This paper investigates the importance of establishing a robust Business Intelligence (BI) governance framework as part of an organization’s BI strategy. Implementing effective BI governance is instrumental in helping organizations pursue continuous evolution of their BI strategy with a view to create business value. This article explains possible BI governance models to consider (i.e., centralized, decentralized, or federated), and key success factors to implement them.

The paper focuses on data quality and change management as a means to overcome a number of common issues such as cultural barriers and lack of clarity in defining strategic objectives. We also examine the impact of diverse and conflicting user needs and difficulties in aligning technology with business strategy. The core principle to achieve BI excellence is to treat information as the most valuable asset in the organization.
A Glimpse at the Business Intelligence Market

Investments in Business Intelligence (BI) and analytics have long been a top priority for Chief Information Officers and senior leaders of finance, and non-finance organizations to transform data into actionable information for strategic decision-making. Using a common set of Key Performance Indicators (KPIs), these investments help improve core business processes through which customers are better served, competitive products and services are launched, revenues are generated, and business performance is effectively managed.

According to Gartner, the market demand for BI applications has grown to US$14.4 billion in 2013, an increase of 8% compared to the previous year, and is forecasted to reach US$17.1 billion by 2016. The high demand for BI platforms is driven by several factors: the increasing need to access real-time data to stay on top of business performance, customer behaviours, supply chain activities, and to address regulatory and compliance requirements. Undeniably, the type of information businesses need to stay competitive is becoming more perceptive than reflective.

In light of these trends, the research suggests that companies will start moving from descriptive analytics and diagnostics capabilities towards predictive and prescriptive analytics. Most commonly, companies utilize BI tools to investigate and reveal what and why performance lagged in some areas and excelled in others. With predictive analytics, data is used to indicate what will happen with performance. The next step with prescriptive analytics is to receive information to help define what actions should be taken to optimize performance. This forward-looking approach allows companies to identify and mitigate potential risks in the future, rather than retroactively correcting what went wrong in the past.

We often observe that an implementation of BI tools takes place as a result of an IT-driven decision. Business reports are typically produced inside an IT department and are pushed out to consumers and analysts with a wide range of business analysis requirements, to answer critical business questions. Analysts need to drill more easily into the data to discover new insights. Once they understand the key driver of their business performance, they increasingly require more sophisticated tools to further identify variables that predict future performance.

Commonly, little planning is given in regards to how the organization will evolve toward a more sophisticated type of analysis. Although the BI market has been maturing in finance and sales areas, there are still considerable opportunities for companies of all sizes to expand their BI capabilities. Areas such as human resources, marketing, and procurement have yet to significantly leverage BI and analytics; as a result, there is significant opportunity for companies to develop competitive advantages by leveraging BI and analytics in these neglected areas.

The Myth of “If We Build It, They Will Come”

The challenges in getting a BI platform off the ground range from data quality and data definition (i.e., conflicts of data definitions used across the organization) to user experience (i.e., how users access and utilize information, their different levels of knowledge). Change management is another significant challenge, in particular how enhancements are prioritized and how to address the constant changes in business requirements.

There is often an incorrect perception that once the IT department builds the BI platform, users will automatically see its benefits, and the organization will realize the returns on their investments within the short term. In reality, BI applications require a multi-disciplinary understanding of the business and close coordination between business and IT issues to ensure...
the real value is realized.

One key deliverable in BI implementations is to create data standardization and centralization to provide a common view of the business. A key challenge, however, is determining what data methodologies should be used to ensure consistent information is understood in the same way across units or departments. Achieving this “single version of the truth” can provide effective decision support, but it is not easy to achieve. This requires bridging the silos within business units and the enterprise-wide BI strategy.

The issue raises numerous questions, such as:

- How do you enable cross organization collaboration?
- How do you connect and engage business sponsors for decisions related to your BI strategy?
- What processes and procedures do you currently have in place to handle changes in the BI platform that align with enterprise strategic objectives?
- Do you have a clear roadmap to evolve from the initial BI implementation and adoption to maturing its usage towards more diagnostic and predictive capabilities?

After reviewing these questions, you may be wondering where companies should look to for the answers. To find the solution to many of these challenges, organizations need to take a closer look at the governance side of BI. Beyond project management, BI governance helps the business to align its strategic objectives with the deployment and utilization of the BI solution.

**BI Governance versus Project Governance**

The definition of BI governance is an integral part of the enterprise-wide management of information systems. It consists of the leadership structure, policies, processes and procedures that ensure the effectiveness and sustainability of BI initiatives. It is essentially a business-driven effort where stakeholders representing the various cross-functional areas meet and decide how to govern their data assets and how to drive their BI strategies to the next level.

Compared to project governance, a governance structure for BI has a broader, longer-term scope to transform and evolve the organization’s competitive advantages by utilizing a BI solution. While project governance is created to ensure the successful delivery of large projects, BI governance is a platform used for strategic decision making to support current and future business needs.

Do not mistake BI management with BI governance. Commonly misunderstood, each actually serves its own distinct purpose: the first is focused on “how” the BI solution is implemented; the latter revolves around deciding “what” BI capability to invest in to boost business growth. It is important to understand this distinction in order to fully grasp the effect BI governance can have on a company’s growth trajectory.

**Governance in Business Intelligence Optimizes Results**

Significant budget and staff resources are often dedicated to the selection, purchase, deployment, and management of BI and analytics solutions. However, these programs
often proceed without a governance framework in place. Among the biggest risks of doing so is the lack of documented business definitions and methodologies for utilizing and integrating BI data into the BI tool.

A study by Gartner\(^3\) showed that companies lose an average of US$8.2 million a year because of poor data quality. Standardized data is a critical aspect that should be part of any BI governance model. But more than a $8.2M loss is at stake: without BI governance, current and future business capabilities are not prioritized and distributed to the right user groups; multiple change requests from several units increase the cost of BI development and its ongoing maintenance; and communication between end-users and IT groups diverge. Proper BI governance is necessary for any organization wishing to utilize its data to the fullest potential.

For example, from a user’s perspective, not all BI initiatives consider how to balance the rigor of standardized BI data with the flexibility required by business users. These users need the right tools to allow them to explore and manipulate the information the way they need, while maintaining a common view of the business. At some point, if data stewards are not assigned or properly identified, changes in the BI solution may deviate from its initial purpose. Additionally, external economic and market factors can lead to changes in business priorities. Consequently, business requirements of the BI data will also evolve in order to answer more sophisticated types of analysis.

In light of those risks, most companies are concerned that their efforts to define and implement standardized data and an overall BI strategy may be wasted if the appropriate governance and controls are not implemented. A Rand Secure Data study\(^4\) found that about 43% of companies in North America do not have formal data governance in place, or are doing so at a departmental level, often in a highly informal manner. As the volume and sources of data increase, companies have difficulty in gaining business insights from these more informal mechanisms.

To more effectively transform data into valued information and insights, data governance must be comprehensive, consistent, correct, and current. BI governance facilitates the evolution of those business needs and maximizes the value of the initial BI investment by clearly communicating the strategic goals and creating clear metrics and objectives.

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4. Randsecuredata.com, 2013 Secure Data Survey
This is not a problem that technology itself can solve. Surprisingly, one of the biggest challenges companies face when implementing BI solutions lies in understanding the impact of the transition across business units and creating tactical adoption plans. So, considering the level of investment many companies put into business intelligence or related performance management applications today, implementing BI governance should not be underestimated. Most BI implementation projects do not factor in the continuous data management, change management, and controls aligned with a clear BI strategy, and this is a grave mistake.

Establishing a BI governance structure will help the organization gain more clarity of the benefits that BI solutions can provide in regards to its return on investments. Regardless of the size and type of business, an organization can benefit from the best practices of BI governance to ensure that current and future business strategies and goals are met.

**BI Governance Orchestrates People, Processes, and Tools**

There are many components to consider when starting a BI governance program including: data architecture, metadata, data integration, data security, end-user information delivery, and change management. Using a holistic approach, a BI governance framework should bring all these pieces together through coordinated processes that connect each of these components with the overall BI vision.

An organization's size, culture, and the presence or absence of a process to manage BI initiatives will determine the appropriate governance model. Often times, an organization already has some data governance practices, which may just be a mix of different names and functions. The first step is the creation of an inventory of current BI processes and categorization by the initial BI objectives set through the governance model. This helps to identify areas that require development of set of sound BI governance practices.

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5. Derived from “Board Briefing On Governance” by the Information Systems Audit and Control Association (ISACA)
Some of the main functions of a comprehensive BI governance framework include:

- **Strategic Planning**
  - Determine the organization’s needs and type of information required.
  - Understand, compare, and assess the current BI maturity stage, and establish future-state BI capabilities.
  - Develop and approve policies, procedures, and standards related to the usage of data, metadata, BI reporting, and analytics capabilities.

- **Ongoing Control**
  - Coordinate core BI governance activities.
  - Monitor and enforce BI policies, procedures, and standards.
  - Communicate the value of data assets.

- **Performance Measurement**
  - Define and implement key performance indicators (KPIs) to measure the value of BI in support of business objectives.
  - Balance the number of strategic versus operationally-driven BI projects.
  - Measure the BI maturity phases.

Such strategic decisions, assessments, and recommendations have a significant impact on how the organization operates. Most BI programs require an operating model where knowledgeable resources have clear roles to support BI policy and procedures. The model also helps team members manage change effectively and monitor the organizational efficiencies in utilizing a BI solution. Considering the several units where BI capabilities are implemented, it is difficult to find individuals with extensive expertise in all of the different BI domain areas. BI governance is clearly a team effort.

So, what resources, skills, and knowledge are required to set up a successful BI governance program? As noted earlier, that will depend on the organizational structure and what the organization wants to achieve through related initiatives. It will also depend on how much sponsorship and endorsement from senior leadership is available. These questions need to be asked even before a BI governance program is designed or resources are allocated.

To succeed in a BI program, consider adapting the governance model with your company’s culture and decision-making style.

**Enabling Better Decision-Making to Effectively Realize the BI Potential**

BI governance models are hardly a one-time solution based on specific control points of the organization. When people say they are developing a data governance strategy, they typically mean that they are in the process of improving their existing operational controls in systems across the enterprise, while implementing high-level data governance policies.

Most companies organize their approach in different ways to meet the demands of their environment: decentralized, centralized, or federated approaches.

In the decentralized approach (Figure 1), each division or business unit handles its own requirements without the involvement of the enterprise. The level of BI expertise in each division varies significantly. The decentralized approach is often used when companies quickly deploy BI solutions in order to respond to urgent needs to track the company performance. Business units engage analysis to start creating custom reports and typically start combining data from various sources, including databases created by end-users. Consequently, the number of customized reports proliferate; some business units would have advanced BI implementations while others have virtually nothing; reporting systems utilize very different methodologies, creating conflicts in data definitions.
and redundancies in project resources and tools utilized. This scenario increases the risk of the BI data becoming unreliable.

On the contrary, the centralized approach (Figure 2) adopts a typical top-down decision-making style. In this model, executives decide to remove reporting, analysis, and data management functions from the hands of business units and move these controls into a shared or centralized service. This approach takes advantage of the synergies across the organization and allows for an enterprise view of information. It centralizes the BI function, building an enterprise data warehouse, that develops and distributes BI reports for all business units. The goal of the central BI team is to align the business with uniform data and deliver cost savings through economies of scale. A fully centralized BI operating model will promote consistent data definitions as the enterprise view of the data. However, it tends to slow down the approvals and deployments of new BI capabilities and can be less responsive to local units’ needs that require more customization.

Attempting to incorporate the best of both approaches, a federated BI approach (Figure 3) blends the strengths offered by a centralized approach with flexibility that decentralization provides to business units. Federating the control typically means opening certain BI functions to individual business units, such as the ability to develop and deploy their own BI reports. However, the enterprise data standards are kept under the control of a central BI group. A federated BI team maintains a unified architecture that delivers consistent, accurate, timely, and relevant data. The team invests in sufficient training to enable individual units to be proficient in their BI tools. This model requires considerably more coordination to keep everyone involved in the BI program and fully aligned. The challenge is to keep the different relationships across businesses aligned in their priorities and to ensure continuous flow of communication.

To succeed, continuous adjustments are needed to reach the ideal state, ensuring that everyone involved is moving in the same direction. Without sufficient communication and direction, any of these BI approaches could present serious flaws when put into practice.

Well-designed BI governance defines the rules under which the BI strategy is steered, organized, implemented and further developed. It helps all participants identify which areas require more support in their BI initiatives, how much these initiatives are adopted in the organization, and how closely they are aligned with enterprise strategic objectives. Ultimately, the better designed your BI governance, the more likely it is that the time and money spent BI and analytics will benefit your organization.

Five Recommendations to Help a BI Governance Program Take Off:

Few companies have developed proper controls to ensure the continuous success of their enterprise BI initiatives. By implementing robust BI governance, an organization can transform data and compliance from a one-time project effort into forward-looking, on-demand business processes. These processes allow the company to continually update policies, manage resources, analyze risks, and refine BI strategies across the enterprise. Ultimately, it is the organization’s people,
processes and technology working together organically and collaboratively that result in an effective BI governance program. A key factor for a successful BI governance program is to engage teams of both IT and business representatives from the very beginning and allow them to participate directly in developing BI governance standards and policies.

Here are five best practices to help get a BI governance program off the ground:

1. Obtain executive sponsorship to support the structure and execution of the BI program and define roles and responsibilities for members of the governance team.

2. Select a representative from the functional departments that are currently impacted by the BI environment, or will be affected in the near future. The committee will be responsible for clearly defining, changing, or updating the requirements of each user group, and aligning them with the BI goals across the company.

3. Prioritize change management in the governance agenda. Consider positive organizational culture when developing documentation, processes, and standards. Never assume that any BI capability will be assimilated without proper training, guidance, support and communications.

4. Define a communication plan for the BI governance group that outlines clear objectives, frequency of meetings, and how BI decisions, standards and policies will be shared throughout the organization.

5. Together with executive sponsors and governance members, set the BI objectives and create realistic performance indicators for all BI-related projects. Measure these regularly and set corrective courses of action when crucial metrics are not met.

These guidelines can move the focus of BI and data governance away from what is often perceived to be a compliance activity, to establishing key performance indicators and getting the best value of business intelligence.

The Bottom Line

BI governance is the responsibility of the board of directors and executive management and must be aligned with the enterprise strategy. Critical to the success of these structures and processes is effective communication among all parties, based on constructive relationships, a common language and a shared commitment to addressing the issues. The end benefit of a BI governance program is that it enables information to drive organizational flexibility and agility. Bad decisions, overhead costs for rework and workarounds, and other problems due to data quality can be avoided, leading to a more streamlined and efficient organization.

BI-relevant activities need to be coordinated. Even if the BI environment has already been rolled-out, it is not too late to develop the policies needed for effective governance. Robust BI governance can be achieved by combining structured guidelines with owners who have well-defined roles and responsibilities, and more formal oversight mechanisms.

However, BI governance should not become an end unto itself. Consider the BI governance framework as iterative and flexible enough that it can be refined over time. By dedicating the resources to address the organization’s BI management challenges, by applying a variety of best practices, and by committing to continuous evolution of the BI governance model, a company can truly achieve BI excellence. This, in turn, can empower an organization with the capability to treat information as its most valuable asset.
WHO WE ARE

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