The Chief Data Officer: Powering business opportunities with data
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Research methodology

In June 2017, Experian Data Quality commissioned a research study to look at the evolving chief data officer (CDO) role and current data management practices. This report examines how CDOs fit into their organizations and how they view their responsibilities, particularly compared with findings from our 2015 report, “The Chief Data Officer: Bridging the gap between data and decision-making.”

More than 200 CIOs and 50 CDOs in the U.S. took part in the research, produced by Insights Avenue for Experian Data Quality. All 50 CDOs took part in a qualitative survey in tandem with this quantitative research. All participants were from companies with over 500 employees from a variety of industries, including manufacturing, professional services, financial services, retail, utilities, healthcare, and more.
Foreword

Several years ago, the role of the chief data officer (CDO) was introduced and we conducted a study to get a better glimpse into that emerging role. In our report titled “The Chief Data Officer: Bridging the gap between data and decision-making,” we posited that CDOs are at the center of implementing data management and analytics strategies that can lead to an organization’s successful use of data. We also said that the CDO role should work collaboratively with traditional IT and business units in order to translate data into a resource that meets ongoing business needs.

Today, we are finding that CDOs are still indeed facing increased pressure to provide data faster to the business for analytics. Yet, while much of what we predicted holds true today, what we’ve learned since that time is that the CDO role is not always set up for success. In fact, nearly half of the CDOs we spoke with entered their position with no clear remit or responsibilities with few resources and constrained budgets.

While the role is relatively new to many organizations, we see disparities in how CDOs are allocating their time and resources; many of them are focusing on cost-saving projects, rather than on data innovation. Furthermore, we learned that the reporting lines for CDOs can vary greatly between organizations, which in many cases means that they do not sit with the rest of the C-suite.

For businesses to become data-driven, they need to empower this new CDO to ensure quality information that can be used in a meaningful way throughout the organization. In light of the challenges we have observed among the CDO community, we wanted to better understand how the role of the CDO is evolving in today’s business environment compared to the last time we conducted this study.

By embarking on this deep dive into the world of the CDO, we hope to shine a light on the value that the role adds to organizations that are looking to unlock the power of their data.

Thomas Schutz, SVP and General Manager of Experian’s data quality business
Digital transformation

Data is central to how we all live. As increasingly sophisticated technology and changing customer expectations usher in a wave of digital transformation, businesses will be turning to their data to power these initiatives. The overwhelming volume and variety of that data, however, can introduce more obstacles than it solves. Especially when it comes time to leverage it for business decisions or analyses. As organizations today grapple with this issue, they’ve come to realize one crucial lesson: data is only data until you make it actionable.

Making data actionable means that it needs to be accessible, accurate, and standardized. Therefore, it needs to be governed and managed appropriately over its life cycle. At many organizations today, the chief data officer (CDO) is responsible for ensuring that this process runs smoothly. Their core responsibility is to define a data management strategy and translate it into tactical, implementable steps for the business. By ensuring that data is high-quality and accessible, the CDO empowers business users with the information they need to make strategic decisions.

As it turns out, business users crave access to data—lots of data. Through our study, we found that nearly all of the CDOs we spoke to (96%) agree that business stakeholders are demanding more access to data than ever before. Despite the tremendous demand for information, half of the CDOs we spoke to believe that while their data is a valuable business asset, they’re not exploiting it to its full potential. That’s why CDOs are focused on unlocking the power of their data through better data quality and data management. Doing so will enable sustainable programs that empower business users and drive digital transformation forward.

Embracing digital transformation means hiring the right people. Check out our report to see this year’s most sought-after data roles.

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Uncovering the value of a CDO

As organizations continue to rely on their data to drive business initiatives, the responsibilities placed on the CDO will increase as well. In fact, 63 percent of the CDOs we interviewed said that they feel an increased responsibility for data management compared to just one year ago.

In light of the growing focus on data-driven initiatives by the business, the attention devoted to data management is a necessary step toward making data more readily accessible. To that end, our study revealed that nearly half of CDOs (49%) say that over the last year they’ve felt increased pressure to provide data faster to business stakeholders.

You might be inclined to think that the increase in pressure on the CDO would give way to feelings of being under-appreciated and over-worked. To the contrary, we found that CDOs today feel that the value they are able to contribute to their business has increased over a year ago.

Additionally, when we asked chief information officers (CIOs) about the impact that CDOs have on their businesses, a majority of them (88%) said the role adds value to their data management strategy—an increase of 2 percent from two years ago. It’s clear that businesses with CDOs in place understand the tangible value the role adds to their organization.

Top motivations for hiring a CDO

The volume and variety of data that organizations collect and manage today is growing at an accelerating rate, and this makes governing and managing that information increasingly complex. As the demands around data management have evolved over the years, CIOs are finding that they simply do not have the resources to keep up.

This is especially the case for organizations without a CDO role in place. Our study revealed that more than two-thirds of CIOs (76%) who do not have a CDO in place at their organization say that their current role fails to cover the majority of responsibilities a CDO would have—an increase of 8 percent from two years ago.

What does that mean? Organizations without a CDO are not effectively harnessing the potential of their data because, among other factors, CIOs are simply spread too thin. In fact, many of the data innovation projects that a CDO would undertake are not getting done.

That said, we are encouraged to see that a majority of CIOs (82%) believe that there is a compelling business case to hire a CDO in most organizations today.

82% of CIOs believe there is a compelling case to hire a CDO in most organizations.
As Chart 1 above demonstrates, the primary drivers for hiring a CDO role are to capitalize on big data opportunities, create competitive advantage through data, and have a consistent approach to de-risking data-driven projects.

We found it particularly interesting that the percentage of respondents looking to take advantage of big data opportunities increased by 8 percent from two years ago, and those looking to create competitive advantage is up 13 percent! We believe that this sharp increase reflects changing business attitudes toward leveraging data for strategic decision-making.

With growing responsibilities within their businesses, nearly half of CDOs (45%) believe their roles should go beyond control and compliance and more towards enabling business value. As such, the CDO must tackle a variety of pressing data-related challenges.

45% of CDOs believe their roles should go beyond control and compliance.

Learn how organizations are harnessing their data to drive business opportunities in our 2017 global data management benchmark report.

Download
Solving key business challenges

Over the next two years, CDOs predict that the top business challenges will be around improving data security, keeping pace with technology advances, and managing increased customer expectations. **Chart 2** shows the complete range of upcoming challenges. While one could attribute these to digital transformation, we found it interesting that these top challenges also highlight an inherent tension in the CDO’s core mission, which is having to safeguard information while also delivering on data innovation.

Meeting these business challenges requires data that is high-quality and readily accessible. While 96 percent of CDOs say that their business stakeholders are demanding more access to data assets, only 10 percent of CDOs describe their ability to exploit available data to drive the business forward as excellent.
Breaking down data barriers

Why are so many organizations unable to leverage the data they have? As Chart 3 demonstrates, there are many reasons for this—chief among them is the ability (or lack thereof) to access data. Furthermore, limited budgets to invest in data platforms and skilled staff coupled with the volume of information can make it nearly impossible for organizations to exploit their data, even with a CDO in place.

When comparing the responses from the CDO to those of the CIO, we noticed that the ability to access data varies widely. In fact, CIOs see the volume of data as a greater barrier to the business’s ability to exploit data. Given that CIOs typically oversee the IT side of the organization, it makes sense that they have access to the data. However, as the CDO role sits between lines of business and IT, they have flagged a clear problem, which is that business users do not have access to that same information. Typically they must submit requests to the IT department, and wait hours or even days for that data.

In order for CDOs to begin tackling their business challenges, they need to focus on resolving these barriers, starting with improving access to data.

10% of CDOs describe their ability to exploit available data to drive the business forward as excellent.
As part of our study, we asked chief data officers their candid thoughts on two simple open-ended questions:

- What is your favorite part about being a CDO?
- What is the most challenging part about being a CDO?

While their responses varied greatly, we did identify several important themes, which we have summarized below.

### Best part of being a CDO
- Always dealing with latest technology
- Having control over the utilization of company data for the betterment of the customer
- Ensuring digital transformation
- Learning continuously
- Being responsible for enterprise-wide governance and utilization of information as an asset
- Leading a team of knowledgeable employees
- Having the ability to implement different approaches to managing data as an asset

### Challenges of being a CDO
- Planning and staying within a budget
- Keeping up with the evolution of technology
- Knowing how to interpret information to solve business problems
- Finding the right people to staff a team
- Meeting increasing customer expectations
- Keeping the balance between business and technology
- Having a lot of responsibility without the possibility for an error
- Getting bogged down in trivial data cleansing or monitoring tasks
- Upholding data security
The CDO’s organizational fit

The role of the CDO is a recent addition to many organizations. In fact, we found that the average tenure for CDOs is around 24 months, which is significantly lower than other C-level executives. That being the case, a consistent message we’ve heard from CDOs is that (despite having a C-level title) they do not always sit in the C-suite. Further, they’re often considered somewhat junior to their executive counterparts.

Through our study, we found this to be a case for a majority of the businesses we surveyed. In fact, the number of CIOs who believe the CDO role will be established at the C-level is down 16 percent from just two years ago! Is it possible that the management of data is not a big enough strategic priority for a C-level role? Or is the investment simply too great for some businesses? Whatever the reason, we’re seeing that CDOs today are not being seen at the same level that they once were, despite the obvious benefits.

Reporting lines

Looking at the reporting lines of the CDOs we studied, it’s clear that there is little consistency between organizations. Chart 4 illustrates the distribution of individuals to whom CDOs are reporting, and to whom they would ideally report.

While a large percentage of CDOs report to the CEO (37%), more than half of them report to IT or line-of-business executives. This is significant because a core tenet of the CDO’s role requires them to bridge the gap between IT and the lines of business, unlocking data...
as a business asset. When the CDO reports into heads of IT or into heads of specific business units, their loyalties can make it challenging to represent both sides evenly.

Furthermore, when a CDO does not report into the CEO, the unintended narrative to employees is that data projects are not seen as business priorities. In order for data-related projects to be given the appropriate consideration, CDOs need to be seated at the table with their C-suite colleagues.

When we asked CDOs who they should ideally report into, 37 percent said that they would like to report into the CEO. This is consistent with our findings that the CDOs should report to a centralized C-level executive and be a part of business-wide strategy. What really surprised us is that a large percentage of CDOs said that they would ideally report into the chief technology officer (CTO), rather than the CIO.

Why is that? We believe that CDOs prefer the CTO’s specific and tactical focus on implementing new technology using data, rather than the CIO’s focus on solving high-level organizational problems. That said, depending on the business, reporting to a CTO can push the CDO even further down the organization’s hierarchy.

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**Turnover**
Given the recent addition of the CDO role, we wanted to know if CDO churn is becoming an issue for organizations. We asked CIOs who have a current CDO whether the same CDO been in place the entire time or if they have already seen turnover within that role. We found that three out of four CDOs (73%) have been in place the entire time, while about 26 percent left the business or were replaced. This tell us that the turnover in this position has been relatively low.

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**While 37% of CDOs report to CEOs, more than half of them report to IT or business executives.**
Distribution
How many CEOs does your company have? While most organizations have one role for C-level executives, we found that this rule does not always apply to the CDO. Our study revealed that three out of four organizations (74%) have just one CDO in the business, which is what we would expect as part of a centralized data strategy. Yet, we also found that more than one quarter of organizations (26%) have multiple CDOs.

Chart 5 shows the number of CDOs within organizations. Surprisingly, we found that 18 percent of organizations have two CDOs and another 8 percent have three. Despite having multiple individuals filling similar roles, more than half of CDOs (53%) believe that data management can still be centralized to some extent—even where it is managed within certain groups or departments.

Resources and investment
For businesses to become data-driven, they need to empower the CDO to ensure quality information can be used in a meaningful way throughout the organization. That said, we’ve already learned that CDOs often lack the necessary authority in the organization because they frequently sit further down the organization’s reporting lines. So, are CDOs really set up for success when they join an organization?

Sometimes they’re not.

We found that less than half of the CDOs (47%) we spoke to were given a clear remit or objective when they joined their organization—a frequent point of frustration and confusion. To make matters worse, upon joining their business, CDOs are given limited resources. Less than half of them (47%) are given the appropriate staffing for their office, and only around a quarter of them are given authority over data across departments. We also found that CDOs are given budget and applicable technology just over half of the time. Clearly, businesses need to be better at empowering their CDOs if they are to be successful.

While some of the CDOs we spoke with seem to have had a bumpy start, since joining their organizations they did report increases in their budgets (55%), authority over data (43%), staffing (43%), and applicable tooling and technology (41%). In addition, three out of four CDOs (72%) believe that their role is well-funded or very well-funded, and nearly all CIOs (94%) believe that the CDO role is well supported by the business today.

47% of CDOs are given a clear remit or objective when they join an organization.
Areas of focus for the CDO

Much like any senior-level role at an organization, the CDO has a wide range of responsibilities. On the one hand, they are tasked with protecting and safeguarding the organization’s data assets, and on the other hand they are expected to drive revenue through data innovation.

In an ideal world, the amount of time a CDO spends between these two priorities should be in perfect balance. Yet, we find that CDOs spend much more time on reactive projects, rather than on innovation. As Chart 6 demonstrates, the areas on which CDOs spend their time is not always the areas on which they would prefer to spend their time.

Through our study, we found that in 90 percent of cases, the top three areas where CDOs spend their time versus where they would like to spend their time varies. This suggests time isn’t being spent where CDOs believe is most valuable. For example, CDOs currently spend most of their time working on cost-saving projects (49%), data monitoring/visualization (47%), and improving the customer experience (45%). Their preferred areas of focus? Data innovation and operational efficiency, by a large margin.
Roles and responsibilities

We know that CDOs don’t necessarily spend their time focusing on the projects they would like to, so what do they believe is their overarching responsibility to the business? Chart 7 shows the breakdown of responsibilities between the CDO and the CIO.

As shown below, CDOs view themselves as being responsible for defining a tactical data management strategy and influencing corporate strategy (49%). In addition to implementing the strategy, they also consider themselves to be the guardians of data, responsible for measuring and ensuring data quality throughout their organization.

While CDOs tend to view themselves as action-oriented and tactical, they see the CIO role as being more analytical. Almost half of CDOs (43%) believe that CIOs are responsible for fulfilling requests for analytics and data insight from business users.

What responsibility do CDOs and CIOs most frequently share? Nearly half of CDOs (41%) say that they have a joint responsibility for setting and enforcing a data governance policy at their organization.

We see the largest overlap when it comes to purchasing technology for the business. CIOs believe they have sole responsibility for providing platforms and technologies to support analytics within the enterprise (43%). Yet, CDOs say they are responsible for a range of technology purchases such as data security technology (88%), data quality tools (80%), data governance tools (78%), and data preparation tools (73%).

Chart 7
Responsibilities of the CDO and the CIO

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<tr>
<th>Responsibility</th>
<th>CDO responsibility</th>
<th>CIO responsibility</th>
<th>CDO/CIO joint responsibility</th>
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<tbody>
<tr>
<td>Define a tactical data management strategy</td>
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<tr>
<td>Be the guardian of data quality</td>
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<tr>
<td>Measure and ensure quality data</td>
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<td>Prepare data for use by the business</td>
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<tr>
<td>Provide technologies to support analytics</td>
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<tr>
<td>Be trusted advisor on analytics</td>
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<tr>
<td>Fulfill requests for analytics from the business</td>
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<tr>
<td>Create innovation centers around data</td>
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<tr>
<td>Set and enforce data governance policy</td>
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<tr>
<td>Drive cross-functional data management programs</td>
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Base: All CDOs (51)
Relationship with the CIO
With an unclear remit at joining, confusing reporting lines, and an inherent overlap in responsibilities, it’s no wonder that CDO’s relationship with the CIO can sometimes feel strained. As it turns out, that tension is much more than just a feeling. The CDOs we spoke with are much more likely to consider their relationship with the CIO as distant or nonexistent (43%), while only 39 percent of CDOs see the relationship as generally positive.

In contrast, when asked about their relationship, CIOs are more likely to consider their relationship with the CDO as positive (62%). Only 22 percent of them say the relationship is difficult, and just 16 percent say it is distant. We believe that the discord happening at some organizations may be a result of unclear expectations or a lapse of communication between these individuals.

How do you improve the relationship between the CDO and CIO? By addressing some of the concerns CDOs have raised, such as ensuring they have a voice in business-wide decisions being made at the C-suite level or by ensuring they have the resources they need. In addition, both roles need to work harder at communicating their needs and priorities.

Conclusion
As digital transformation continues to disrupt organizations, the demand to harness data as a business asset will only increase. Organizations today undoubtedly see the value in hiring a CDO, and those without a CDO understand the value in recruiting them. At organizations where there is not currently a CDO role, more than half of their CIOs (55%) say that they would like to see this role created in the next year.

In terms of organizations with a CDO, we expect to see an increased focus on enabling data analytics in the next year. To that end, the CDOs we spoke to are planning to invest in analytics tools (39%) in addition to hiring data analysts (65%). Other areas of investment over the next twelve months will include data management technology and third-party data, for which they will be hiring data scientists, data protection officers, and data stewards.

All of this attention to embracing digital transformation is a good thing. Now more than ever, the chief data officer is proving to be an invaluable business asset. By being the de facto “guardian of data,” they can ensure their organizations leverage their data to its maximum potential, while doing so in a responsible and safe manner.

Who manages your data strategy is just as important as the quality of the data they manage. Ensure your CDO is set up for success with high-quality information. Learn how we can help you.

Get started
About Experian Data Quality

Experian Data Quality enables organizations to unlock the power of data. We focus on the quality of our clients’ information so they can explore the meaningful ways they can use it. Whether optimizing data for better customer experiences or preparing data for improved business intelligence, we empower our clients to manage their data with confidence.

We have the data, expertise, and proven technology to help our customers quickly turn information into insight. We’re investing in new, innovative solutions to power opportunities for our people, clients, and communities. To learn more, visit [www.edq.com](http://www.edq.com).