



E-Guide

What CIO's Should Know to Ensure Business Intelligence Success

According to Framingham, Mass-based research firm IDC, business intelligence (BI) is one of the fastest growing sectors of the IT market. BI tools have evolved and are defining new dimensions of BI tools that either provide deeper insights, or broader penetration within organizations. Learn how only a small number of C-Level executives have a role in BI sponsorship, with a direct link to the business of their BI projects, and discover the 5 dimensions of BI that fuel BI's growth.

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Business intelligence: The five dimensions

By Wayne Eckerson

It's interesting how business intelligence (BI) tools have evolved. We keep moving upward and outward, defining new dimensions of BI tools that either provide deeper insights or broader penetration within organizations. We are now in the throes of adding several new dimensions to BI, namely monitoring and advanced analytic dimensions that will further fuel BI's growth. (See Figure 1.)

Reporting dimension

In the beginning, organizations simply delivered reports to users. The reports were predefined, static and paper based and shed light on past activity. Over the years, reporting moved online and became more interactive. Some parameterized reporting screens with drop-down pick lists make users think they are performing ad hoc queries. Nevertheless, reporting was the first significant dimension of BI.

Analysis dimension

But in the 1990s, reporting became passé. Many users clamored for personal analysis tools that would allow them to explore and analyze data in a relatively unfettered fashion. Consequently, vendors delivered ad hoc query tools and online analytical processing (OLAP) tools that let users "slice and dice" data to their heart's content. Analysis of dimensional data became the second significant dimension added to BI.

However, two things happened at this point to cause a major crisis of faith among BI tools vendors. First, it turned out that only a small minority of users really had much interest in using ad hoc query and sophisticated OLAP tools. Most users found these tools much too hard to use or navigate without getting lost. "Slice and dice" turned into "lost and frustrated" and created a host of BI shelfware.

Second, most BI vendors abandoned reporting and almost too late rediscovered that most users prefer viewing reports to exploring data in an unfettered manner. In the past several years, leading BI vendors have scrambled to cover their reporting flanks by developing or acquiring reporting tools. With reporting and analysis tools in hand, users would have a complete set of BI tools, or so vendors thought.

Figure 1. The Five dimensions of BI

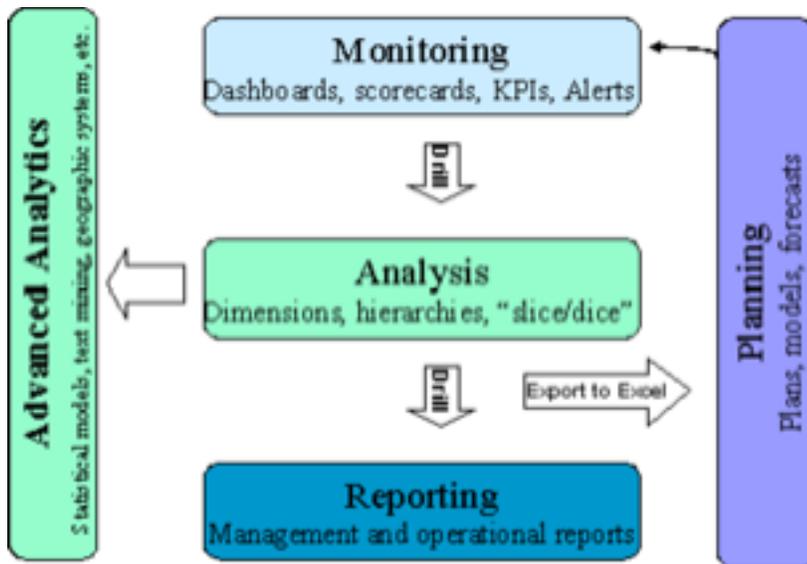


Figure 1. BI tools evolved from reporting to analysis tools, which many users simply used to dump large data sets into Excel to do planning. Today, companies are adding a monitoring layer and new advanced analytics and visualization to the stack.

Planning dimension

Unfortunately, BI vendors gradually discovered that most users were using analysis and reporting tools as glorified extract programs to dump data warehouse or source system data into Excel. Although they were glad for the sales, users often complained of poor query performance. It turns out that business analysts and managers who needed to create business plans and budgets, model scenarios, or recalculate forecasts would use the BI tools to grab large data sets and move them into Excel, Access or a statistical modeling program. These runaway queries would bog down query performance for everyone else.

Today, many BI vendors now sell business performance management software. What they're really doing is acknowledging the third dimension of BI tool evolution: the planning layer. Today, most BI vendors offer much tighter integration with Excel because it is by far and away the best all-purpose business planning and modeling tool available, and probably always will be. But some BI vendors now offer budget and planning tools that are fairly well integrated with reporting and analysis tools, creating a business performance management (BPM) suite.

Monitoring layer

But a combination of reporting, analysis and planning still doesn't do the trick for most users. The BI tools make it too hard to find the right data and too easy to get lost in it. The planning tools are not well integrated with their analysis tools. What most users really want is a layer on top of analysis, reporting and planning tools that pulls them all together in a highly simplified and intuitive interface called a dashboard or scorecard. These tools enable

business users to track or monitor the few metrics they care about most, compare actual performance to predefined targets and trigger alerts when performance strays too much from goals.

These dashboards and scorecards represent the fourth dimension of BI. Today, most organizations use different, non-integrated BI tools to deliver reporting, analysis, planning and monitoring capabilities. Ideally, all work harmoniously on a common BI and data infrastructure.

Figure 2. BI platforms

Most leading BI vendors are now working feverishly to deliver such integrated solutions. Many now offer BI platforms that provide a common BI and data infrastructure to support a variety of BI activities. (See Figure 2.)

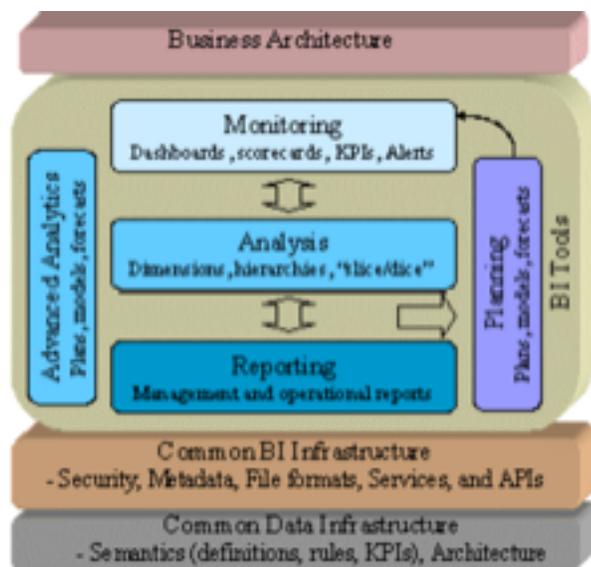


Figure 2. BI platforms provide integrated BI tools or modules that are aligned with business strategy and run on a common BI and data infrastructure.

New dimensions—Advanced analytics

But while BI vendors rush to offer a BI platform that supports reporting, analysis, planning and monitoring, user requirements keep moving ahead. There is now a groundswell of interest in exploiting new dimensions of BI, namely data mining, text mining and advanced visualization. Many companies are now asking, "How can we deliver further value from our data warehousing/BI investments?" and they are turning to these solutions.

Some companies have already created custom solutions or used early adopter technologies to create sophisticated statistical models to detect fraud, automate cross-sell recommendations, define loan prices and terms, predict customer behavior and machinery breakdowns, among many other things. Similarly, some companies are analyzing call center interactions, email responses, Web pages, video and image files to understand key trends and patterns in text and other unstructured. Because there is so much data involved in this type of deep analysis, many are leveraging



advanced visualization techniques to quickly detect key patterns and rules or display data in usable forms, such as maps.

While I have defined five dimensions of BI, there are probably many more. BI is a rich field, one built on the continuous exploration of knowledge and pursuit of truth in our businesses. Since knowledge and truth is fleeting and evanescent, we will always need new tools to help us capture insights required to run our businesses. And this is a good thing since it means there's a rich and lively road ahead for those of us in the business intelligence field.

Business intelligence projects fail without C-level ownership

By Shamus McGillicuddy, News Writer

When business intelligence software projects fail, IT is often blamed. But the failure can usually be traced to lack of leadership, not technology.

In fact, a new survey finds that a lack of ownership by the right executive often leads to a disconnect between the vision of senior management and the way a project gets done.

"The core issue with business intelligence [not succeeding] isn't a technical issue," said Betsy Burton, vice president and distinguished analyst at Stamford, Conn.-based Gartner Inc. Rather, she said, it's the failure on the part of business leaders to make sure the organization gets the information it needs and leverages it in a way that makes sense with the business objectives.

"It's interesting," Burton said. "The symptom that people see is a lack of vision, a lack of strategy, a lack of linking supportive business intelligence back to systems. It's very easy for managers to say, 'Hey the data is wrong,' rather than take an introspective look. They should ask 'Have I given the organization a clear sense of what we're trying to get out of business intelligence? Am I really arming my people within my organization with a sense of the importance and the metrics so that they can deliver valuable information?' It's easier to point at the numbers and say, 'The numbers are wrong. Fix them.'"

Burton, who surveyed 350 organizations about their business intelligence projects, found that only 10% reported their projects had a C-level executive sponsor with a direct link to the business. Twenty-five percent said their projects were sponsored by an IT manager, and 25% had no executive sponsor at all.

What raised the red flag for Burton, however, was that 40% of those polled said their business intelligence projects were owned by lower-level business executives. That isn't ideal, Burton said, because that group tends to have tactical rather than strategic roles—which is what ends up sinking a project.

Even more alarming is that 65% of those polled said they viewed business intelligence technology as too complex and unusable and 69% said they lacked the skills necessary to use it anyway.

Few can argue that businesses are sold on the virtues of business intelligence. It's one of the fastest-growing sectors of the IT software market, according to Framingham, Mass.-based research firm IDC. Further, the business analytics market accounted for \$18.25 million in global revenue in 2006, and is forecast to grow about 10% a year during the next five years.

Experts contend that for many organizations a business intelligence initiative is a business project that's been dumped on the laps of IT and lower-level executives who haven't been keyed into the vision, and, worse, aren't expected to look at the data analytically. Ultimately, the project fails.

But some companies can point to business intelligence as being pivotal to its success. Coldwater Creek Inc., for instance, a clothing cataloger and retailer catering to professional women, is one of the nation's fastest-growing retailers. The Sandpoint, Idaho-based company, which was founded in 1984 and has 239 stores nationwide, is expected to see sales of \$1.24 billion this year. In 2006, retail store sales increased 46.1%, surpassing a \$1 billion sales mark milestone for the company.

Part of the company's success is attributed to its business intelligence initiatives. According to Michael Carper, the clothier's divisional vice president of technology operations, CEO and founder Dennis Pence has a vested interest in Coldwater Creek's business intelligence implementations.

"I think he had a pretty good idea of where he wanted to start and where he wanted to see it go in the early stages," Carper said.

Coldwater Creek uses business intelligence to determine where to build retail stores—including the 65 new stores it expects to open this year, Carper added. It also analyzes what products are selling well and in which regions of the country. His company has a lot of data to look at, given that it sends out 140 million catalogs a year. Coldwater Creek has collected a lot of data about where its customers live and what they like to buy.

"We wanted [business intelligence] to exist outside of IT so it could move quickly," he said. "It was inspired by our founder to be quick and agile for making business decisions. We're successful primarily through being able to understand the business through business intelligence."

Making sense of all that information isn't the job of IT. It's up to the business to figure out how it wants to use that information. IT just delivers the tools to let business users utilize the data.

"[Business intelligence] definitely can't be an IT project," Carper said. "I don't think it has much value without the business. It has [been] facilitated by business intelligence and technology, but it's largely a business analytics function. The business should feel like they own this to a certain extent."