Ben & Jerry's, Bigelow Teas, and Business Intelligence

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## Abstract

Ben & Jerry's and Bigelow Teas have both demonstrated a commitment to using technology and information management systems to create business intelligence (BI). As a group we developed a plan to create a data warehouse that applied the intelligence to create strategic management and problem-solving. After analyzing the unique BI needs of these firms, some observations and specific recommendations were made.

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Having information about customers, competitors, suppliers, the competitive environment, and its own internal operations available in an organized format are very important to successful management of modern businesses. Such a format enables management to extract meaning from the data and make decisions to increase the competitive advantages of the firm. This is the value of business intelligence (BI) when information is available in a useful form (Haag & Cummings, 2009).

"The primary purpose of BI is to improve the timeliness and quality of input to the decision process" (Haag & Cummings, 2009). Access to the right information at the time and place it is needed gives management a strategic advantage over the competition in decision-making. Technology is very important as a foundation for building business intelligence (BI) with tools such as databases, data warehouses, database management systems, and data-mining tools (Haag & Cummings, 2009). But these alone do not create business intelligence. Business intelligence is created when we have "the right IT tools to define and analyze various relationships within the information" (Haag & Cummings, 2009). In a relational database, we "create ties or relationships in the information that show how the [data] files relate to each other" (Haag & Cummings, 2009).

Two firms, Ben & Jerry's and Bigelow Teas, have demonstrated a commitment to using technology to create BI and applying it to management problem-solving. After studying the unique needs of their information management systems, some observations and specific recommendations to will be addressed here.

On a daily basis, Ben & Jerry's produce 190,000 pints of ice cream and frozen yogurt and ship to 50,000 grocery stores (Haag & Cummings, 2009). Tracking data on each flavor would allow management to know its popularity within a market segment. This data would be useful to make decisions such as inventory, discontinuing a flavor, or developing a new recipe that customers demand. In order to create a data warehouse for Ben & Jerry's multiple dimensions of information would be required. The dimensions that we would start with would be their products, sales, geographic location, and the date of each process. It is imperative for business executives and managers to be able to view reports that summarize the data they need to make logical decisions (Haag & Cummings, 2009).

Sales information is very important to decision-makers. Sales data should include the day, month, and year of the products sold as well as the quantity sold to each grocery store and if there were changes volume of sales during any timeframe. By using the data from multiple operational data within Ben & Jerry's, managers could observe when certain stores are not selling the product as well as expected (Haag & Cummings, 2009).

Geographical data will allow Ben & Jerry's to see where their product is being distributed and sold. It allows sales data and product data to show which states are selling as their top three flavored ice cream or frozen yogurt. By documenting data pertaining to each process prior to sale, it puts a time on the sale of the product and its location. These all give the company inside business intelligence about how their products are selling and when and where to make changes which are necessary in the company's growth (Haag & Cummings, 2009).

In its database, Ben & Jerry's would include client information, order detail, employee records, and product type. Client information files should contain client number, order ID

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numbers, delivery address, and invoice with order information. Order detail files would include the quantity sold to each customer in a given bulk order broken down by the flavor product, vendors for raw material purchased, and location of the product in transit until it reaches the retail outlet. Employee records would have each employee name, address, phone numbers, and performance records. The product type would include each batch of frozen yogurt and ice cream produced, as well as the batch number, flavor, and where it was delivered. The primary keys would include client, order, employee and product ID numbers. The foreign keys would include another file that would contain the ID numbers within them. For instance, the client ID number can show up under a sales file containing each geographical location that sold more frozen yogurt and/or ice cream. The order ID can appear under the annual file that includes the timing of raw materials received, batches produced, shipped, and delivered to the customer (Haag & Cummings, 2009).

The second company, Bigelow Teas, has had great success with its investment in business intelligence in the form of the BusinessObjects platform due to its similarity to Microsoft Excel in its user interface. This familiarity between the two software products is deliberate and fosters a broader adoption among the organizations' employees. Consider the common look and feel of suites of applications such as Adobe Creative Suite and the Microsoft Office Suite of applications. Both software suites carry a common look and feel across the suite which makes the software easier to learn and use. This worked well for Bigelow Teas because many of its employees were proficient in MS Excel and therefore the training required to use BusinessObjects was minimized. "When standard functions are delivered through a common graphical user interface application, the training for employees is dramatically reduced within an organization," (Smith, 1994).

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Bigelow Teas could open up its business intelligence information to suppliers and resellers. They could share order information and trends unique to the supplier. Having deeper insight into current orders and trends could afford the supplier to precipitously ramp up production of a popular flavor or even scale back production of a seasonal item. Extending BI functionality to resellers could allow them to take advantage of predictive replenishment nearer to a just-in-time model (Haag & Cummings, 2009).

In leveraging a BI model across the enterprise and out to its supplier and resellers Bigelow Teas would naturally want to restrict certain information. Information such as the wholesale buy rates and quantities the organization is currently committed to with each of its suppliers should not be shared either among competing suppliers or with their resellers. Additionally, resellerspecific data should be restricted to viewing only by that firm.

Creating useful BI does not happen at one level of a company, but at many levels. For example, in the accounting department, we know that "one of the first steps in planning is to predict the volume of activity, the costs to be incurred, sales to be made, and profits to be received" (Wild, Shaw, & Chiappetta, 2011). Cost estimates are "only as good as the data used for estimation" (Wild, Shaw, & Chiappetta, 2011). And all information and reports generated are subject to interpretation (Wild, Shaw, & Chiappetta, 2011).

The key is in "creating reporting that is targeted at specific functional needs and which helps operating teams answer the questions at hand... but to make sure there is enough flexibility to tailor this business intelligence system to your unique situation" (Morandi, 2010).

"According to recent research at Accenture, nearly half (40 percent) of major corporate decisions are based on the good 'ole gut" (Wailgum, 2009). Due to lack of good systems for

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understanding the data and sometimes a lack of trust in decision making systems, CEO's still make many decisions based on intuition and historical trends. It seems they are not comfortable yet with decision-making by the numbers. They trust their own judgment and experience more. CEO's will feel more confident in relying on BI for their decisions when there is more training at all levels of the company, a variety of data-mining tools are available, and an information system designed to meet the needs of the company and answer the questions management might ask is put in place.

Some CEO's and managers do not fully understand the value of BI created or doubt its capacity to inform their decisions. In short, they are used to 'trusting their gut' or their own intuition and are hesitant to replace it. But BI is not meant to replace managerial excellence, only to better inform it and thus to improve it.

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