KPMG

DATA MODERNIZATION:

A strategic imperative for competitive success

Transforming Data into a Core
Business Asset for Modern Enterprises

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The need for data modernization

Data has become the lifeblood of modern enterprises. But companies still aren't getting the value they need from their data to allow their organization to thrive.

The big problems: fragmented data systems that hinder integration, low data quality that compromises decision-making, and shifting compliance landscapes. These are not just technical hurdles but strategic challenges that require prompt attention and decisive action.

The answer is data modernization, and its mandate has never been more urgent. But the path to achieving this data modernization is fraught with complex obstacles: the turbulence of economic pressures, regulatory demands, and rapid technological advancements.

Organizations must ask themselves: Are we prepared to modernize our data infrastructure and turn data into a strategic asset, essential for driving insights, innovation, and competitive advantage? Or are we risking falling behind?

If companies delay efforts to update, streamline, and secure data processes, they face significant risks, including operational inefficiencies, competitive disadvantages, and regulatory penalties. Every moment of hesitation is an opportunity lost, not just in missed market potential but also in eroded stakeholder trust and increased vulnerability to data breaches.

Organizations need to embrace a data modernization strategy now. It's not just a strategic choice but an essential step toward a resilient and future-ready data architecture.

Navigating the evolving economic landscape

Economic pressures

Technology innovations and modernizations don't happen in isolation. Many competing initiatives face business leadership. Today, companies operate in an uncertain economic environment, characterized by budget constraints, inflation, and market volatility. These pressures highlight the imperative for achieving high ROI from data initiatives. Consequently, business leaders face a significant challenge: juggling efficient technology investments and managing budgets to achieve cost optimization while ensuring robust data management infrastructures are in place.
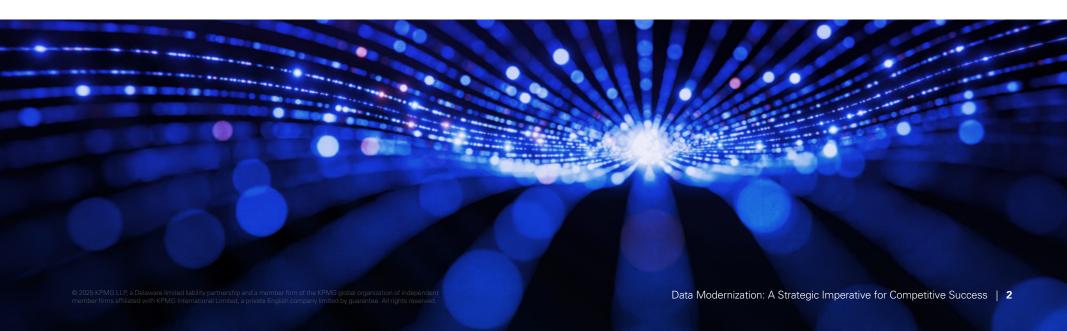
Geopolitical considerations

Aside from economic issues, global businesses must navigate a complex regulatory environment due to diverse data compliance and data sovereignty issues. Regulations such as the European Union's General Data Protection Regulation (GDPR) and the California Consumer Privacy Act (CCPA) set precedents for stringent data protection laws. Consequently, Chief Data Officers (CDOs) and Chief Data and Analytics Officers (CDAOs) need to implement strong governance strategies that ensure compliance with these complex international data regulations.

Regulatory shifts

Companies are facing a new regulatory front owing to the recent scramble to implement AI and GenAI. Key issues here are the ethical use and transparency of AI systems due to the rapid development of these technologies. For now, regulatory bodies are urging companies to adopt stricter self-regulatory measures. Nevertheless, the push for self-regulation in the AI and data domains underscores the need for agile and robust compliance strategies that can promptly adjust to new data policies as they evolve and proactively maintain compliance to avoid sanctions.

The strategic imperative: Leveraging data as a strategic asset

Data is pivotal for driving market differentiation, stakeholder value, and operational excellence. For CDOs and CDAOs, creating a data strategy that leverages data effectively is crucial for competitive success and value creation. Addressing core challenges like data fragmentation, low data quality, and inconsistent governance is essential for aligning with future technological advancements and market demands.

Understanding the core challenges for CDOs and CDAOs

Data fragmentation and integration complexity

Many organizations face challenges due to separated data sources and inconsistent formats, leading to data silos and limited visibility. This fragmentation affects data reliability, decision-making, and efficiency. Fixing the problem can be costly and labor-intensive.

Key challenges to address:

- Disparate data sources, inconsistent formats, and complex integration create data silos and fragmented landscapes.

- High-cost, labor-intensive data reconciliation efforts reduce operational efficiency.

- Limited visibility of data affects reliability in decision-making and operational efficiency.

Key questions to answer:

- How can I consolidate my data from various sources to improve accessibility and integration?

- How do I modernize my data approach and productize data to create more value and reduce costs?

Understanding the core challenges continued

Data quality, accessibility, and usability

Hand in hand with data fragmentation is the issue of data quality and accessibility. Integrated data is of little use if it is unreliable or can't be accessed by the people who need it. Maintaining high-quality data is also critical for effective AI use, since poor data quality degrades AI model performance, leading to unreliable insights.

Key challenges to address:

• Increasing data integrity, consistency, availability, and timely access across the enterprise

• Eliminating poor data quality that degrades AI model performance, leading to unreliable insights and suboptimal decision-making

• Overcoming data silos to enable a unified strategy for structured and unstructured data

Key questions to answer:

• How can I ensure that data quality improves decision-making and AI outcomes?

• How can I make my data more accessible for better and faster decision-making?

Building trust and governance in data management

While it is essential that data be accessible to the people who need it, it is equally important that data is protected from those who don't. The goal is to establish an atmosphere of trust that data can be protected and used properly and only to the extent needed.

Key challenges to address:

• Ambiguous data ownership and governance structures that hinder accountability and streamlined operations

• Compliance with diverse, evolving global data regulations, and maintaining robust security and privacy measures

• Different data governance priorities among leaders and laggards indicating inconsistent practices

Key questions to answer:

• How can I establish clear data ownership and governance to improve accountability?

• How can I ensure compliance with data privacy regulations while managing data securely?

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Understanding the core challenges continued

Modernizing data infrastructure for AI readiness

As companies ramp up their use of AI and GenAI, it becomes clear that these technologies demand high-quality, accessible data to deliver promised results and ROI. A modern data infrastructure within a leading-edge cloud architecture is essential to support AI's innovative use, accessibility, governance, and value delivery.

Key challenges to address:

- The necessity for data modernization to support innovative use, accessibility, governance, operations, and value delivery in a modern cloud architecture

- The high cost of updating and optimizing data infrastructures to meet modern requirements

Key questions to answer:

- How can I align our unstructured data with AI initiatives to maximize ROI?

- What steps should we take to modernize our data infrastructure for supporting advanced AI applications?

Enhancing collaboration between IT and business functions

IT can't implement a data modernization initiative on its own. Effective collaboration with the business functions is essential to enhance data utilization and drive innovation.

Key challenges to address:

- Bridging the disconnect between IT and other business functions to improve data utilization and drive innovation

- Managing operational and interaction challenges stemming from a lack of shared understanding, project cost concerns, and governance over-correction

- Understanding that only about half of executives believe data management is a collaborative effort co-owned by both IT and business

Key questions to answer:

- How can I improve collaboration between IT and business units to make better use of our data?

- How can I use my data products to gain accurate predictions and insights for better decision-making?

Effective collaboration with the business functions is essential to enhance data utilization and drive innovation.

The urgency of data modernization:
Addressing the data challenges now

As business speeds up and technology evolves, using data effectively is crucial for market success. Despite many challenges to data modernization, organizations must act promptly. Here are some consequences of delaying data modernization efforts.

Market competitiveness and innovation: Delayed data-strategy improvements hinder market responsiveness, and ineffective data integration and quality control result in missed opportunities. Weak governance can lead to data breaches, fines, and reputational damage.

Decision-making and stakeholder value: Fragmented and unreliable data undermine real-time decision-making. Stakeholders demand trustworthy and accurate insights, while inefficient data processes elevate risks and reduce stakeholder confidence.

Scaling AI and operational efficiency: Rapid AI adoption is essential to stay competitive, making scalable data foundations a critical need for operational success. A robust data foundation enables scalable AI and data initiatives, driving operational efficiency and cost savings. Inconsistent data impedes efficient AI-driven automation, while high-quality, integrated data is essential to scale AI initiatives.

Risk of inaction:
The consequences of neglecting data modernization

The consequences of neglecting data modernization also pose significant risks across various dimensions of the organization.

Operational risks and inefficiencies: Reliance on fragmented data impedes efficiency and agility, elevating operational costs and delaying decision-making. Ineffective data use results in falling behind competitors and limiting market opportunities. Weak data governance exposes organizations to legal penalties and reputational damage.

Competitive disadvantages: Inadequate utilization of data can lead to falling behind competitors who are more proficient in data management. Furthermore, overlooking AI-driven innovation and market differentiation reduces the capability to seize emerging market opportunities.

Regulatory and security risks: Inadequate data governance can subject an organization to compliance risks and legal penalties. Data breaches and security incidents may result in monetary loss and reputational harm, affecting stakeholder trust.

Benefits and outcomes of overcoming data challenges and leveraging data as a strategic asset

If an organization can overcome the challenges of data modernization, they stand to gain significant market advantage. These include:

Enhanced market position and competitive differentiation

Leveraging data drives differentiation and innovation, providing competitive advantages and new revenue streams. Data-driven insights enable organizations to stay ahead of market trends and customer needs.

Improved stakeholder value and customer trust

Trusted data fosters confidence and satisfaction among stakeholders, improving customer experiences and operational efficiency. Accurate data supports trust and engagement with stakeholders, leading to higher customer loyalty and satisfaction.

Sustainable operational efficiency and scalability

A solid data foundation supports scalable AI projects and enhances operational efficiency, resulting in notable cost reductions. Efficient data integration and governance frameworks reduce complexity and minimize risks. Ongoing data quality improvements ensure consistent, reliable, and well-informed decision-making.

The way forward for CDOs and CDAOs

The call to action for CDOs and CDAOs is clear: addressing core data challenges is imperative for leveraging data strategically, enhancing stakeholder value, and scaling AI initiatives effectively. The urgency and high stakes involved underscore the imperative for competitive, operational, and regulatory actions.

Steps to take:

Address core challenges: Enhance data accessibility, integration, and quality to lay a robust foundation for AI and GenAI initiatives.

Implement robust governance frameworks: Establish clear governance and trust structures to ensure compliance and security.

Enhance collaboration: Foster collaborative efforts between IT and business functions to drive innovation and improve data utilization.

Strategic gains:

By strategically leveraging their data, organizations can achieve:

Enhanced decision-making: Improved real-time decision-making capabilities.

Increased stakeholder confidence: Greater trust and engagement with stakeholders.

Competitive advantage: Differentiation and sustainable growth through innovative data and AI integration.

How KPMG can help

KPMG LLC offers robust approaches to transform fragmented data into strategic, AI-ready assets. With KPMG guidance, businesses can build solid data foundations, ensuring data quality, accessibility, and scalability. Our methodologies ensure data quality, integration, and readiness for AI-driven success.

Harness the full power of your data for innovative and strategic outcomes with KPMG expertise. Embark on your data modernization journey today and position your organization for excellence in the digital age.

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