

## Six Sigma Business Intelligence: Why Measure BI Quality?

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*Clear definitions for business intelligence and business intelligence quality incorporate the voice of all of our BI customers, and lead the way for effective BI management.*

Business intelligence has generated a lot of well-deserved attention over the last few years and there is general recognition of the value of BI assets. However, the massive amounts of resources being expended today need some tough scrutiny. Black-box management of these critical business intelligence assets is just not the answer. Throwing the money over the fence and letting the techies handle it is a little like the initial approach of Congress with the national financial bailout crisis.

Personal experience with a couple of these large resource-sponge projects has convinced me that a lack of focus on quality means the benefits are frequently outweighed by the headaches and lost business opportunities. In one case, a major hospital and medical services group, feeling the push of government regulations and general lack of good business information, decided it had to quickly turn its organization into a high-quality data and business intelligence show site. After the first \$1.65 million was spent on new software and development for data management, data warehouse and business intelligence, there was an "oops" follow-up stage. The infrastructure, which had not been comprehensively overhauled in years, literally bit the dust. It was obvious that the quality and performance of everything from the data warehouse architecture, the fit into the enterprise architecture, and the underlying infrastructure, i.e., the hardware and middleware, were not meeting performance needs.

After another two years, numerous angry board meetings and \$2.2 million more, a surprise shakeup finally lopped off the top layers of IT management, as well as several key business execs. Recently, I had a talk with a despairing senior pharmacist in one of the hospitals. He asked me why I thought they were having to "make do" with three fewer pharm techs and had also lost a much needed, full-time pharmacist position. That discussion highlighted the issues for me. The people who were actually doing the work and needed the information that should have resulted from this supposed BI showcase ended up with little more than additional headaches. The primary initial management direction had been "fix things fast." Unfortunately, the planning did not include comprehensive and clear definitions for the final BI products and quality.

We may label BI as a process that involves a transformation — data to information to knowledge and action — and that is true and has value. However, there is a BI product that requires effective management. And to effectively manage BI, we need to be able to see the BI products as clearly and intuitively as we see a product like a can of peas. A variety of sizes and shapes and containers make up the BI product set. We also need to understand and be able to describe in simple, easy-to-understand terms, the raw materials, the processes, the various products, and all the tools, hardware, and middleware, i.e., infrastructures, that go into the manufacture of those BI products.

Just as important is a clear understanding of those who create the raw products (i.e., the data), and

the customers who use and rely on the various BI products. Both of those groups should drive the quality of the BI end products. Equating BI and a can of peas may sound a little strange, but the analogy is a good one. Business intelligence should be managed with the same care provided for those cans of peas. Effective management involves improving product quality and cost-effectiveness by changing the factors that influence BI and BI quality. An essential question is: If we do not know what quality is, how will we know when we have achieved it?

Experience has taught me that Six Sigma, which has proven so successful in the rest of the organization, may be used to [manage business intelligence](#). Understanding and providing the basic definitions and metrics for BI and BI quality are arguably the most difficult part of the Six Sigma process. BI is complex and incorporates a set of products and processes along with a spider web of infrastructures, architectures, tools and complex inter-relationships. The initial definition of quality for the BI product will provide goals and drive the development and improvement process.

We industry practitioners actually do a pretty good job right now of defining, gathering and meeting requirements for specific BI application projects, with quality as defined by the requesting customers. We write service level agreements and follow up on those quality definitions. The best example I've seen recently was for a hospitality group. The requirements-gathering team included a couple of long-term business specialists who were our subject matter experts. There were five to seven IT specialists at various times. I was one of the three consultants on the team. We paired up and traveled extensively, talking to literally dozens of business experts. We were aiming for a "best of breed" application, which could deliver real-time registration and customer information to marketing, supply and other back-end groups. It took more time and money than I think anyone had planned, but the result, based on the input of those expert and user groups, was exciting and well accepted.

Sadly, the usual individual BI project has quality definitions that are too narrow – if it has any at all. We are usually missing the voice of the organization. We need to create BI and BI quality definitions and we need to ensure they align with and meet the needs of all our customers.