

Data and Analytics Has Evolved to a Collaborative Business-IT Function: A Gartner Trend Insight Report

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Initiatives: [Data and Analytics Strategies](#)

A set of converging and mutually reinforcing forces indicate data and analytics is shifting toward becoming a core business function. Leading organizations are evolving from centralized, IT-centric D&A teams to a model where data and analytics leaders, from IT and the business, share responsibility.

Additional Perspectives

- [Summary Translation: Data and Analytics Has Evolved to a Collaborative Business-IT Function: A Gartner Trend Insight Report](#)
(25 June 2021)

Overview

Opportunities and Challenges

- Leading organizations are shifting from traditional, centralized and IT-centric D&A functions to a model where data and analytics leaders, from both IT and the business, share responsibility.
- Recent research shows that business units are the bigger spenders for data and analytics. And in comparison with IT, a higher proportion of business areas reported an increase in their spending on data and analytics due to the COVID-19 crisis.
- Data and analytics value is most often discovered in business domains.

What You Need to Know

- Business domain leaders are moving toward sharing control, ownership and responsibility of their D&A functions with IT to accelerate their digital business initiatives. However, they often underestimate the associated complexity and risks while missing strategic business opportunities.
- Upgrading and coordinating the portfolio of D&A skills, fostering data literacy, and leveraging hybrid organizational models across business domains and central teams are critical actions to drive D&A adoption and business value.
- Innovative D&A use cases that deliver the most value to the organization are most often found in the business domains where D&A is applied at the point of impact.

Strategic Planning Assumptions

- By 2021, in 75% of large enterprises, the office of the chief data officer (CDO) will be seen as a mission-critical function that is comparable with IT, business operations, HR and finance.
- By 2022, over 75% of centrally organized analytics programs will be replaced by a hybrid organizational model that shares power with local domain data and analytics leaders.
- By 2023, data literacy will become an explicit and necessary driver of business value, demonstrated by its formal inclusion in over 80% of data and analytics strategies and change management programs.
- By 2025, 80% of data and analytics governance initiatives that focus on business outcomes rather than data standards will be considered an essential business capability.

Insight From the Experts

The approach to D&A where central IT provides all services is no longer valid. A distributed approach where business domains take the lead for their own areas is also flawed. D&A should be a shared responsibility between business domain and IT functions, leveraging strengths and core competencies of both.

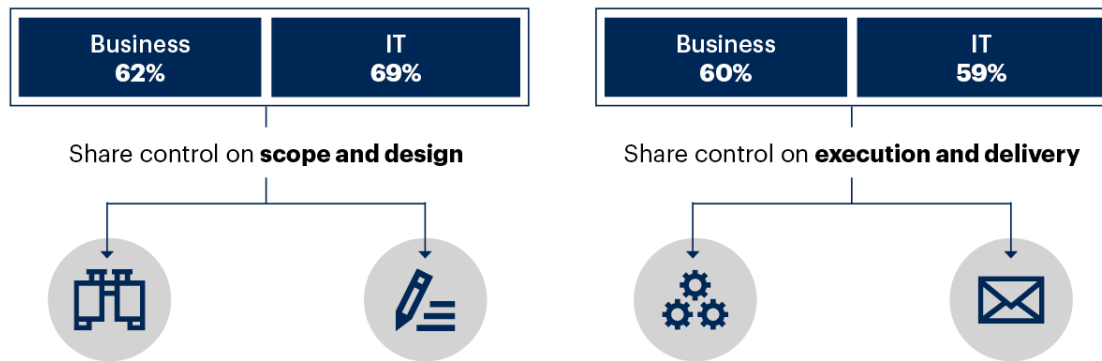
A comprehensive D&A strategy conceives the vision, shared outcomes and value propositions pursued collaboratively by business domains and D&A teams with a mutually agreed pace, direction and cadence of the organization's approach. It enables the successful communication of scope and business impact. D&A leaders should create a strategy and operating model that conceives data-driven business opportunities and orchestrates enterprise action (see [Toolkit: Creating a Modern Data and Analytics Strategy and Operating Model](#)). A data and analytics strategy defines how an enterprise will succeed with its data-driven ambitions.

Success is now increasingly determined by how well leaders inspire the use of data and analytics across an enterprise to fundamentally change business outcomes. This must include the identification of an integrated set of operational D&A capabilities that is required to achieve data-driven goals and to deliver on stakeholder outcomes. For every transformational initiative, leaders should be equipped to advise peers throughout their enterprise about the opportunities to maximize the value of data and analytics assets and about the risks and complexities of doing so.

Most IT-led data and analytics programs are often technology-centric and lack alignment with business strategy and business impact. Business departments or units take control, ownership and responsibility of their D&A functions in whole or in part, but often underestimate the associated complexity and risks while missing strategic business opportunities. Data and analytics must become a shared responsibility across the business domains and IT functions, which was the subject of a recent Gartner research study (see Figure 1).

Data and analytics is shifting toward becoming a core business function. As organizations accelerate their digital business transformation efforts, D&A leaders must collaboratively build business-led D&A, data literacy, data monetization, smarter data sharing and adaptive governance into key business roles (see [Top 10 Trends in Data and Analytics for 2021: Data and Analytics as a Core Business Function](#)).

Figure 1: Business Domains and IT Functions Are Equally in Control

Business Domains and IT Functions Are Equally in Control

n = varies; all respondents

Q: How much control do you have on each of the following in your domain?

Source: Gartner Rise of Business Domain Led D&A Survey; 2020 Gartner Research Circle Members and External Sample

Note: Due to rounding, totals may not add up to 100%

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Executive Overview

Data and analytics is now pervasive across enterprises, business processes and industries — from pandemic response and recovery to personal financial goals, energy conservation and optimizing crop yields. It's not just about reporting financial performance; it fuels business model changes, reengineered decisions and new products and services — the use cases are unlimited.

Gartner and other research studies have found that the business benefit is most likely realized in the business domain ² that is close to the operations and the decisions that need to be made. For example, marketing leaders look for the most effective personalized promotions, sales leaders seek the most qualified leads, and HR leaders strive to recruit and retain the best talent.

Industry verticals also have specific data and analytics needs — for example, retail organizations need to optimize their online and physical store presence. Data and analytics is helping organizations shift business models during ongoing environmental, societal and global changes.

"Domain data and analytics," also known as "line-of-business data and analytics," is a collective set of data resources and analytical methods contextualized for specific roles and business processes within an organization.

So, how should you maximize the value to be achieved from D&A as a core business capability? How should you implement a more collaborative approach to D&A with a business domain focus?

This research collection covers practices in three areas:

- Business domain strategy and operating models
- Collaborative and hybrid D&A organization models and skills
- Business domain and industry vertical use cases and capabilities

Data and analytics leaders should use this research to adopt D&A as a core business function through business leadership in data and analytics, shared responsibility between business and IT, data literacy and data-driven culture (see [Top Trends in Data and Analytics for 2021](#)).

Figure 2 outlines some best practices.

Figure 2: Business and IT Shared Responsibility

Business and IT Shared Responsibility



Source: Gartner
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Research Highlights

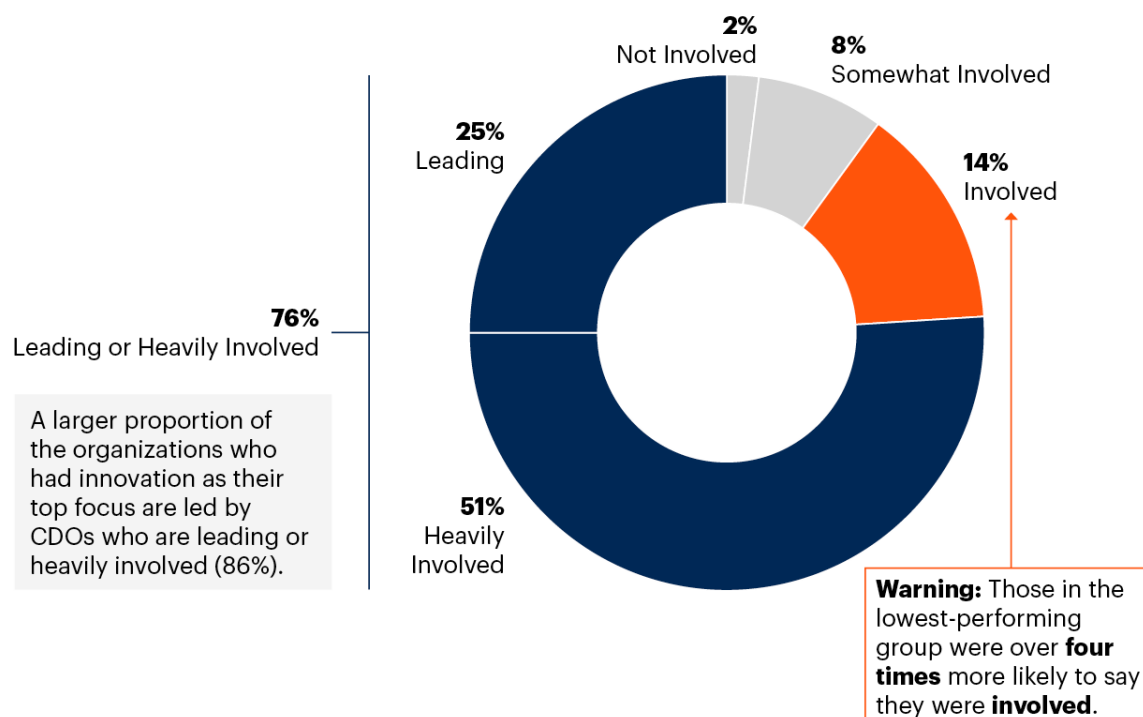
Business Domain Strategy and Operating Models

It is critical for data and analytics leaders to be intimately involved in the enterprise-level business strategy and operating model while adopting the composable enterprise principle that provides more advanced and flexible analytics applications to cope with increasingly complex and unpredictable business needs.

At a time of massive global disruption, the demands placed on D&A and application leaders are growing more complex and changing at a dizzying rate. Success and innovation require that the capabilities delivered by data and analytics applications are modular, rapidly and safely assembled and disassembled, and recomposed as business, customer and market needs shift. Businesses need more advanced and flexible analytics applications to cope with increasingly complex and unpredictable business needs. Per Gartner's most recent CDO survey, top D&A leaders are leading or are heavily involved in digital transformation (see Figure 3 and [CDO Agenda 2021: Influence and Impact of Successful CDOs in the Sixth Annual CDO Survey](#)).

Figure 3: Top D&A Leaders Are Leading or Heavily Involved in Digital Business Initiatives

Top D&A Leaders Are Leading or Heavily Involved in Digital Business Initiatives



n = 174, all not CDO/CAO/CDAO/CDIO/CDO (S03) and those with digital transformation initiative (S08)

Q: "I am the highest level Data and Analytics leader at my organization" or "The highest level Data and Analytics leader reports into me"

Q: What is your personal involvement in your organization's digital transformation initiative?

Source: 2020 Gartner CDO Survey

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And from the same CDO survey, those who said they were the top D&A leader and are leading digital transformation more often report to the business (n = 44: 57% business, 39% IT and 5% CDO). Being a business-reporting CDO may make it easier to assume the lead role, but both business- and IT-reporting CDOs should strive to have the highest involvement in digital transformation.

Gartner provides research and tools to help create a data and analytics strategy and operating model in varying business domains and industries, and to help you address analytic consumer-focused analytics applications. Data and analytics leaders can use this research to develop the optimal approach, avoid pitfalls and overcome challenges when defining the strategies.

Related Research

[Use Gartner's Reference Model to Deliver Intelligent Composable Business Applications](#)

Developing a software engineering strategy that is fit for the future is a huge struggle because business landscapes are constantly shifting and user demands are increasing exponentially. Application leaders should demand adherence.

[Composable Analytics Shapes the Future of Analytics Applications](#)

Open, containerized analytics architecture makes analytics capabilities more composable and able to be more flexibly combined into applications. Data and analytics leaders should adopt the concept of composable analytics to provide consumer-focused analytics applications.

[A Practical Data and Analytics Strategy and Operating Model for Midsize Enterprises](#)

CIOs in midsize enterprises need to prioritize data and analytics activities in support of tangible business outcomes. Gartner's data and analytics strategy and operating model (DASOM) will help them develop a comprehensive, adaptive and agile strategy and model.

[Deliver Business Outcomes for Customer Analytics With Our Practical Data and Analytics Strategy and Operating Model](#)

Application leaders supporting customer analytics initiatives need to embed a more data-driven approach to create business value. Using Gartner's data and analytics strategy and operating model will help you improve your customer analytics execution strategy.

[Using Data Analytics in Board Presentations](#)

This research will help readers understand how CHROs are leveraging data analytics to make effective presentations to their board.

Case Study:

[Continuously Market-Tested Data & Analytics Strategy \(UrbanShopping*\)](#)

Data and analytics leaders striving to extract value from enterprise data face a blinding array of choices. UrbanShopping's approach to a D&A strategy led it to create a D&A sandbox that enabled the rapid market testing of new data products and solutions and drove substantial ROI.

Hybrid D&A Organization Models and Skills

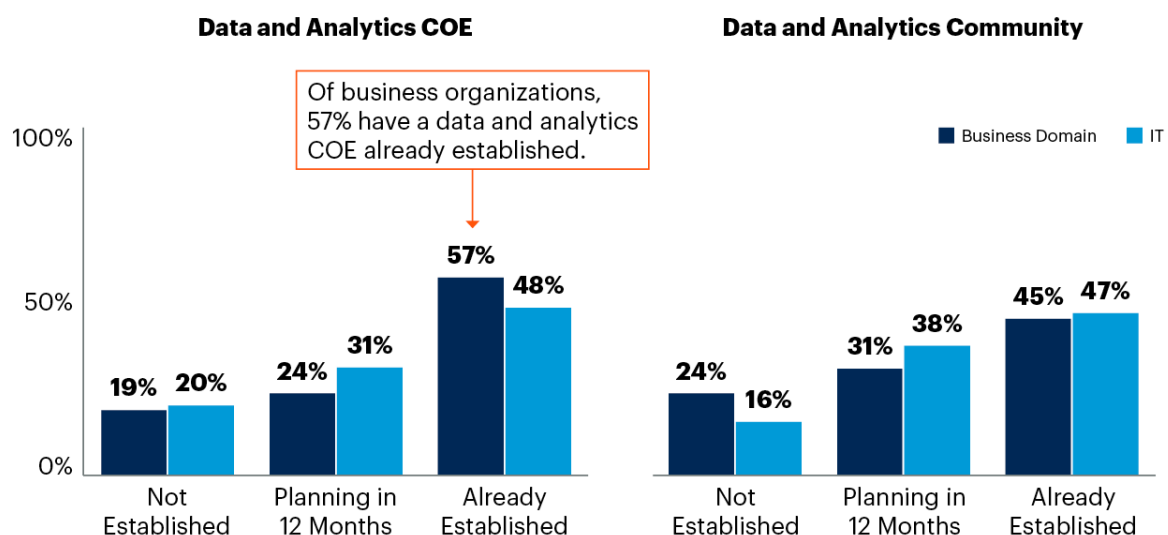
Hybrid organization models are effective.

[Survey Analysis: The Rise of Business-Domain-Led Data and Analytics](#) shows that organizations are adopting more collaborative and hybrid (hub-and-spoke) D&A organization models. A hub, often referred to as the D&A center of excellence (COE), can be centralized or decentralized and can be business- or IT-based, but its intent is to enable the spokes with best practices. While more than half of business domains have an established data and analytics COE, there is also a trend toward creating informal, collaborative data and analytics communities (see Figure 4).

Figure 4: Business Domain COE

Elements of Two-Tiered D&A Operating Model by Business Unit

Business Domain COE



n = 42 (business domain); 64 (IT), all respondents

Q: Does your organization have ... ?

Source: 2020 Gartner Rise of Business-Domain-Led D&A Survey

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Being successful with data and analytics is not just about tools and technologies, but also about people and skills. Tools and technologies can be a failure point, but changing behavior is the really hard part. There is no one-size-fits-all data and analytics organizational model. It often depends on many things, such as the size of the enterprise and its maturity, budget, available expertise, use cases explored, culture and so on. However, there are recommended design principles that underpin successful D&A organizational models — for example, hub-and-spoke collaboration.

Data and analytics leaders can use this research to find opportunities in different organizational models across business domains and industries and to find examples of how to address culture change through data literacy programs.

Related Research

[The State of D&A Organizations and Roles Is in Flux: A Gartner Trend Insight Report](#)

D&A leaders, including chief data officers, must organize their D&A business for data-driven innovation and transformation, while still promoting consistency and scalability. Successful organizations create business value with agile and adaptive teams, skills and behaviors.

[The Current State of Demand for Data and Analytics Roles: Q4 2020 Report](#)

Data and analytics leaders can use this quarterly research to understand market demand for leader and practitioner roles in and outside IT. It includes role profiles for two growth roles: data engineering and product management.

[Survey Analysis: Marketers, Take Note! There's Just Something About Those Chief Data Officers](#)

Gartner's 2020 Marketing Data and Analytics Survey reveals that marketing analytics is often reporting to the chief data officer at large enterprises. CMOs can use this research to learn the benefits and challenges of marketing analytics reporting to the CDO rather than to a marketing leader.

[Define an Effective Team Structure for Supply Chain Analytics Success](#)

Driving adoption of advanced analytics requires a dedicated supply chain analytics team. Supply chain leaders can use this research to evaluate, discuss and select the right organizational structure for their analytics group based on the strengths and weaknesses of each.

[An Applied Approach to Data Literacy Training for HR](#)

As organizations become more reliant on data to make business decisions, HR analytics leaders must strengthen data literacy throughout the HR function. To successfully train HR partners, adopt an applied training approach that teaches data literacy in the context of their projects and processes.

[Data Literacy in Audit Departments: The Role of Audit Leadership](#)

This research discusses the importance of data literacy and how audit leaders' data literacy can play a vital role in the success of audit departments' data strategies.

Case Study:

[Case Study: Enterprise Culture for Data Analytics \(Guangfa Securities\)](#)

This case study shows how the CIO at Guangfa Securities both fosters a culture of data-driven decision making across the organization and lowers the barriers to data and analytics work for local teams and employees.

Business Domain and Industry Vertical Use Cases and Capabilities

As the use of data and analytics increases, so does the complexity of comprehending the wide range of potential use cases and solutions.

Not long ago, D&A may have centered on the simpler discussion of reporting, but now there are many more analytic outputs, use cases, techniques and data formats — yielding an often overwhelming set of permutations and possibilities when considered as a whole. A basic segmentation of use cases (and related data and analytical components) was lacking, and that categorization of useful collections — domains — simplifies the discussion. Thinking in terms of domains and their interplay is essential for all data and analytics leaders.

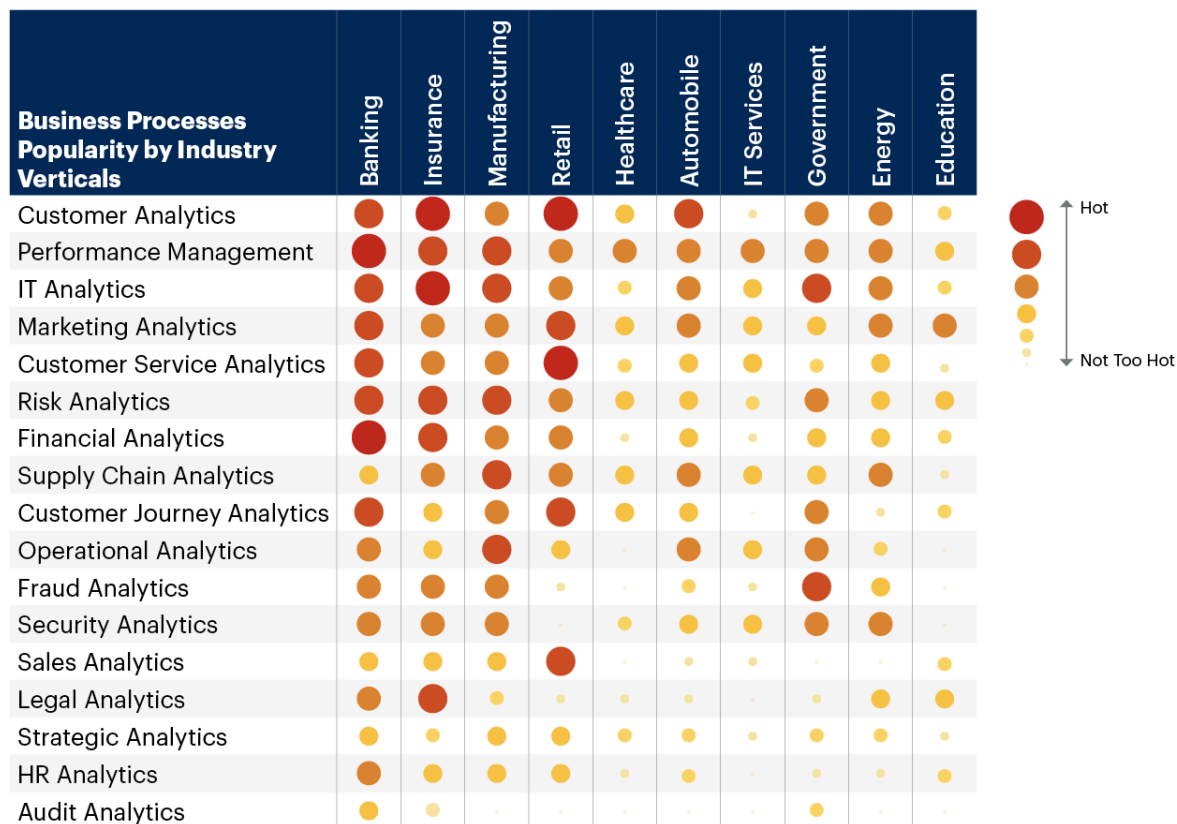
Increasingly, business leaders rely on informal cohorts and communities in lines of business to help them make more informed decisions supported by data. Gartner has observed the following:

- In quality functions, teams use real-time monitoring and text mining to stop recurring errors.
- Retail analytics teams conduct customer analytics to gather early product feedback and optimize regional merchandise.
- HR addresses key talent risks while improving recruiting and retention through analytics.
- Sales analytics provide insights into which leads are the most likely to convert, while finding the optimal B2B customer.

Consider the following heat map as an example of the resonance of the domains to bring clarity to the discussion of data and analytics use cases. Based on the volume of mentions on social media for each use case, Figure 5 represents the traction of data and analytics on social media platforms across industries and business functions.

Figure 5: Heat Map by Business Process Across Industries

Heat Map by Business Process Across Industries



Source: Social Media Listening Tool (1 August 2020-30 March 2021)

Note: Scoring is based on logarithmic distribution of total social media conversation volume.

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Related Research

Across Business Domains and Industry Verticals:

[Uncovering Artificial Intelligence Business Opportunities in Over 20 Industries and Business Domains](#)

This collection of research introduces Gartner's use-case prism methodology to the artificial intelligence realm. This research includes 23 overviews on AI business opportunities in diverse areas such as automotive, B2B sales, banking, digital commerce, insurance, life sciences and utilities.

Business Domains:

[Build Trust in AI and Predictive Analytics for Account Expansion Opportunities](#)

Some technology providers are using AI-powered predictive analytics to improve customer marketing programs focused on account expansion. To ensure the use and activation of these insights by sales teams, product marketers should build trust in predictive models for upsell and cross-sell.

[Finance's Evolving Role and Reputation in the Changing Analytics Environment](#)

In an increasingly fragmented analytics environment, finance is only one source of quantitative analysis among many for business decision makers. FP&A leaders can read this note to learn what analytics approaches deliver true value to decision makers.

[CRM Success Requires Master Data Management Integration](#)

An urgent digital business priority — enhancing the customer relationship — hinges on optimized and integrated master data. Application leaders supporting enterprisewide CRM strategy must prioritize and plan for master data management integration to ensure CRM success.

[Combine Voice-of-the-Customer and Operational Data to Prove the ROI of Customer Experience](#)

Customer experience initiatives lose support and momentum when loyalty and customer relationship leaders cannot demonstrate how their efforts drive financial outcomes. Validate the ROI of your CX program by uncovering the data relationship between customer feedback and operational outcomes.

[Industry Verticals:](#)

[How to Take Advantage of Advanced Analytics in Transportation](#)

With consistent flux in the transportation industry, data is becoming a more valuable asset. Logistics leaders should use advanced analytics to drive continuous improvement and drive down costs throughout their transportation networks.

[3 Best Practices CIOs Can Use to Launch a Focused Insurance Data Monetization Effort](#)

Life and P&C insurance companies can create business value by monetizing the vast amounts of data that they possess and manage, but they struggle to do so. CIOs can learn how to start a focused data monetization strategy using Gartner's insurance data monetization framework.

4 Steps to Drive Sustainable Value for Government Shared Data Initiatives

Government shared data initiatives often show promise as pilots or in early cases, but few scale to other environments, partly due to resistance to risk. Government CIOs should take these four steps to address this, delivering additional value with greater mutual trust.

Case Study:

Case Study: Customer Lifetime Value-Powered Analytics (Seacoast Bank)

Current omnichannel CX strategies add excess costs while missing opportunities to grow relationships in digital channels. Retail banking leaders should look to Seacoast Bank's use of customer lifetime value data in targeted outreach for frontline staff to add value to existing relationships.

Gartner Associates Supporting This Trend

Melissa Davis

Jorgen Heizenberg

Related Resources

Webinar: [Gartner Research Connection Series | Supply Chain of the Future: Balance Talent and Technology Capabilities Needed to Adopt Best Approach to Analytics](#)

Evidence

¹ Gartner's The Rise and Importance of Business Domain-led D&A Survey was conducted online from 13 May-26 May 2020 with 106 completes: 47 were from Gartner ITL Research Circle Members — a Gartner-managed panel — and 59 were from an external sample. 64% of qualified business domain respondents are zero or one reporting layers from senior executives, while 64% of qualified IT respondents are two or more layers away. The survey was developed collaboratively by a team of Gartner analysts and was reviewed, tested and administered by Gartner's Research Data and Analytics team.

² [“Five Insights About Harnessing Data and AI From Leaders at the Frontier,”](#) McKinsey & Company, 25 March 2021.

³ Gartner’s 2020 Chief Data Officer study was conducted to explore the business impact of the CDO role and/or the Office of the CDO. The research was conducted online from September through November 2020 among 469 respondents from across the world. Respondents were required to be the highest level data and analytics leader, the chief data officer, the chief digital officer or the leader with data and analytics responsibilities in IT or in a business unit outside of the IT organization. The survey sample was gleaned from a variety of sources (including LinkedIn), with the greatest number coming from a Gartner-curated list of over 3,450 CDOs and other high-level data and analytics leaders.

⁴ Social Media Analytics Methodology: Gartner conducts social listening analysis leveraging third-party data tools to complement or supplement the other fact bases presented in this document. Due to its qualitative and organic nature, the results should not be used separately from the rest of this research. No conclusions should be drawn from this data alone as it may not be entirely market representative. Social media data in reference is from 1 August 2020 to 30 March 2021 in all geographies (except China) and recognized languages. Additional research contributions were provided by Fahim Talmeez and Ritesh Srivastava from the Gartner Social Media Analytics team.

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