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Management Update: The Cornerstones of Business Intelligence Excellence

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A New BI Value Framework

Success with BI is determined by the degree of business value delivered. The measures of business value define the cornerstones of BI excellence. The cornerstones are presented in the context of a new "BI value framework."

The BI value framework unites the BI framework (see "The BI Framework Provides Return on Integration," SPA-13-8990). That, in turn, enables enterprises to align their various BI initiatives, and the "five pillars of benefits realization," which define the connections between the business context and IT investments (see "TVO Methodology: Valuing IT Investments via the Gartner Business Performance Framework," R-19-1910).

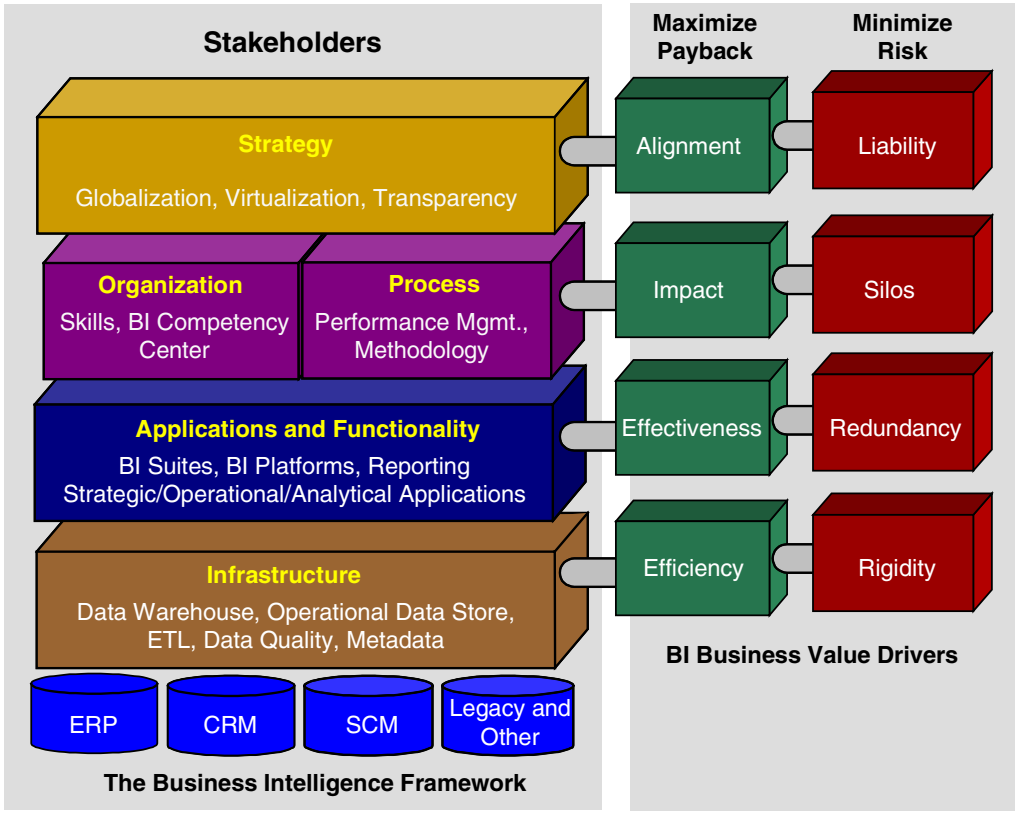
The combined model, in the form of the BI value framework, provides the basis for presenting the cornerstones of BI excellence measured in terms of business value delivered:

- The opportunity to maximize payback on the BI investment
- The mandate to minimize risk

Each level of the framework has measures of business value along these two dimensions. The higher the level in the framework, the higher the potential for maximizing payback and minimizing risk (see Figure 2). However, at the highest levels, the business value is more complex and difficult to quantify accurately.

Figure 2

The BI Value Framework



CRM customer relationship management
ERP enterprise resource planning
ETL extraction, transformation and loading
SCM supply chain management

Source: Gartner Research (April 2004)

Strategy Level: How does your BI initiative link to strategic business objectives and drive alignment across business processes toward those objectives?

As with any IT investment, the degree to which it supports the strategic goals and objectives of the business is a critical factor in the magnitude of the business impact, acceptance and ultimate success of the effort. Linkage between business strategy and BI strategy will drive alignment across processes toward the objectives of the business.

Maximize Payback: Alignment

- At the tactical level, BI can help enterprises optimize their business processes by identifying what trends, anomalies and behaviors need management action.

- At the strategic level, BI can provide significantly more business value by aligning multiple business processes with strategic business objectives through integrated performance management and analysis.

- Most business schools view this alignment and optimization as the key to competitive advantage.

Cornerstones:

- Define and agree to well-articulated business objectives and key performance indicators to measure business process performance

- Establish and enforce BI standards in strategic processes (such as corporate planning and control), as well as operational business processes

- Identify a high-level business sponsor or steering team that sets the priorities, governs and funds the project, commits the resources to match the scope of the project, and audits the results

Minimize Risk: Reduce Exposure to Liability

- In addition to improving alignment, an integrated view of key processes and metrics can reduce liability exposure by increasing visibility — that is, the right person sees the right data at the right time.

- BI can provide business value by helping enterprises identify risks early and identifying material changes in business conditions that require attention.

- The result is that enterprises improve the quality of information needed for regulatory compliance and stakeholder communications.

Cornerstones:

- Identify and define material risks and associated prerequisite events and conditions; assess the organization's tolerance for a BI initiative failure, and identify the risk points for failure or underachievement

- Ensure that key managers at all levels have appropriate access to the relevant, accurate, consistent, timely data/analysis of risk factors

- Do not permit BI projects to proceed without clear links to one or more critical business performance indicators

Organization and Process Level: How have you organized your resources, and what methodologies have you employed to leverage skills and to ensure the effectiveness of your BI investments?

Some enterprises undertake BI initiatives to understand why their businesses behave the way they do. They use BI to gain insight into the data within their operational systems. Such use of BI is necessary for operational status reporting, but does not have an impact on the business process. Real impact comes from having the skills, organization and ability to drive positive business change based on BI insight.

Maximize Payback: Impact

- Business impact from BI requires an overall BI strategy and change methodology that involves resources from IT and the business.

- These participants must have in-depth skills in the business processes, BI strategy and change management, and must coordinate their actions so that the business can evolve.

Cornerstones:

- Develop a well-defined understanding of the processes and associated applications that require optimization to improve business value

- Create a formal project team comprised of business and IT representatives, the proper mix of skills, and participants who can work together to implement a BI methodology and execute a plan to improve business processes.

– The organizational structure to drive the plan and methodology is typically in the form of a BI competency center.

- Develop a plan to broaden the adoption of BI, helping as many user segments and parts of the business as possible with self-service BI, and shifting the corporate culture toward fact-based decision making

Minimize Risk: Eliminate Silos

- The alternative to well-orchestrated and solidly staffed and organized BI initiatives are silos of skills, methodologies and data.

- The results are data inconsistencies and inaccuracies, plus competing concerns driving change.

Cornerstones:

- Identify the cost of silos to business strategy or management

- Develop consolidation plans and initiatives to address problems created by multiple BI project and application silos

- Define a review/feedback process for ensuring that the BI strategy, investments and skills stay aligned to an overall vision and architecture, as well as to business needs

Applications and Functionality: What are the types of BI users, what tools do they require, and how are you addressing this diversity while minimizing redundancy?

The selection of BI tools and applications must be based on a segmentation of the BI user community. Different user segments will require different modes of delivery of BI, ranging from basic static reporting to sophisticated analytic applications. Deploying the proper mix of tools and applications is critical to achieving optimal benefits from BI.

Maximize Payback: Effectiveness

- BI users need tools and applications suited to their roles in the organization and the types of information they must analyze.

- The project team must know the user population well and understand the attributes of different BI technologies.

- Recognizing that it is unlikely for a single toolset to meet the needs of all users, enterprises should address the majority of the requirements with the minimal number of tools.

Cornerstones:

- Segment the BI user community, and evaluate the information and style of BI appropriate for each

- Focus on the basics, leveraging reporting and flexible querying to meet the majority of user requirements, and introduce sophisticated tools for the minority of the user community that needs them

- Be willing to deviate from the standards when requirements dictate, and constantly evaluate the standard set of tools, making adjustments as needed

Minimize Risk: Redundancy

- Large enterprises are at risk of having a BI strategy that is not aligned or well-executed across business units, departments and teams.

- When various groups make independent buying decisions, the enterprise can end up owning multiple tools that perform essentially the same function.

- Such redundancy introduces added cost and the need to support a wider range of skills, while inhibiting collaboration.

Cornerstones:

- Broadly communicate tool standards to ensure maximum tool consistency throughout the enterprise

- Control proliferation of nonstandard tools and perform tool consolidation activities where functional overlap exists

- Ensure that BI applications are connected on an operational and strategic level to minimize functional overlap

Infrastructure: Does the data architecture, which is the foundation for your BI initiatives, ensure efficiency and agility for you to react to changing business requirements?

The majority of time and effort (often upward of 70 percent) in the typical BI implementation is spent dealing with the infrastructure issues, including data quality and integration, technology selection and data model design. Project teams that do not focus on proper planning and design of the

infrastructure repeatedly make this investment of time and effort whenever significant changes in business requirements occur. The goal is to implement a solid, yet flexible, infrastructure that can withstand change and facilitate rapid deployment of enhancements and new BI applications.

Maximize Payback: Efficiency

- Acquiring data to fuel BI tools and applications is a complex challenge in most large enterprises.

- Creating a repeatable process for integrating data and making it accessible in an application-neutral data structure enables the widest possible range of uses of the data for BI.

- This creates efficiency in two ways:

– BI tools and applications can leverage the same data structures.

– Users base strategic analyses on consistent data, which represents a broad perspective of the enterprise.

Cornerstones:

- Establish an application-neutral data warehouse as the core of the data architecture for BI

- Focus on data quality with well-defined processes for the ongoing monitoring of quality issues and correction within source systems

- Standardize on a set of technologies and processes through which data is acquired from operational systems, integrated, cleansed and delivered to the BI environment

Minimize Risk: Rigidity

- Many enterprises have not placed enough emphasis on controlling their BI infrastructure and driving toward a common data architecture for BI.

- As a result, they are attempting to manage fragmented environments involving large numbers of independent data marts, each with different underpinnings from a data model and platform perspective.

- Not only does such an environment add a significant amount of cost and complexity to the BI environment, it is also difficult to adapt to changing business requirements.

- Enterprises must minimize the amount of fragmentation and tightly control data mart proliferation.

Cornerstones:

- Select a robust schema design for data marts and data warehouses, recognizing that “cookbook” approaches do not always represent best practices and may not deliver optimal flexibility

- Establish well-defined guidelines for limiting proliferation of data mart deployments, and ensure consistency of tools and data standards when such deployments are justified

Bottom Line

- Success with BI initiatives must be measured in a number of ways.

- Enterprises should use the BI value framework and its cornerstones to judge the degree of success of their BI initiatives, as well as to lay the foundation for future initiatives.

- Evaluating BI efforts from each of these angles will uncover opportunities to drive greater benefit from BI investments, as well as minimize the potential that results will fall short of goals and objectives.

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Analytical sources: Ted Friedman and Bill Hostmann, Gartner Research

For related Inside Gartner articles, see:

- “CIO Update: What You Need to Know About Scalability and BI,” (IGG-04212004-03)

- “Management Update: Effective BI Approaches for Today’s Business World,” (IGG-04142004-01)