



The need to incorporate business intelligence into your technology stack

Business intelligence (BI) is defined as a method of incorporating business analytics, data mining, and visualization tools, and combining them with best practices to establish a data-driven organization. The goal is to make better business decisions faster. Analytics capabilities come in four variants:

- ◆ **Descriptive:** Describing or summarizing existing data using existing business intelligence tools to better understand what is going on or what has happened
- ◆ **Diagnostic:** Focus on past performance to determine what happened and why
- ◆ **Predictive:** Emphasizes on predicting the possible outcome using statistical models
- ◆ **Prescriptive:** Focused on recommending one or more course of action on analyzing the data

Why do we need to use business intelligence? The two main reasons for utilizing business intelligence is to:

1. Improve business performance

The concept is to drive focus on the issues and anomalies that organizations need to deal with on a daily basis to enhance an organization's efficiency. Areas of operational efficiency can be:

- ◆ **Back Office:** Automation of financial or clerical tasks and then using business intelligence to have financial/clerical personnel focus on understanding potential processes to deliver the best company results
- ◆ **Product Design:** Providing insight to product quality information throughout product verification, validation, manufacturing and service to focus on areas to improve customer experience by producing better quality products
- ◆ **Manufacturing Environments:** Providing real-time data on equipment health and in process work to ensure equipment utilization and enhance in-process and final product quality. Uptime and operational efficiency is the key driver to delivering optimum business results
- ◆ **Service:** Based on product data and in-service connected data, the goal would be to create a great customer experience by providing a "predictive quality" experience by contacting the customer before the product has an issue

2. Improve IT performance

The idea here is to drive focus on the issues and anomalies that IT department need to manage on a daily basis to ensure the department's operating efficiency. Areas of IT efficiency can be:

- ◆ **Security:** BI technology can be utilized in terms of fortifying an organization's security stature by ensuring data is locked down based on role and personnel. It also can look for anomalies in requests for data, as well as, understanding when data is being requested from the internal infrastructure and being sent to external sources.
- ◆ **Data Storage:** BI platforms can be used to gather and rationalize data from multiple sources. It may not be able to answer the question of "Which data is the correct data" but can provide datasets of like based on chosen criteria to enable the rationalizing of data into information. It potentially can provide the results of which source of the data has the latest and where the correct data reside, as well as, all the other locations within the company that stores duplicates of the data found .
- ◆ **Scalability:** Enterprise BI technologies can scale from a single person use and visibility to a company-wide use and visibility. The technology can be used to get the correct data to the right personnel/department to optimize the business decisions and hence maximizing the company's results.
- ◆ **Data Accessibility:** BI platforms enable us to access and analyze large amounts of data in a quick and efficient method. The ability to solve issues/problems/defects while utilizing these large amounts of data being analyzed to providing the overall context and data in an efficient manner is a game changer. It allows you to take all views and perspectives into focus while making key business decisions.

As discussed, BI technology can be used in multiple manners and environments to provide enhanced results. The foundation is the ability to provide data and guidance to business and IT leaders to enhance company results. Keep in mind, there are many other applications for these BI technologies on top of what we discussed above.

If you'd like to talk about how we can help you evolve this technology within your company—give us a call!

Next Month: Managing the Company's Crown Jewels—Product Information