Developing a CDAO Mindset: A Quick Guide for Technical Professionals

Published 30 May 2023 - ID G00790165 - 15 min read

By Analyst(s): Jason Medd, Saul Judah

Initiatives: Data Management Solutions for Technical Professionals; Lead a World-Class D&A Organization

Technical professionals are often tasked with delivering D&A architecture in the absence of a CDAO role and without understanding the business outcomes expected. This research helps D&A technical professionals develop the CDAO mindset needed to align architecture design with business expectations.

Overview

Key Findings

- Organizations sometimes have no chief data and analytics officer (CDAO) role in place, forcing technical professionals, who often lack the skills or organizational reach to be effective, into the role.
- In the absence of a CDAO, technical professionals' knowledge of what technology solutions can provide and how they can be utilized often places the expectation on them to identify the business outcomes that can be derived from these solutions.
- Technical professionals often use technical language and focus on technical outcomes, which creates significant communication challenges to gaining stakeholder engagement.

Recommendations

Data and analytics technical professionals responsible for data management solutions should:

- Draft a data strategy, if one is not in place, and validate it against business strategy by working with and gaining agreement from business stakeholders.

- Engage business stakeholders using terminology and language that is relevant to them by explaining technical concepts in simple, understandable language and focusing conversations in a way that addresses their priorities.
- Avoid overcommitting with business stakeholders by communicating any limitations you have in your role and providing insight as to what you can realistically accomplish with the resources you have.
- Design data and analytics (D&A) architectures to be flexible in the absence of clearly defined business outcomes by documenting and communicating assumptions and risks to stakeholders.

Analysis

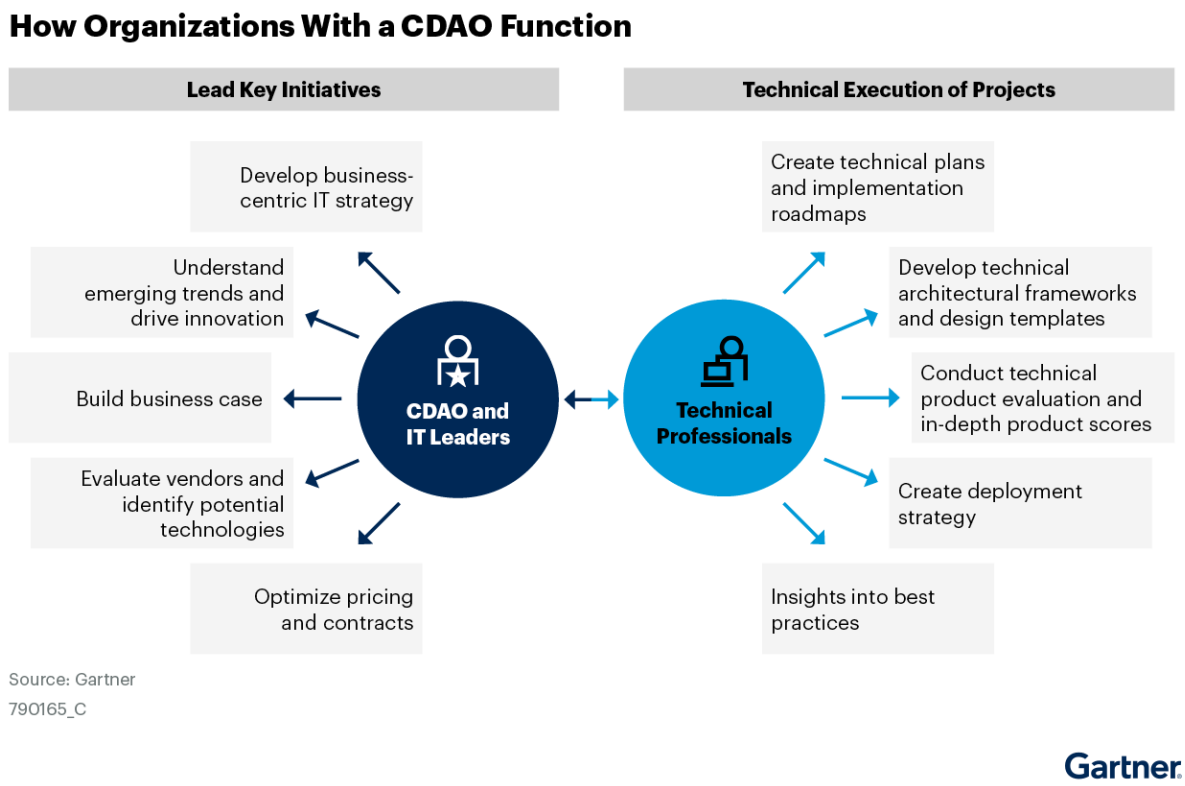
The role of the CDAO evolved to support the creation of actionable D&A strategies, aligning roles, operations and organizational priorities to deliver value to the business. CDAOs focus on strategic concerns, such as:

- Building business cases and engaging stakeholders
- Tracking emerging trends and technologies, and driving innovation
- Evaluating vendors, optimizing pricing and negotiating contracts

These activities, when executed effectively, support technical professionals in delivering and implementing the solutions that deliver value to their organizations. Figure 1 demonstrates how organizations that have a CDAO function typically allocate various tasks related to data and analytics within the organization.

Download All Graphics in This Material

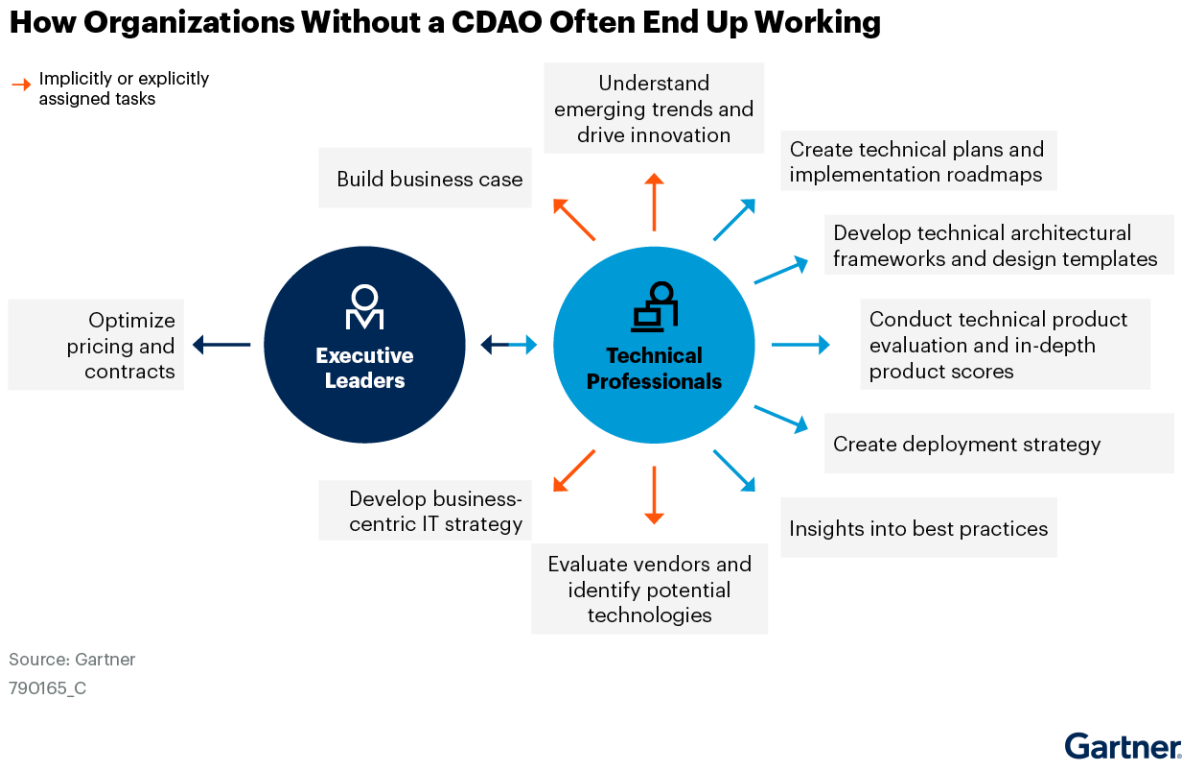
Figure 1: How Organizations With a CDAO Function



However, in many organizations, the CDAO role is not yet formalized. In others, the role may be vacant as a result of a CDAO departure. As a result, technical professionals often find themselves in a position of trying to find ways to deliver D&A value in their organizations without clear guidance on the business outcomes that are required.

D&A technical professionals in organizations without a CDAO function, or where they are not able to interact with senior leadership, often find themselves either explicitly or implicitly having to take on many functions typically delegated to a CDAO. Based on interaction with many Gartner clients, this can include all functions aside from procurement. Figure 2 highlights how the tasks are assigned in the absence of a CDAO.

Figure 2: How Organizations Without a CDAO Often End Up Working



When situations like this arise, technical professionals often attempt to lead or start D&A initiatives. However, they often struggle to connect business outcomes with technical solutions, and sometimes conflate technical success with business success. (See The State of Data and Analytics Governance: IT Leaders Report Mission Accomplished; Business Leaders Disagree for more information.)

While gaps in organization design cannot be completely overcome, there are some pragmatic steps that technical professionals can follow to improve their chances of success. This research provides guidance on determining whether technical professionals need to think more like a CDAO, what that means, and how to begin taking some steps in delivering value through data and analytics initiatives.

Self-Assessment: Do I Need to Think Like a CDAO?

Thinking like a CDAO requires taking a more business-focused view of the value that data and analytics delivers to an organization. While understanding how to implement technology is essential, without a firm foundation as to why data and analytics is essential to the organization, D&A projects can often be left stranded from delivering on business outcomes. It is the absence of understanding the “why” that sits at the heart of why you may need to think like a CDAO.

The following questions provide guidance as to whether or not you need to think more like a CDAO:

- Does your organization have a CDAO?
  - Is the CDAO relatively new to the organization and business processes D&A supports?
  - If you have a CDAO, where are they in relation to the D&A team? If they are in a separate team, is there a way to connect to them?
  - In the absence of a CDAO, what work needs to be done to place the D&A team on solid foundations for delivering business outcomes?
- Is there an up-to-date data and analytics strategy available?
- If you have a data and analytics strategy, is there a clear link with specific and measurable business outcomes?
- Do you understand the business strategy and critical business process based on KPIs and KRIs that support the strategy?
- Do you understand how business KPIs/KRIs relate to the data and analytics KPIs and KRIs in your data and analytics initiatives?
- Do you understand the current business process and how data and analytics processes and workflows support these?
- Do you understand the gaps in the architecture?
- Do you trust in the data supporting the current business processes?

If you are answering “no” to many of these questions, then this can indicate a gap between the D&A team and the leadership.

There can be many reasons why this is the situation. From a technical professional’s point of view, the reasons are also largely unimportant. What is important is that there may be no clear strategy or understanding as to how D&A will support the business.

If this is the case, then you should be thinking a bit more like a CDAO. The next section will help you understand what your main priorities should be.

What Are the Most Important Things to Consider From a CDAO's Perspective That Will Affect My Project?

The role of the CDAO is largely to connect business outcomes to the data and the technology used to manage and analyze it. This involves connecting with business stakeholders and understanding what they really care about and how their performance is being measured. Very often the data will only be a secondary consideration or may not even be viewed as a priority for many business stakeholders.

Speak a Common Language

Engaging with business stakeholders can be a challenge for many data and analytics technical professionals. Very often, technical professionals communicate using technical language or lead with a conversation about the data before fully comprehending the business problem. Therefore, one of the first things to consider from a CDAO's perspective is how to connect with the business stakeholders in a meaningful and productive way.

To help do this consider the following tips:

- Create a data and analytics vision and value that is inspirational and told from the perspective of the stakeholders.
- Focus on the business impact and outcomes arising from an analytic approach, rather than any project deliverables, outputs or tasks.
- Present outcomes both in terms of "What's in it for us" as an organization and "What's in it for you" as individuals.

For more information on engaging with business stakeholders in a meaningful way, see:

- 6 Steps to Obtain Buy-In and Sell Data and Analytics to Stakeholders
- How to Connect Data and Analytics Initiatives to Stakeholders and Their Business Goals

Gauge the Data Literacy of the Stakeholder

When engaging with business stakeholders, consider their level of readiness to participate in a data and analytics project. Business stakeholders must have a baseline level of data literacy to use analytics effectively and to execute their roles as data stewards to govern the data. Very often, projects can be undertaken with the best of intentions but without the necessary skills from business users to deliver on these projects. Governance activities related to data are often viewed solely as an IT problem. Without an understanding of the roles the business has to play as data stewards, data and analytics initiatives often fail to scale and deliver the desired level of value.

To begin assessing data literacy in your organization consider the following actions:

- Examine current dashboard consumption and the number of reports being created by the business.
- Conduct a data literacy assessment using a survey or guided interviews.
- Perform detailed assessments by working with individuals and asking them to extract findings from the dashboard or a dataset and a list of questions they have to answer.

The following research provides further insight into the value of data literacy in supporting data and analytics program:

- Tackle Data Literacy Head-On to Avoid Data and Analytics Program Failure
- CDAOs Must Engage Their Stakeholders to Foster Data Literacy and Deliver the Value of Data and Analytics
- How CDAOs Must Lead Data Literacy and Data-Driven Culture

Know the Role of the Stakeholder in the Project

Stakeholders may have differing levels of interest and agendas in relation to data and analytics projects, and can adopt one or more roles in any situation. Align your stakeholders to the RACI framework; they can be:

- **Responsible** for actually getting the work done
- **Accountable** for the outcomes or results of the work
- **Consulted** while the work is created

- **Informed** along the way about the progress achieved

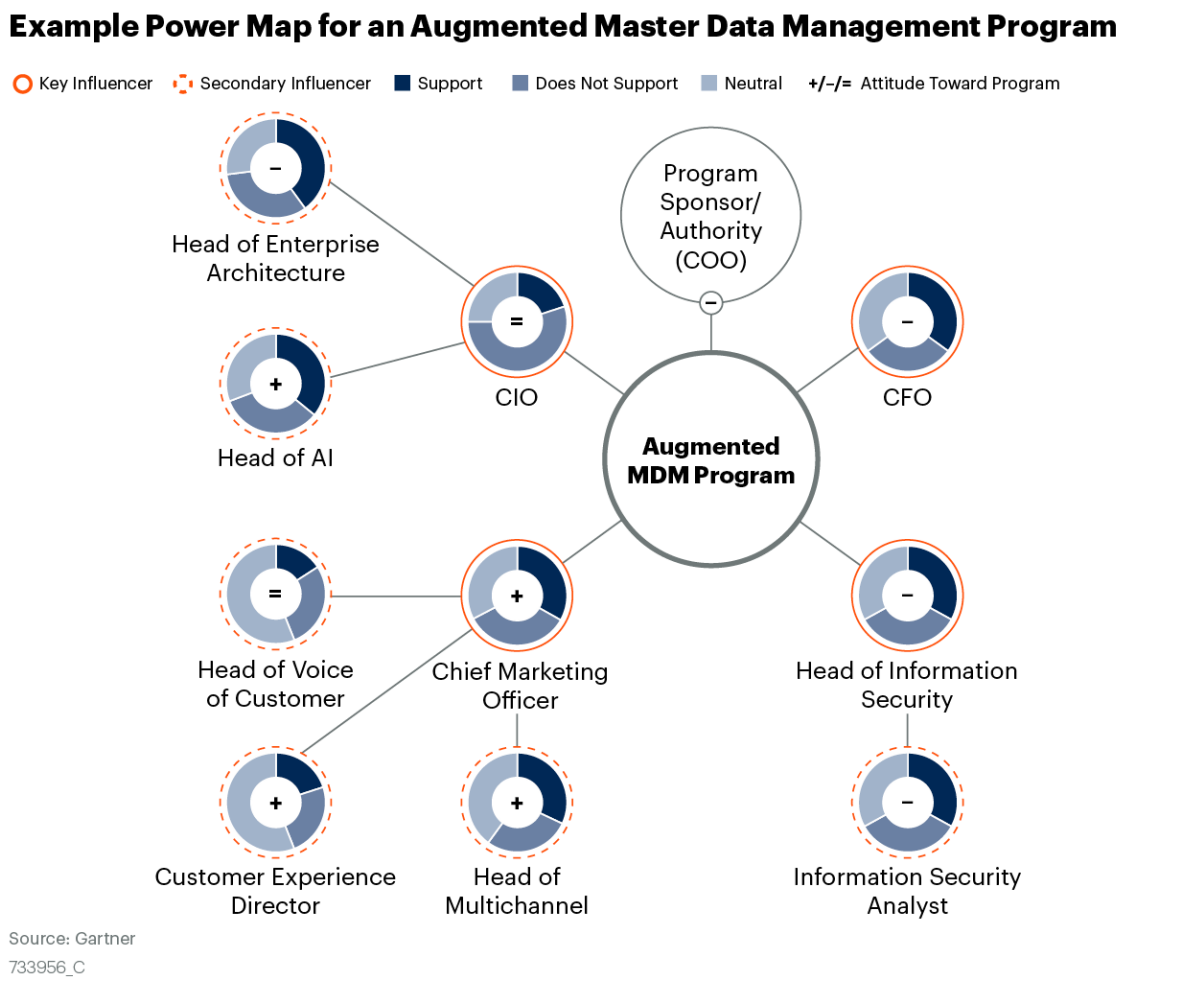
For getting buy-in on a data strategy, your primary contact *must* be the accountable stakeholder, with responsible stakeholders being a secondary priority.

Identifying and managing stakeholders can be challenging. Finding the right stakeholders and targeting the right number of stakeholders to engage is a balancing act. Starting the process involves understanding what you will need from your stakeholders, and what they will need from you. Use the following questions to develop a profile of your stakeholders:

- How is each stakeholder involved in data and analytics initiatives?
- How is this initiative impacting them and their organizational area?
- How are they impacting the initiative?
- What actions and behaviors are required of them?
- What are the consequences of partial or no engagement on their part?

Create power maps of stakeholders and their relationships to provide insight into who will likely support, influence or object to D&A initiatives (see Figure 3 for an example).

Figure 3. Example Power Map for an Augmented Master Data Management Program



See the following for more information:

- Overcome Resistance by Turning Saboteurs Into Allies
- How CDAOs Can Overcome Change Resistance to Deliver the Value of Data and Analytics
- A Practical Guide to Stakeholder Management

Position Stakeholders as Partners to the D&A Team

Finally, consider how the D&A team positions itself to business stakeholders. Technical teams tend to view a client/service model as the most efficient form of engagement in managing requirements and service requests from business users. This model creates a set of expectations that the client (in this case, the business user) must meet when engaging with the service provider (the IT team). While this model can create efficiencies in engagement, it also places the onus on the business users to fully understand what they want from the data and what they can expect from their data and analytics requests. If data literacy is low in the organization, barriers can arise that prevent business users from engaging or even attempting to utilize these services — or alternatively, result in multiple enhancement and change requests that can overload client/service models.

As stakeholders are identified and their needs are understood, D&A teams should develop a partnership approach. This utilizes collaborative working and flexibility to address more open-ended problems or outcomes. A partnership may mean the IT team taking on some additional responsibilities and requiring some nonstandard approaches to problem solving. However, improved access to the business provides the opportunity to better understand the impact of data and analytics on the business, which can influence and improve solution design, and to enhance business users' levels of data literacy.

Taking Action: What Are My Most Important Next Steps?

For data and analytics technical professionals who perceive a lack of a strategy or who notice that current projects fail to deliver value for the business, here are some pragmatic steps to help connect to the business. Figure 4 outline the main steps to follow:

Figure 4: Key Steps for Acting Like a CDAO

Review the Business Strategy

First, obtain a copy of the business strategy and review it. The business strategy forms the foundation of any data and analytics initiative. Understanding and being able to articulate how the data and analytics strategy will impact the business is critical to get stakeholder acceptance and support. The organization's annual report can provide insight into both the business strategy and help identify key stakeholders and what their motivations might be for needing data and analytics.

Identify Key Stakeholders and Strategic Opportunities

Next, after you identify key stakeholders, begin to engage with them. If potential solutions are not readily apparent from an analysis of the business strategy, use the "Process Owner Interview Guide" (below) to help assess business process owners' needs, requirements and gaps as they relate to D&A.

Download the Process Owner Interview Guide

As you engage with business stakeholders, remember that the focus is to help solve a business problem. Avoid both overemphasizing data and using overly technical language when engaging with business stakeholders.

Implementing the Technical Architecture for Master Data Management, under the section "Establish the MDM Vision and Strategy," provides an excellent example as to how technical professionals thought like a CDAO to get buy-in for an MDM initiative.

Document Data Strategy

As you learn about the needs of the stakeholders, the data assets they use and where they would like to go, you can begin to visualize a future state for your data and analytics architecture. Comparing the future state vision with the current state will allow you to document the gaps. This gap analysis will allow you to begin to draft a data strategy. (See Creating a Data Strategy for detailed guidance and best practices for documenting a data strategy.)

Validate and Get Feedback on the Strategy

As the data strategy begins to take shape:

- Begin to communicate with the key stakeholders you have identified.
- Get feedback and work to achieve buy-in on initiatives and timings.

- Continue to engage the stakeholders using a partnership model and position the data strategy with a view delivering value for your stakeholders.
- Leverage your technical knowledge to help business users understand how this will work, without overwhelming them with jargon overemphasizing the technical challenges in relation to the business outcome.

Create the Business Case

Finally, as the strategy gets buy-in from key stakeholders, the business case will need to be constructed. While this can sound daunting, constructing a business case generally revolves around answering five basic questions:

- "What's the business problem/opportunity, and why does it matter?"
- "Can you prove that the problem exists?"
- "Specifically, what are you proposing that will address this issue/opportunity?"
- "What steps will be taken to achieve the solution, and who is involved?"
- "How much will it cost, and what are the risks and assumptions?"

The following research contains more details on how to document and build a business case:

- Business Case Template
- 5 Steps to Build a Business Case for Data and Analytics Governance That Even Humans Will Understand
- Toolkit: Build the Business Case for Data and Analytics Governance

Recommendations

There are a few points to keep in mind for technical professionals who are looking to adopt a CDAO mindset and craft a data strategy.

Technical professionals should be somewhat cautious and not overreach when crafting data strategies. As a technical professional, your ability to connect with key decision makers may be limited. Your credibility to deliver on projects will also be questioned and may limit who is willing to speak with you and how much trust they are willing to place in you.

To help manage this challenge:

- Focus on what can realistically be achieved.
- Deliver value to business users in small increments.
- Communicate expectations, progress, roadblocks, assumptions and risks regularly.

Technical professionals should avoid focusing too heavily on implementing the technology as the primary goal. The goal is to solve a business problem. Be aware of technology/data benefits and constraints and use that knowledge to educate business users. Make recommendations to deploy or not deploy solutions where appropriate.

Finally, avoid halting progress due to uncertainty. Continue to advance on implementing architectures and data solutions in the absence of the business outcomes desired. Continue to make progress but be prepared to adjust as you learn more.

Conclusion

Thinking like a CDAO requires a shift in mindset for technical professionals. It requires thinking more about why a solution would be beneficial to the business and less focused on how to implement it. This requires a different set of skills, much less dependent on understanding the mechanics of technical solutions such as data lakes, MDM or data catalog solutions, and more on business value, outcomes and risk.

Technical professionals who can acquire those skills can still benefit greatly from their technical knowledge. Detailed knowledge about the requirements of implementing solutions, the limitations of automation and the potential insight data and analytics can deliver can be used to improve the data literacy of business users. Data professionals who possess reasonably high levels of business acumen, technical competency and data literacy are strong candidates for CDAO roles.

Technical professionals who choose to think and act more like a CDAO may also find this as a career path for them to pursue, if they develop a reputation for delivering on D&A projects.

Technical professionals who find that this role is not really for them but have pursued this path as a short-term measure can also see benefits. Technical professionals who have a better understanding of the business benefits of D&A projects can greatly contribute to the quality of solutions that are provided and help improve the level of business literacy in their teams.

Acronym Key and Glossary Terms

Power map	An informal method of documenting responsibilities and accountabilities based on how things really work rather than documented processes or procedures. Who really makes the decisions and who bears the consequences of their decisions? Use this information to better align the way things should work with the way things actually work.

Recommended by the Authors

Some documents may not be available as part of your current Gartner subscription.

Creating a Data Strategy

Tool: 5 Effective Ways CDAOs Convey D&A Value

Tackle Data Literacy Head-On to Avoid Data and Analytics Program Failure