

# A 'gentle' introduction to BI

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I've been a bit remiss about my blogging duties, so I figure I'd start with a ramble on Business Intelligence (BI) within a market that may find organizations hesitant to invest in new systems. With all the news on the economic front, I think it's safe to say that there's a huge push right now to reign in expenses, cut costs, and if at all possible, identify new potential target markets and revenue streams. That makes BI even more important, but if it's not already in place, or if there's no budget for it, implementing BI becomes more of a tough sell.

BI is not just about 'who' wants to use your data and 'what' you want to do with it once you have it. It's also about 'where' that data comes from, 'how' you can turn that data into meaningful information or intelligence, and 'when' to use it. You can call it Master Data Management, Information Management, or a slew of other terms, but the essence is this: What does your organization need in order to support its strategic objectives, where can it find that information, and how can it get that information to its decision makers? For BI to be effective, you need to have a Knowledge Management (KM) plan of some sort in place that answers these fundamental questions.

In an environment of limited dollar resources, it helps to look at BI as an EAI (Enterprise Application Integration) solution. What's EAI? It's the affordable approach to ERP (Enterprise Resource Planning) and Data Warehouse implementations. Instead of adding another layer to the IT Architecture, leverage what is already in place. Most organizations already have the infrastructure to support communications through email, corporate web portals, and file servers. Likewise, maturing businesses should also have a RDBMS (Relational Database Management System), or a mix of RDBMS's in place to support the organization's business applications. With a KM policy in hand and an understanding of your RDBMS architecture, you're in a good place to start thinking about BI.

I know this is a break from the traditional BI approach, but with so many tools available for Data Integration, you don't always need a data warehouse to build BI. Instead, look at each individual RDBMS as a silo of information, and in place of a warehouse, build a series of views, stored procedures, or file extracts to generate the blocks of data needed to support your strategic business drivers and performance indicators. Integrate the data in real time, as needed, to support your BI efforts. Not having a data warehouse should not be a deterrent to BI. It all depends on the organization's needs. At its core, BI should be flexible, and as with all things IT, there is more than one way to build a working architecture.

Take this past project for example. My employer at the time had a CRM (Customer Relationship Management) system in place to track sales, and a MRP (Material Requirements Planning) system in place for manufacturing, but no means of integrating the data between the two. Being a relatively small, but rapidly growing company, the organization had nothing in place to analyze Gross Margins on their manufactured systems. Their solution was to build a customized ERP system that could automate their GMA (Gross Margin Analysis) and support various consolidated reports. As a stopgap measure, they were working with data extracts from both systems and a set of complex Excel spreadsheets to conduct their GMA. The only problem was that by the time the GMA had been completed on hundreds of systems and tens of thousands of parts, the data was obsolete. Business was growing too fast, decisions needed to be made quickly, and management no longer had the luxury of waiting for GMA results.

Not wanting to wait months for the ERP and Data Warehouse to be built, the newly hired VP of Finance presented a list of data requirements and calculations that were needed to conduct a GMA (Gross Margin Analysis). Using the existing SQL Server and Oracle databases already in place, a SQL view using data from linked servers was created to generate the GMA data set. Not wanting to lose the hundreds of hours put into developing the GMA reports in their Excel formats, and as all the reports were linked to a master spreadsheet and published on the Corporate portal, the master GMA spreadsheet was updated to use a data connection to the new view.

Okay, so we're not talking about anything special here, and this is a relatively simple solution, but it is a good example of EAI and BI in their simplest forms. Armed with a SQL view, and a spreadsheet that automatically updates GMA results, why build a custom ERP system? Suddenly you have what you need – GMA at the click of a button. Here was the problem. The organization was ingrained with a certain way of thinking. Sales didn't care about Manufacturing, and the only thing that Manufacturing wanted was a System part number. With no lateral communication between the two sides, their processes matured on different systems, at different levels, and with no KM policy in place, over time, the disparate systems began to impact the ability of the Accounting and Finance department to reconcile the data used for GMA.

I'll leave it at that for now, and will close with this. In my estimation, good BI serves as the bridge between an organization's management, business, customers, and information technology. At its basic level, BI creates the right information at the right time for the people who need it. Ultimately you get what you pay for, but if it doesn't need to be pretty, and if you just need something that works, you don't have to spend a lot to get it. Sometimes the only thing you need is a fresh perspective, some ingenuity, and to get everyone on the same page.

Happy blogging!

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