

Gartner's Business Intelligence and Performance Management Framework

Bill Hostmann, Nigel Rayner, Ted Friedman

The use of business intelligence and performance management is becoming pervasive within organizations at every level. Use our framework to build a more complete and integrated plan for these initiatives, and to yield better returns from related business and IT investments.

ANALYSIS

Business intelligence (BI) applications have become among the highest-priority technology investments for most CIOs. This is because organizations see BI as more than just measuring and understanding the past performance of an isolated business activity. The role of BI is becoming more pervasive and is affecting the way information is used, analyzed and applied. As a result, organizations can lead, decide, measure, manage and optimize performance to achieve greater efficiency and financial benefits. BI is now becoming key to the better management of performance associated with multiple dimensions of an organization and its business processes.

The Need for a Framework

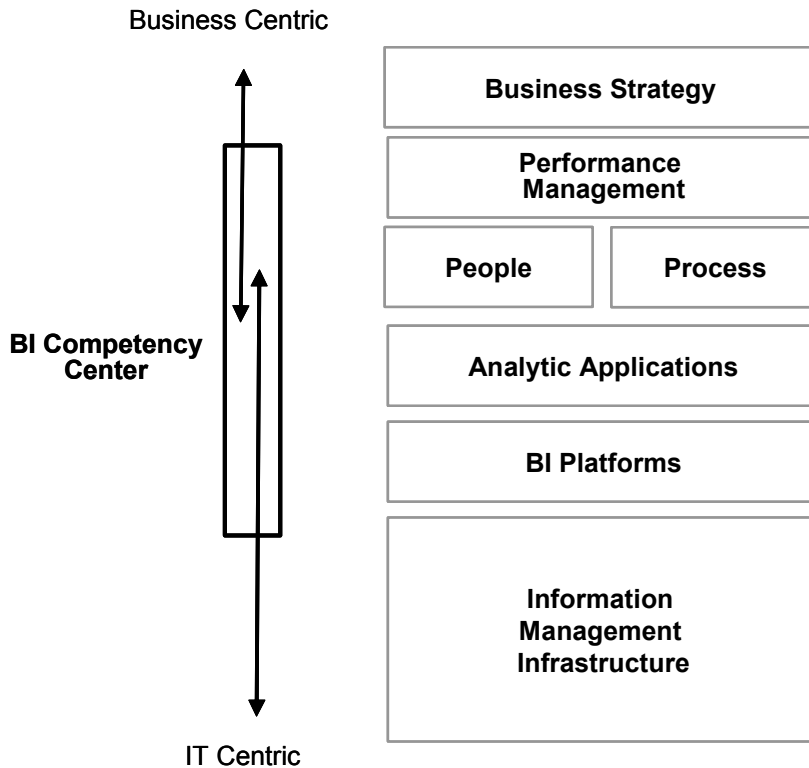
Many organizations approach their BI and performance management (PM) initiatives tactically by responding to immediate reporting or dashboard requests from managers. This may be required in some cases, but leading organizations are evolving their focus to support these initiatives strategically for diverse users and applications (see "Business Intelligence Focus Shifts From Tactical to Strategic"). An overall vision and strategy for BI and PM should take into account much more than the traditional use of analyst-driven BI applications; it should also include multiple initiatives to measure, manage and improve the performance of an individual, a process, a functional team or a business unit, or even the entire organization.

The program management, technology and complexity of skills associated with the strategic use of BI and PM increases dramatically as the scope of the initiative widens. For example, implementing analytic applications to address specific needs, such as call center analysis, is far simpler than implementing a solution that attempts to integrate the PM requirements of sales, marketing, operations and finance across many locations and multiple data sources. No single vendor today can provide all the technologies, applications and services needed (despite what some may claim) and, therefore, a combination of vendors and services will be required to provide a comprehensive solution. Hence the need for a framework that defines the layers and components that are to be integrated and aligned to deliver a more strategic vision and plan for implementing BI and PM initiatives.

Using the Framework — Defining the BI and PM Vision and Plan for the Organization

Gartner's framework, see Note 1 and Figure 1, should be used to create the vision and plan for the BI and PM investments and initiatives of organizations. The framework should be used to define, align and integrate the metrics, people, processes, components, methodologies and capabilities associated with the different layers, and to place them into the larger business-oriented context and linkage to strategy execution. This framework can also be useful for performing a readiness/completeness assessment of existing initiatives and for assessing the alignment and integration of the technology with the needs of the business.

Figure 1. The Layers of the Gartner Business Intelligence and Performance Management Framework



Source: Gartner (September 2006)

The Business Strategy Layer

Organizations should measure the success of BI and PM programs on how well they help the business achieve strategic and operational objectives. Therefore, defined business strategies and objectives are critical to the success or impact of a BI or PM initiative and to build the case for investments. The CEO and the board — and, typically, a VP-level strategy manager — manage the creation and definition of overall business scenarios, aspirations, goals, strategies and objectives. Output from this layer (the strategy, strategy maps, objectives and metrics and corporate budget) contributes to the PM layer of the framework.

The Performance Management Layer

The goal of PM is to link operational activities with business strategy (see "Understand Performance Management to Better Manage Your Business"). Defining the "metrics" to use is key, because, if well chosen, these are the appropriate measures of the success, or otherwise, of strategic objectives. The challenge many organizations face is in determining which metrics are the most important to use in measuring their achievement of business objectives. As a first step, organizations should identify appropriate metrics for their most critical business processes. Even more challenging is to identify a set of linked metrics across the business, which reflects individual, departmental and functional performance against strategic objectives. This layer is described in business, not IT, terms. It defines how the BI and PM program deliverables link to achieve the overall business strategy and support the value-creation processes associated with

the strategies execution (see "The Gartner Business Value Model: A Framework for Measuring Business Performance").

The People and Processes Layer

This layer should characterize the user types and explain how information and analysis is employed by the various users and processes, combined with other organizational and process factors, to drive changes. This layer needs to define the charter for a BI competency center (BICC). See Note 2. Through 2009, having the skills to overcome complex organizational dynamics associated with implementing comprehensive BI and PM initiatives — and supporting users so they get value from the investments — will become the most significant challenge to the success of these initiatives and implementations (0.9 probability). Therefore, at this layer, the IT and business resources should be organized to best support the needs of the users — executives, operational managers, analysts and partners, for example — and processes associated with BI and PM applications.

Analytic Applications Layer

Analytic applications are components of the BI and PM vision and plan and are defined at this level. The links between the PM layer and analytic applications are defined here and detail how the analytic applications contribute to achieving the performance objectives (that is, the metrics) defined in the PM layer. The input to the analytic applications layer is in prioritizing users and processes that will realize the biggest business benefits by investing in analytic applications. It also defines the relationship and integration between the analytic applications to achieve needed levels of consistency, relevancy, accuracy and timeliness for cross-functional analysis (defined at the PM level).

The range of capabilities that can be defined as analytic applications is very broad. Different user segments will require different modes of analysis and delivery of information, ranging from basic static reporting to sophisticated embedded analytic applications (see "The Four Styles of Integrating Analytics Into Business Processes").

The range of capabilities that can be defined as analytic applications is very broad. However, in general, there are three main types of analytic application that share common characteristics.

Strategy-driven applications: These are mainly used to measure and manage performance. They provide the capabilities for defining, integrating and managing plans and alignment across multiple functional/process areas. They deliver a shared management view of multiple levels of information/analysis across many planning, execution and decision cycles.

Analyst-driven applications: These provide in-depth analysis and delivery of information (using combinations of capabilities, including ad hoc queries, OLAP cubes, data mining, statistics and dashboards/reporting and portals) across multiple information sources and/or processes to multiple user types on an ad hoc and/or schedule driven basis. These applications may be interactive, scheduled or event triggered. Often, the output of this analysis is used as input to strategic planning and performance optimization.

Process-driven applications: These applications are primarily process/event driven and provide operational managers and users insight at point of work. These capabilities are often deployed in packaged business applications and operations management applications to deliver analysis of information within specific process content.

These types are not mutually exclusive. In fact, we increasingly believe more user segments may require a diverse and heterogeneous mix of applications to support their specific BI needs.

Defining the proper mix of analytic applications and sourcing of them is critical to achieving optimal performance benefits and return on investments.

BI Platform Layer

This layer defines the combination and relative priority of BI platform capabilities that different users require from their analytic applications, and how these diverse capabilities are being addressed while minimizing redundancy (see "Magic Quadrant for Business Intelligence Platforms, 1Q06" and "Deliver Process-Driven Business Intelligence With a Balanced BI Platform"). It should be noted that not all styles of analytics require a BI platform. Some, for example, may be directly embedded as part of a composite application or within a transactional or workflow application.

Information Management Infrastructure Layer

This layer needs to address how the data architecture and data integration infrastructure — which are the foundations of enterprise BI initiatives — ensure efficiency and agility to react to changing business requirements. It also needs to ensure that data used across the other layers is consistent. The goal is to implement a solid, yet flexible, infrastructure that can withstand change and help to rapidly deploy and enhance new BI, analytic and performance management applications built on that infrastructure.

At this layer, much of the IT team's time and effort will be spent on dealing with infrastructure issues including the quality, access, integration, delivery and model design of data. In addition, business users must be involved alongside the IT department to identify and resolve data-quality issues and ensure ongoing governance and stewardship of the data being consumed by BI applications. These activities will ensure that data will be available to BI applications at the right time, with optimal completeness, consistency and quality, and with a level of integration that reflects the necessary breadth across the organization. Much of the time and effort spent (often more than 70%) on a typical strategic BI implementation is with issues over the infrastructure of information management. Project teams that do not plan and design the information management infrastructure properly waste time and effort whenever significant changes in business requirements occur.

Bottom Line

BI and PM initiatives must be integral to your business strategy and execution to drive maximum value from these initiatives. As such, the related technology and applications must be core to your IT architecture and applications portfolio. The Gartner Business Intelligence and Performance Management Framework allows you to assess where you should have alignment and integration between the different layers of your initiatives, and can also reveal gaps and overlaps in your plans, skills, applications and technology, which may otherwise prevent you from achieving your business objectives.

Note 1

Business Intelligence and Performance Management Framework

This new framework builds on the previously defined BI framework to expand the role and linkage of metrics, and the different analytic applications that support PM (see "Management Update: The Cornerstones of Business Intelligence Excellence").

Note 2

The Business Intelligence Competency Center

The BICC develops the overall strategic plan and priorities for how organizations can, and should, support BI and PM. As such, they are the owners and developers of the BI and PM Framework. The BICC also manages the programs that deliver the implementation, which, in turn, support business requirements, including data quality and governance (see "Organizational Structure: Business Intelligence and Information Management"). The BICC also helps users interpret and apply insight to business decisions and processes. It also needs to define and measure the business impact that insight, analysis and resulting decisions have on improving the performance of the associated processes and the business overall.

REGIONAL HEADQUARTERS

Corporate Headquarters

56 Top Gallant Road
Stamford, CT 06902-7700
U.S.A.
+1 203 964 0096

European Headquarters

Tamesis
The Glanty
Egham
Surrey, TW20 9AW
UNITED KINGDOM
+44 1784 431611

Asia/Pacific Headquarters

Gartner Australasia Pty. Ltd.
Level 9, 141 Walker Street
North Sydney
New South Wales 2060
AUSTRALIA
+61 2 9459 4600

Japan Headquarters

Gartner Japan Ltd.
Aobadai Hills, 6F
7-7, Aobadai, 4-chome
Meguro-ku, Tokyo 153-0042
JAPAN
+81 3 3481 3670

Latin America Headquarters

Gartner do Brazil
Av. das Nações Unidas, 12551
9º andar—World Trade Center
04578-903—São Paulo SP
BRAZIL
+55 11 3443 1509