CHAPTER 12   **ENHANCING DECISION MAKING**

CASE 1   **FreshDirect Uses Business Intelligence to Manage its Online Grocery**

VIDEO CASE

SUMMARY   FreshDirect is the largest online grocery firm in the New York market, and one of the largest in the country. With more than 250,000 customers ordering over 8,500 products every day, the company faced severe logistics and management decision making issues. To solve these issues, FreshDirect adopted a comprehensive enterprise data base system from SAP which utilized a number of business intelligence applications to track orders and customers. The video describes how the database system enables managers to control FreshDirect's daily operations and plan longer-term enhancements. L=4:30.

URL   http://www.youtube.com/watch?v=y0ZxTFZPUSg

CASE   FreshDirect is an online grocer making more than 45,000 deliveries a week to customers throughout most of New York City and parts of Long Island, Westchester County, New Jersey and Connecticut. With revenues approaching $300 million a year, the company seems to be one of the few examples of a start-up, online grocery business actually being profitable. Most previous start-up, online groceries have failed, while existing traditional grocery stores have been more successful in online delivery from their local physical stores. For instance, a leading example of dot-com excess was the flame out of online grocery start-up Webvan in 1999.

Webvan burned through $1.2 billion from investors in order to launch its online grocery business in ten markets. Webvan went bankrupt in 2001.

FreshDirect was founded in 1999—just prior to the burst in the Internet bubble. The business plan for online groceries was to focus on a high-density, single metropolitan area like Manhattan in New York City, to offer farm-fresh food, and deliver it on-time at prices about 15% less than local stores. A high-density urban area meant fewer delivery trucks would be needed, and average incomes were quite high in Manhattan. Most investors and commentators thought the task difficult, if not impossible. For many years it was a combination of both.

FreshDirect built a 300,000-square-foot headquarters and refrigerated packing plant in 2000 in the Long Island City section of Queens and made its first deliveries in 2002. The FreshDirect Web site features around 3,000 perishables and 3,000 packaged goods compared to the typical 25,000 packaged goods and 2,200 perishable items that a typical grocery store offers. To provide the level of service it wanted, FreshDirect created the most modern automated perishable food processing plant in the United States. While most of the plant is kept at 36 degrees to ensure freshness and quality control, dedicated areas vary from a low of minus 25 degrees for frozen foods to a high of 62 degrees in one of its specially designed fruit and vegetable rooms. FreshDirect butchers meat from whole carcasses, makes its own sausage, cuts up its own fish, grinds coffee, bakes bread and pastries, and cooks entire prepared meals. Cleanliness is an obsession— the factory was built to exceed U.S. Department of Agriculture standards.

Despite attention to production detail at the plant, from 2002 until 2008 FreshDirect burned through investor cash as it tried to execute on its business plan. According to current CEO Richard Braddock, nothing went according to the plan. "We broke too many eggs. We showed up with thawed ice cream. We bruised the produce. We delivered late. Our trucks were stuck in traffic. We missed items in orders. We didn't remediate service issues." If a customer called to complain, there was no organized way for FreshDirect operations people to find out what happened or to re-send the order on another truck. According to Braddock, the companies ability to churn through customers, attracting thousands of new customers, then quickly losing them once they experience the poor service, provided most of the revenue. Attracting new users was expensive, requiring extensive online advertising and discounting prices. 85% of the customers ordered three times or less, then stopped using FreshDirect.

In 2008 Braddock took over as CEO (prior to this he was Board Chairman, and prior to that a senior executive of Priceline.com). He fired the existing CEO and many senior managers. He ended the company's policy of adding new customers at any cost, and stopped offering discounts to first time buyers. For two years, it simply stopped

offering promotions to first-time buyers. And the new customers simply stopped coming. The danger, of course, was that the old customers would continue to exit, revenue would decline and the company would run out of money. "The trick in this business," Braddock commented, "isn't to acquire new customers, it's to make them loyal."

Braddock soon discovered that FreshDirect had no insight or visibility into its own business processes. While the end goal was to deliver fresh food to thousands of customers everyday on schedule, the exact location of orders at any moment was not understood, or who was in charge of them. Mistakes were happening routinely, but there was no record of how orders were moving through the logistics chain. Mr. Braddock knew that FreshDirect needed a system of continuous feedback, a real-time database that would follow every step—and misstep—of each business day, so that minor gaffes could be resolved before they turned into big problems. The software would have to track plant operations, along with data corresponding to some 200,000 active customers at the time and more than 8,500 products. It would take FreshDirect two years to build this database.

Braddock also decided to upgrade FreshDirect's Web site, using the company's internal database to profile customers and serve a customized online experience. For example, the site's software can now analyze order patterns, reminding customers of their favorite products and suggesting other items they might like, a marketing tool that has worked well for Netflix and Amazon. In addition, the database recognizes whether a visiting customer is a new, infrequent, lapsed or loyal customer—and serves appropriate messages and ads.

Critical to the success of FreshDirect is a powerful IT infrastructure that seamlessly connects online customers to inventory, billing, and then to truck delivery. The firm uses SAP software (an enterprise resource planning system) to track inventory, compile financial reports, tag products to fulfill customers' orders, and precisely control production down to the level of telling bakers how many bagels to cook each day and what temperature to use. It uses automated carousels and conveyors to bring orders to food-prep workers and packers. Managers are able "see into" the order and fulfillment process at any point in order to identify problems. Alerts are programmed to automatically alert managers to emerging problems.

Today, if a truck goes out 15 minutes late or if a container of jalapeño hummus is left off an order, the problem can be traced to its source. Also, the real-time data reports allow FreshDirect to shift its resources to areas of customer demand, beefing up capacity based on the popularity of delivery zones and time slots, anticipating which products might sell out and stocking up on them in advance.

The FreshDirect Web site is powered by BEA Systems' Weblogic platform, which can track customer preferences, such as the level of fruit ripeness desired, or the preferred weight of a cut of meat. FreshDirect also uses NetTracker, Web site traffic and online behavior analysis software, to help it better understand and market to its online customers. At peak times, the Web site has handled up to 18,000 simultaneous shopping sessions. The final piece in the formula for profit is a supply chain that includes dealing directly with manufacturers and growers, thus cutting out the costs of middle-level distributors and the huge chains themselves. FreshDirect does not accept slotting fees—payments made by manufacturers for shelf space. Instead, it asks suppliers to help it direct market to consumers and to lower prices. To further encourage lower prices from suppliers, FreshDirect pays them in four business days after delivery, down from the industry pattern of 35 days.

FreshDirect was profitable for the first time in 2008. The key to profitability has been improving their execution of the initial concept. In recent years, they have introduced the following "customer centric" ideas:

- **Produce:** Employed experts to rate the freshness of all produce and set prices accordingly. This reduces customer concerns about not being able to feel the product.
- **Packaging:** Eliminated the use of foam, and reduced the number of cardboard boxes by 1.5 million in response to customer complaints.
- **Favorites:** Developed a customer relationship management system that tracks each customers' past purchases, and presents them on-screen for re-ordering. Increased order size by 10%.
- **Recommender system:** Added a YMAL (You-Might-Also-Like) cross-selling tool, which recommends products that other customers purchased. Added 5% to total revenue.

Now in control of its logistics, and with powerful business intelligence tools, FreshDirect increased customer loyalty and reduced its churn rate (the number of customers who leave the service). Currently, 65% of its total customer base are repeat, loyal customers, whose average order size is over $100, and who contribute 80% of FreshDirect revenues. According to a recent SEC filing, in 2011 FreshDirect has raised $50 million in additional equity from outside investors. FreshDirect now has almost 2,000 employees, 250,000 customers, and has delivered more than 6,000,000 orders.

VIDEO CASE QUESTIONS

1. How is it possible, as Braddock noted, to have a great deal of data but little information? How does the SAP database and business intelligence component change this?

2. What is meant by "visibility into the workflow" and why is it important to FreshDirect's success? What are exception screens and how are they used?

3. What has been the impact on employees of the changes brought about by the SAP ERP system and associated business intelligence applications?

4. How is FreshDirect's use of its database related to its brand image? What is the most important element of their brand?