5 Barriers to BI Success and how to overcome them

By Steve Williams

Even the most experienced pilots wouldn't ignore their plane's sophisticated instrumentation and fly into a vicious storm on gut instinct, thinking they could outmaneuver the worst of it and land safely. So why should running a company in a rocky economy be any different?

But that's just what a lot of leaders of large U.S. companies do—shoot from the hip. According to the findings of a 2008 Accenture survey of more than 250 executives, 40% said they base their major decisions on judgment instead of on business analytics, many times because good data isn't available. Moreover, 36% of the executives surveyed said their company "faces a shortage of analytical talent." A second, concurrent study of companies based in the U.K. produced similar results.

Those numbers are distressing, especially in an era where we have plenty of robust tools to collect and analyze data across all of a company's operations. The good news is that upper management—especially at larger firms—is beginning to realize that information is worthless if it isn't used to maximize profits. Over the past 10 years, I've had the privilege of doing business intelligence (BI) strategy work with companies such as Northwestern Mutual Life, Marriott International, McCormick & Company, Pinnacle Foods Group, Principal Financial Group, Toronto Hydro Electric System, and Lockheed Martin. All of these companies realized that they couldn't continue to compete and thrive in the current marketplace without integrating BI into their business strategy.

What BI Success Looks Like

Essentially, business intelligence is used to create value by enabling a company to increase its revenues, reduce its costs, or both—thus leading to higher profits. Sound overly simplistic? There's actually a lot to it. BI is like a carpentry toolkit, which can be used to build all manner of structures from a shelf, to a shed, to a single-family home. Accordingly, BI success looks different to different executives and managers:

◆ **For the CFO and financial management professionals,** BI success means having a precise and granular understanding of the relationship between operational performance and financial results; better tools for performance management; high-quality, easily accessible historical facts for planning, forecasting, and budgeting; and better information and analytical tools for managing working capital.

◆ **For the COO and operations management professionals,** BI success means having precise and granular information available for cost analysis, analytical tools for monitoring and improving customer service and product quality, and high-quality historical facts readily available for demand management and capacity planning.

◆ **For the CMO, sales leaders, and marketing professionals,** BI success means having complete information about individual customers to enable such things as better customer segmentation, more precise campaign targeting, improved customer service and customer retention, more timely campaign return on investment (ROI), improved ability to determine customer lifetime value, a better understanding of the price elasticity of demand, and improved tools for category and performance management.

◆ **For the CIO, BI directors, and BI team,** success means being able to measure business intelligence usage and impact, being able to do a better job of meeting the demands of business users, moving beyond being order takers for standard reports, and being able to operate with a solid business case and adequate time and money to be effective in helping improve business performance and profits.

This is just a sample of what BI success looks like to the people who are charged with meeting business objectives, delivering profits, and meeting competitive challenges. Ultimately, BI success is measured in improved business performance and profitability, so it's important to understand and overcome the strategic barriers companies sometimes face.

Five Strategic Barriers to BI Success

Although every company has different strengths and challenges when it comes to achieving BI success, I've identified five strategic barriers that can cause financial professionals and the companies they serve to struggle with capturing the demonstrable benefits of business intelligence. These are in no particular order because, in my view, they're all important.

Barrier #1: Confusing terminology makes the value of BI hard to determine.

Even though business intelligence is becoming more pervasive in U.S. companies, most executives aren't yet comfortable with BI and BI-related terminology. That isn't too surprising. BI is a broad field, encompassing a wide range of technologies, data integration approaches, canned and custom applications, and information/analysis delivery methods. While it evolved from data warehousing, with an emphasis on analyzing historical

Figure 1: **The Many Sides of Business Intelligence**

STYLES OF BI	NEW AGE BI	NEW AGE DATA	FUNCTIONAL ANALYTICS	TOOLS
Reporting	Agile BI	Social Media Data	Performance Management Analytics	Scorecarding & Dashboarding
Ad Hoc Query	SaaS BI	Unstructured Data	Financial Analytics	Query & Reporting
Parameterized Queries	Pervasive BI	Mobile Data	Supply Chain Analytics	Statistics & Data Mining
OLAP	Pervasive Analytics		Customer Analytics	OLAP Cubes
Advanced Analytics	Self-Service Analytics		Operations Analytics	ETL
Predictive Analytics	Social Analytics		HR Analytics	EAI
	Real-Time Analytics		"Fill-in-the Blank" Analytics	Master Data Management
	Mobile BI and Analytics			

OLAP=Online Analytical Processing; **SaaS** =Software as a Service; **ETL**=Extract, Transformation, and Loading; **EAI**=Enterprise Application Integration; **BI**=Business Intelligence; **HR**=Human Resources

transactional facts about a business to improve performance and profits, the lines between business intelligence, business performance management, and content management are increasingly blurred. Figure 1 lists just some of the terminology you'll encounter under the BI umbrella.

The business executives, managers, and analysts with whom I've dealt are successful men and women who have risen to their positions in large measure because they're effective decision makers. While their access to information and analysis has been limited in many cases to canned reports and Excel spreadsheets, they've combined those inputs with industry experience, knowledge of their company culture, and discussions with other smart people to arrive at plenty of good decisions. The same can be said of making decisions in the absence of "a single version of the truth" or in the absence of data that's readily "accessible and actionable." Business leaders are confused and skeptical when it comes to information technology, and they need to have a much more concrete idea of what BI is and what they would be getting from it before approving six-figure to seven-figure BI budgets. In the absence of such enlightenment, BI tends to be underfunded, which inhibits its success.

Barrier #2: The mission and importance of BI are unclear.

Any business strategy won't succeed unless a company's various units work together. To do this, of course, each unit must have defined strategic missions and functional strategies that reflect those missions. For example, Japanese auto companies used operations management strategies that resulted in competitive advantages in manufacturing costs and product quality, which supported their business strategy of marketing highly reliable, profitable vehicles. The strategic mission of the operations function was to create an operations-based competitive advantage. In contrast, the consumer electronics industry competes mainly on product innovation, and many competitors use contract manufacturers like Flextronics to rapidly ramp up production and manage the flow of products through the supply chain. For these companies, the strategic mission of the operations function is to get products out the door rather than to try to create an operations-based competitive advantage.

As such, to define the mission for BI at any given company, you need to first determine the strategic importance of BI to that company and the industry in which it competes. Factors to consider include:

- The number of individual customers the company serves,
- The number of products it sells,
- The number of suppliers from whom it obtains products and/or services,
- The number of geographical areas in which the company operates,
- The number of business units it has,
- The variability of the demand for its products or services,
- The number of industries in which it operates,
- Its position in the supply chain, and
- How its competitors are using BI.

Essentially, the more complex the business, the more important BI is to its success. You can apply this thinking to the task of determining the appropriate mission for BI. To illustrate one way of defining a BI mission, Figure 2 shows four stages of BI capabilities in relation to BI's strategic importance.

A company in a complex industry, such as software or automobile manufacturing, needs to invest in and deploy BI capabilities that either confer a competitive advantage (Stage 4) or enable parity (Stage 3). On the other hand, a company in a more straightforward business, such as extraction of natural resources or consulting services, may not have opportunities for a BI-enabled competitive advantage, in which case an appropriate BI mission would be to deliver Stage 1 capabilities. My experience has been that many companies don't explicitly determine the proper mission for BI. Accordingly, they lack a reference point to anchor BI investment decisions, and they fund BI at some level based on what generally amounts to a collective gut feel. Times being what they are, and business people being skeptical of IT in general, the tendency is, again, to underfund BI.

Barrier #3: **There's no clear link to business strategy and critical business processes.**

BI success comes down to improving the performance of the critical processes that determine business success. If you think about it, a company can't earn a return on an investment in BI unless that investment yields increased revenues, reduced costs, or both. Elementary, you may say, but many companies satisfy themselves with BI value propositions that aren't clearly linked to their business strategies and critical business processes.

For example, large manufacturers of packaged food and other consumer goods operate in a very complicated industry. They make thousands of products and sell them to millions of people through a large multichannel distribution system that reaches tens of thousands of retail outlets. To push their products, these companies execute hundreds of thousands of promotional campaigns that further cloud an already muddled picture of consumer demand and how that varies by time of year and geography. All of the leading companies in a particular industry have essentially the same business strategy, and the key to success is effective execution of consumer marketing, product innovation, trade marketing, operations, and supply chain processes. Given these industry drivers and dynamics, a well-aligned BI strategy would encompass leveraging business information and analytics within these critical processes:

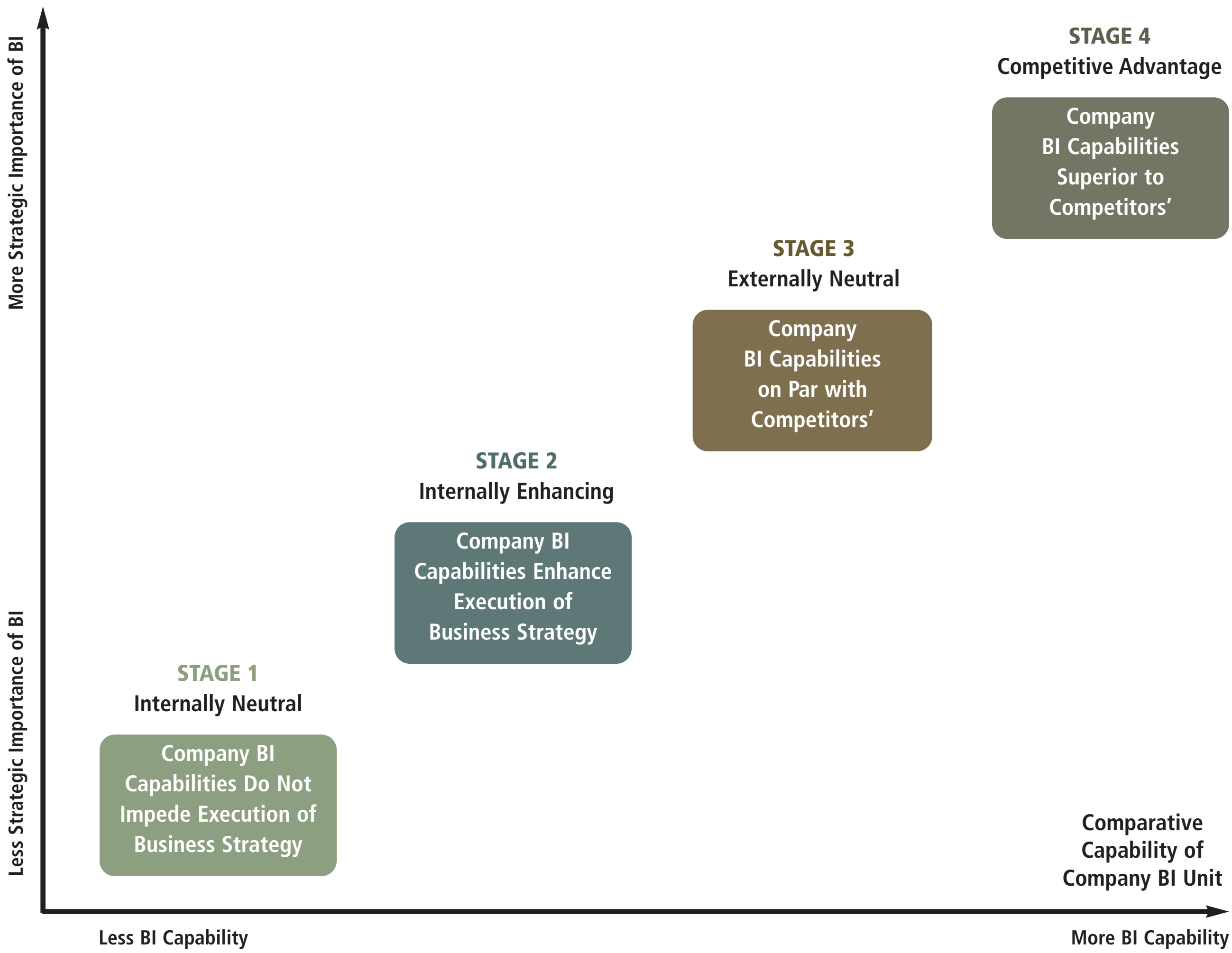
- Performance management,
- Customer service,
- Financial management (budgeting, cost analysis, and variance analysis),
- Revenue management,
- Sales and operations planning,
- Operations management,
- Trade promotions management,
- Inventory management,
- Category management and assortment optimization, and
- Purchasing management.

By closely matching planned BI investments with specific critical business processes, companies can target and measure performance improvements in a concrete way that executives and managers can believe in. Absent such a tight linkage, the BI initiative will be adrift.

Barrier #4: **There's no sense of urgency among upper management.**

Companies can readily overcome barriers presented by confusing terminology, unclear value propositions, and

Figure 2: The Strategic Importance of BI Defines Its Mission



lack of alignment with critical business processes through a combination of executive education, rapid prototyping, and structured BI opportunity analysis. But the effort required to overcome barriers 1, 2, and 3 will be for naught if there's no sense of urgency in the executive suite. Change management experts agree that establishing a "burning platform"—a need for immediate and radical change—is essential to creating the commitment to change. I've heard executives say things such as:

- "We can't continue to run the company without a better idea of the potential and actual impact of strategic initiatives."
- "We have huge amounts of data but limited information."
- "There's an increased demand for a more timely, integrated, and holistic view of product performance from multiple perspectives."

Yet the contrast between what executives and managers say they want from BI and what actually happens with respect to funding, intensity of effort, and executive engagement is sometimes stark. A couple of change management issues may explain this:

- **No burning platform.** Despite obvious needs and BI opportunities, leadership may not view BI as being critical to business success. There's no compelling internal vision and consensus or no persuasive external driver to create a sense of urgency within these companies.
- **Fear of accountability.** Although executives like to talk about accountability and performance metrics and although the phrase "fact-based management" has crept into the business vernacular, my 30-plus years of working with large and mid-sized organizations tells me that many senior executives and managers are accustomed to having meaningful amounts of "maneuvering room"

because of a lack of good information and analytics. The absence of hard facts and solid analyses allows them to offer a variety of plausible (but not provable) explanations for performance shortfalls.

◆ **Lack of business leadership.** Ultimately, the ROI on BI comes from changing business processes, and only the business side of the house can do that. While IT can bring BI to a firm's attention, IT can't lead business process change. Accordingly, companies need to create business-led coalitions to drive the development, deployment, and use of BI to improve performance and profits. Nevertheless, many business executives think of business intelligence as an IT initiative, many are intimidated by the technology side of BI, and many prefer to be the judges rather than the judged when it comes to implementation.

Ultimately, companies can change their processes when they want to and when they feel the urgency to do so. BI is no different, and the absence of a burning platform and effective change management get in the way of its success.

Barrier #5: Not everyone is on the same page. For business intelligence initiatives to succeed, business strategy, business systems and processes, IT strategy, and IT operations and processes must be aligned effectively. That's a pretty broad cross section of enterprise activities. Assuming a company has determined the strategic importance of BI and the business units are willing to change their systems and processes to leverage it, it's still necessary for IT to align its strategy, processes, and operations to support delivery of BI applications.

Consider the scenario whereby a financial services company determines that BI is critical for identifying, targeting, and winning new clients; for expanding its relationships with existing clients; for managing customer service based on predicted customer lifetime value; and for retaining its most profitable clients over time. The sales and marketing groups are excited about BI and are ready to change their processes to leverage new applications. But then comes the need to actually do the IT work, and the company runs into such challenges as:

- The designated BI team lacks BI skills and experience.
- IT is run as a shared service, so BI takes a back seat.
- Business leaders lack IT savvy and thus avoid meaningful engagement.
- The BI team lacks business savvy and therefore struggles with BI requirements.
- IT development methods are inappropriate for rapid, effective delivery of BI.
- IT people are spread across various development projects, so gaining focus and accountability on the BI project is difficult.
- IT policies are optimized for control, risk avoidance, and high reliability/availability systems, whereas BI development is best served by speed and agility.

All of these challenges point to an alignment gap between the business need for BI and the ability of the business and IT units to work together effectively to deliver BI in a timely, cost-effective manner.

Knocking Down Walls

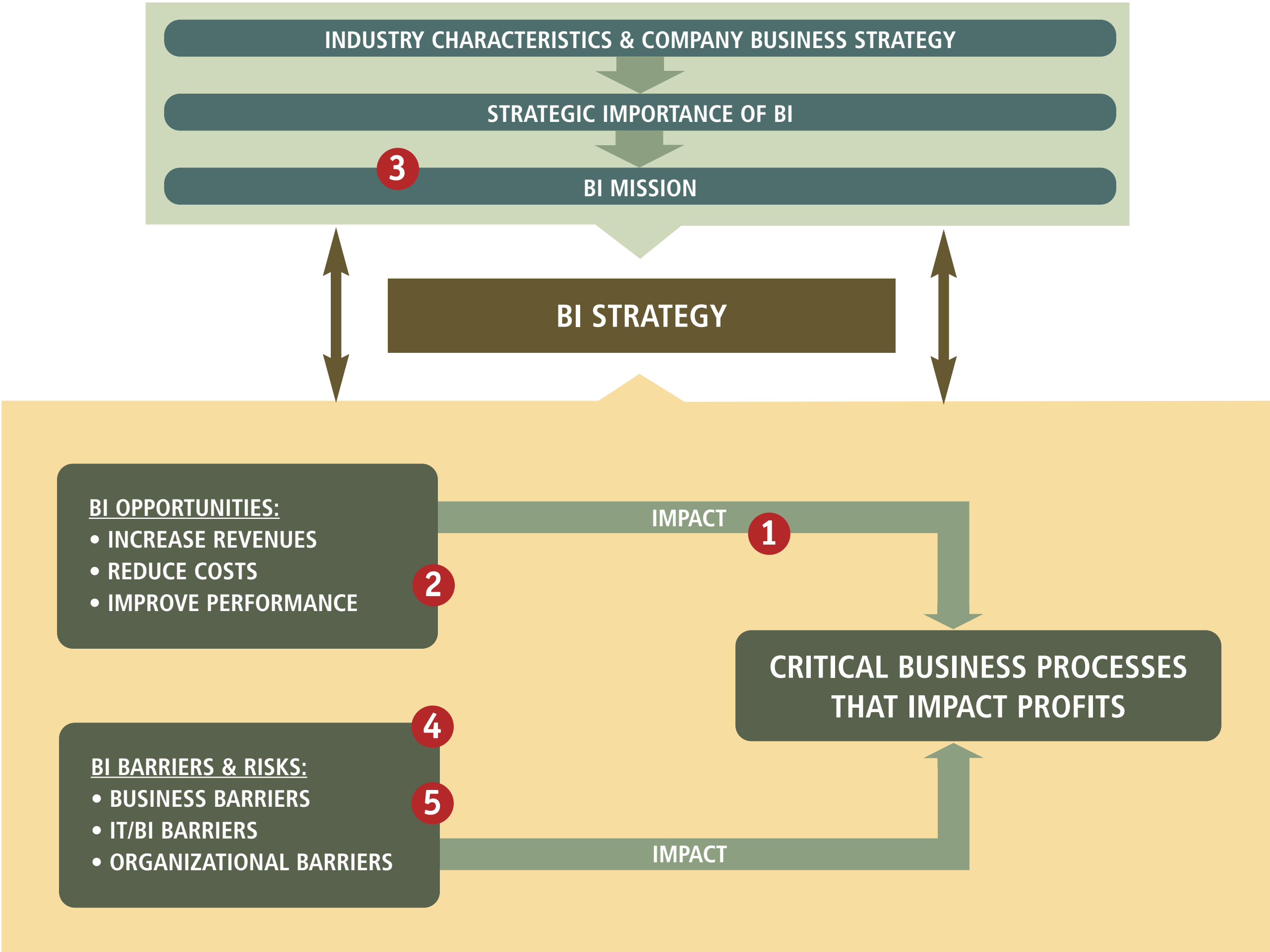
It's important to approach formulation of a BI strategy from two primary perspectives that are shown in Figure 3:

◆ A top-down perspective that determines a BI mission and its importance based on a company's business strategies and the way the company elects to compete within its industry or industries and

◆ A bottom-up, risk-reward perspective that identifies specific BI opportunities related to critical business processes that impact profits (rewards) and that takes a hard-nosed look at the business, organizational, and IT barriers to succeeding with BI (risks).

The five red and numbered circles within Figure 3 correspond to the five strategic barriers to BI success. The first barrier occurs when business people don't understand what BI is and how it can improve processes that drive profits. The second barrier arises when a company hasn't conducted a structured BI opportunity analysis that links BI to critical processes in a way that business leaders can understand and validate. The third barrier occurs when companies haven't determined a suitable BI mission. The fourth and fifth barriers arise when business people don't accept responsibility for BI and lead its adoption and when IT doesn't align its strategy, systems, processes, and people with the business need to leverage BI to drive profits.

Figure 3: BI Strategy: Linking Business Strategy to Greater Profits



All of these barriers, plus the tactical and operational barriers, can be readily identified and addressed in the BI strategy. Furthermore, a pragmatic BI strategy helps build buy-in from business and IT leaders, a key prerequisite for funding and BI success. Of these barriers, the lack of an explicit BI mission that's accepted by top management may be the most damaging. If the company hasn't determined how strategically important BI is, it's difficult to establish a burning platform; decide what level of investment BI merits; and determine what degree of change to IT policies, methods, and processes is in order. Moreover, it's hard to define a BI strategy that's suitable given the BI mission.

Looking back at Figure 2 for a moment, the investment pattern and pace when the BI mission is to be Stage 1 (Internally Neutral) is quite different from when the BI mission is to be Stage 4 (Competitive Advantage). Companies tend to manage change effectively if they understand the *importance* of changing, and the other strategic barriers are more readily overcome if BI has a defined mission. Financial professionals, including management accountants, can intercede on behalf of executives and the IT team to align their goals while overcoming the barriers to effective business intelligence and improving results. **SF**

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When used properly, business intelligence (BI) allows companies to leverage the information they already collect to improve the efficiency and effectiveness of the processes that drive increased profits. The trick is to integrate the data company-wide, across divisions, something a lot of firms continue to struggle with. In this article, an expert in BI identifies the roadblocks to success and, more critically, how to steer around them.

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