



# CDO Outlook 2023

## Data knights in shining armour

Perspectives from Chief Data Officers (CDOs)

October 2023

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# Foreword

We hear it quite often these days...“data is the new oil”; “data is the new fuel”; “data is the new gold”. But do we ‘ad’-hear to it? Do we commit to managing this incredibly important asset with the priority it requires – the priority it deserves. And do we really appreciate how important this fuel, this oil, is to our accelerated dependency on analytics, machine learning and artificial intelligence? This is where the rubber meets the road and where all organisations, across all industries need to be moving towards. Managing a company’s information assets is as important as managing a company’s financials. Do it correctly and you will grow your business, leverage new technology, reduce risk and stay compliant with regional and international policy, ethics and best practices. Handling it incorrectly, and you can put the brakes on your organisation’s momentum and ability to compete in today’s complex business environment.

Going digital and realising its benefits can only be realised if the information that feeds your application and analytics is accurate, timely and trusted. Your information must be accessible yet protected, intuitive, yet used ethically. And like any important asset, a company must have faith in the senior executive entrusted to manage the asset – the Chief Data Officer.

The emergence of the CDO, now just about 21 years old, has grown from a

back-office function to front-and-center in today’s executive suites. But there is still much to be done. Firms must embrace this new paradigm and alter their culture to be nimble, yet responsible in leveraging a firm’s information. This will require leadership from the top, and data management acumen from everyone else. DCAM – the data management capability assessment model, developed by the EDM council, was designed to help organisations raise their information management knowledge. To create a common data language that firms can rally around and use.

The report you are about to review is a summary of an extensive survey conducted by KPMG in India, asking leading organisations across India about their data management readiness. Do they have that senior executive that is providing a data vision? Does that individual have a seat at the table? Are they bringing business and technology together with data to drive their business? As firms progress along this journey, leveraging best practice models like the DCAM, learning from others who have forged the way before them, is the recommended approach to bringing your organisation into this new digital information reality.

There are many insights to be gleamed from this report. Read it carefully and adhere to its advice and recommendations. Your firm will thank you for it.



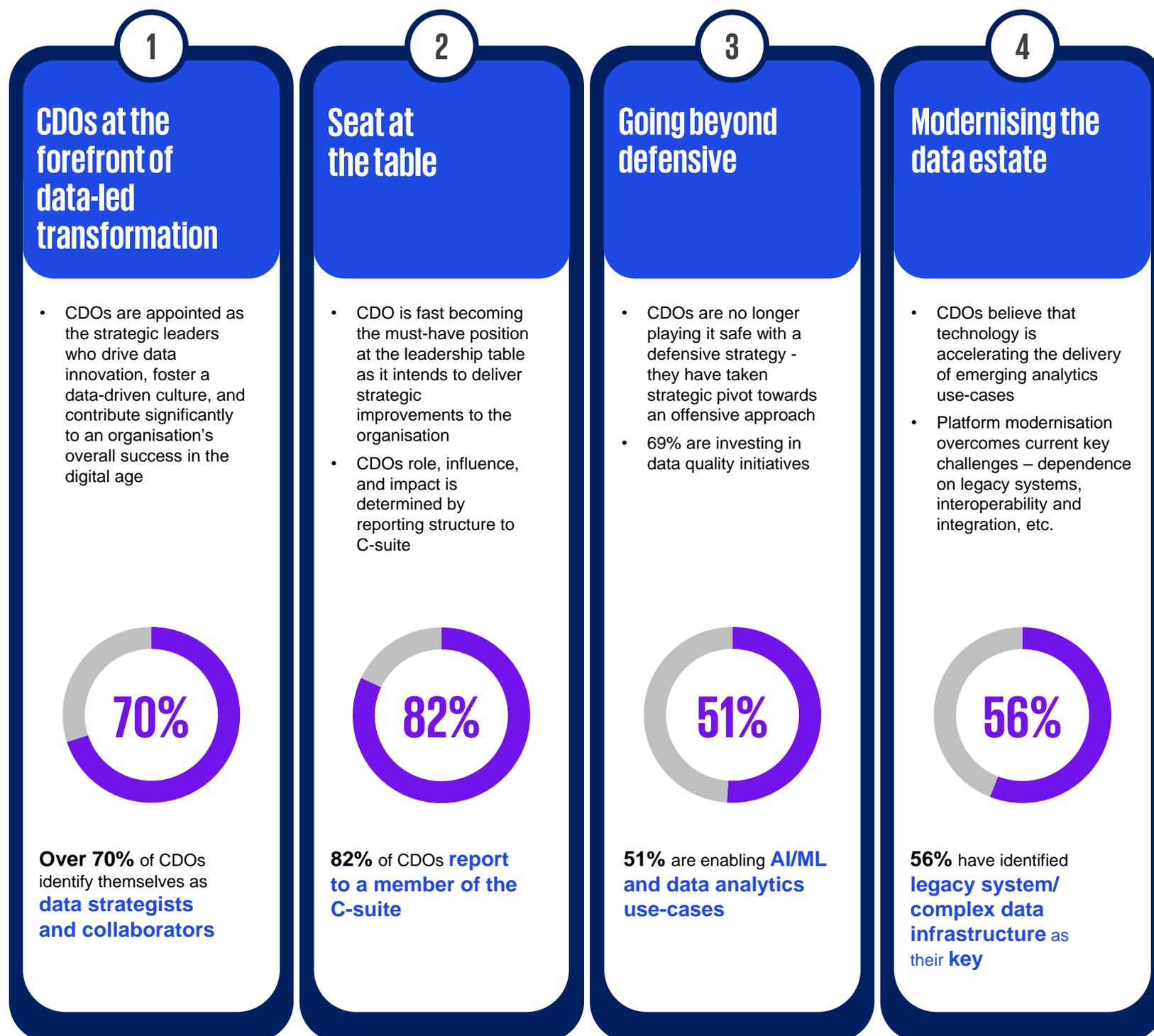
## John Bottega

**President**  
EDM Council

# Executive summary

CDO Outlook 2023 report has been created by conducting surveys and guided interviews with 75+ data management leaders, CDOs, CDAOs and data offices across industry sectors in India. Following are the key perspectives emerging from these discussions on aspects relating to managing and governing data to drive enterprise value.

## Key perspectives from CDOs today



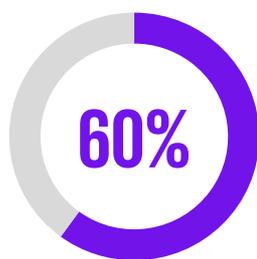
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## Key perspectives from CDOs today

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### Scaling up with AI and cognitive technologies

- CDOs see AI and other cognitive technologies as means to scaling up data management by leveraging it for classification, cataloguing, quality, security and workflows
- Some key focus areas where organisations are gearing up are generative AI, automated governance and quality, etc.

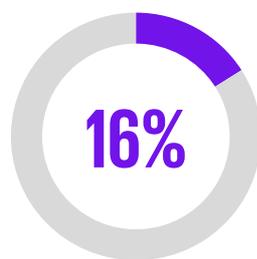


Nearly **60%** are seeking to **adopt intelligent and AI-enabled data management** in their organisation

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### Productising data

- CDOs shifting towards adopting data product-outlook and culture to curate and deploy data products for analytics use-cases
- Purpose is 'value creation' through curating high-quality reusable data and analytics products to empower consumers

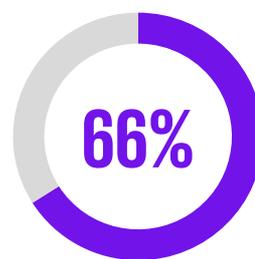


Only **16%** were successfully able to **arrive and implement direct data monetisation**

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### Formalising value from data

- CDOs are being asked to demonstrate tangible business outcomes and commercial value
- Key challenge remains to ascertain revenue increase, opportunity cost saved and competitive advantages by data initiatives

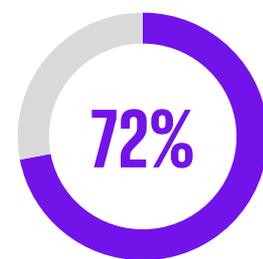


**66%** have confirmed **reduction in cost via improved efficiency / automation / faster time to market as their primary ROI metric**

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### Crossing the cultural chasm

- Change management defines the ways of engagement with stakeholders to increase awareness and buy-in to change, and drive end-user readiness and adoption
- Data literacy is not just a KRA anymore, but a critical KPI for CDOs and data offices



**72%** have confirmed that while **data literacy programmes** are in place in their organisations **the level varies across multiple business functions**

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# 01 CDOs need to be at the forefront of data-led transformation

Responses from CDO Outlook 2023 have clearly brought out the fact that CDOs are leading from the front in enabling data led transformation for their organisations.

The role of a Chief Data Officer has also evolved over the last couple of decades. Traditionally, the role was largely focused on regulatory compliance, setting up and building foundational capabilities such as enabling data governance and standards, data quality and master data management to support data management and business

intelligence initiatives.

With exponential growth in data, digitalisation, emergence of new business models and opportunities to deliver value through data, the CDO roles have expanded across all industries

CDOs today hold responsibilities of not just managing data but also rendering a spectrum of influence - from harnessing data potential to driving innovation and digital transformation.

## What are the different roles played by CDOs?

### Driver of data strategy

Drives the data strategy by defining and maintaining oversight on its implementation and acting as an influencer for data culture

71%

### Data governor

Data governor for metadata, data quality and master data management initiatives including establishing polices, roles and responsibilities

41%

### Data defender

Defender - managing data risks, security and privacy concerns

20%

### Data entrepreneur

Data entrepreneur via data monetisation and data based innovation

21%

### Collaborator

Spearheading data initiatives by collaborating with business and technology teams

74%

More than 75% of the respondents have been delivering data initiatives with prime focus on driving data strategy and scaling the data capabilities across the organisation by working and collaborating closely with the business. While very few CDOs (<25% of respondents) have

initiated their journey on the value and monetisation path, the next frontier for the CDOs is clearly to act as a data entrepreneur to discover, uncover and realise value from the organisation's data assets.

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# 02 Seat at the table

## Chain-of-command affecting role, influence and impact

With data becoming a strategic asset, organisations are aligning their data & analytics strategies with their vision. This realisation has further incentivised organisations to re-look at the existing power balance in the boardroom.

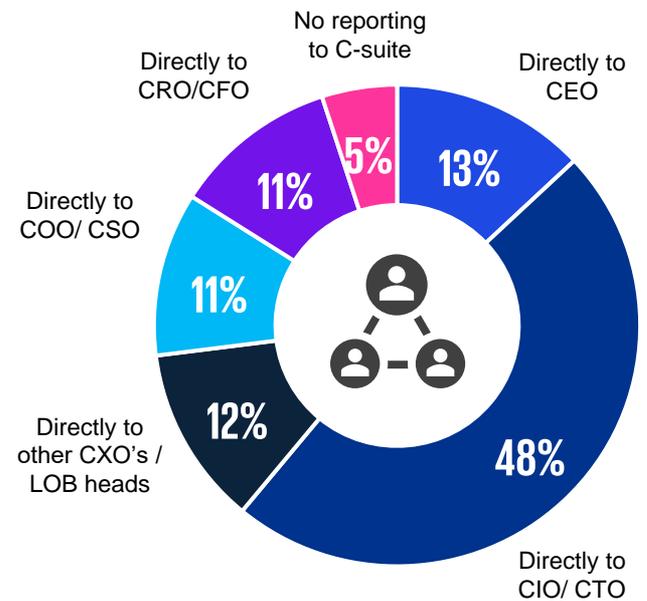
**13%** CDOs report directly to CEO

**82%** CDOs report to a member of the C-suite

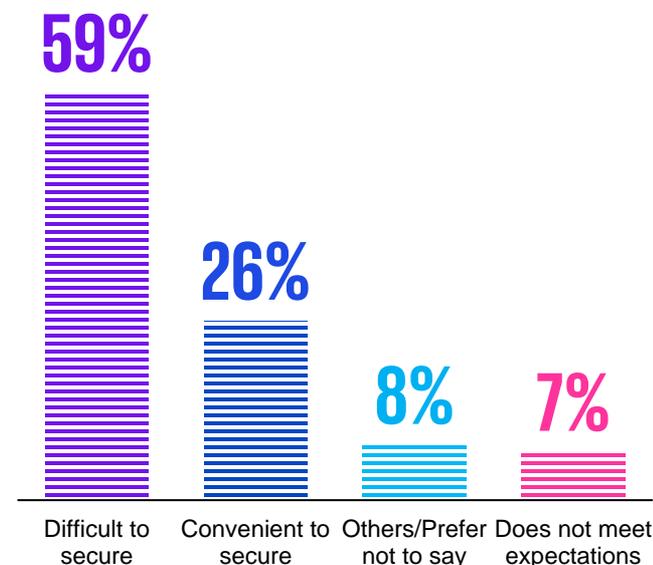
Most CDOs agree that the role, influence, and impact of their data office is determined largely by their reporting hierarchy.

CDO's aspire to gain a seat at the executive table along with other CXOs. This can empower the CDO by raising their influence within the organisation - providing them with a platform for expanding their data agendas, negotiating budgets, building the required analytics capabilities, and driving technology adoption to maximise the overall value proposition.

## Who are the CDOs reporting into?



## Ease of securing funding for data initiatives



## CDOs in mature data organisations backed by adequate funding

38% of CDOs in organisations having a defined data office (with established and implemented data management frameworks and capabilities) confirmed that they are being backed adequately by funding and the investments in data programmes meet their current expectations.

That is not to say that securing funding has become easy. Three out of five CDOs today face challenges with allocated budgets. We observed that in cases with competing priorities, funding data management initiatives took a backseat. What we also gathered from the interviews, is that start-ups are far from having dedicated data offices as they are heavily reliant on funding.

The road to funding new technology and data initiatives for many, is still a long and winding one. Challenges include inability to justify value, limited stakeholder buy-in and executive sponsorship, technological complexity, and resistance to transitioning from existing ways of working.

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# 03 Going beyond defensive

## CDOs are shifting gear from defence to offence to drive data-driven decision-making

CDOs have had defensive beginnings, especially in financial services where the focus was initially on the strategic execution of regulatory standards, centered around safeguarding data integrity, ensuring regulatory compliance, and risks associated with data breaches and privacy violations.

Over the course of time, as data complexity increased and businesses evolved, the role underwent a strategic pivot marking the shift from defence to offence. Hence, CDO's are adopting a growth mindset by undertaking initiatives that foster data-driven decision making and data-led transformation.

**72%** looking to establish data-driven culture and literacy as long-term strategic objectives of their programmes.

**30%** wish to optimise costs and increase revenue as an end-goal of their data programmes

Data quality remains a key priority for many CDOs, and they are undertaking data quality initiatives to improve trust and reliability (69%). However, key initiatives that lay the foundation for data democratisation and data-driven decision making are also gaining priority among the CDOs - such as enabling advanced analytics and AI ML use-cases (51%) and breaking data silos and improving data literacy (54%).

In small-sized firms, improving data hygiene along with improving operational efficiency and reducing time to market is the top choice at 63%. Since, they prefer lightweight adoption to show value in the initial stages, hence their focus is on quick wins like improving data quality and shortening turnaround time for critical reports/ dashboards of business functions.

### Data strategy – where means meet the end

CDOs offensive strategy requires a clear understanding of the overall business objectives that need to be met. People, process, technology and data requirements and initiatives must be identified and closely tied to these business requirements.

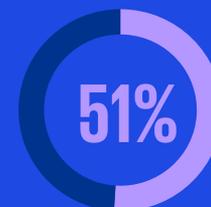
### Current top priority data initiatives



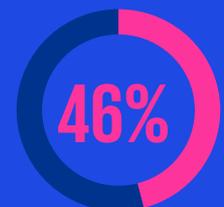
Improving data quality



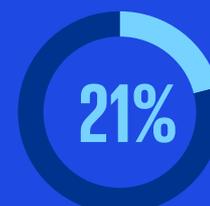
Breaking data silos & improving data literacy



Enabling AI / ML & data analytics use-cases



Complying with governance, controls and regulations



Data mesh, data fabric, data as a product



It is important to create the enterprise data/ data monetisation strategy as a direct fall out of its business strategy; not as a stand alone.



#### Ganapathy V

VP & Head- Global Advanced Analytics CoE  
HOLCIM Group

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# 04 Modernising the data estate

## CDO's role in technology modernisation

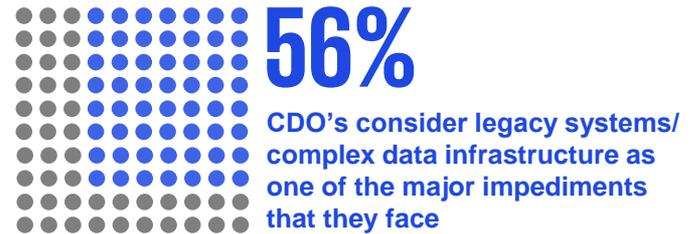
Traditionally CDO's have been charged with driving and overseeing projects under data management programme. However, with one out of two CDOs reporting to CIOs or CTOs today, their inputs are being actively sought after at the onset of discussions while designing and finalising modern enterprise technology stack as data is an integral of the ecosystem.

Data provisioning, processing and integration points of existing/new systems are being reviewed from a governance lens – leading to active participation of data leaders in the review boards, IT forums and committees.

## Modern technology, a key differentiator

CDOs look forward to technology playing a strategic role in innovative uses, accessibility of data, its governance, scaling up operations and value delivery. Most common example is that of modern cloud architectures and AI-enabled data management practices that are enabling people, technology and process transformation.

66% of respondents are currently using traditional relational databases and 61% respondents are using analytics platform on-prem/ cloud.



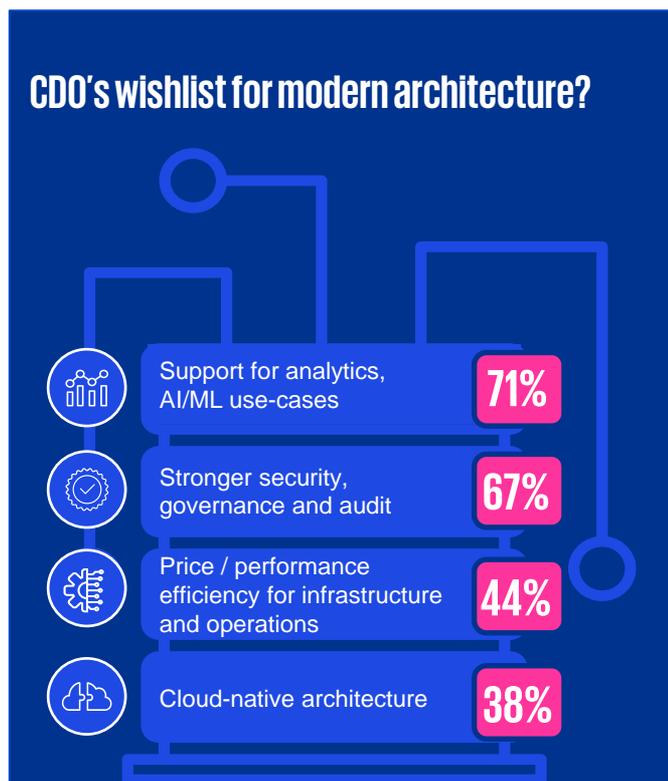
One out of two respondents stated they are using data lake. This can be attributed to the sudden onslaught of new AI/ML use-cases; creating sandbox environment for implementation readiness for data scientists and consumers.

## AI strategies are changing at speed

67% CDOs are seeking to adopt intelligent and automated data catalogues and data marketplace to propagate data management across enterprise. 62% of respondents are looking to invest in generative AI with LLMs with effective guardrails and ethics set-up.

Overall, CDOs are looking to modernise their data and technology landscape in-line with business needs and market trends but are stuck dealing with inertia/ resistance because of over-dependence of business on legacy IT systems/ infrastructure and ad-hoc, disparate and manual processes.

Although organisations are investing in scaling analytics/ AI-ML / generative-AI use-cases and implementing cloud native architecture, there is an underlying concern on security and privacy associated with modern day technology. In well-established and large organisations stronger security and governance is the top choice. The use of blockchain in certified data contracts is still a feeble trend even in the BFSI Sector.



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# 05 Scaling up with AI and cognitive technologies

## Technology that supports scaling up

Modern day CDOs, especially in organisations where basic data infrastructure and tools have been implemented, are still grappling with the fear of going a step ahead.

As data volumes continue to grow, scaling data infrastructure and analytics tools to handle large datasets efficiently is a constant challenge. Presence of legacy systems and siloed working further adds to the complexity.

Data management involves ingesting data from disparate sources and integrating them for analysis and decision-making. This often requires manual steps to collect relevant information, clean and standardise it and make it available for use. Further to this, managing metadata which is the differentiator for creating value requires collecting and managing the understanding of the data/ datasets/ reports which is technically challenging.

Several tools are available in the market, however they often do not talk to each other and the interconnection between the applications and tools is a cumbersome process and often manual.

**67%** seeking to adopt intelligent and automated data cataloguing and data marketplace

**51%** CDOs focusing on increasing speed of data acquisition and insight delivery

Therefore, CDOs are looking forward to AI and cognitive technologies for taking data management to the next level. Along with that they want an integrated and interoperable technology stack, which is easy to operate and automates most steps.



“

While we have had several once-in-a-century type experiences over the last few years, 2023 is the start of the AI revolution. Life will be exciting, fast-paced, and full of innovation.

However, much like when internet first emerged, the sentiment towards generative AI is slightly complex and nuanced. It involves a reality where potential benefits are juxtaposed with a bit of caution owing to risks such as bias and fairness, misinformation, data leaks, responsible and ethical use, all in regulated environments amongst others.

”

Sachin Arora

Partner and Head of KPMG Lighthouse Data, AI & Emerging Technologies

## Next Gen AI-powered data management

As generative AI has picked up steam, CDOs are also looking forward to have an interactive interface to use the tools rather than the traditional way. For example, writing data quality rules, applying policies, designing workflows, classifying data, stewardship etc.

CDOs acknowledge that people dislike doing mundane and repetitive work which can be manual, error-prone and time-consuming. CDOs think of generative AI as the main transformative technology in this field which enables expansion of automation beyond templates and deterministic script generators. As per them, this would be a gamechanger with regard to the adoption and would also increase speed to output. In the future, CDOs hope to see more complex automation with specialised models coming into play and solving some of the repetitive tasks in data engineering and data governance.

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# 06 Productising data

## Unlock the full value of data

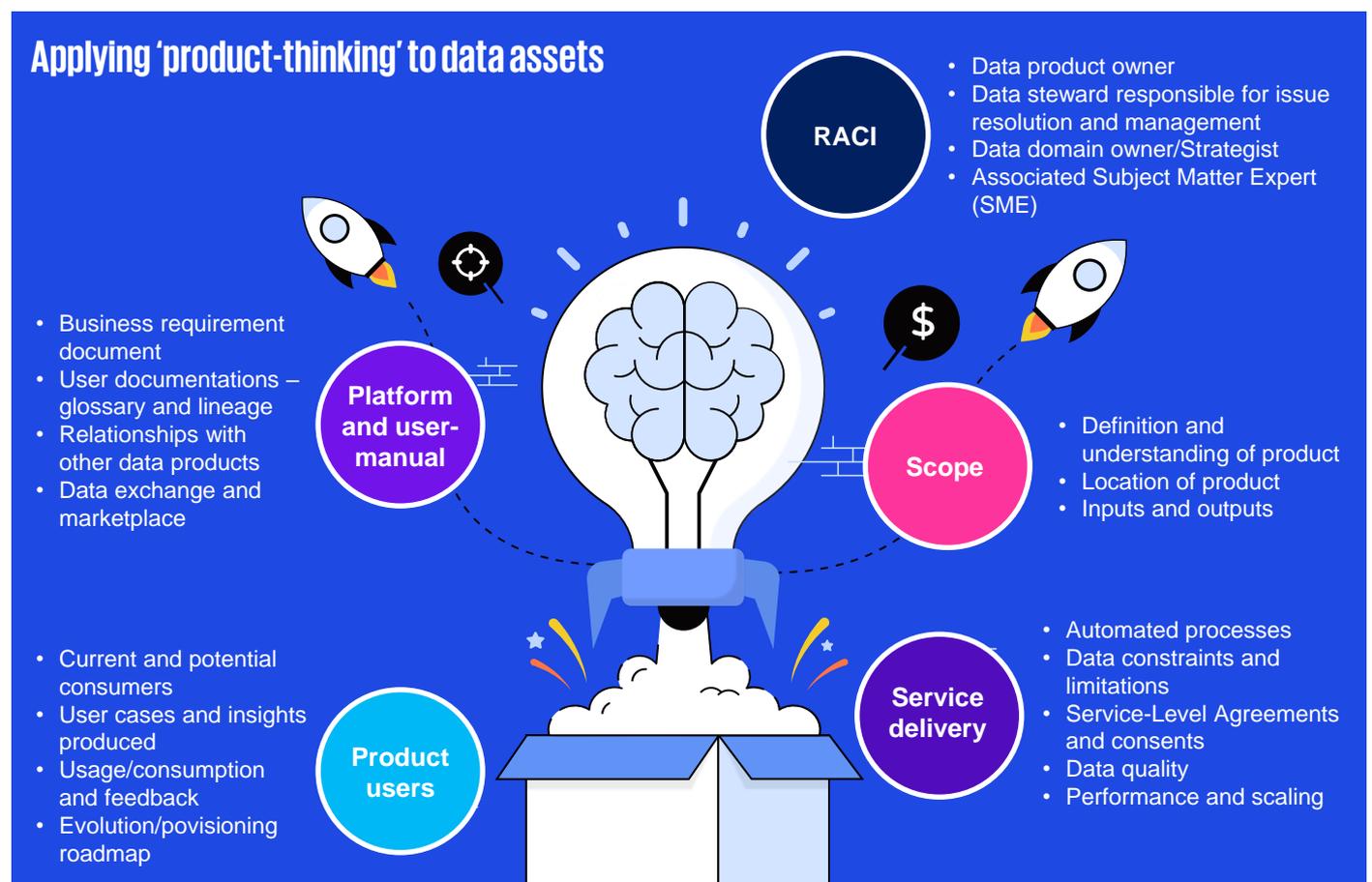
Value of data can grow more with more usage and insights generated from them. Companies are thinking strategically about leveraging data to create value for customers and the business by adding new services, enhancing existing offerings, developing new assets/models, and curating and selling insight-generating data products.

CDOs are playing an increasingly critical role in data initiatives ensuring data is effectively governed, of high quality for AI/ML use-cases and delivering faster time to value. Also, a big part of modern data management is to demonstrate 'visible' value.

With the growing adoption of decentralised data architectures such as data mesh, adopting a product-mindset has become imperative.

CDOs must focus on creating high-quality reusable data and analytics products to aid end-users to make specific decisions. The purpose must be clear – value creation. Although the survey indicated that data productisation is

still a relatively new and upcoming way of ideating and working, it shall certainly re-define the approach to computing ROI and determining the 'real' value of data. This shall in turn positively impact the adoption, outlook and culture-change of an organisation around data.



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# 07 Formalising value from data

## Determining benefits and computing ROI: The struggle is real!

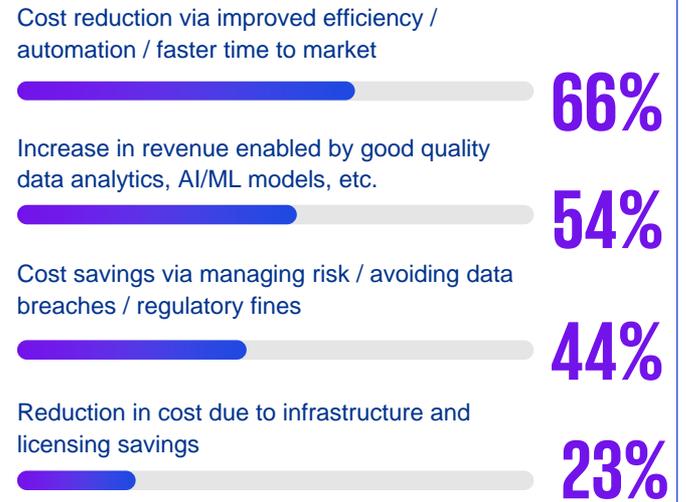
While the CDO's influence and performance are measured by their impact on business outcomes and organisational efficiency, the recurring bone of contention across the board seems to be the lack of sufficient quantification in deducing direct benefits of data initiatives.

**70%** reported an improvement in data quality and higher trust in data

**57%** acknowledged a reduction in time taken to access data and generate reports

**33%** found it easier to scale AI/ML use-case as a benefit of the data management office.

### How do CDO's measure ROI from data initiatives



The most common method of computing ROI is impact on efficiency and cost. However, CDOs and data offices often struggle to ascertain opportunity cost and competitive advantages supported by analytics and insights generated.

Moreover, the key stakeholders holding the purse strings are still more inclined towards impact that can be articulated in tangible financial metrics as opposed to qualitative measures



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# 08 Crossing the cultural chasm

## Change management is the secret sauce to effective adoption

CDOs and data offices recognise that merely having a solid data strategy in place is not enough.

**72%** looking to establish data-driven culture and literacy as long-term strategic objectives of their programmes.

54% of the total respondents have already prioritised breaking data silos as one of their top 3 data initiatives in their organisation. They are undertaking literacy initiatives to generate better insights to target new markets and get closer to customers.

CDOs acknowledge that organisational change is a continuous and long-term process that needs periodic evaluation and calibration. The primary goal is to bring everyone in the common data journey, improve data and analytics fluency, foster a culture of curiosity and innovation, and constantly measure impact with respect to set outcomes.

### Data literacy as a business KPI

71% of CDOs identify themselves as influencers and janitors of data culture in their organisation. 32% organisations are undertaking initiatives such as trainings and literacy assessments. But only 14% are rewarding employees for championing data in their organisations (primarily adopted by pioneers).

As lead change agents and influencers, who are driving the outcomes of any transformative initiative, it is time to incorporate data literacy as a mainstream business KPI for CDOs and data offices.

Interestingly, 79% of CDOs feel that talent shortage is not an impediment to their data-driven initiatives. However, over 87% of organisations are still struggling with establishing a common understanding of data across business units, functions, processes, etc. at an enterprise level. Most initiatives are still being led with a siloed approach primarily since business functions, and therefore data and people, operate in silos.

Other common impediments to data literacy in an organisation are a lack of trust in data due to data quality issues and over-dependence on manual spreadsheets for reporting and analytics. Such challenges can be overcome through conscious, targeted, and well-planned persona-based data literacy programmes and change management initiatives.

“  
**Three major things that we are focusing on in Societe Generale are value from data, reusability and simplification of IS.**  
”  
**Thomas George**  
Director - Global head Trade Data  
Societe Generale

## Which of the below best matches the current state of your organisation's data literacy?

**32%**

Data offices run data literacy programmes, training and conduct literacy assessment

**18%**

Employees across the organisation can analyse the data to build use-cases and narrative

**72%**

Employees understand data and can create their own use-cases - but in silos

**14%**

Data offices train data champions and recognise adopters

**13%**

Employees have a common understanding of data and the processes for managing data at an enterprise-level

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# The path to value realisation

## CDOs powering data-driven transformation

As organisations embark on data led transformation initiatives, CDOs are increasingly appointed as the strategic leaders who can drive data innovation, foster a data-driven culture, and contribute significantly to an organisation’s overall success in the digital age. Over 70% of CDOs identify themselves as data strategists and collaborators. This is likely to become clearer and unambiguous in the near future

## Data offices - The engine for transformation

Today CDOs are expected to be collaborators and bridge gaps between business, technology and data offices to create strong alliances and enable a data-driven culture. The future though is likely going to be more data disconnected – though with more data and more advanced analytics use cases. The question to the data offices would then be how are we creating value for the business? The ambition is to focus both on execution and alignment to provide data marketplace experience for informed decision-making. The CDO’s focus is to drive business value by ensuring that data is available, trustable and monetisable, not just for all within the enterprise but also to the ecosystems of partners, customers and suppliers. We observed a rise in centers of excellence (COE) focusing on delivering this capability to the business and comes under the purview of a data office. Data offices are the new transformation engines.

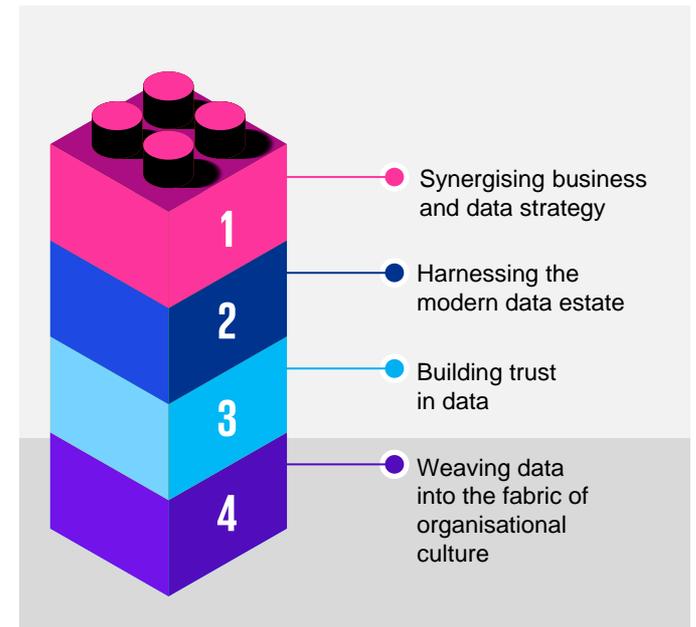
Data offices are better suited to own the setup and operations of a data-focused COE, from analysing the entire data supply chain to educating, governing and driving business value.

## Key interventions that data offices can drive

- Develop and share leading practices to drive a focused approach towards leveraging analytics in the organisation
- Develop and share cross functional use cases
- A federated data office drives data democratisation and drives shared responsibility of data across functions and regions
- Training, sourcing and retaining talent is a key differentiator and this can be achieved through strategic partnerships to drive the innovation agenda of the data organisation
- Drive a culture of innovation from tactical collaboration from startups and external partners

## The building blocks

CDOs are keen to leverage data offices and design platforms that can provide data-as-a-service. Data lifecycle management and platforms as a service emerge as a common wishlist. CDOs can navigate alignment and execution by building four key pillars of data-led transformation:



The execution of these pillars remain fairly entrenched within organisations that share a common vision for analytics and drives a data-driven culture from the top.



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Emerging cohorts of data offices and their perspectives on value realisation

It is established now that the data office plays an instrumental role in driving collaboration, provisioning the pre-requisites and executing the data strategy. The below table provides insights from survey into CDO perspectives in establishing data strategy, innovation, and driving culture change based on the age and maturity of the data office in the organisation.

	Emerging Bloomers Data Office set-up less than 2 years <b>26%</b>	Early Adopters Data Office set-up between 2-5 years <b>38%</b>	Pioneers Data Office set-up more than 5 years <b>36%</b>
<b>Strategic directives</b>	<ul style="list-style-type: none"> <li>Organisations prioritise data-driven insights to foster an innovative and fail-fast culture</li> <li>Explore and adopt data analytics and data management initiatives</li> <li>Dedicated goals to sustain and enhance competitive advantage prioritising the most relevant use cases</li> </ul>	<ul style="list-style-type: none"> <li>Directives toward ensuring maximum cross-functional ROI (e.g., cost reduction, risk mitigation, employee satisfaction improvement)</li> <li>Opted centralised analytics governance structure to ensure prioritisation and execution of D&amp;A initiatives align with organisational strategy</li> </ul>	<ul style="list-style-type: none"> <li>Achieve 'gold standards' in data excellence, where data-driven actions and insights are at the heart of decision-making</li> <li>Progress toward productisation by nominating product owners to develop and manage standardised and high-quality data, and analytics solutions within the business</li> </ul>
<b>Key-competencies</b>	<b>Data strategy</b>		
	<ul style="list-style-type: none"> <li>Developing robust data governance framework that includes policies, standards and procedures – including change management</li> <li>Propagate shared vision of data-centricity and best practices</li> </ul>	<ul style="list-style-type: none"> <li>Nurture existing relationships and form new partnerships with other CXOs</li> <li>Focus and deep-dive into initiatives that will derive monetisable value from data</li> </ul>	<ul style="list-style-type: none"> <li>Communicate the need and value of adopting modernisation to meet strategic goals</li> <li>Adopt a CoE-based outlook to drive innovation</li> </ul>
	<b>Change management</b>		
	<ul style="list-style-type: none"> <li>Breaking functional silos across the enterprise arising from a highly decentralised operating model</li> </ul>	<ul style="list-style-type: none"> <li>Define and initiate a customised data literacy programme which is persona-based</li> </ul>	<ul style="list-style-type: none"> <li>Increasing focus on overcoming challenges adoption of data management policies, processes, metrics and tools (53% of CDOs)</li> </ul>
	<b>Data ROI</b>		
<ul style="list-style-type: none"> <li>Prioritise a few key projects of high value and tangible outcomes, than boiling the ocean</li> </ul>	<ul style="list-style-type: none"> <li>Align on ROI computation to measure business outcomes and enhance investments for upscaling data office and initiatives, acknowledging that value benefits takes time to materialise</li> </ul>	<ul style="list-style-type: none"> <li>Progressive view from 'data as an asset' to modern view of 'data as a product'. Well-defined and accepted ROI-based approach and use-cases (including increased revenue/ growth/ opportunity cost)</li> </ul>	
<b>Data hygiene</b>			
<ul style="list-style-type: none"> <li>Prioritising key reports for cleansing</li> </ul>	<ul style="list-style-type: none"> <li>Prioritising master and reference data for cleansing</li> </ul>	<ul style="list-style-type: none"> <li>Prioritising transaction data for cleansing</li> </ul>	



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# Step 1 – Synergising business & data strategy

## Zero-degree separation between business and data

Business sees data as a key enabler to outcompete in the market. Many companies and C-suites drive their business strategies, measure shareholder value and execution success by leading the data strategy in close relation to the data capabilities. Clearly for data and AI to outperform and deliver on their true potential, it is important that the entire data and technology organisation shape themselves as change agents and work with zero-degree separation with the business.

There is an increasing focus on targeted business outcomes to be driven by data. Their responsibility is no longer limited to managing data but also includes driving innovation and digital transformation

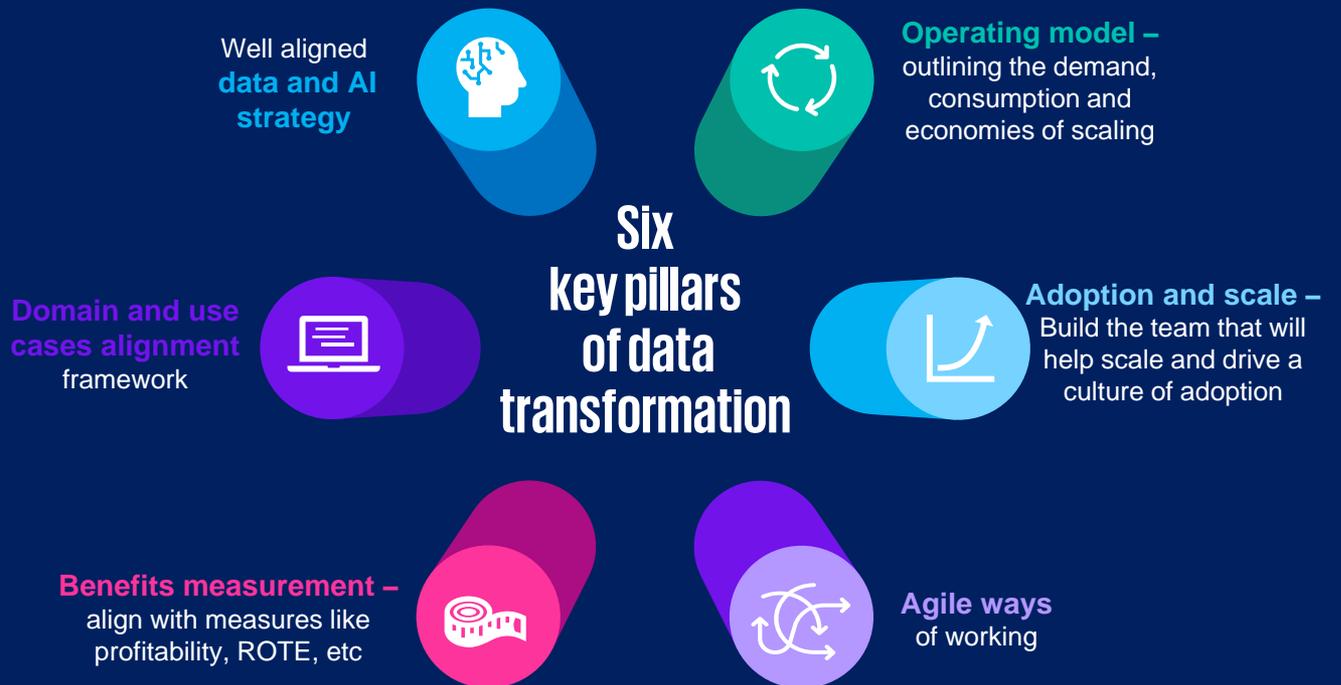


The rise of the CDO and CDAO role in India reflects the global trend of managing data as an asset to power an organisation's strategy. Coupled with the rise of innovations such as AI, the opportunities for quality data and analytics to support business outcomes are vast. Frameworks and governance are a key part of supporting the business in transforming whilst also mitigating risks.



**Judy Bennett**  
Head of Data Governance  
LSEG

The respondents of the CDO survey cleverly navigate this importance of alignment and execution by building six key pillars of data transformation:



These six pillars of transformation, articulate the “**how to align with business strategy**”. The execution of these pillars remain fairly entrenched within organisations that share a common vision for analytics and drives data driven culture from the top.

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# Step 2 – Harnessing the modern data estate

## Data for AI

Business today see three significant drivers of change, pushing towards modern data estate

- A strong tailwind driving technology upliftment and analytics driven organisations
- Rapid digitalisation during the COVID crisis, giving impetus to increasing focus on innovation
- Revenue potential of AI and related technologies

With these drivers of change, there is a strong push towards modern data estate. While there are macro conditions driving this change, CDOs believe that technology for data management is accelerating the delivery of use cases. From only a subset of data being made available to data being generated right through the data supply chain, CDOs are now the prime enablers for the modern data estate.

A consistent technology stack coordinates data collection, integration and management, enables teams to perform high quality real-time customer analytics, and effectively collaborate and consume those insights through integration with business processes.

An organisation’s data needs are complex and some are stuck dealing with inertia/resistance because of over-dependence of business on legacy IT systems/ infrastructure and ad-hoc case-by-case and manual processes.

While building a robust ecosystem, one needs to account for a variety of data and users, vast amounts of legacy and adopted technologies, processes, policies and needs like machine learning, business intelligence and IOT.

In this pursuit, the focus on modernising is based on four essential elements : Cloud native architecture, Self service ecosystem, Data-as-a-product and API integration.

While the above factors are exciting and also underscore the critical importance of modern data estate, it is imperative for the CDO organisation to be clear about the responsibilities that it will carry and deliver.

- Architecture is designed to scale, flexible to support new data sets and robust to support strong governance
- Build data-as-a-product
- Make data estate integration and interoperability as a foundation
- Left shift data management and data operations with a renewed vigor
- Train and build a culture of shared data responsibility
- Above all, measure data value and be clinical about the economics of analytics

## AI for data

This survey also clearly brought out that CDOs are increasingly leveraging automation and cognitive capabilities, in the areas of data management and governance.

Some of the emerging use cases include AI-driven data quality tools that can detect anomalies and errors in datasets, AI-powered workflow automation platforms that can streamline data-related processes, reducing manual intervention, data classification and tagging and automation of enforcing data governance policies with the organisation.



**We’re at a pivotal time with the advent of generative AI and emerging regulatory and compliance requirements. Vital prerequisites for the CDO to scale these opportunities are the mandates of strong data governance, data risk controls and data ethics.**



**Mike Meriton**  
Co-founder,  
EDM Council



**67%**

**CDOs are seeking to adopt intelligent and automated data cataloguing and data marketplace to drive better governance**

**48%**

**of respondents who are using data lake (on prem/cloud) services**

**62%**

**of respondents are looking to invest in generative AI with LLMs with effective guardrails and ethics set-up**

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# Step 3 – Building trust in data

## Trust is everything

The future is at the cusp of being driven largely by AI driven decision making. While there is a substantial change in how business decisions are influenced and driven by AI, it is vital to be able to trust them. Trust though is a large umbrella statement that includes every characteristic of data.

Trust is the single profound lever of importance for driving value from data. Trust however is as brittle as a porcelain doll. There are numerous factors which impact trust in data - from being accurate, secure, compliant, and accessible to the right people to being explainable, auditable, governable and reliable.

For the leadership, trust is a primary customer confidence metric. A recent WEF and KPMG survey suggests that - from artificial intelligence to connected devices, from the security of personal information to algorithmic predictions, technology developers and digital service providers, failures have eroded confidence at an unprecedented scale and rate. There is no mistaking the reality that trust is critical today to every organisation’s brand, reputation, profitability, and long-term relationships

“

**Responsible AI must be at the heart of our AI strategy, not an afterthought. By prioritising human-centered design, we can guarantee that AI is inclusive, reliable, and transparent. By focusing on user privacy, security, explainability, and accountability, we can uphold human values and ensure compliance, steering AI to become a true partner to humanity.**

”

**Ankit Bose**  
Head of AI  
NASSCOM



## Building trust by design

As a guardian of trust, the CDO must focus on earning and maintaining data trust, while a number of frameworks and methodologies exist to drive data trust. There are six foundations that a data office must focus on:

- Weave transparency into every aspect of design of data management efforts of the enterprise
- Drive internal consensus on a common business glossary that everyone can rely on to drive collaboration and measure value of data
- Build internal ecosystem to connect data producers, consumers and stakeholders with strong data profiling, data quality scorecards, catalog and metadata maintenance, master data management, reference data management
- Drive a cohesive data management establishment covering metadata, ethics, security and be measured on customer confidence. Explore and leverage active and passive metadata for functional use cases throughout the data lifecycle
- Context is the lynchpin – drive this through domain, metadata, enrichment and business aligned use cases
- Enable literacy as the single most important purpose of the organisation

As businesses are adopting artificial intelligence (AI) to accelerate value, AI also holds the potential to introduce new challenges and risks. These challenges and risks can potentially derail the trust that companies try safeguarding very dearly.

Most often than not, innovations run faster than regulations and so the onus of protecting customer confidence lies entirely on the data office. A failed AI-programme can lead to litigation, negative sentiments, customer churn, reduced profitability, regulation scrutiny, and above all, impact trust!

This is the reason why we need to build trust as a design metric and build responsible AI. data office must continue to drive the following in an AI world:

- Responsible AI strategy
- AI ethics and governance
- ML operations
- AI security

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# Step 4 – Weaving data into the fabric of organisational culture

## Data culture eats data strategy for breakfast

Responses from the CDO community reflect that only 15% were successfully able to arrive and implement direct data monetisation via data-as-a-product initiatives. A contemporary approach to data can provide business teams with advanced and scalable data and analytics capabilities that address business needs across the enterprise.

While the art of possible is well laid out, the single most important contributing factor to sub-optimal value generation is data culture.

The natural question then is how does one define data culture and why is the CDO tasked to drive it in the enterprise?

Data culture is the collective understanding and alignment of all the people in an enterprise for leveraging data to drive better business performance. A data-driven culture drives alignment, shared KPIs and thereby a focused effort towards better revenue and profitable growth.

As a CDO, the data value chain is completely owned and delivered through the data office, and it is just right for the CDO to drive culture.

A truly data-driven business makes strategic decisions based on data analysis and interpretation, to better contextualise its actions, personalise its messaging, and drive a more customer-centric approach.

To weave data culture as the golden thread in the cultural fabric of the enterprise, a CDO must consider the following recommendations:

- A culture of services – while data is moving towards getting productised, it is important to constantly being measured from a value and trust that is delivered to stakeholders
- Look at data as a strategic asset - Focus on data monetisation, ROI and productisation trends are dictating and being dictated by changes in the data and technology architecture with the growing adoption of cloud technologies and advent of data modernisation ecosystems
- Shared success from shared responsibility - establish formal data KPIs and metrics and how they are monitored. The more time business and technology spend with data, the more ‘raving fans’ will get created in the CxO groups.

- Leverage technology – for building the right boundaries, making teams successful and driving a transformation at a scale, speed and ROI that it truly necessitates.

While all these efforts are rightly placed, the most underappreciated factor is the amount of time it takes for a cultural transformation of this kind. Enterprises are burdened with the bulge of legacy applications/data sources and legacy thinking around data and all the efforts into bringing about a change is transformative in nature.

There are only two options left to move organisations towards being considered as a data-driven organisation – one is to go through the process of driving data culture in the organisation and other is to wait for a miracle to happen.



“

As our world is becoming more unpredictable given the advent of new exponential technologies, we need to adopt a multidimensional approach to experimentation and reinvention i.e. ‘why’ (ways of thinking), ‘how’ (ways of working) and ‘what’ (ways of doing) - the traditional approach of experimenting on ‘what’ will be short-sighted and focusing on ‘why/how’ will be the source of long-term competitive advantage.

”

**Pankaj Rai**

Chief of Group Data & Analytics  
Aditya Birla Group

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# DCAM benchmarking summary

## Background

The EDM Council has conducted the 2023 Data Management Benchmark report, based on the EDM Council’s DCAM® – Data Management Capability Assessment Model framework. This survey results show how data management has progressed in organisations in the Indian market.

## Key findings

### Demographics

- a. The majority of respondents (45%) come from large organisations with more than 10,000 employees.
- b. The banking sector represents the largest segment (26%) of respondents, followed by the public sector and insurance at 19% each.



### Data governance maturation

- a. A significant portion of organisations are actively working toward improving their data quality management and governance, with most in the developmental or defined stages.
- b. There’s a marked emphasis on defining governance practices, especially in relation to data definitions, structures, glossaries, and ethical data considerations.
- c. However, the achieved and enhanced stages see fewer organisations, suggesting room for further growth and maturity.



### Control and risk management

- a. Data show a notable trend toward a structured approach in managing controls and risks associated with data.
- b. Organisations show a significant emphasis on collaborating between data management controls and other organisational control functions.
- c. Risk management in data access and use is another area with significant activity, though there’s potential for more organisations to move from the defined stage to the achieved and enhanced stages.



### Analytics management alignment

- a. Organisations are placing a strong focus on analytics management, with significant activity in the developmental and defined stages across different facets.
- b. Alignment of analytics with business and data management strategies, data architecture, and data quality is evident. A structured approach (defined stage) seems to be a major milestone for many organisations.
- c. Bias mitigation in analytics, platform development, and cultural and educational considerations around analytics management are areas of growing importance.



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Implications

The data underscore a critical transitional phase in data governance and analytics management among organisations. While many have laid down foundational structures (defined stage), the push toward complete establishment (achieved stage) and continuous refinement (enhanced stage) needs further emphasis. There's a clear opportunity for organisations to elevate their maturity levels. Progression from structured definitions to actual implementation and then ongoing refinement may help organisations harness the full potential of data governance and analytics. The data also suggest a potential knowledge or resource gap in transitioning from foundational structures to advanced stages. Organisations might benefit from dedicated resources, training, or external expertise to bridge this gap.

Recommendations

Organisations should consider not only defining their practices, but also emphasizing complete establishment and continuous enhancement. There might be a need for more targeted resources, training, and external expertise to help organisations navigate the challenges associated with the advanced stages of maturity. Ethical considerations, especially in analytics, should be a priority. With increasing global emphasis on data ethics, organisations should prioritise mitigating biases in analytics and ensuring ethical data practices.

Conclusion

The landscape of data governance and analytics management is evolving. While organisations have recognised the importance and have initiated structured approaches, there's a clear pathway ahead for implementation and continuous refinement. The journey promises better decision making, optimised value from data, and alignment with global standards and ethics



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## About KPMG in India's CDO Outlook 2023

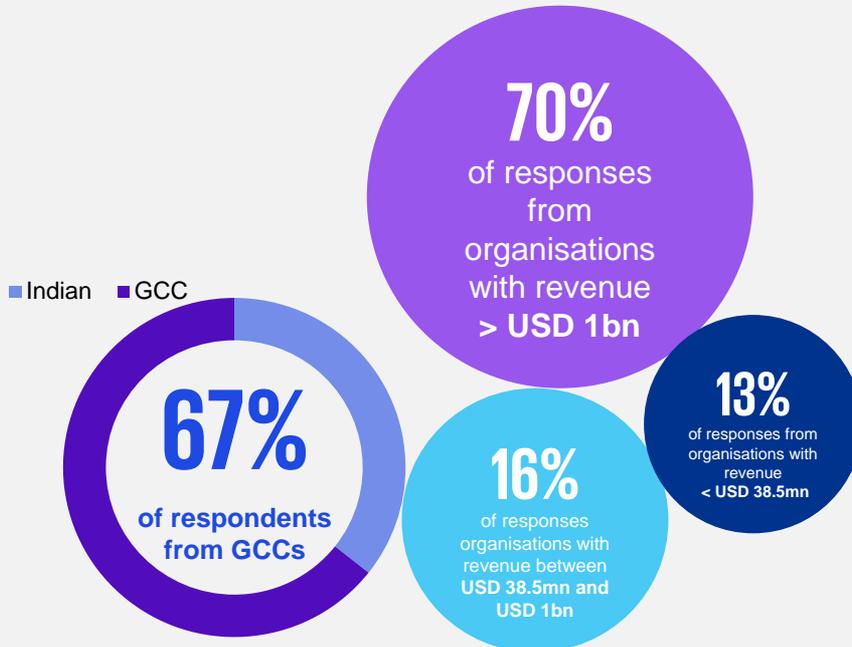
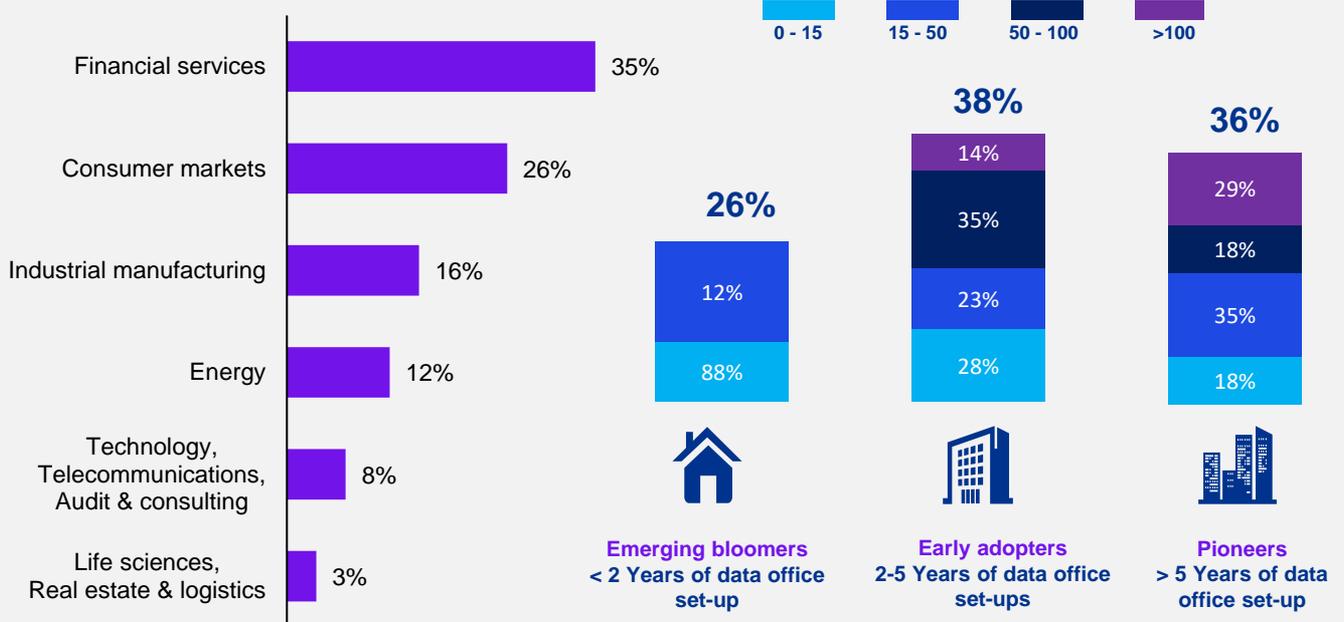
KPMG in India, in collaboration with EDM Council, presents the first edition of the CDO Outlook report. The report has been created by conducting surveys and guided interviews with 75+ CDOs between July 2023 and September 2023. It provides unique insights about the perspectives, viewpoints and strategies of prominent data management leaders, CDOs, CDAOs and data offices.

Adequate representation has been ensured in terms of sector, size, revenue, regional presence, data maturity and age of data office.

We combined the survey analysis with qualitative research gathered through extensive guided interviews with CDOs, data offices and subject matter experts.

The survey included data leaders from eight key industry sectors.

## Survey respondent profiling



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# About KPMG Lighthouse the Global Center of Excellence for Data, AI and Emerging Technologies

Leverage data-driven insights and emerging new technologies to transform your business with KPMG Lighthouse.

## Who we are:

KPMG Lighthouse the Global Center of Excellence for Data, AI and Emerging Technologies combines the latest technologies and capabilities alongside our deep-rooted domain expertise to accelerate innovation and drive speed and relevance to our client’s businesses.

Our people leverage data, analytics, and artificial intelligence to accelerate digital transformation at a global scale.

## What sets us apart

01

We take a business-first perspective

Focused on solving complex business issues with analytics, rather than a technology-first approach



02

Leveraging deep industry and process knowledge

To define problems, articulate and build domain solutions, and deliver broad-ranging services



03

We lead in AI

Across the spectrum, create analytics, artificial intelligence and automation solutions that transform business and operating models



04

At every opportunity, accelerate innovation

Supporting ideas at the pulse of emerging technologies, such as Internet of Things (IoT) and blockchain



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# About EDM Council

The EDM council®  
Is a cross-industry, non-profit, Global association created to lead best practices, standards and education in data management and analytics.



350+  
global member firms



25,000+  
professionals

The prime goal of data management and analytics is to provide trusted and comprehensive capabilities to meet business objectives. To ensure professionals can advance these critical functions, the members of the EDM Council focus on six key areas of advocacy below:

- Best practices and industry work groups
- Training and certification
- Data standards and ethics
- Global collaboration and networking
- Regulation and compliance
- Benchmarking

## Global networking and member engagement

We facilitate the global community. The EDM Council fosters business relationships, networking and events to help professionals implement change in their organisations. This includes conferences, webinars, workgroups and the online community, EDMConnect™.

## Regulation and compliance

We consult and advise global regulators on data and analytics issues. Many regulators are EDM Council members because of our neutrality. They reference our frameworks for internal use and external oversight responsibilities.

## Benchmarking and industry surveys

We assess the progress of data and analytics management across industry. Using the DCAM model provides a standard mechanism to evaluate the state of data and analytics management and its evolution. Members also use the framework to analyse their own firm's progress.

## Best practices and industry work groups

The EDM Council and its members define the capabilities and processes to implement sustainable data and analytics management.



## Data Management Capability Assessment model

DCAM is the best practice standard for data management and analytics, highly adopted by our members cross-industry and by regulators as an independent standard, promoting data excellence. DCAM defines the strategic, organisational, technology and operational capabilities to establish and sustain a mature data management and analytics function – plus enable digital transformation, advanced analytics and emerging generative AI initiatives, while incorporating principles of data ethics.



## CDMCTM: Cloud Data Management Capabilities

CDMC extends the DCAM framework in the era of cloud computing to accelerate cloud adoption while maintaining risk and compliance controls, including for generative AI solutions. This initiative is led by EDM Council with participation from the world's top Cloud Service Providers (CSP): Amazon Web Services (AWS), Microsoft Azure, Google Cloud, IBM Cloud and 100+ leading financial and cross- industry firms. It includes 14 key controls and automations for protecting sensitive data in cloud, which are also now available through the major CSPs.

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ESG Data Management

The ESG workgroup develops best practices in the identification, collection and use of ESG (Environmental, Social and Governance) data. Cross-industry participants include major firms, key data and ratings companies, wealth management firms and leading regulators and standards bodies.



Data ROI

The Data ROI (Return on Investment) workgroup collaborates with industry leaders and SMEs to develop a standard best practice framework for defining ROI of data management programmes, including measuring data as an asset

Training & Certification

We promote learning to prepare professionals for their next challenge, with in-depth training for DCAM, CDMC, data ethics & responsible AI, and OKG/FIBO, leading to accreditation and certification. eLearning programmes cover 7 development tracks and offer 50+ courses.

Data Standards

We advocate knowledge graph industry standards and training, plus global data standards such as LEI, ISO, and OMG.



Open Knowledge Graph & Data Innovation Lab

Members collaborate in the Data Innovation Lab, developing industry ontologies and shared industry use cases. This includes the Financial Industry Business Ontology (FIBO™), an open-source semantic standard describing financial instruments, legal entities and financial processes, for IDMP (Identification of Medicinal Products) for the pharmaceutical and healthcare industry, and for other industries.



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**30** years  
and beyond

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