CHIEF DATA OFFICER IN THE NEW

The next champion, an evangelist, a change agent
Who is the one person you could count on for immediate action in your organization, if the regulatory authorities decide to expand the scope of what constitutes a data breach and up the ante on the penalties? Who could you turn to if your competitors start getting ahead of you in predicting the changing customer demands and quickly tweaking their portfolio of products and service? Who is best positioned to ensure that the crucial investment decision you are about to make is based on trustworthy data?

If the persona of the Chief Data Officer (CDO) did not come up, then it is time to reconsider how your business is organized, or rather ask why is it not organized around data?

Increasingly, it is becoming clear that while CDOs execute data programs, they play a much larger role in the overall data-driven organization. They help build the critical enterprise foundational capabilities—technology assets, analytics enablers, business and governance processes, and talent and partnerships—to drive business. Although CDOs are best positioned to give their organization a competitive edge, most businesses, however, are not clear on how to translate the theoretical virtues of this role into reality. Why not?
Problem rooted in legacy

Having scaled their business without an explicit consideration to an enterprise-wide data strategy, most established enterprises today have hundreds of independent data silos, a plethora of legacy systems, applications and data platforms waiting to be decommissioned and migrated to newer models, and pockets of duplicated capabilities across businesses and functions.
For years, IT has served as the “default home” of data—accessed when required to meet a specific business requirement. However, digital natives (leveraging structured and unstructured data) challenged this model by transforming data into a business asset—here, data is continuously providing insights and clues into the business—where it is and could go. Data is no longer an enabler of the business, but data is steering the business.

Thanks to new technologies, principally artificial intelligence (AI) and machine learning (ML), these companies are successfully creating boundaryless ecosystems, reaching across the traditional boundaries of the enterprise, and sharing internal and external data, insights, products, services, and campaigns. They can increase operational efficiency and reduce cost, respond at the point of need to customer demands, anticipate and build new offerings on very short notice, and personalize communications, offers and promotions. These are precisely the aspirations the “CDO in the New” can help fulfill by freeing data from the bounds of its legacy constructs including technologies, processes and culture, and by building the right set of capabilities.
Vacillation in defining the role of CDO

The deluge of data has swept the role of CDO into prominence, but there continues to be a lot of confusion surrounding their mandate, areas that they should own, place where they should sit within an organization, who they should report to and which business vision they should help fulfill.
With so much evidence today that data could be transformed into one of the most valued business assets, why are companies not able to organize their business, process and people around data?

According to NewVenture Partners, 67.9% of the companies that were surveyed had appointed CDOs, but their role was not well defined, which prevented the CDOs from delivering the desired results. It is obvious now that without an enterprise-wide data strategy which is in keeping with the CEO’s business strategy, CDOs will be given a number of responsibilities from many quarters of the organization and will have as many KPIs for measuring their success—for example, improvement in data quality, establishing clarity of data lineage, improving access to data, raising the speed of bringing on new data, integrating new data and analytics partners, accelerating migration to cloud, improving customer interaction feedback. This could also result in a divergence between where actual effort is spent vs. where it should be spent, which might include growth in revenue and market share, improvement in analytical capabilities, driving up speed to market, and addressing evolving regulatory priorities. This divergence has been well highlighted in a recent Gartner survey—although the creation of a data-driven culture was ranked as the number one critical factor to the data and analytics team, there were conflicting activities that were getting priority. Similarly, although “poor data literacy” was rated the number one roadblock to creating a data-driven culture and realizing its business benefits, the creation of a data literacy program was the twelfth ranking strategic activity in the survey.

Why this disconnect? Part of the answer lies in the fact that it has been much easier to build a specific solution to address a specific problem—for example, developing a customer acquisition model to improve a campaign’s effectiveness. This, as opposed to building the data infrastructure and data flows, along with the advanced analytics engines and talent with which to build any kind of customer-facing model, whether it be for acquisition, retention, or servicing. This will require a strong commitment from the leadership to take a broader and more holistic approach: first, understand the existing and required data, analytics, talent and technology across the enterprise and business functions; and second, develop the necessary capabilities that can serve evolving use cases.

In this short point of view, we argue that the CDOs are best positioned to give their companies a competitive edge, provided there is an enterprise-wide data capability initiative that is an integral part of an enterprise-wide data strategy.
The role of the CDO first came into prominence in the financial and healthcare industries, essentially to ensure greater data protection and privacy and comply with stricter regulations. ³

From backstage to frontstage
Understandably, the early CDOs came with varied backgrounds—operations, data management, risk and regulatory compliance, to mention a few—with responsibilities primarily for data quality, data management, and compliance. Since then, their role has been evolving, and today it is considered much more strategic to the organization’s objectives.\(^4\)

As their role evolves, so will the parameters of their success. For instance, if today the success of CDOs is measured in terms of their contribution to delivering data capabilities, tomorrow it may be in terms of how they form partnerships with businesses and external partners to deliver new products and services in support of the CEO agenda. Moreover, as AI and ML start playing a greater role throughout the data supply chain, the success of CDOs will be measured in terms of how they also drive operational efficiency in the front, middle and back-office areas. Any data-driven transformation effort will not yield the desired results if it is not accompanied by an organization-wide data literacy (how to derive meaningful information from data) and talent transformation programs (developing the right capabilities to leverage new data). This change management is, indeed, a big task, which could be led by the CDO.
Whose table should the CDO sit at?

If the scope of responsibilities is so comprehensive and the role is thought to be highly strategic to business, then who should the CDO report to?
Today, the business environment and data landscape are very different. Increasingly, CEOs are looking to CDOs to help develop new data-based agile business strategies—for example, quickly build differentiated offerings to respond to market forces and gain a competitive edge. They are expected to serve as change agents. Just look around, and you will notice that wide ranging expectations are being placed on CDOs—from developing a data culture to securing compliance with data privacy requirements, powering cyber security with AI/ML analytics and leading the charge on ethical and responsible use of AI.5

As their role and scope of responsibilities become increasingly tied to the business vision of the company, there is greater emphasis on having the CDO role straddle both technology and business and be accountable to the senior-most business leaders of the organization. Defining the reporting structure is just the start of the journey to becoming data-driven. The effectiveness of CDOs will depend upon how well the top leadership empowers them to build the data-driven enterprise. It will also depend on the extent to which the CDOs are able to think and act at an enterprise level and move comfortably between business and technology agenda.
Building data capability for today and tomorrow

Our assertion is that if a company’s focus is on building the capabilities necessary for an enterprise-wide data-led transformation, then it does not really matter if the person to lead this initiative—the CDO—is from within or outside the organization or comes from a technology or business background.
The key is that the CDO brings a few critical strengths that go well beyond data skills. In this respect, the following are some guidelines for what the CDO must do to build the data capabilities:

1. Move to the New
Migrate the enterprise from the old data ecosystem of data warehouses and marts towards the new world of data lakes and cloud, enabling more real-time data flows, and supporting the ever-changing demands of the digital marketplace.

CDOs need to nurture and grow partnerships with data and analytics providers as well as products and services companies. Along the way, they will be required to maintain some parts of the legacy platforms that offer robust capabilities for financial, risk, HR and regulatory functions—this balancing act of accelerating to the new, while continuing to judiciously strengthen the core, will be a critical strength of the future CDOs.

2. Build the New
The data paradigms that have stood enterprises in good stead over the past three to four decades have profoundly changed with the advent of open source hardware, software and analytics, infinite scalability of cloud, and emergence of data lakes to accommodate unstructured and traditional data.

This new model allows system-builds that are significantly faster. But, at the same time, it imposes significant expectations on the business to know how to use the new capabilities with advanced data access and analytical technologies.

The mandate of CDOs goes beyond building the new data platforms. What should an organization do about the intelligence and smarts that are embedded in the hundreds if not thousands of analytical models that were built with the old data and analytical platforms and techniques, which have now given way to AI/ML and big data? This is where the CDOs must be responsible for “analytics migration” as well, that is, carrying the old models and talent into the new ecosystem. The people who built the old models possess the deepest insights into what makes the company and its products and services tick. They need to be transitioned into the new world of AI/ML—a task for which the CDOs are best positioned.
3. Going beyond today’s New

Even as the new environments and capabilities are being built, the data, analytics and technology ecosystem is moving forward at a furious pace.

Hence, the CDOs must adopt even newer ways of doing business and building data systems. They need to embrace agile development models where data practitioners are deeply embedded in the business, execute minimum viable products (MVP) in a fail-fast-and-forward model, and push new engagement models across data, technology and business functions. Also, just when the first wave of the new data has been built, many lessons from other pioneers who pushed the envelope even further are causing companies to revisit the core assumptions behind the New.

For example, they need to ask themselves: which disciplines should be woven into the information flow to ensure that the enterprise can easily understand the foundational assumptions of AI models? How can CDOs ensure that their companies are making ethical uses of AI? Unstructured data was one of the primary reasons the world embraced the infinitely scalable, hyper-performing cloud architectures and big data paradigms—CDOs will need to become well-versed in how to tap into the full potential of this data because the insights and business value to be derived from it will over time outweigh the benefits and insights from the use of traditional internal data.
To push their company even further and position it for the next ten years, CDOs will need the persona, leadership traits and ambition to lay the groundwork today so that their organization can fit seamlessly into the era of the digital ecosystems and the world of the Internet of Things (IoT).

CDO—your “go to” leader for leaping into the future...
If today’s world represents an explosion of data and the power of AI, the next few years will show the present era to be the early baby steps of a massive transformation just beginning.

Your organization must position itself well during this transformative period, even if that vision extends beyond the tenure of the current leaders. Who should ultimately be accountable for setting up the company to thrive in an era of ever-changing ecosystem of business and technology partners, constantly sharing data and insights in an open-sourced, crowd-sourced, infinitely-scalable, real-time data ecosystem? When a hockey puck, a baseball, a car seat, a contact lens, a hearing aid, a truck engine, a (digital) credit card and wearables are constantly emanating data about your customers and products in volumes never imagined before, will you stand by and say that you only need a data repository of your own data? Or, will you want to be a player with the people, technology, processes and leadership to naturally fit into that ebb and flow of a data-driven AI-powered business ecosystem? If you want to breathe life into this vision, then you must enable your CDO now to build foundational capabilities as an integral part of your enterprise-wide strategy.
REFERENCES


3. For example, Basel Committee on Banking Supervision’s regulation 239 (also known as BCBS 239) and the U.S. Federal Reserve’s annual Comprehensive Capital Analysis and Review (CCAR).


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