

## REAL WORLD CASE 3

# Henry Schein Inc.: The Business Value of a Data Warehouse

**M**ost companies store reams of data about their customers. The IT challenge has been how to integrate and massage that information so the business units can respond immediately to changes in sales and customer preferences.

Henry Schein Inc. ([www.henryschein.com](http://www.henryschein.com)) has it figured out. The \$2.8 billion distributor of health care products designed and built a data warehouse with an in-house team of six IS professionals. CIO Jim Harding says he knew that having the right skills was critical to the data warehouse project, yet at the time, Schein had zero warehousing experience in its IT shop. So he and Grace Monahan, vice president of business systems, hired people for what they call “Team Schein.”

Because Harding had chosen two key tools for the data warehouse—data extraction software from Informatica Corp. and user query and reporting software from MicroStrategy Inc.—the focus was on finding people who had experience with those tools. So Monahan hired three people from outside: project director Daryll Kelly, data modeler Christine Bates, and front-end specialist Rena Levy, who’s responsible for the user interface and data analysis, as well as user support and training. Dawen Sun, who handles extract, transform, and load issues, and database administrator Jamil Uddin hold two other key positions. Another team member is rotated in from Schein’s application development group.

Besides having the right skills, the other top priority was ensuring data quality. “It seems kind of obvious,” says Harding, “but sometimes these projects forget about quality, and then the data warehouse ends up being worthless because nobody trusts it.” So at the outset of the project, the team interviewed about 175 potential business users to determine the information they needed to access and the reports they wanted to see. Plus, the team analyzed the old paper reports and the condition of the data housed in the company’s core transaction system. Monahan says those steps brought to light the importance of cleansing data in a system that’s designed for transactional purposes but not suitable for a data warehouse. That led to a long period of standardizing transactional codes in order to produce the sales reporting that business analysts needed.

“It’s the in-house people who have this gold coin of knowledge of how their systems really work, which data is really good and not so good, and how the end users really want to use the data,” Kimball says. “Data quality is the hardest part of the project, because it’s very time-consuming and detailed, and not everyone appreciates it unless they’ve been through a couple of projects, like Daryll has,” Harding says.

And there was yet another tedious obstacle. The data warehouse was designed to provide a very granular level of detail about customers, “so we can slice and dice at will,” Harding says. But the result was sluggish system performance. So the team created summary tables to make the queries work faster, and those tables needed to be tested. It was a lengthy process, Harding says, but in the end, it

worked very well. The journey has taken well over two years. The system went live 18 months ago but “really came into its own” in February, Harding says.

Of course, building a data warehouse is a never-ending job. New companies are acquired, products are added, customers come and go, and new features and enhancements are ongoing. But from an IT standpoint, the data warehouse is complete and has 85 percent of the data from the core transactional system. The next major goal is to provide the European operation with its own data warehouse system and tie it into the one in the United States.

Harding says his project will surely justify the costs, but he lacks hard numbers. “We didn’t have a formal ROI that you could track later. I don’t even know how you would do it,” he says. “The reason we’re doing the project is because of the value it brings to the business.”

Lou Ferraro, vice president and general manager of Schein’s medical group, says the business benefits are outstanding. He can now figure out who his most profitable customers are, target customers for certain types of promotions, and look at the business by product categories or sales territories. Ferraro says the data warehouse also helps select customers for direct-mail marketing campaigns that range “upward of 25 million pieces annually.”

One of the most valuable features of the data warehouse has been the ability it gives users to add more fields to reports as they are using the system. “Once you create a basic report, draw a conclusion, and drill further based on those assumptions, it allows you to use that data and go even further, as opposed to creating a new report, and another and another,” Ferraro says. The IT department used to create, edit, revise, run, download, reprogram, and print piles of paper reports—daily, weekly, monthly and quarterly—for the analysis of sales and market trends. But today, business users search, sort, and drill down for that information themselves in a fraction of the time. The data warehouse has become “a part of our culture,” says Harding. “It’s got that kind of aura about it within the company.”

### Case Study Questions

1. What are some of the key requirements for building a good data warehouse? Use Henry Schein Inc. as an example.
2. What are the key software tools needed to construct and use a data warehouse?
3. What is the business value of a data warehouse to Henry Schein? To any company?

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