



Revolutionizing technology internal audit

The power of AI and data
analytics in audit execution





Are internal audit (IA) departments falling behind in the adoption of today's new technology? Without a doubt, today's organizations are turning to the greater use of artificial intelligence (AI) with data analytics to maintain a competitive edge and drive efficiency. For now, many organizations are focused on leveraging AI for productivity and quick wins, including automated assistants, content creation, presentation enhancement and AI powered creative tools to boost ideation. However, technology IA teams have been slow at times to adopt innovative technology-based solutions. In many cases, the teams want more information about the possible benefits and tradeoffs of AI and data analytics before making the time and financial investments needed to make meaningful impact with sophisticated technology. They also need to review potential IA use cases to better understand how this technology can be applied to real-world business situations and whether there is true return on investment.

How new technology can benefit IA

The benefits are clear regarding AI and data analytics for technological IA. Organizations can gain efficiency, improve processing speed and productivity, and enhance the quality of audits. Costs can also be reduced—perhaps not initially, which is making adoption harder to justify in the immediate term, but likely over time as the technology solutions become more widely adopted.

More specifically, this technology can analyze vast amounts of data far more efficiently and effectively

than traditional tools and processes. It can identify complex trends and patterns, potentially making it easier to identify and isolate the root cause of issues and support proactive actions before these issues become potential problems. It can also be used to perform document analysis and review and to spot risks that may have gone unnoticed in the past. In addition, AI capabilities can be used to accelerate report writing, presentations, and other communications required by senior executives and regulatory agencies.

Future use cases for AI and data analytics

Here are five ways that technology IA teams can use AI and data analytics today to address risks, improve performance, increase their visibility, and boost their value to the company.



Fraud detection and prevention

AI can help analyze large volumes of financial transactions and data for patterns and anomalies, allowing technology IA teams to identify potential fraud and irregularities more efficiently covering 100 percent of the population as opposed to sampling transactions. Machine learning algorithms, coupled with data analytics, can be trained to detect suspicious behaviors and flag potential risks for further investigation by auditors, leading to timely identification and mitigation of fraud risks.



Risk assessment and analysis

AI-driven risk assessment tools can significantly enhance the IA process by providing in-depth insights and analytics across a company's risk landscape. AI technologies, such as natural language processing and machine learning, can analyze complex sets of structured and unstructured data—including financial records, contracts, meeting minutes captured automatically during internal and external calls and industry data—to pinpoint potential areas of risk, identify new risks by connecting the dots based on the efficient analysis of multiple data points simultaneously and prioritize high-risk audit areas, thereby enabling auditors to identify and focus on critical issues.





Continuous auditing and monitoring

AI can improve continuous auditing and monitoring efforts by automatically reviewing large volumes of transactions and identifying drift patterns that may signify control weaknesses, operational inefficiencies, or compliance issues. By automating this process, IA departments can identify drift to the baseline patterns and detect emerging risks leading to compliance concerns in real time, enabling the organization to proactively address issues before they escalate.



Enhancing audit planning and scoping

The integration of AI within IA departments can improve the audit planning and scoping process by automating the evaluation of large amounts of structured and unstructured data for risk exposure and control effectiveness. AI applications can help analyze past audit artifacts, including reports, entire data sets of governance risk and compliance (GRC) tools including risk, controls, and issues/observations data, industry trends, and company-specific data to create an optimized audit plan tailored to the organization's unique risk landscape.



Automation of routine audit tasks

AI technologies, such as robotic process automation (RPA), can be used to automate repetitive and time-consuming tasks in the IA process, such as data extraction, processing automatically unstructured data (e.g., text included in change tickets, new user approval forms, etc.) reconciliation, and control testing. By automating these routine tasks, auditors can reduce the risk of manual errors and focus their efforts on more complex and value-added activities, such as evaluating control design and providing strategic recommendations to management.

Tradeoffs, potential risks, and mitigation for using AI for IA

Emerging technologies can also come with a variety of tradeoffs and potential risks. Along with the benefits, AI and data analytics can result in the various concerns that internal auditors can address as follows:

Risk: The use of more sophisticated tools for auditors requires more access to data, which may in turn introduce greater data privacy and cybersecurity risks.

Mitigation: When adopting AI, enterprises should implement new, or adjust existing data governance and security policies and procedures to account for the new risks brought about by AI and sophisticated data analytics tools. IA should work with the enterprise to adopt those policies and procedures to ensure it is aligned with risk management protocols.

Risk: Liability and regulatory compliance issues can occur, such as whether an AI-based conclusion is fully trustworthy, transparent, and explainable.

Mitigation: Establish enterprise-wide clear governance roles and responsibilities for AI development and deployment, ensure transparency and explainability of AI models and outputs and adherence to ethical principles and guidelines for AI use.

Risk: Lower-than-expected return on investment (ROI) can result due to unforeseen costs, implementation issues, or limited gains in productivity.

Mitigation: Set realistic and measurable goals and expectations for IA projects leveraging AI, monitor and evaluate the performance and impact of AI solutions on the audit process considering all stakeholders, and identifying and addressing any gaps or challenges in implementation.

Risk: Disruption in operations can occur as AI and data analytics introduce new processes, workflows, and integration requirements.

Mitigation: Engage and communicate with audit process stakeholders across the organization, providing adequate training and support, and ensure alignment and integration of AI and data analytics with existing processes and workflows.

Risk: Unexpected time and expense in implementation can occur, with specific skills and training required to realize the full benefits of the technology.

Mitigation: Plan and budget for the audit resources and skills required for AI and data analytics, leverage external partners and vendors where appropriate, and adopt agile and iterative approaches for AI development and deployment of audit solutions.

While implementing AI can enhance the audit process by reducing costs over time, increasing speed, and improving quality, IA practitioners need to manage the tradeoffs, as there are very few opportunities to realize all the benefits immediately. IA should appreciate that there is often an increase in short-term costs to make a truly meaningful impact with AI. For example, embedding AI in the audit process may require increased one-time setup and training costs, which will lead to faster and higher-quality audits, or performing a higher-quality audit by inspecting 100 percent of a population, may lead to identifying multiple false positives, which can lead to slowing down the audit process while the new processes is being embedded.

The bottom line

AI and data analytics for IA will only grow in capabilities and importance. This technology can be used to help auditors think differently, generate new ideas, accelerate laborious documentation tasks, improve the quality of written deliverables and perhaps spot trends and anomalies that might be difficult for the human eye to see. At the same time, its output should always be reviewed and challenged with an auditor's professional rigor.


In any case, a strategic, thoughtful approach is required for successful adoption, identifying both rewards and risks. Technology IA teams should define what they want to do with AI and data analytics, why, and how this technology can support the long-term goals of the organization. Technology IA teams should understand what the business's overall strategy is for AI, including how it approaches AI risk management and governance, so that they can align to the appropriate protocols for its use. Many issues can be addressed with the help of a capable, third-party adviser to help the organization improve its strategic growth priorities and get the most out of AI, in a responsible way.


How KPMG can help


Trusted AI solutions


KPMG offers decades of experience in regulations, risk, security, and privacy along with industry-recognized leadership in AI, machine learning, data analytics, cybersecurity, and risk. We combined these strengths to create KPMG Trusted AI—a structured approach for designing, building, deploying, and using AI in a responsible and ethical manner.


As your organization works to harness the transformative power of AI, turn to KPMG for help accelerating your Trusted AI journey. We offer support at every phase:


 **Strategy:** Assess where you are and create a strategy and roadmap.

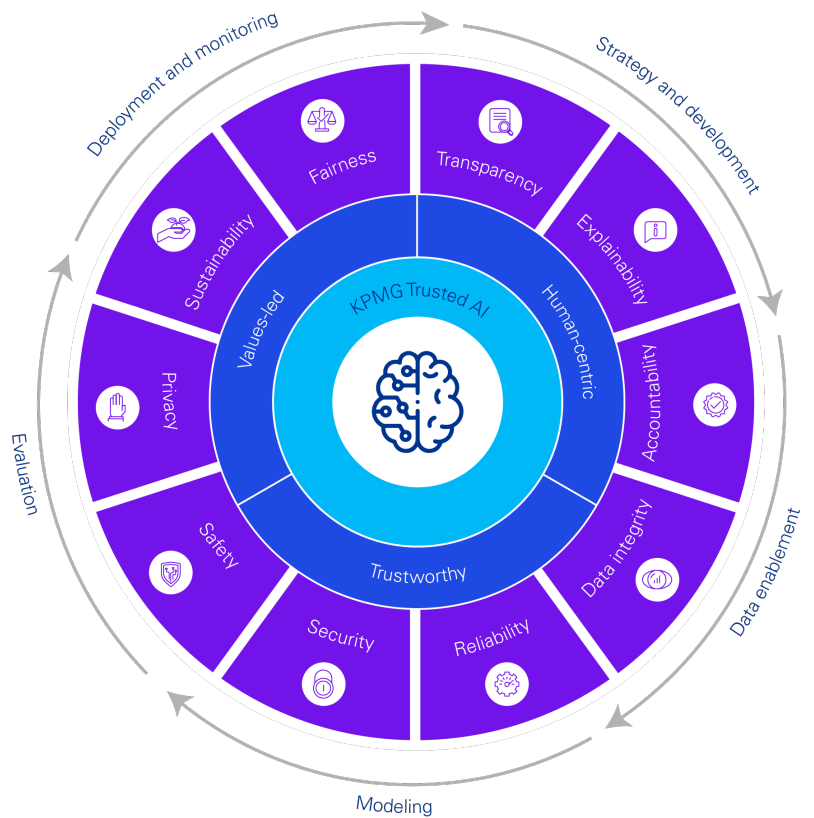
 **AI ethics and governance:** Establish and implement AI governance frameworks, controls, operating models, and technology to achieve trusted AI.

 **Machine learning operations:** Establish leading constructs, processes, and technologies for wide-ranging model management to help build trust in your models and accelerate value.

 **AI security:** Assess and develop AI security and privacy strategies, processes, and tools to detect, respond to, and recover from cyber intrusions, privacy risks, software risks, and adversarial attacks.

 **AI assessment and assurance:** Test, examine evidence, and report on the management process, controls, and claims regarding the responsible use of AI technologies.

 **AI development and deployment:** Design and develop AI applications; train and fine tune models for specific use; establish process, controls and technologies to integrate Trusted AI into end-to-end model management; Trusted AI technology implementation.



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