

Case Study: Bain Looks Inside a Japanese Automaker

By Jane Hodges

published on BNET.com 4/02/2007

Anyone can master the basic techniques of competitive research, but some companies prefer to outsource the task to experienced consultants. Hiring a competitive intelligence team isn't cheap; engagements start in the five-figures and can quickly climb to \$100,000 or more. Yet in return, clients can tap the skills of veteran professionals like Mark Gottfredson, a partner in the Dallas office of the Bain & Company management consultancy. BNET asked Gottfredson to walk through a recent assignment so we could learn how his team helped a client get the goods. While names of both the client and the competitor have been omitted, the story itself is true.

The problem: A major auto manufacturer can't understand why a Japanese rival is able to sell equivalently priced cars in the United States without resorting to consumer discounts, even as the client's car is losing market share.

Month One: Getting to Know the Client

Gottfredson and company embarked on their three-month investigation, but before turning to the competition, the team needed to answer three key questions about the client:

- What is the client's cost position? (How much does it cost the client to produce the car, and how do those costs compare to industry averages?)
- How good is the quality of the client's car? (How well is the car built on the assembly line, and how well does it hold up over time?)
- How strong is the client's image? (How do consumers view the client's brand?)

First Step: Gathering Client Data

The Bain team received vital data on 12 variables that are key to the client's vehicle production and sales process, including factory headcounts, wages, factory square footage, capital equipment deployed in each factory, the number of vehicles produced per day, and which factories complete which tasks in the manufacturing process. Having a clear handle on these data points made it possible to develop an objective basis for comparison with the client's rival.

Next Step: Gathering Market Data

Gottfredson and his team visited auto dealerships to collect brochures and marketing materials on both the client's cars and its rival's. His team also dug deep into SEC filings and other public documents for basic context on cost structures. To learn more about the organizational structure and

profitability of both the client's and the rival's dealer networks, Gottfredson's used Dun & Bradstreet research materials.

Within the first month of the research effort, the Bain team learned that there was a significant difference in quality between the client's car and the similarly priced Japanese product with the Japanese manufacturer producing the superior vehicle. One telling fact: Over a five-year period, the American car cost \$2,200 more to own. In addition, the American car required more "unscheduled maintenance" an industry euphemism for breakdowns and defects. The client wondered whether extending the general warranty on the car would help, but Bain pointed out that this was just a Band-Aid that would do nothing to address the "hassle factor" consumers would face while making unexpected trips to repair shops.

Car buyers seemed to recognize this: The Japanese car held its resale value better over time, and the Japanese rival spent less to make a car that earned greater profits than its American equivalent. Gottfredson's conclusion: "It's extremely rational that a consumer would choose the Japanese car."

Month Two: Off to Japan

Having established a broad perspective on the client's disadvantages, Bain consultants set off for Japan to learn more about the rival's techniques. Two key questions remained to be answered: Why is the quality of the rival's car superior, and why does it cost less to produce?

First Stop: Touring the Rival's Facility

Gottfredson and crew received a lucky break: the Japanese automaker offered public tours of its factory. Brochures distributed to visitors provided valuable information, including scale maps of the facilities, employee headcount, and general details about the equipment used in the plant. In addition, helpful guides were happy to answer questions from visitors throughout the tour. "The brochure answered several of our major questions," Gottfredson says. "We got a tremendous amount of information from being there and seeing the work."

Although he speaks fluent Japanese, Gottfredson only spoke in English during the tour, in hopes that he might overhear some tidbits about factory production methods from the Japanese guides. When he asked the guides questions through a translator, however, they often responded by saying that the information was confidential.

Gottfredson returned for the tour several times, and during subsequent visits, he began asking tour guides direct questions in Japanese. This yielded better results, including vital benchmark information about how often cars had to be pulled from the assembly line to address quality defects.

Next stop: The Halls of Academe and Calls to Recruiters

In Japan, engineers often publish trade articles discussing new production techniques or engineering changes. So before traveling to Japan, Gottfredson contacted Bain's Tokyo office and asked them to pull relevant articles published by Japanese automotive engineers. His colleagues found dozens of

articles about the Japanese firm's processes published during the past five years. The articles often included detailed research material, such as elaborate factory maps or scheduling algorithms used to smooth out production and maximize staff efficiency.

After touring the factories and combing through the literature, Gottfredson and his team fanned out to meet with the academics who had written the articles. Talking with professors helped the Bain consultants answer a variety of side-questions: Does the Japanese firm use Six Sigma supply chain and factory management techniques? How are factories staffed? How do the factories address quality issues during the manufacturing process, and how often are cars pulled offline for further work? How does the Japanese company keep its manufacturing costs 20 percent below those of Bain's American client?

The client had concerns about the extent to which lower wages might explain the Japanese company's cost advantage, so Bain studied Japanese worker pay by calling recruiters. The recruiters happily provided salary details for a variety of job positions.

Month Three: Analyzing the Results

After taking a look at the client's manufacturing procedures and comparing them to those of the Japanese rival, Gottfredson's team was able to disprove the client's long-held assumption that lower labor costs were a key factor behind the Japanese firm's manufacturing cost advantage.

The real explanation was more subtle: The Japanese company offered fewer customization options on its vehicles, so it had a much more efficient manufacturing process. In contrast, the American firm offered so many customization options that the complexity ate up a disproportionate amount of some workers time while generating downstream delays for others.

"There was a cost problem, but the source of the problem was the complexity of the vehicles," Gottfredson says. "Our client literally couldn't forecast how many air conditioning units they'd install in a day."

Conclusion and Recommendations

Gottfredson says that one of the project's biggest "a-ha" moments came when his team synthesized details from the Japanese rival's dealer brochures with information they acquired about its manufacturing techniques. Because the Japanese automaker offered fewer customization options than the American firm a fact that became apparent from the consumer marketing materials distributed at dealerships it was able to use a streamlined manufacturing process to move cars through production more profitably.

Bain's client recommendation: Simplify vehicle configurations to reduce production costs, improve quality, and (potentially) increase profitability and market share. For the next three months, Bain

worked with the client to revise the automaker's product lineup and implement new production methods. Case closed.

Copyright © 2007 CNET Networks, Inc. All Rights Reserved.