

# Practical uses for a Data Warehouse: Part One

## Corporate Reporting

When I find myself in the 'Business Development' mode, quite often my proposals are rebuffed by company managers with the comment, 'we already have computers, we are all set'. This can be an indication of several things. It could be that the manager:

1. Is near retirement and doesn't want to rock the boat.
2. Doesn't have a clue what is going on within his operation.
3. Is on drugs.
4. Wants me to vigorously defend my statements. In other words, make a good business case to him without whining (too much).

For the purpose of this article, we will assume number 4. With that in mind, do you sometimes become overwhelmed with angst about the real value of consistent, well-documented data/information/reports/business intelligence? Why is it so hard to sell a data warehouse? First of all, a data warehouse is not a single, one-time project. It is an 'architecture' to support consolidated corporate reporting. It is a concept like freedom and not an object like my red 1996 Geo Prism.

At the very least, it is a series of projects that are iterative in nature.

- It is continuous process improvement.
- It is enterprise application integration (EAI). That is, as new things come on board such as new acquisitions, the data warehouse will need to be modified to accommodate the new data/information.
- It is NOT enterprise resource planning (ERP) or an operational system.
- Further, it is NOT a new idea. What is new is a variety of operating systems, integration tools, techniques, technologies, and expanding reporting requirements.

To be brutally frank, DW enthusiasts fundamentally misunderstand what motivates business managers. Most managers are NOT compensated for supporting abstract concepts. They are pragmatists. They believe that 'money spent (today) is real; savings in the future are not'<sup>1</sup>.

Moreover, all of the incentive programs they encounter are based on quantifiable facts with maybe a little percentage for the warm and fuzzy Human Resources (HR) stuff just to make it interesting. Managers are looking at the bottom line and not for a group hug or a warm feeling. We need to provide them with concrete concepts like accurate reports, quality products (data), lower costs, and competitive advantages. If you can convert the abstract to the concrete then and only then will the DW project progress.

The balance of this article is a series of questions to ask the manager with the appropriate background to support a decision for a data warehouse. You must identify a need/hurt/pain within the manager's organization to be successful.

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### Questions

1. Is it important to you that reports tie back to the corporate financials?

**Background.** The answer is yes. If every department has a different and irreconcilable idea of what constitutes ‘Quarterly Sales’ then whose answer is right? This situation occurs when a company has a number of systems that are not integrated. System A computes sales less returns, but System B only includes sales. Voila, la difference! Further, this situation is guaranteed when a company has grown by acquisition. In brief, the company has ‘silos of information’. Even worse there is not a common company wide accepted definition of basic terms.

2. Is it important to you to control labor costs?

**Background.** The answer is yes. Labor is an expense. Few managers realize the hoops their staff must jump through to generate the ‘Monday morning report on Sales’. Most of an analyst’s time is spent on finding, defining, manipulating, re-keying, and summarizing data from all the company systems. Panic ensues among the staff when the manager asks for an ad hoc report for which there is not a predefined format. In many organizations, an official request must be submitted to the IT department for the creation of a new report. This may take months to complete. If the analyst knows where the data is, what it means, and how to access it, then cost savings are sure to follow. If the analyst does not have to re-key the data, data quality is improved.

3. Does sales and marketing need to be more responsive to competitive pressures?

**Background.** The answer is yes. Companies can not afford to miss sales or new markets. However, most organizations are so fragmented and disjointed with regards to company data that it is a miracle they know who to invoice and for how much. I can’t count the number of organizations I have been in that maintain numerous versions of company data on Microsoft Access or even worse Microsoft Excel. *Best’s Law states that if data is in two places, it will be inconsistent.*

Many companies are trying to adopt complex Customer Relationship Management (CRM) programs. This is a huge and expensive step. Many companies grow impatient with the large cost and long delivery time. Incremental DW projects can improve cash flow.

4. Do you view data as a very important company resource?

**Background.** The answer is a qualified yes. Yes is the automatic response like loving your mother, apple pie, and country. However, most business managers don’t see computer data as having value outside of the computer. Data is an abstract concept. Data becomes real to

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the business manager in the form of reports. Essentially, they feel that data belongs to the IT department. This is a common philosophy in companies with large, centralized host based (mainframe) systems.

Progressive world class companies are increasingly aware of the tremendous value of their internal data. After September 11, the nation became painfully aware the huge impact the LOSS of data was to numerous Wall Street firms. When the manager becomes fully aware of the consequences for the loss, destruction or corruption of their data these DW features become important. The features are:

- Centralized data store of historical data
- Increased data quality
- Enhanced security
- Easier access to data
- Easier backup and recovery requirements
- Elimination of duplicate data

5. Does your Call Center need to see integrated customer historical (DW) and transactional data in (near) 'real-time'?

**Background.** The answer is a tentative yes. This depends largely on the complexity of the business, which is driven by the number of 'silos of information'. Increases in complexity push up the cost of the integration project by orders of magnitude. It is important to have a clear definition of the 'real-time' requirements balanced against the increase in cost. Plus, this is another system that requires maintenance. Sometimes the harsh realities and increased costs diminish a manager's zeal for the cutting edge.

In addition, there is added value in the ability to combine existing data with secondary data (For example Government demographics) to get a better view of the customer. This will provide a source of clean and well-defined data to the marketing research department. Finally performance 'analytics' based on Key Performance Indicators (KPI) is now available with an ease that was never before possible.

If you find that there is no perceived need for a DW, it is best to thank everyone for their time, end the meeting, and depart friends. Be sure to leave a business card and a good impression. Tomorrow is another day.

### References

1. Crosby, Philip B. 1979. Quality is Free. McGraw-Hill. New York, New York.