Where man meets MACHINE

Delegates at a recent roundtable were divided on how much it’s fair to expect from business intelligence. By JONATHAN HOPFNER.

It could be seen as software’s holy grail—a tool that sifts mountains of data into manageable, relevant chunks of information that enterprises can use to pre-empt poor decisions and gain a lead on their competitors. But like the legendary grail, business intelligence (BI) is elusive, perceived in different ways, and there are even some who insist it doesn’t exist.

Not that many CIOs wouldn’t leap at it if they had the chance. The majority of IT executives attending a recent roundtable on BI were either in the middle of or considering a BI implementation. While their methods and maturity levels varied, their wish lists had much in common. “After implementing (enterprise resource planning) systems for HR, finance and student administration, we’ve reached the next phase of needing to make sense of all the data we’re putting in to them, turning it into something that brings value and adds to decision-making,” says Tan Kay Chuan, divisional director for IT services at Singapore’s Institute of Technical Education.

David Brown, CIO of Behringer Holdings, says the music specialist’s planned shift to the mass market make it “quite important that we have information on which we can react”.

“Although we’ve got a lot of data inside the organisation, it’s locked inside different systems,” he explains. “We’d like to get this information back into some sort of semblance where we can analyse it and understand what’s going on around us. BI has not been important but now is becoming important for us.”

BI has become “part and parcel” of Singapore Technologies Engineering’s strategy, says CIO Teo Chin Seng, who says analytics help the company maintain the “intellectual property” that is so crucial to technology-focused firms.

“As we move up the food chain, more and more information resides in [employees’] grey matter rather than on paper—we need to make sure that we continue to retain and grow from this knowledge and experience,” he says. “So we’re talking about ways to merge analytics information with operation data and areas of knowledge management… that’s our aspiration.”

The real thing

Also clear at the roundtable was that BI vendors have stirred up a host of great expectations.

Lim Chin Siang, director of the IT and technology group at Singapore’s Media Development Authority, says he is after “BI that is really BI, meaning I input data in the system, the solution has the ability to crawl around for the additional infor-
information it needs, and then helps give me a predictive strategy.”

This may seem a tall order, but according to Steve Illingworth, senior director, business intelligence and data warehousing technology solutions, Oracle, giving companies an accurate snapshot of important business indicators and allowing them to see and act on what lies ahead is one of the core features distinguishing BI from lesser solutions.

“The real problem with BI is sometimes there’s a human assumption, and somebody goes and finds data that’s assumption and it’s presented as BI—it’s not,” he explains. “With volumes of data that we’ve got now and the technologies we’ve got now, the patterns of data should inform you and other way around.”

“Traditionally, people think of BI as building a report on data and it showing what happened yesterday,” he adds. “It’s much more interesting to actually look ahead and do trending and forecasting, so you can manage your growth.”

Unfortunately, to reach this point often requires a long, hard slog. The first barrier to BI for many companies is a voluminous mass of legacy systems. Henk Balsters, vice- president for IT at Emerson Process Management Asia-Pacific, says that often, large organisations will implement “every ERP system under the sun” in its many years of history, making an ongoing effort to consolidate on a single platform and shaping the reams of data generated into something useful a tricky proposition.

“The big thing is when you end up on a common platform that theoretically should make things easier, what do you do with this 10, 20 years of history that lives on these tapes, disks, hard disks or SAN systems all over the world?” he asks.

The complexity of moving historical data onto a single global platform “is just enormous,” agrees Michael Fung, associate director for strategic planning and quality assurance at Singapore Management University. “The data integrity, the way you

Delegates at the roundtable

- Alan Siow, director, IT and investor relations, Yellow Pages (Singapore)
- Tan Kay Chuan, divisional director, IT services, Institute of Technical Education, Singapore
- Lim Yew Teck, head and vice-president of group IT, Ascendas, a real estate firm
- Lim Chin Siang, director, IT and technology group, Media Development Authority, Singapore
- Teo Chin Seng, CIO, Singapore Technologies Engineering
- Henk Balsters, vice-president, IT, Emerson Process Management Asia-Pacific
- Michael Fung, associate director, strategic planning and quality assurance, Singapore Management University
- David Brown, CIO, Behringer Holdings, a music specialist firm
- JR Ravikumar, CTO and vice-president (operations), Consintel (Singapore)
- Steve Illingworth, senior director, business intelligence and data warehousing technology solutions, Oracle

Moderator: John Lui, editor, MIS Asia
"They'll ask why they should change for the sake of something that hasn't been proven."
—Michael Fung, associate director, strategic planning and quality assurance, Singapore Management University, on staff resistance

index it—to get it to a stage where you can start mining it is a long process and a huge hurdle (to BI projects), if you ask me.

Not a silver bullet
Despite "dramatic" changes in technology over the last two decades, Oracle's Illingsworth is quick to admit that BI requires a sustained commitment and substantial resources—and is no instant cure-all.

"Enterprises have all these systems and all of them are running the business, they're all important, but they're gathering huge volumes of data," he says. "Now the CIOs and the CEOs are saying we should be doing something with this data. People want this somehow to be magically automated, to wave a wand and all that data is suddenly cleaned up and put into a central amalgamated source, and tells them what to do."

Like most delegates, he says the BI journey should begin at the source, with data that is accurate and manageable and as a consequence, capable of producing solid information.

"The old saying of garbage in garbage out still applies," Balsters points out. "If you start with stuff that's relatively dirty, I'm not sure how software can clean that up."

"Vendors are working on a lot of clever stuff, but if your data isn't clean, isn't accurate, you're relying on tools to tell you where you should go and what you should do in the future. Would you really trust their recommendations?"

The problem is no matter how advanced the solution, data entry and categorisation still relies on the human touch, making it essential that good policies precede a BI implementation.

"We're looking at our processes a lot more closely, making sure that data is going in more accurately and that there are clear data owners," Behringer's Brown says. "It's about putting controls in, engineering change controls, so that when data goes in somebody's signed off on it and has said yes, it's correct."

But efforts to change time-honoured practices or tighten data quality monitoring can translate into more work for core staff, kicking up resistance in the process.

"You put up a project and promise certain benefits, say you're going to change the business process of front-end units because you have to start to collect clean data, and business heads are not going to like it," Fung points out. "They'll ask why they should change for the sake of something that hasn't been proven."

"It's hard work, not so much with top management but with the middle managers who are being pushed for performance," agrees Balsters. "They're concentrating on getting something out the door and what you're doing tends to slow them down."

Teo of Singapore Technologies Engineering notes CIOs are often precise by nature, but the messy day-to-day world of industry is far less so. Expecting all the data or conditions surrounding a business to fit neatly into a system is unrealistic and dangerous in that it could broaden divisions between the IT department and employees in the front lines.

"You have to be aligned with the company's culture ... you can't perfect the system and if you try to create perfection, you risk creating chaos," he says.

Everyone on board
Others spoke of the need to keep senior management, in many cases the intended beneficiaries of a BI initiative, involved.

"We tend to oversell solutions to top management; in reality there are a lot of issues related to the classification of data that take extra time, and their confidence levels will tend to be lower as the days go by," says Lim Yew Teck, head and vice-president of group IT for real estate firm Ascendas.

Lim also says he perceives a serious gap...
between end-users and solution providers, who may have a limited understanding of the customer's industry while the customer lacks expertise in BI. This results in the confusing salutation of the vendor relying on the customer to articulate what it wants from a BI implementation while not having an accurate picture of the technology's functions and capabilities. "The discussions can drag on and the end result will not be what the user expected," he warns.

Defining what is needed from a BI system is a delicate but crucial task. After all, enterprises can't depend on a solution for everything. As SMU's Fung says: "We'd love to have super intelligence in the system, but the reality is [users] have to apply their own intelligence as well. They need to keep asking the right questions."

At SMU, defining BI parameters took several steps. "First, we needed to make sure at the corporate level we understood what our key performance indicators are, and what we are most interested in monitoring, coming directly from our vision and mission," Lung says. "That had to be cascaded down to departments and schools. Then we went back to the system and looked at what data we could get."

But Fung notes the success of the process is dependent on the links between the executive board and the agencies steering a BI project.

"You really need to be plugged in on a regular basis into the strategic direction of thinking at the management level," he says. "If this was put with IT and they were not sitting in the senior management meetings they would get disconnected, and it would be hard for them to produce intelligence and reports that are relevant to top management."

Further complicating matters, points out JR Ravikumar, CTO and vice-president of operations at Consitel (Singapore), is the fact that within many companies, "every division has its own KPI, which keeps expanding."

A two-way street

Ultimately, as Illingworth of Oracle says, it's up to enterprises to meet BI technology halfway. Or in the words of other delegates, BI may produce the indicators, but it's left to the company to act on them.

"It has to go beyond beautiful pie charts," agrees Lim. "[Reports] don't link to the actual events on the ground that tell the full story.

"Management wants to know the root cause of it, and what the unit in charge of that area is going to do to correct it, and that drives holistic change, not just moving data from the bottom to the top and stopping there. Senior people want to see corrective action."

But they may not take action all the time. "There's still a tendency, particularly at the top, to say this is what I want to do, can you get some data that proves that this is the right decision," says Balters.

"When you do produce data and it does indicate a trend it may get dismissed because people feel they know better. Technology is kind of nice if it backs up what they want to do, but if it doesn't then they think there's got to be problem with the technology."

Illingworth recommends starting off any BI initiative relatively slowly, helping individual executives warm to the technology and its possibilities before rolling anything out enterprise-wide.

"BI if its used properly will completely change the way you do business," he says. "The way to be successful, is not big-bang, but to pick a line of business where you've got a C-level sponsor. Implement and solve that person's problems first rather than the whole company's problems, which is significantly harder."

Jonathan Hopfner is a contributing writer with MIS Asia.

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