

How to Harvest Sales Data for a BI Bumper Crop

The Scotts Company, the market leader in do-it-yourself lawn and garden consumer products, derives more than 60 percent of its revenue from five major customers. Five years ago, the company overhauled its IT systems, setting in place an SAP Business Intelligence (BI) infrastructure that would provide a better understanding of what these retailers needed, what these retailers' customers needed, and how Scotts could better anticipate and serve those needs. Sales and inventory data from retailers are now fed into SAP BW daily and weekly. This data covers 900,000 stock keeping units (SKUs), representing roughly 3,000 products.

The sales and marketing organization uses the data for reporting and analysis. This data is also fed into Scotts's forecasting and replenishment system to enable forecasting at the retailer level. The finance organization uses the enterprise data warehouse as well.

The table on page 72 summarizes the various departments that depend on the SAP BI platform. BI at The Scotts Company is under the direction of Ram Balasubramanian, director of continuous improvement. Ask him about the merits of a common BI infrastructure at The Scotts Company, and he points to a number of key benefits:

- The Scotts BI team enables an accurate and near real-time enterprise-wide view of sales, inventory, and customer service metrics at the customer, regional, and brand level.
- The BI information has enabled Scotts to conduct a detailed evaluation of all areas of order processing and customer service. As a result, the customer service team has been able to keep fill rates at more than 95 percent.
- Providing near real-time sales data to merchandisers has helped with the timely execution of promotions at the stores as well as the ability to quickly change and adapt.
- Effective use of sales data has helped The Scotts Company to replenish inventory for customers at the right time and has helped forge more strategic collaboration efforts with retailers. They are starting to rely more on Scotts to help drive more sales at the consumer level as Scotts demonstrates a deep understanding of consumer buying patterns and the impact of promotions, media, and weather on sales.



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— Ram Balasubramanian

- Analysis of data helps target media spending and marketing efforts at regional and national levels. It also drives the selection of the right type and medium for advertising.
- Scotts’s business development teams are using season-breaking reports from BW to understand when the sales season has started at a regional level. This helps drive operational and sales focus to targeted regions.
- Scotts has been able to increase inventory turns from 1.3 (before this initiative) to 4.6 while rescuing inventory held by its customers.

The High Price of Bad (or Absent) BI

The before-and-after picture of an early adopter like Scotts provides keen insights into the great divide that

is emerging between the BI *haves* and *have-nots*. In 1999, the company had only limited visibility into its channels, and the company operated with unreliable forecasts. Absent were accurate indicators about the specific products that were needed in specific stores. The results were excessive safety stock levels and the payment of high fees to outside warehouse facilities to store the excess inventory. Forecasts were frequently off target. Annual inventory turns were just under two, and customer fill rates were less than 90 percent. For a company like Scotts, where 60 to 70 percent of its sales are made in a six-month span, inventory turns and fill rates take on exaggerated importance.

By comparison, the company now has annual inventory turns greater than 4.5, and Balasubramanian projects that number will soon exceed 5. Just 24 months after the implementation of the SAP BI platform, Scotts had become so adept at spotting trends, performing sales

forecasts (bottom-up, top-down, and consensus), and accounting for sales promotions, marketing campaigns, and for weather and seasonal conditions that it reported the following business improvements:

- A \$99 million reduction in inventory in the channel
- A \$158 million increase in cash flow
- A doubling of utilization of Scotts’s manufacturing plants
- Reduction, by nearly a half, of the number of mixing warehouses
- A dramatic improvement in order fill rates

Customer-Driven Operations

These achievements are the result of a number of strategic IT measures at Scotts (including new ERP systems). Good customer intelligence is central to all of them. More accurate planning, better resource utilization, lower cost replenishment runs, higher yield marketing promotions, more effective advertising campaigns, and

so on all start with a better understanding of the consumer. So Balasubramanian’s primary objective has been and remains focused on the company’s core retailers. He notes, “Through analysis of sales, consumer, and historical data, we have gained tremendous insights into consumer purchasing habits and the factors that impact them. We have been able to learn from this and refine promotions at the store and regional levels.”

Scotts uses sales information, forecasts, and insights to forge closer, more valued ties with retailers. For example:

- Scotts has information at its disposal to provide designers with proven layouts and configurations for more profitable merchandise and promotional displays. This body of knowledge is continually growing and being refined as retailers, in turn, provide feedback to Scotts.
- Business intelligence is also on hand to help train merchandisers about new promotions and product offerings. The SAP BI platform provides information to a merchandising Web site that equips all merchandisers with the information they need to be effective.

Department	Activities	Benefits
Sales	Analyze sales promotional activities and discounts offered to customers Push sales and other relevant data to merchandisers at the customer stores	More effective use of promotional dollars
Marketing	Analyze how media spend affects sales Analyze demographic data against sales data Analyze weather data against sales data	Better able to target media to maximize return on media spend
Planning	Use sales data for forecast and replenishment	Reduce inventory stock-outs and increase sales
Finance	Analyze what was sold to retailers vs. forecast at regional level Analyze budget vs. forecast Analyze historical sales vs. performance Analyze profitability at multiple levels (by brand, by customer, by region, at an SKU level, etc.)	Better manage brand or customer portfolio profitability Better understand variances (budget vs. actual)
Customer service/ fulfillment	Analyze touched orders and order fill rates	Improve customer service by touching fewer orders and making sure that Scotts fills every order to customer’s requirements

One common, consistent view of consumers and retail activities serves all major business functions at The Scotts Company

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- Scotts can forecast sales at the store level now. With better visibility and predictive capabilities into retailers’ activities, Scotts is able to offer precise recommendations for inventory and ordering. It is now expecting to take over the ordering on behalf of its customers to help them stock better and lower inventory. Notes Balasubramanian, “We have gained a much keener understanding of how we sell to retailers, how they sell to their customers, and the best ways for us to coordinate activities so that our retailers can carry minimal inventory and streamline the way they order. This saves us both a lot of money. Our inventory turns have gone up. We’ve experienced a significant increase in sales. Stock outages have been greatly reduced. Our retail partners find we can anticipate their sales better than they can.”

These activities have resulted in a significant increase in revenues. It’s also interesting to note that 36 months after the project took hold, most of its major customers have given Scotts excellence awards. These awards denote that Scotts has met and exceeded all supplier metrics in this category.

Evolution of the BI Infrastructure

With close to 60 percent of Scotts’s annual revenue coming from a few key accounts, it was decided early on that Scotts would target its initial BI investments almost exclusively on these accounts, streaming sales data from these retailers into the SAP BI platform where it would be consolidated, analyzed, and made available to Scotts’s sales, customer service, marketing, finance, planning, and supply chain management organizations. Balasubramanian notes, “We invested a lot in a technology infrastructure that would get external and enterprise-wide information collected, consolidated, and analyzed so that we could understand how to improve our business

and how they could sell our products better.” Keeping this data secure and “compartmentalized” is a top priority at Scotts. Only a very limited number of associates within Scotts has access to the data.

Collecting and consolidating sales, inventory, and forecast information was the first step in building the BI infrastructure shown on page 76.

Today, the system tracks 3,000 products across the country. People who use the system include managers, sales clerks, merchandisers, sales, marketing, finance, and planning personnel. The BI system tracks all sales data, inventory, sales, and variance from plan at all levels. It also tracks normal ERP data (sales, open orders, touched versus untouched orders). By tracking touched orders, Scotts has been able to reduce their numbers by 90 percent. Because touched orders go through EDI, the company has saved millions of dollars as a result. “Customers are delighted because they get complete orders and fewer ‘stock-outs,’” says Balasubramanian.

Looking ahead, Balasubramanian and his team are planning the following:

- The addition of syndicated data feeds to the SAP BI platform to do advanced trending and analytics. These data feeds will include additional demographic data, competitor data, household data, season-breaking reports that indicate when the growing season begins region by region, weather charting data, and so on.
- Recognizing that the company’s call centers have a lot of information, Balasubramanian and his team plan to centralize knowledge that abounds in that area along with all of Scotts’s other customer data sources into SAP BI. Data from Scotts Lawn Service and its newly acquired Smith and Hawken division can also be centralized to provide a one-stop-shop of enterprise-wide data-mining capabilities.

- Moving beyond its five largest retailers, Scotts is planning to bring in sales data from smaller, independent retailers to get a more complete view of distributor and sales information.
- SAP Enterprise Portal will be added to the landscape. Scotts will start with a pilot that provides its executives and brand managers with balanced scorecards and business intelligence. Once this initial pilot is complete, Scotts will roll the portal out to its sales and finance organizations.
- Completing the transformation to a customer-driven enterprise is the addition of mySAP CRM. Scotts will deploy this solution in 2005 to the Scotts Lawn Service division with additional functionality to be

deployed in 2006 for the sales and merchandising organizations to service the retail stores more effectively using survey tools and store layout and promotion information.

Weathering the Unpredictable

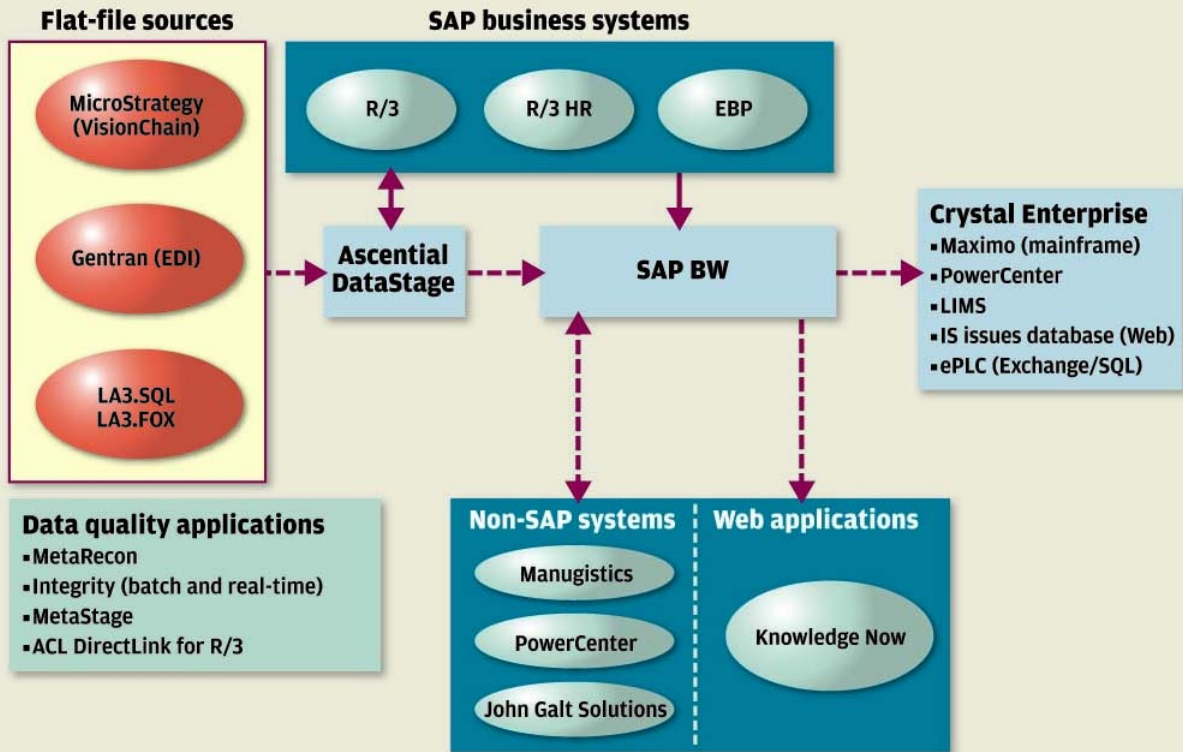
Timely and accurate forecasts are powerful but limited. Unanticipated events will arise, and a BI platform should be a first line of defense against the potential harm they can do to an organization. At The Scotts Company, this is certainly the case. It has achieved a very short lag time between data collection and data analysis, receiving sales information on a daily basis and then making it available almost immediately organization-wide and with scorecards that go out to sales and marketing executives every morning. Balasubramanian reports that

Managing Sales Data

Ram Balasubramanian's BI Best Practices

- 1** Focus on common sales data. The approach we took was to concentrate on common sales data collection activities that would work for all five of our major customers and meet roughly 80 percent of the needs required to capture that data. Once we ironed out these baseline processes, we focused on customization efforts to cover specific situations, such as specific attributes related to each retailer, automation of data capture, and mapping based on individual retailer systems, and so on.
- 2** Establish repeatable processes that you can reuse over and over again across your customer base, and you will run a much more efficient and less costly BI operation. The initial investment will be high, but the resulting infrastructure will be worth it. It will be quick and easy to bring additional sites on board for a small fraction of the original investment cost.
- 3** Ensure the accuracy of your data. Because data accuracy is clearly essential for every BI infrastructure, we maintain a close collaborative relationship with the master data team (all bad data eventually surfaces in the reporting area). In fact, we often are able to help the team take proactive steps to maintain clean data by establishing standards.
- 4** Expect your operational teams to use the SAP BI platform on a regular basis, but don't expect that senior management will be eager to log on to a BI platform. You will have much more success directing this group of users to access the BI platform through a portal, which offers executives standardized access and one-stop shopping for all reporting activities.
- 5** Train power users from all participating departments early on in the project. These power users can then go back and train their coworkers (business users) and also help with the formulation, execution, and trouble-shooting of queries. This frees up IT teams to focus on more technical issues and to step in only when the power users are experiencing difficulties.
- 6** Encourage regular dialogues among your SAP BI power users. We hosted weekly open forums for power users so that they could share tips and tricks with one another for building better queries. This practice has built a vibrant BI community across Scotts and has been a catalyst for self-sufficiency among the user group.
- 7** Keep in mind that SAP BI offers a sophisticated data modeling environment. It's up to you to strike the right balance for your data models. Make them too simple, and you can't get everything you want out of them. Make them too complex, and you effectively saddle yourself with a point solution. [NWM](#)





In the external integration process, Ascential DataStage loads millions of records each day into SAP BW. The load process, which begins with consolidated flat files from Scott's Gentran EDI system, runs at a rate of 800K records per hour and includes aggregation, validation, and enhancement transformations. Key among these transactions is a transformation process that modifies each record by replacing product codes and other data with Scott's standard values. The process uses a hash look-up file of Scott's product code data extracted from R/3 with the DataStage PACK for SAP R/3. It also includes a data quality check based on DataStage's Quality Manager that tags, rejects, corrects, and reprocesses all problem records in a real-time, closed-loop process. The finished data is loaded into SAP BW via the DataStage Load PACK for SAP BW.

"the amount of time it takes for managers and analysts across our business to get their hands on the pertinent data or a key report has been cut significantly. The goal is to be able to accurately predict and anticipate sales at a global, regional, and store level. If we can achieve this, we wield the supply chain excellence to execute flawlessly and continue to be the '800-pound gorilla' in this industry." **NWM**