CASE 2

WEBVAN: REINVENTING THE MILKMAN

"Webvan will go down in history either as the next Federal Express or as one of the biggest failed infrastructure bets in history."[1]

On November 5, 1999, Webvan completed its much-anticipated initial public offering (IPO) and made headlines across the business world. Despite tiny sales and big losses to date, shares of the two-year-old company, which combines Internet grocery shopping with home delivery, shot to an 80 percent premium on its first day of trading. As the trading day ended, Webvan had a total market value of more than $8 billion, nearly half the capitalization of grocery industry leaders such as Safeway, Inc., and Kroger co.[2]

Webvan Chairman Louis Borders, founder of Borders Books, felt at once exhilarated and terrified. Naturally he was extremely proud of the company's achievements. While Webvan had operated for a mere five months in the San Francisco area, more than 10,000 people had signed up for the service – not bad considering that it has taken rival Peapod, Inc., 10 years to amass a customer base of 100,000 households. Borders was confident that Webvan could prevail over its existing online competitors by expanding aggressively. In the Internet economy, Borders argued that first-to-scale, not first-to-market, counted.

On the other hand, the lofty valuation caused concern. For one, Webvan's 1999 sales were expected to amount to $11.9 million – less than large grocery chains make in one day – while losses would amount to $35 million (see Exhibit 2.1).[3] Borders found himself already thinking of how he could ensure the sustainability of his company. Could Webvan deliver on its huge promise and potential now that expectations had catapulted? Moreover, he suspected, Webvan's IPO had been a huge wake-up call for traditional grocers. How would they – and perhaps other online competitors – react? Finally, Borders pondered possible new revenue streams. What additional, if any, delivery markets and products could Webvan pursue in the long term?

EXHIBIT 2.1 Webvan – Financial Performance

Webvan Group, Inc.
Consolidated Statement of Operations
(in Thousands, Except Per Share Data)

	Year Ending December 31,	
	1991	**1998**
Net sales	0	0
Cost of goods sold	0	0
Gross profit	0	0
Operating expenses:		
Software development	$ 244	$ 3,010
General and administrative	2,612	8,825
Amortization of deferred stock	0	1,060
Total operating expenses	$ 2,856	$ 12,895
Interest income	85	923
Interest expense	69	32
Net interest income	16	891
Net loss	$(2,840)	$(12,004)
Basic and diluted net loss per share	$ (0,08)	$ (0,18)

Source: Webvan prospectus, SEC filing.

BORDERS BOOKS: REVOLUTIONIZING THE BOOK INDUSTRY

Back in 1971 Louis Borders and his brother Tom opened a "serious" bookshop in the heart of Ann Arbor, Michigan. Customers could expect friendly, well-informed store staff to help them locate their selections or let them browse solo for hours. With an unrivaled selection of topics, the first Borders store became known as one of the finest bookstores in the world.

Drawing upon Louis's study of mathematics, leading to a degree from the University of Michigan, and his graduate work at the Massachussets Institute of Technology, Borders Books pioneered technologies and strategies that revolutionized the bookselling industry.

Inventory Management

Through its nationwide expansion, Borders Books devised and developed the most sophisticated computer inventory system in the book retailing business to date. As each store's purchases were recorded, the system used artificial intelligence technology to constantly adjust the store's inventory, thereby adding more books on topics that were selling and eliminating books on topics that were not. This technology allowed

most Borders Books stores to stock over 200,000 book, music, and video titles, a selection unmatched by any other book or music store.

Customer Service

Not only did Borders Books cater to its customers through unparalleled selection, it also offered exceptional service. From the day the first store opened, Borders focused on hiring well-educated book lovers. Special efforts were made to hire people who were passionate about books and music. In addition, all potential employees were required to pass a book or music quiz. This process ensured that well-informed and trained staff provided personal in-store attention and expertise to customers who requested it.

Borders Books selection and service competencies converged when attending to special customer orders. If a certain book or CD was non available in the store, the computer system searched for the item across all Borders stores in the country. If the item was not in inventory within the Borders Books chain, a salesperson would query publishers, wholesalers, suppliers, and smaller bookstores. Wherever it was available, the Borders Books staff would secure the item and ship it to the location that was most convenient to the customer.

Through their inventory management innovations and customer focus, Louis and Tom Borders were widely recognized as single-handedly revolutionizing and increasing sales in the over $ 10 billion bookselling industry. In 1999 the Borders Group, Inc., was the second largest book and music retailing chain in the United States and an independent, publicly owned corporation with its shares traded on the New York Stock Exchange.

A NEW CHALLENGE: THE GROCERY INDUSTRY

Energized by the staggering success of his initial venture, the 48-year-old Louis Borders sought a new challenge. He discovered it one day in 1997 as he opened a catalog order that had arrived at his Silicon Valley home by Federal Express. At that moment, Borders recognized that retailing through the Internet, a phenomenon that had exploded throughout the 1990s, would never become really big unless someone could discover a more efficient and cheaper way to deliver products to people's doorsteps. This untapped business proposition intrigued Borders. By transferring the inventory management and customer focus learning he established in the bookselling business, Borders was confident that he could reinvent the colossal $453 billion traditional off-line grocery market. With this goal in mind, Borders founded Webvan, an online grocer that was "arguably the most ambitious e-commerce initiative to date."[4]

HISTORY OF THE ONLINE GROCERY INDUSTRY

Although the traditional off-line grocery market was huge, the online grocery market emerged slowly. The online grocery industry originated in the late 1980s, when small local companies began taking orders by phone and fax and hired "professional shoppers" who would purchase the groceries from existing grocery stores. Orders were then delivered by the local companies or held in the store for pickup. In 1990 Peapod

emerged as a front-runner in this industry, and many smaller players followed suit. However, since these smaller players relied on partnerships with traditional grocery stores, they were not able to sell goods cheaper than the actual store. The grocery delivery industry stayed afloat by charging delivery fees.

The rapid growth of Internet usage by consumers in the 1990s facilitated the transformation of the grocery delivery business into an online version. With more consumers using the Internet for informational and e-commerce purposes, online grocers tried to benefit from the efficiencies associated with Internet technology. New competitors, such as Webvan and eGrocer, sprang up in the marketplace, while more seasoned competitors, such as Peapod and Streamline.com, attempted to stay competitive. The original phone-and-fax players who were already in the marketplace were anxious to take advantage of the Internet channel and soon developed websites with product offerings that included not only groceries, but other items such as videos, flowers, music, and toys.

The latest trend in online grocery delivery was a distribution-centric prototype system. Its primary aim was to achieve a sizable customer base, respectable levels of customer service, satisfaction, and repeat usage. New entrants to the grocery delivery businesses planned aggressive national expansion programs by rapidly rolling out high-capacity customer distribution centers in most major metropolitan areas. Their goal was to steal market share from the enormous off-line grocery market and also to create new market opportunities by providing combinations of delivery services that did not yet exist in the bricks-and-mortar world.

MARKET POTENTIAL

Opportunities

The primary benefit the online grocery channel provided to consumers was convenience. The average "stock up" grocery store trip took 47 minutes[5] so online grocery shopping returned this valuable time to busy consumers. Moreover, after a 45-minute initial setup, subsequent orders could be processed extremely fast and efficiently. In addition, since many online grocers achieved less overhead by using centralized warehouses and employer fewer people than traditional stores, cost savings could potentially be transferred to the end consumer. Lastly, eliminating the costly real estate and other expenses related to bricks-and-mortar companies made for exciting business propositions and growth.

Research indicated that the online grocery channel was making inroads. The vast majority (89 percent) of people who tried purchasing groceries online visited the grocery store less often.[6] This indicated that online shopping could become habit-forming, potentially providing a constant stream of revenue for online grocers.

Challenges

Despite the hype of Internet companies and e-commerce as the "wave of the future", analysts and grocery industry experts were unsure about the actual growth potential of the online grocery market. Industry analysts estimated online grocery sales of $156 million in 1998, less than 1 percent of the entire grocery market. Market profections for the year 2003 ranged from $4.5 billion (Andersen Consulting) to $10.8 billion

(Forrester Research). With such vastly different market projections, it appeared difficult to predict which online companies would do well, if any. Additionally, of the 53.5 million people who were online in the United States, only 435,000 ever purchased food online. This number represented less than 1 percent of the 14,5 million users who had made purchases online.[7]

The biggest challenge in the development of the online grocery industry was to attract and retain enough customers to use this alternative method of purchasing groceries. While online grocery shopping was deemed incapable of replacing the desire to "touch and feel" items such as fresh produce, the most common type of groceries purchased online were perishables.[8] Other common customer criticisms of online grocery shopping included lack of selection, the amount of time it took to set up an order, and the high cost of delivery relative to the service's perceived value. In addition, the demographic population that was most likely to use the online service was also the segment that was least willing to sit around and wait for deliveries.

Margin structures were razor thin in the highly competitive grocery industry, causing some competitors to diversify beyond mere grocery delivery. The savings associated with online ordering were partially offset by expensive home delivery and servicing requirements and, like all e-commerce ventures, could vanish when faced with the costs incurred by building brand recognition.

WEBVAN'S VISION

"We are building the Last Mile to the consumer. It's a huge logistical problem."

—Louis Borders

Even in an industry rife with razor-thin margins, Louis Borders believed that by eliminating store costs, he could reap sizable profits. Instead of stock clerks and multiple warehouses, Borders envisioned giant distribution centers that would service major metropolitan warehouses around the globe.

Using Borders' analytical expertise, Webvan created a more efficient way to assemble customer orders, store them while in transit, and deliver them to homes within a 30-minute window. Borders estimated that Webvan could achieve 12 percent operating margins compared to the industry's traditionally low margins of 4 percent. To replicate this system nationwide, Webvan in 1999 signed a $1 billion agreement with Bechtel Group, an engineering and construction firm, to build distribution centers and delivery infrastructure in 26 new markets over the next two years. In addition, Borders foresaw a safe, secure online customer experience that offered nearly double the selection of products of a typical grocery store and at comparable prices.

With his compelling idea and vision in place, Borders set out to convince the business community that he had the retailing management expertise to crack the online grocery code. To build his business model, he duplicated the best operating practices from a myriad of cyber- and real-world businesses. Webvan looked to Federal Express as the blueprint for its hyb-and-spoke delivery system, to traditional grocers as the model for maintaining food quality in transit, and to Wal-Mart as an example of breadth of product selection. Webvan's website emulated Yahoo! for speed and Amazon.com for the shopping experience. More than a few people were impressed as Webvan secured more than $120 million from hallmark investors such as CBS, Yahoo!, LVMH, Softbank, and respected venture capital firms Sequoia Capital and Benchmark Capital. In addition, Webvan was able to successfully recruit top, experienced

management talent to join its mission. In a major coup, just prior to its IPO, Louis Borders convinced George Shaneen, CEO and 32-year veteran of Andersen Consulting, to forgo his imminent hefty retirement package and become Webvan's CEO.

THE WEBVAN MODEL

Building upon Borders' experience and expertise, Webvan differentiated itself within the online grocery market in two distinct areas: operations and customer service.

Operations

Webvan's 80 software programmers created proprietary systems that automated, linked, and tracked every part of the grocery ordering and delivery process. A new 330,000-square-foot distribution center in Oakland, California, utilized these proprietary systems to service customers within a 40-square-mile radius around the San Francisco Bay Area. The $25 million distribution center, a prototype for the 26 other centers Webvan intended to build, included 4.5 miles of conveyor belts, temperature-sensitive rooms for specialty items, and the ability to serve as many customers as 20 normal supermarkets.[9] The Webvan model could do all of this with half the labor and double the selection of products of regular supermarkets. because of these innovative efficiencies, Borders believed that each of these facilities would make money within nine months of launch.

Once orders were placed on the Web, they were automatically routed to the warehouse. "Pickers" were stationed throughout the distribution center to assemble the orders in plastic boxes or totes, which were color-coded depending if the items were refrigerated, frozen, or dry. The pickers traveled non more than 19.5 feet in any direction to reach 8,000 bins of goods that were brought to the picker on rotating carousels.

A conveyor belt transported the totes throughout the facility until they were loaded onto refrigerated trucks. These trucks took the orders to one of 12 docking stations throughout the BayArea where they were loaded onto one of more than 60 vans so that drivers could take the orders directly to people's homes. None of these vans traveled more than 10 miles in any direction and the route was mapped out by a system that optimized travel time. At peak performance, Webvan expected that each facility would handle more than 8,000 orders a day, totaling 225,000 items, and generate annual revenues of $300 million. In comparison, a conventional stand-alone supermarket brought in $12 million a year.

Customer Service

Webvan customer could order a shopping list of items and receive the groceries the next day within any specified 30-minute time period. Deliveries could be attended or unattended, meaning that the customer could either be home to receive the order, or the Webvan associate could drop off the order while the customer was away from home. Webvan couriers were not allowed to accept tips from customers, and were thoroughly screened and trained before starting their professional lives as Webvan "ambassadors." As of December 1999, delivery was free for orders over $50; delivery fees were $4.95 for orders under $50.

Additionally, Webvan aimed to provide its customers with 50,000 products from which to choose compared to a normal grocery store that carried 30,000 items.[10] Personalized shopping lists, which appeared

after a customer's initial order, were also designed to provide faster and easier shopping services for the time-strapped customer. Webvan's market position as the quality-driven gourmet online grocer with everyday grocery prices was an attempt to differentiate itself from competitors. Webvan even employed its own culinary director, who was responsible for creating chef-prepared meals that catered to the lifestyle and tastes of webvan customers. In addition, Webvan partnered with some highly regarded Bay Area suppliers to offer high-quality produce, meats, fish, and baked goods.

WEBVAN'S FINANCIAL PERFORMANCE

With high operational costs and low initial grocery sales, Webvan's 1999 losses were forecasted to be $35 million. Total sales for 1999 were expected to be only 411.9 million.[11] Forecasts called for webvan to have sales of $518 million by 2001, with an overall loss of $302 million for the year. Sales of $518 million would be less than 1 percent of the entire grocery market (including bricks-and-mortar sales). Factors affecting these sales targets included on-time development of distribution centers and an increase in demand for online grocery services.

Gross sales were important to the company, but average order size and repeat customer business were also key drivers in overall profitability. Webvan's average grocery order, as of September 1999, was $71. This was significantly below the average order size of approximately $101 that was needed to generate annual targeted revenues per distribution center of $300 million.[12] However, Webvan's services had only been operational for a few months, so management believed that the average order size would increase over time.

Webvan received revenue solely from sales of grocery products and delivery fees. The company did not intend
to sell its customer data to third-party database firms, nor did it receive online advertising fees, since it wanted toremain neutral among the different product brands that it sold online.

COMPETITION

Although the online grocery industry was relatively new, a number of companies competed with Webvan in trying to capitalize on its vast potential.

Peapod.com

Peapod was the oldest and largest online grocery player. Founded in 1989, its pioneering customers—400 households in the greater Chicago area—had to download proprietary software to use the service. "Personal shoppers" would then fill customer orders in local supermarkets. In 1998 Peapod claimed an estimated 44 percent of the Internet grocery market.[13] By 1999 Peapod had its software online and operations in Austin, Texas; Boston; Chicago; Columbus, Ohio; Dallas/Ft. Worth; Houston; Long Island, New York; and San Francisco/San Jose.

To keep up with demand—approximately 100,000 customers in 1999—Peapod switched from the personal shopper model to a warehouse model for filling orders, though its warehouses were significantly smaller than Webvan's. As of 1999, Peapod's personal shoppers picked their products inside Peapod warehouses and prepared them for delivery in temperature-controlled delivery bins. In November 1999 Peapod started shipping non-perishable packages across the country by UPS. Moreover, the company also established strategic membership alliances with Walgreen's for delivery of health and beauty aids, and was considering delivery of nongrocery items such as books, dry cleaning, and flowers.

Membership at Peapod actually decreased over 1999.[14] While analysts felt that Peapod's stock was underrated, it seemed that Peapod might have lost focus. In any case, it missed out on the investor mania that impacted so many Internet stocks. In November 1999 Peapod released disconcerting information, claiming that its funds would run out in the third quarter of 2000.[15]

Streamline.com; Shoplink.com

Originating in Boston, both of these companies positioned themselves as a "complete lifestyle solution, simplifying the lives of busy suburban families." For a monthly fee, Streamline and Shoplink delivered a wide variety of products and services at one's doorstep once a week. Unlike conventional home-delivery grocery services such as Peapod and HomeGrocer, Streamline and Shoplink delivered using either a portable cooling container or a leased, pre-installed refrigeration/shelving unit located in the customer's garage that was accessible only to authorized delivery workers. Products and services included groceries, prepared meals, pet food and supplies, postage stamps, dry cleaning, video and video game rentals, film processing, bottled water, as well as package pickup and delivery.[16]

While their delivery model allowed for more delivery flexibility, these companies also had to overcome additional customer reservations about privacy, theft, and safety. Furthermore, apartment dwellers were not eligible for these services. According to some, the high fixed and variable costs of this model appeared unattractive, yet deeper customer retention might prove a long-term advantage.

Netgrocer.com

Founded in 1997 Netgrocer was the first online grocer to employ the warehousing delivery strategyt. From its northern New Jersey warehouse, Netgrocer shipped groceries anywhere in the 48 contiguous states, using Federal Express three-day delivery. Thus, Netgrocer was the only online delivery service that charged by weight rather than by order.

Netgrocer could be thought of as an "automatic pantry restocker." The company delivered only nonperishable goods, and its selection was far from comprehensive. As observed, "the best way you use it is to compile shopping lists of the things you know you buy every month and then just hit one button to have the same order delivered on a recurring basis. Paper towels, toothpaste, diapers, pasta, cat food, cans of soup, that sort of thing."[17] Thus, Netgrocer was betting on consumers' preferences to separate recurring nonperishables from more instinctive or short-term fresh produce purchases.

Hannaford Brothers; eGrocer.com

Hannaford and eGrocer employed a "collection center" strategy, whereby collection centers could be located in convenience stores, office buildings, drive-through facilities, gas stations, or in existing grocery stores, as in the case of eGrocer.

Hannaford, a Boston-area grocery store chain, began offering HomeRuns Online Worksite Delivery toward the end of 1999. This service utilized the corporate parking lot as its outlet, as grocery and prepared meal orders taken online were delivered there at the end of the working day.

At eGrocer, a Palo Alto, California, association of existing grocery stores, customers selected the products they wanted to buy online. These data were transmitted to a local, affiliated supermarket which fulfilled the order. The customers then picked up their groceries at their local supermarket in a designated area during a predetermined time window. This approach not only saved the customer time in the store and at checkout lines, but also offered the customer the opportunity to select certain items themselves. Thus, the customer got the convenience and the ability to "squeeze the tomatoes." While the online grocer avoided the cost of a distribution infrastructure, it had to share its margin with the supermarkets.

Niche Players

Niche players such as Pink Dot and EthnicGrocer.com competed on speed and tailored selection, respectively. Pink Dot created a "Domino's Pizza meets 7-Eleven Stores"[18] model for delivery of groceries, sandwiches, salads, and beverages. It sought to counterbalance higher prices by offering delivery in 30 minutes or less. However, this remained a strategy focused on the fulfillment of "emergency" or "last-minute" needs. Accordingly, order sizes were smaller, while the delivery time proved a sizable task in Pink Dot's city of origin, Los Angeles.

Players like EthnicGrocer focused on nonperishable and high-margin "hard-to-find" products. Similar to Pink Dot's "speed" strategy, the economics of this business model looked more dubious because it was likely to encounter difficulties in achieving economies of scale independently.

REACTION OF INCUMBENT SUPERMARKETS

The reaction of the bricks-and-mortar supermarket chains to the impending online grocery invasion would undoubtedly alter the online grocery landscape. Wall Street analysts had not encouraged bricks-and-mortar grocery chains to make big bets on the Internet. Bricks-and mortar chains needed to determine if they should dismiss the online grocery phenomenon as a passing fad, or if—and when—they should invest heavily to remain competitive in a completely new marketplace. Many incumbents were looking for appropriate ways to acquire the competence necessary to compete online.

In a reaction to emerging online grocery stores, the biggest grocery chains such as Kroger and Safeway planned to launch experimental online delivery in selected areas. While these were only trials for companies that served much larger markets, incumbents were struggling to determine to shat degree they should react to the new competition. Despite its growth, the online grocery delivery segment was forecasted to capture only an insignificant part of the total grocery market between 1999 and 2002. This was poised to

change, however, with more ambitious projections calling for 20 percent of all grocery orders to be placed online five years later.[19]

Once incumbents did make the leap into the online segment, they would be formidable competitors. Incumbents already had an existing logistics and distribution model in place, which in most cases would require modest investments compared to the investments Webvan was taking on. Some grocery chains in the United Kingdom had begun to make the transition. For example, Safeway UK gave away free PalmPilots with a dedicated shopping application to its best customers. Tesco, the self-announced "biggest Internet grocer,"[20] with an estimated 240,000 customers, was selling a bar-code scanner that allowed customers to scan products while cruising the aisles. These data would then be downloaded directly to the store's back-end facilities so that the items selected were prepared for home delivery at a convenient time.[21]

LOOKING TO THE FUTURE

Now that Webvan had become a public company, the pressure of investor sentiment would be a major factor in Webvan's future strategic choices. Every decision made would directly affect the company's stock price and standing among Wall Street analysts and individual investors. To meed the high expectations and become the dominant player in the industry, Webvan faced some important strategic choices for the immediate future.

Should Webvan use its large market capitalization to buy regional grocery chains in markets it was interested in pursuing? These regional chains already possessed supplier networks as well as their own distribution centers. Webvan could possibly leverage some equipment from these distribution centers while attempting to replicate its existing distribution centers. This option would also eliminate a few competitors in these regions. On the other hand, should Webvan ever consider a takeover offer from a large grocery chain? Although Webvan's lofty valuation provided some protection against takeover, this certainly did not provide a permanent guarantee.

Furthermore, should Webvan continue to push forward with additional product lines? As of December 1999, sales demand was modest, and the Oakland, California, distribution center operated at only 20 percent of capacity. Would Webvan remain an online grocery company or would it become the "Last Mile" pioneer for all consumer products and services?

With all of this weighing on his mind, Borders decided to leave the office early in celebration of a successful IPO, but also to think about these strategic options for Webvan.

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