7-2015

Business intelligence, data and analytics

Singapore Management University

BUSINESS INTELLIGENCE, DATA AND ANALYTICS

Published:
29 Jul 2015

Data can be used to predict outcomes but quality data is essential

The beginning of business intelligence (B.I.) started in 1980's with in-house IT departments doing batch processing of data at the end of the day or week for manufacturing resource planning (MRP), which soon expanded to become enterprise resource planning (ERP). As ERP systems wrangled with more functions – accounting, finance etc. – more and more data was generated, and IT departments became overwhelmed with requests for more and more updated information.

Fast forward to the 21st century where business folks expect up-to-the-minute information, and it becomes clear something had to change.

"The typical IT guy would take anything from six to eight weeks to add a data source," explains **Bhavish Sood** of IT research firm Gartner. "Business users will say, 'I don't have the patience for that'. By the time you add that, the business would have already changed.'"

He adds, "Business guys are now using more and more analytics products. If you look at a typical business user, he'll have three main gripes with B.I. First, there is a lack of self-service: 'Every time I need to write a report, I have to go through the I.T. guys.'

"Second, it takes too long to fetch data. Third, there is no visualisation. The usual pie charts and bar charts are doable, but if I want to do complex visual presentations, I have no ability to do that."

No data = no B.I.

The need for access to updated data and ever more complex presentation has led to a shift in B.I. that gives the business user increased flexibility. The advent of cloud computing has made it possible for IT departments to move away from the command and control model of information access to a more fluid one.

"The typical IT guy would take anything from six to eight weeks to add a data source.Business users will say, 'I don't have the patience for that.'"

New technology has also made it possible to use data to do predictive work, but Sood warns against having unrealistic expectations.

“We have clients who want to do advanced analytics but they have never done any historical reporting,” Sood says. “They have never done any kind of B.I. You simply cannot go from that to advanced analytics no matter what your vendors tell you.

“You need a couple of years’ worth of data to do model testing and calculations. If you’ve not had any data for the last five or six years, it is pretty much going to be impossible for you to do any meaningful prediction.”

For companies that have existing B.I. initiatives and the necessary data, products such as Tableau and Qlikview have fulfilled the need for data visualisation that bigger companies such as Oracle and Microsoft have failed to deliver. However, Sood highlights the need for top management to be actively involved for B.I. initiatives to work, and that it is not just an IT function.

“I’ve seen three back-to-back failures with three different providers. If your B.I. initiative is completely driven by your I.T. guys, it is not going to succeed.

“Secondly, if you have data quality issues, the report you produce will not be good. What I’ve been advising clients before they start a B.I. initiative: make sure you’ve done profiling of your data, and that you have a model for data enrichment and fixing data issues. Otherwise, you’ll be live on the B.I. project and it’s going to be an issue.”

Compared to the past where “you would spend the money [on infrastructure] and then look for a use case,” says Sood, cloud computing has made possible rapid prototyping and building of the business case before building infrastructure. But Sood warns that just because it is easier to implement B.I. initiatives does not mean it is for everyone.

“All B.I. initiatives can be classified into three areas: it helps increase revenues, reduces costs, or measure improvements in services rendered. If your B.I. analytics are not in any of these three buckets, you’re wasting your money.”