Organizational Structure: Business Intelligence and Information Management

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Defining a balanced, empowered business intelligence and information management organizational structure is critical to the success of delivering business intelligence. Before assigning these critical tasks, assess your corporate culture, organizational structure, and the skills and competences required to fulfill them.
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STRATEGIC PLANNING ASSUMPTION(S)

Through 2009, overcoming complex organizational dynamics and having the skills to use business intelligence and performance management more broadly will become the most significant challenge to the success of business intelligence initiatives and implementations (0.9 probability).

ANALYSIS

1.0 Introduction

Collecting and analyzing information that enables your organization to better lead, decide, measure, manage and optimize its overall efficiency is a major financial and competitive differentiator. The faster an enterprise can gather and use relevant information, the faster it will be able to reduce costs and increase profits.

At the same time, the amount of information an enterprise needs to manage has never been greater, spurring new regulatory requirements and the rapid evolution of multiple business models and metrics (for example, innovation, customer intimacy, operational efficiency and financial). Enterprises are increasingly becoming global, supporting new business models and becoming more transparent to stay competitive and profitable. Together, these circumstances are reshaping the way IT leaders approach and support business intelligence and information management (see "Introducing Gartner for IT Leaders: Business Intelligence and Information Management").

The focus on information management, relative to business intelligence, is to define data management processes, technologies, organization and architecture, reconciling data sources, data quality and data validation, and otherwise working toward the development of a "single version of the truth" from disparate data sources. Business intelligence is focused on how use information to achieve efficiency and financial benefit. Business intelligence and performance management initiatives are built on an information management foundation, but should not be bound or limited to specific data structures (such as a data warehouse). This need for diverse quality information to support a growing set of business models and users has given rise to two independent and critical organizational units: the business intelligence and performance management competency center (BICC) and the data management team (DMT). The BICC and DMT should be distinct and independent because they have different goals, objectives and organizational foundations. They should, however, work closely together. A "best practice" is to have a senior information management officer that runs the DMT as a member (but not a leader) of the BICC.

2.0 Establishing the BICC

We introduced the role of the BICC in 2002 and have covered this role in past research. Our original definition of the BICC was that it should include dedicated analysts and business and IT experts that support business managers in making intelligent, well-informed decisions. Traditionally, this group was primarily focused on business intelligence processes, methods and technologies toward the power business analyst and the IT staff, delivering results and reports to users. However, the way people work today is very different. With the average employee's increased technical knowledge, a shift toward worker empowerment and an increase in collaboration within and across organizations, many organizations need to gather intelligence about their business (for example, performance management, analytic applications, monitoring, reporting) for purposes beyond simply enabling senior managers to make better decisions.
Therefore, "business intelligence" initiatives are finding a new and expanded role, and are often integrated into business processes, and into more diverse applications and tools we more broadly refer to as "business intelligence and performance management" and the "business intelligence and performance management competency center" (BICC). With this broader vision, organizations can recognize the opportunity for new groups of users (including partners and customers) to leverage the benefits of business intelligence and performance management within a diverse set of applications (such as analytic applications, corporate performance manager, data mining, reporting and custom business intelligence applications) and with more diverse data sources (for example, data warehouses, transactional database management systems, real-time data sources, operational or master data stores) as part of an overall and holistic approach to business intelligence and performance management.

Perhaps surprisingly, technology is not the main inhibitor to setting up an effective BICC. More often, the bigger obstacles to setting up a BICC lie within the analytic and business skills of the people needed to build it and the corporate culture of the enterprise.

Although it may be tempting to wait until "the time is right" or other resources fall into place before establishing a BICC, enterprises do not have a choice. They need to invest in skills by educating staff or hiring new staff now. Through 2009, overcoming complex organizational dynamics and having the skills to use business intelligence and performance management more broadly will become the most significant challenge to the success of business intelligence initiatives and implementations (0.9 probability).

Good business intelligence and performance management are important factors in making complex business decisions and developing plans to carry the business forward, but effective analysis and application of this intelligence are the elements that turn an attempt into a successful endeavor. Because analytic skills are scarce, enterprises cannot afford to scatter their experts. These experts should be organized in a tactical and strategic team that complements and overlaps areas of expertise. Enterprises that do not recognize and leverage people's analytic skills and staff and do not invest in them by forming a BICC will be unable to meet strategic objectives.

### 3.0 Skills Required for the BICC

Successful BICCs are chartered to link the business-driven objectives of the enterprise with the information, applications, processes, training, policies and technology the organization can provide and support. The BICC should be a cross-organizational group that encompasses a wide range of users, including business analysts and technology-skilled resources. The BICC develops the overall strategic plan and priorities for business intelligence and performance management, defines and implements the requirements (including data quality and governance), and helps the organization to interpret and apply the insight to business decisions. This strategy must be driven by clear business objectives, and be able to evolve the corporate objectives.

Regardless of the organization's structure, the BICC should report to a high-level business executive, such as the CFO, COO, CIO or chief strategy officer. In addition, the BICC should have a mandate, resource plan, and a charter that defines its scope, accountabilities and interactions with other groups (particularly, the IT organization).

As a general rule, the BICC should not be a large group, but should focus on the specific efforts and goals of supporting business intelligence and performance management. The BICC must be dynamic and able to change (size, participation and roles) based on business objectives. Enterprises should balance the BICC with people skilled in business, IT and business analytics. Ideally, BICC staff should be skilled in more than one discipline, as shown in Figure 1.
In an analytics-intense environment, such as a midsize financial institution, a typical BICC might employ five or, in exceptional cases, 10 people; a very large financial institution could employ 20. Managers of the BICC should be business intelligence and performance management strategy and process specialists.

Business skills required in the BICC include:

- Understanding of line-of-business (LOB) needs, such as finance, sales and marketing, human resources and supply chain
- Understanding of cross-LOB issues (such as customer profitability)
- Ability to communicate at executive level and link BI with the enterprise's strategic goals
- Helping business managers set and balance priorities by analyzing consequences of choices and creating business cases
- Understanding the organization's strategic business objectives and the role action-oriented information plays in achieving the corporate objectives
- Stewardship skills to drive standardization of official hierarchies, business vocabularies and other relevant business terminology, and to participate in semantic reconciliation and ongoing data-quality efforts

Analytics skills needed in the BICC include:

- Fluency with key analytic applications
- Researching business problems and creating models that help analyze these business problems
• Exploring the data and discovering patterns, meaningful relationships, anomalies and trends
• Working with the IT department to develop insight into how to identify data for a specific analysis or application
• Using a palette of techniques, ranging from simple data aggregation via statistical analysis to complex data mining
• Distilling the relevant parts and producing sound recommendations, based on the right set of metrics
• Skills to train the users in how to transform data into action-oriented information and how to use information

IT skills required in the BICC include:

• Ability to understand the business intelligence infrastructure implications of business and analytic requirements (for example, design changes that may be required to accommodate new data sources)
• Deep understanding of how to access and manage data required to support business and analysis requirements
• Deep understanding of diverse business intelligence and performance management tools and technologies (such as analytic applications, corporate performance management, data mining, reporting or custom business intelligence applications)
• Understanding of the differences in design and access characteristics of diverse data sources (such as data warehouses, transactional database management systems, real-time data sources and operational data stores)
• Data governance, architecture and management skills
• Data administration and metadata management skills to support lineage, transparency or related compliance requirements to verify and attest to business intelligence results and outputs

4.0 Reporting and Accountability in the BICC

Establishing an effective reporting structure for the BICC is critical to its success. If the BICC is placed too high in the organization (reporting directly to the board of directors), it runs the risk of becoming disconnected from the real world by its exalted placement. If placed too low (within a specific unit), the BICC risks losing its overarching view.

There is no single "best" location for the BICC. Its place within the enterprise will vary from industry to industry and enterprise to enterprise, based on which areas of the enterprise are most likely to strongly affect the overall business. For example, the BICC could fit within the IT department, directly under the CIO, but only if IT is considered strategic within the enterprise. If placed under the auspices of the CIO, the BICC includes LOB participants matrixed in through dotted-line reporting relationships. The finance department could also be appropriate, but only if this department has evolved from a financial control function to a management control function. Or, a BICC could report to the COO, if the primary goal is to focus on operational effectiveness, optimization and efficiency.
In many cases, business intelligence applications, analytics and tools have been brought into organizations to support an operational application, such as ERP or CRM, creating “islands” of business intelligence. In response, many organizations have formed BICCs to improve the development and focus of the resources needed to be successful with business intelligence. These BICCs have been chartered to develop business intelligence from an IT-driven initiative that provides basic reporting for users to a business-driven, cross-organization initiative that encompasses a wide range of users, customers and partners. Bear in mind, however, that for the BICC to maintain its strategic focus it should not be immutably aligned to a single discipline, so placing it within a department only works if the enterprise's internal politics encourage a high degree of cross-departmental collaboration. If, for political reasons, there is no organization within the enterprise that is able to oversee all relevant areas, the BICC will fail.

Ultimately, the BICC develops the overall strategic plan and priorities for support of business intelligence and information management functions, defines and implements the requirements (including data quality, data stewardship and governance), and helps the organization understand how insights should be interpreted and applied to business decisions and actions.

Several of these models are mapped out in Figure 2.

**Figure 2. BICC Organizational Structure Examples**

![BICC Organizational Structure Examples](image)

**Source:** Gartner (April 2006)

### 5.0 The DMT

Critical to the success of business intelligence are information management functions such as data modeling, metadata management, management of data quality, and the design, creation, and ongoing database administration of data warehouses, data marts and operational data stores. These tasks are executed by DMTs, which often play a role in supporting a broader
enterprise information management strategy (see "The Essential Building Blocks for Enterprise Information Management"). In addition to providing support for business intelligence activities, these teams provide information management capabilities for a wide range of initiatives across the entire organization. Here we describe the roles and activities of these teams that are most pertinent to achieving success with business intelligence.

6.0 Establishing a DMT

Data-management-oriented roles that provide support for business intelligence include:

- Information architects — responsible for establishing the principles by which data management activities will be executed, and establishing the goals, objectives and standards of the organization's information architecture
- Data modelers — responsible for creating, documenting, reconciling and maintaining logical and physical models reflecting the state and use of data across the business
- Database administrators — responsible for the physical implementation and ongoing support of operational and business-intelligence-oriented databases
- Metadata specialists — responsible for the capture, integration and publication of descriptive metadata across the various applications and tools (modeling, integration and more) in the environment
- Data quality specialists — responsible for the analysis and measurement of data quality levels, identification of data quality issues, and working with data stewards, users and other IT functions to facilitate data quality improvement
- Data stewards — responsible for the overall activity on data quality improvement, establishing of data quality goals, and effecting change in organization and business processes to achieve those goals
- Data integration specialists — responsible for the deployment and use of data integration tools to implement data acquisition, transformation, movement and delivery

These roles may be organized in several ways, from distributed/matrixed to highly centralized models, to create data management teams. Data management functions are often spread across several teams within IT. For example, data integration skills may reside in the data warehouse project team or in an integration team. Data quality expertise may reside in a dedicated data quality team that works with data stewards deployed within business functions outside of IT. Information architects are often part of a broader enterprise architecture team concerned with issues outside the data domain. In cases where data management skills are distributed across the organization, the DMT exists and executes its tasks in a matrix fashion. Increasingly, data management functions are being combined into centralized teams such as depicted in Figure 3. In such cases, there is clearer line of sight between the various sets of skills and detailed activities, and responsibility for the breadth of data management activities is held by a role reporting to the CIO.
7.0 BICC and DMT — Assigning Roles and Working Together

The BICC must work with several other groups within the organization as a project moves from development to deployment. The roles and their responsibilities and time commitments should be mapped in advance. As much as everyone wants a business intelligence project to succeed, sometimes the crush of day-to-day work prevents people from delivering on “extra” responsibilities in a timely fashion. Therefore, although there is no direct reporting relationship between the groups, the deliverables from those involved must be spelled out in their performance plans to achieve accountability.

Best-in-class organizations clearly define and communicate the granular roles and responsibilities of the BICC, particularly relative to established IT and user roles. In addition, it is critical to ensure that the BICC is viewed as the "trusted guide" as opposed to the ultimate authority.

When considering which individuals should be primarily responsible for the BICC and which workers perform information management tasks elsewhere (such as in IT), review the development and deployment breakdown in Figure 4. Both the BICC and data management resources must work with other teams in IT to provide full support for the business intelligence implementation — for example, IT operations (for system management activities), infrastructure support (for hardware configuration and capacity planning) and the help desk.

Again, keep in mind that these are guidelines. The composition of the BICC and DMT should depend on the availability of resources within your organization, the skills each individual can bring to the task at hand, and the willingness of team members to work not only within their groups, but also hand-in-hand with other organizations sharing the common goal of maximizing the value of information assets.
Figure 4. Example Responsibilities of the BICC and the DMT

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<thead>
<tr>
<th>Development</th>
<th>Primary</th>
<th>Secondary</th>
<th>Tertiary</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Strategy Definition</td>
<td>BICC</td>
<td>Users</td>
<td>DMT</td>
</tr>
<tr>
<td>2. Data ID and Preparation</td>
<td>BICC and DMT</td>
<td>Users</td>
<td></td>
</tr>
<tr>
<td>3. Business Intelligence Tool</td>
<td>BICC</td>
<td>Users</td>
<td>DMT</td>
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<tr>
<td>Evaluation and Selection</td>
<td></td>
<td></td>
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<tr>
<td>4. Develop, Implement and Train</td>
<td>DMT and BICC</td>
<td>Users and Tech Support</td>
<td></td>
</tr>
<tr>
<td>5. Discovery and Exploration</td>
<td>Users and BICC</td>
<td></td>
<td>DMT</td>
</tr>
<tr>
<td>6. Access, Monitor and Analyze</td>
<td>Users</td>
<td>Tech Support</td>
<td>BICC</td>
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<tr>
<td>7. Operations Management</td>
<td>DMT</td>
<td>BICC</td>
<td></td>
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<tr>
<td>8. Share and Collaborate</td>
<td>Users</td>
<td>BICC</td>
<td>DMT</td>
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<tr>
<td>9. Effect Change</td>
<td>Users</td>
<td>BICC and DMT</td>
<td></td>
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Source: Gartner (April 2006)

8.0 Best Practices

Given the dynamics of any given business model, the position of the BICC and DMT within the enterprise and the many competencies required to successfully fulfill these roles, no single list of best practices will apply to every enterprise, in every situation. To help determine which practices best suit your organization’s needs — and to make the smartest possible choices and role assignments within your organization — please refer to these reports:

- "Fleet Services Enhances Customer Satisfaction and Retention With Business Intelligence"
- "Stryker Uses Business Intelligence to Increase Collaboration"
- "Healthcare Payers Must Establish BI Competency Centers to Reap Strategic Benefits"
- "Continental Airlines' BI Initiatives Lift It to First Place in Customer Service"
- "The Cornerstones of Business Intelligence Excellence"