

WHITE PAPER

Governance in the age of data discovery

BUSINESS INTELLIGENCE

Delivering trust and transparency at business speed

As the pace of modern business increases, traditional business intelligence (BI) platforms have failed to keep up with evolving analytical requirements. Business users have adopted desktop-based discovery tools seeking speed and ease of use for data visualization. Unfortunately, these tools lack the BI architecture needed to ensure enterprise-wide data governance. Their popularity has resulted in the proliferation of data silos spreading data chaos throughout the organization.

As a result, the need for organizations to refocus on data governance has re-emerged. Enterprise business leaders demand that a new balance of data management must be established. The new model must promise not only data governance, but also the ability to easily source, share, and manage data across different departments and lines of business with agility. While legacy BI platforms afford analytical strength and governance, they fail to fulfill the needs of today's "discovery-centric" users.

Governance versus agility: The continued evolution of business intelligence

The business intelligence (BI) market is undergoing another major evolution. Historically, the focus of the software category has traded off between centralized governance of data and the enablement of self-service and agility for the business. Today, the industry faces another crossroads in this evolution with the continued adoption of data discovery and contemporary end-user centric visualization products. In the 1990s, tools such as Crystal Reports were the first platforms beyond Microsoft[®] Excel to deliver higher levels of reporting autonomy to the business by enabling a moderately sophisticated Windows[®] desktop user to create and manipulate key reports and distribute them across a team of business users.

In the late 1990s, the proliferation of such reporting tools experienced rapid growth. While they enabled a new level of line of business data analysis, they often resulted in siloed and inconsistent views of the state of key metrics and data across different groups of users in the organization.

In response to this continued proliferation of new tools, corporate IT organizations took back control over reporting and subsequently, analytics, to ensure higher levels of data consistency and trust. As a result, sophisticated BI platforms by SAP® BusinessObjects[™], IBM® Cognos®, MicroStrategy®, and Oracle® combined with data warehouses and data marts to enable IT organizations to inhibit the growth of ungoverned analytical business data. While these platforms created a strong ability to govern data and enable sophisticated BI capabilities, the trade-off for this ability was a slow and expensive centralized process. In the mid to late 2000s, frustrated business users began large-scale adoption of technologies that we now classify as data discovery tools. These tools enabled users to reclaim the self-service aspect of data analysis while offering a wider array of visualization options than those offered by Microsoft® Excel. Today, these data discovery products have become popular within the lines of business across global enterprises, just as desktop reporting tools did in previous generations of the BI marketplace.

Unfortunately, because these tools lack the architecture needed to ensure enterprise-wide data governance, their popularity has resulted in the proliferation of analytical silos, creating what Wayne Eckerson, Founder and Principal Consultant at the Eckerson Group, calls a "spreadmart effect" that undermines trust in the data. As a result, the need for organizations to refocus on data governance has re-emerged. Enterprise business leaders demand that we establish a new balance of data management. The new model must promise not only governance but also the ability to easily source, share, and manage data across different departments and lines of business with agility.

While legacy BI platforms afford analytical strength and governance, these platforms fail to fulfill the needs of "discovery-centric" users. Heavyweight architectures, high expense loads, and sluggish data delivery speeds cripple the ability of legacy platforms to deliver punctual business intelligence at the breakneck speed of the modern business landscape.

"Imperfect but fast" analytical silos deliver speed but at a price

Disillusioned by the cost and time needed to deliver analytics with legacy BI, business users have resorted to data discovery technologies. While data discovery tools provide speedy data manipulation functionality, these tools create analytical silos that hinder the ability to make decisions with confidence. Business users have come to accept data inconsistency as the price to pay to analyze data without depending on a central BI team. As such, they have adopted the maxim "imperfect but fast is better than perfect but slow." This imperfect but fast approach was recognized as long ago as 2015 by Boris Evelson, VP and Principal Analyst at Forrester.

"BI has overestimated the need for a single version of the truth for decades," says Evelson. "If it costs far more to get a single version of the truth, maybe it's wiser to take a cheaper version which is 80% good."

In an attempt to propagate this view, many data discovery suppliers downplay the importance of a unified view of a business. They state that the proverbial "single version of the truth" is a myth and not indicative of the realities of today's business climate.

Much of the backlash against the idea of a "single version of the truth" is due to the massive effort required to deliver it using traditional legacy approaches. The daunting task of manually delivering a truly governed layer of data includes a comprehensive understanding of core business logic, the ability to build and test integrated data models, tools for performing extraction, transformation and loading (ETL) across corporate systems, channels for proliferating enterprise-wide meta data and the need for governancecentric business processes.

The acceptance of inconsistent data in favor of agility is rooted in pragmatism, not in a rejection of better governance. Analysts agree that the need for governed and trusted data remains a key issue for the CIOs and CDOs leading today's analytically driven organizations, but addressing it requires more nuance than past approaches.

66 In the rapidly digitalizing enterprises of today, data and analytics governance cannot remain the monolithic, one-sizefits-all approach it was in the past."

Gartner Research, Adopt SMART Information Principles for Effective Data and Analytics Governance, Saul Judah and Ted Friedman, July 2018.

Today's reality: A need for centralized and decentralized governance

Ensuring BI and analytic success requires acknowledging that some scenarios are more tolerable of imperfect data than others, or don't require a full view of the business. IT and business leaders must recognize that the level and ownership of governance depends on the scope of the use case and reach of data required to perform the analysis at hand. This means enabling centralized (top-down) and decentralized (bottom-up) governance.

For example, it would be impractical for a marketing analyst who needs to quickly understand which campaigns are generating the greatest number of leads to spend time and energy on governance when all the data needed is available from the marketing automation system. In this scenario, a local, bottom-up view of "the truth" is enough for him to make informed and on-demand decisions, and to then share such insights with users in the same lines of business.

However, for cross-operational corporate-level business performance metrics, people will seek a broader, more complete understanding of the business and the ability to work with trusted, consistent data becomes critical. For instance, lead-to-cash analysis requires data from three different departments—marketing, sales, and finance—and three separate systems—marketing automation, customer relationship management (CRM), and enterprise resource planning (ERP). In this scenario, a consistent and reliable view of the information between departments and systems—one that provides a common definition of "lead" or "revenue," for example—is necessary to avoid confusion and conflicting decisions.

Gartner supports this approach. In its research report, "Adopt SMART Information Principles for Effective Data and Analytics Governance," by Saul Judah and Ted Friedman, the firm recommends that you: "Establish rightsized data and analytics governance by starting with business outcomes to scope the right approach, level and investment required."²

But good governance isn't just about making confident decisions. Not only does poor governance fail to provide trusted data, but it also can compromise regulatory compliance, privacy and security to a disastrous degree. This is particularly true in the era of big data and data lakes, where poor data quality inconsistency, redundancy, etc.—is a natural consequence of storing massive amounts of data without preparation or little organization.

Analytical silos offer speed and autonomy to analysts working with specific localized use cases. To expand the reach of analytics across the enterprise and support business-critical metrics that touch multiple systems, a trusted and global view of the business is essential.

These are capabilities companies should look for when evaluating BI providers:

Reusability—Enablement of users to create their own measures and dimensions, and instantly make them available to all, while complying with defined security roles and permissions.

Navigability—The ability to search and browse data and business terms (metadata) across all analytic content, including data sets, visualizations, reports, and dashboards.

Security—Multiple layers of security can be added to user, role, object, or data-level during discovery and consumption to ensure the right people have access to the right data.

Networked—A network of interwoven virtual BI instances that share a common analytical fabric, for seamless sharing of measures and dimensions between individuals and groups.

Completeness—Governance and visibility across all data sets, set once, and available forever. Reliable data lineage. No dark data.

Consistency—A single view of governed measures and dimensions, for users in both discovery and centralized use cases.

Transparency at business speed—Delivered without administrative overhead.

The end goal: Transparent governance with the speed your business requires

Transparent governance views the choice between agility and governance as a false dichotomy. The fundamental ideology behind transparent governance is simple; trusted data does not have to be synonymous with restrictive access and lengthy wait times. By implementing transparent governance, organizations can enable local (decentralized) execution with global (centralized) consistency, reconciling speed with trust at enterprise scale.

Having the right technology and creating the right organizational model to support transparent governance is the key to successful analytics. Gartner suggests data and analytics leaders:

- Create a two-tiered organizational model with a centralized team working collaboratively with a collection of decentralized teams distributed throughout the enterprise.
- Empower each local department with a cross-functional team that blends data engineering, data science, and domain expertise.
- Communicate jurisdiction by clarifying when decentralized teams are able to create analytic prototypes, pilots, or full-production solutions.³

Not every BI product available in the market can support transparent governance. From a technology perspective, delivering a unified view of data without sacrificing end-user speed and autonomy begins with modern BI architectures.

Leverage trusted data to achieve business success

The pace of modern business has increased significantly, and traditional BI platforms have failed to keep up with evolving analytical requirements. Business users demanding speed and autonomy have adopted desktop-based discovery and visualization products, circumventing corporate BI standards for tools and data.

Unfortunately, while these products deliver speed and ease of use, they lead to the proliferation of analytical silos and decision-making based on unreliable data. Business users, believing they must choose between agility and governance, seem resigned to accept that self-service comes at the cost of imperfect data. However, leading companies know that there is a powerful and direct correlation between business success and having a trusted view of enterprise data.

Companies evaluating BI solutions must look for modern architectures and organizational structures that support transparent governance at business speed and deliver a unified view of data without sacrificing end-user autonomy. By implementing transparent governance, organizations can enable local execution with global consistency and reconcile agility with trust at enterprise scale.

3. Gartner Research, Create a Centralized and Decentralized Organizational Model for Analytics, Kurt Schlegel, Frank Buytendijk, May 2018.







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Drew Robb, "Getting Good BI Without a Single Version of the Truth," Enterprise Apps Today, Aug 2015.
Gartner Research, Adopt SMART Information Principles for Effective Data and Analytics Governance, Saul Judah and Ted Friedman, July 2018.