoption and building support for generative AI deployment while establishing the proper legal, governance, and ethical guardrails. The KPMG workforce-centric framework helps clients harness the power of generative AI by focusing on measurable value and accelerating adoption.

⁴ [A delicate balancing act](#), KPMG

What you can do now

By taking the lead on behalf of the organization, the finance function can build an institutional framework for generative AI that is true to the organization's risk tolerance, cultural complexity, and investment appetite for technology-led transformation. Here is how to get started:

1 Appoint leaders

If finance is to pioneer and champion generative AI for other parts of the enterprise, high-level, empowered leaders will need to be involved and visibly engaged. Finance leaders who are not prepared to talk about generative AI may need training.

2 Define risk appetite & AI ethics standards

Secure your AI journey with robust governance and risk-mitigation efforts. Carefully assess potential risks and the organization's risk tolerance. Identify cyber, privacy, and legal risks and establish usage guidelines and risk-mitigation strategies.

3 Build a cross-functional team

Co-shape AI strategy and transformation. While finance leads the effort, it cannot make these choices alone. Build a cross-functional team with risk and IT that is committed to identifying the issues and finding the right solutions for the organization.

4 Choose technology and partners/vendors

Tech-enable the journey, securing safe and timely access to LLMs and data. Figure out where to invest, what you can build, and what you can obtain through partners and vendors. Choosing appropriate LLMs for initial use cases is a fundamental step.

5 Identify initial use cases

Pilot the transformation approach in key areas of business. Finance should select initial projects that can quickly deliver tangible business benefits. The case definition should include processes, people, risks, data, and effort level involved.

6 Define success and measure progress

Prepare to measure progress on all dimensions. Analyze workforce impact and potential productivity gains. Define KPIs and success metrics.

7 Build a sandbox

Explore and energize; pilot early use, innovate, score quick wins and learn. Finance can sponsor and provide the tools, environment, and support so enthusiastic adopters can start experimenting.

8 Get started

There is no need to identify every use case before you launch proof of concept. Scoring quick wins—initial applications within finance, for example—builds momentum that can be shared and promoted across the enterprise.

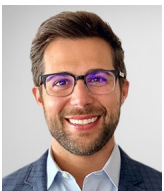
How KPMG can help

KPMG is a leader in finance transformation, helping organizations modernize their finance and accounting functions with technologies like generative AI. With a workforce-centric mindset and role-based strategy and adoption approach, our framework helps clients harness the power of generative AI by focusing on measurable value and accelerated adoption, ensuring that finance leaders can make a difference in their organizations.

Our deep experience in machine learning and natural language processing informs how we guide your organization through all stages of generative AI implementation—from strategy and use case development to vendor selection and ongoing support—enabling you to unlock the transformative potential of this technology. We recognize that along with the promise of generative AI come process and cultural changes, requiring the correct processes and controls to identify and mitigate risks. We can help you navigate these risks using our Trusted AI framework.

Failure to innovate brings substantial risk, and there has never been a more critical time for organizations to embrace transformative technologies like generative AI. Our holistic approach helps you think big and act boldly to realize the possibilities of generative AI, positioning your organization for success in the future.

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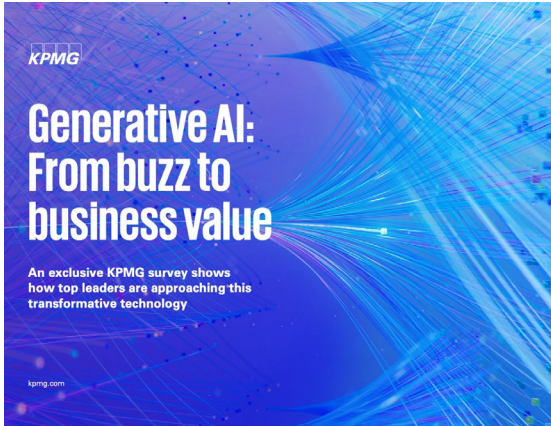
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