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CASE STUDY

Seven-Eleven Japan Co.

Established by Ito Yokado in 1973, Seven-Eleven Japan set up its first store in Koto-ku, Tokyo, in May 1974. The company was first listed on the Tokyo Stock Exchange in October 1979. On September 1, 2005, Seven & i Holdings Co. Ltd., was established as the holding company for Seven-Eleven Japan, Ito-Yokado, and Denny's Japan. As a result, detailed financial results for Seven-Eleven Japan have not been available since then and are reported only as the convenience store portion of Seven & i Holdings. Seven-Eleven Japan realized a phenomenal growth between 1985 and 2013. During that period, the number of stores in Japan increased from 2,299 to more than 16,000. Globally, the firm had more than 53,000 convenience stores by June 2014 and was the world's largest chain in terms of retail outlets. Global revenues for Seven & i from convenience store operations were 1,899 billion yen in 2013 with an operating income of 221.7 billion yen. The firm was present in 42 of Japan's 47 prefectures and planned to open 1,500 stores in Japan in 2014. Customer visits to Seven-Eleven outlets averaged more than 1,000 per store per day in 2013.

Company History and Profile

Both Ito-Yokado and Seven-Eleven Japan were founded by Masatoshi Ito. He started his retail empire after World War II, when he joined his mother and elder brother and began to work in a small clothing store in Tokyo. By 1960, he was in sole control, and the single store had grown into a $3 million company. After a trip to the United States in 1961, Ito became convinced that superstores were the wave of the future. At that time, Japan was still dominated by mom-and-pop stores. Ito's chain of superstores in the Tokyo area was instantly popular and soon constituted the core of Ito-Yokado's retail operations.

In 1972, Ito first approached the Southland Corporation about the possibility of opening Seven-Eleven convenience stores in Japan. After rejecting his initial request, Southland agreed in 1973 to a licensing agreement. In exchange for 0.6 percent of total sales, Southland gave Ito exclusive rights throughout Japan. In May 1974, the first Seven-Eleven convenience store opened in Tokyo.

This new concept was an immediate hit in Japan, and Seven-Eleven Japan experienced tremendous growth. By 1979, there were already 591 Seven-Eleven stores in Japan; by 1984, there were 2,001. Rapid growth continued (Table 3-3), resulting in 16,086 stores by 2014.

On October 24, 1990, the Southland Corporation entered into bankruptcy protection. Southland asked for Ito-Yokado's help, and on March 5, 1991, IYG Holding was formed by Seven-Eleven Japan (48 percent) and Ito-Yokado (52 percent). IYG acquired 70 percent of Southland's common stock for a total price of $430 million.

In 2005, Seven & i Holdings was established through a stock transfer combining Seven-Eleven Japan, Ito-Yokado, and Denny's Japan. In 2013, convenience store operations from Seven-Eleven Japan and other subsidiaries in North America and China contributed

TABLE 3-3 Stores and Annual Sales for Seven-Eleven Japan

Year	Number of Stores	Annual Sales (billion yen)
1974	15	0.7
1979	801	109.8
1984	2,299	386.7
1989	3,954	780.3
1994	5,905	1,392.3
1999	8,153	1,963.9
2004	10,826	2,440.8
2005	11,310	2,498.7
2006	11,735	2,533.5
2007	12,034	2,574.3
2008	12,298	2,762.5
2009	12,753	2,784.9
2010	13,232	2,947.6
2011	14,005	3,280.5
2012	15,072	3,508.4
2013	16,086	3,781.2

Source: John C. Stevenson, "Downtown Fixture," *Business*, November 6, 2006, pp. 1, 8–9.

37.4 percent of total revenues from operations and 76.1 percent of operating income for the Seven & i Holdings Company (see Table 3-4 for details). The relative performance of convenience stores within Japanese operations was even more dominant. The discrepancy between Tables 3-3 and 3-4 results because Table 3-3 reports sales at both company-owned and franchised stores, whereas Table 3-4 reports revenues for only Seven & i.

The Convenience Store Industry and Seven-Eleven in Japan

The convenience store sector was one of the few business areas that continued to grow during the prolonged slowdown in Japan toward the end of the twentieth century and the start of the twenty-first century. From 1991 to 2013, annual sales at convenience stores more than tripled, from just over 3 trillion to almost 10 trillion yen. As a point of comparison over this period, supermarket sales stayed stable, at about 13 trillion yen.

Japan's convenience store sector gradually consolidated, with larger players growing and smaller operators shutting down. In 2004, the top ten convenience store chains accounted for approximately 90 percent of Japan's convenience stores. By 2013, consolidation had resulted in the top five chains accounting for more than 90 percent of convenience store sales in Japan.

Seven-Eleven Japan had increased its share of the convenience store market since it opened. In 2012, Seven-Eleven was Japan's leading convenience store operator, accounting for a 38.8 percent market share in the convenience store segment. This share had increased relative to the 34.3 market share in 2008. Seven-Eleven was very effective in terms of same-store sales. In 2004, average daily sales at the four major convenience store chains excluding Seven-Eleven Japan totaled 484,000 yen. Seven-Eleven stores, in contrast, had daily sales of 647,000 yen—more than 30 percent higher than the combined competition. By 2013, average daily sales per store at Seven-Eleven Japan stores had increased to 668,000 yen. In 2013, Seven-Eleven's operating income of 224.9 billion yen positioned it as a leader not only of the convenience store sector but also of Japan's retail industry as a whole. Seven-Eleven intended to continue its growth by opening 1,500 new stores in the year ending February 2014. This growth was carefully planned, exploiting the core strengths that Seven-Eleven Japan had developed in the areas of information systems and distribution systems.

The Seven-Eleven Japan Franchise System

Seven-Eleven Japan developed an extensive franchise network and performed a key role in the daily operations of this network. The Seven-Eleven Japan network

TABLE 3-4 Financial Figures for Seven & i (2011–2013)

For Fiscal Years Ending February 28/29	2011	2012	2013
Total revenues (billion yen)	5,119.7	4,786.3	4,991.6
Total operating income (billion yen)	243.3	292.1	295.7
Convenience store revenues (billion yen)		1,662.7	1,899.5
Convenience store operating income (billion yen)		215.9	221.7

Source: Data obtained from Seven Eleven Japan Annual Report 2013.

included both company-owned stores and third-party–owned franchises. To ensure efficiency, Seven-Eleven Japan based its fundamental network expansion policy on a market-concentration strategy. Entry into any new market was built around a cluster of 50 to 60 stores supported by a distribution center. Such clustering gave Seven-Eleven Japan a high-density market presence and allowed it to operate an efficient distribution system. Seven-Eleven Japan felt that its market-concentration strategy improved distribution efficiency, brand awareness, efficiency of franchise support services, and advertising effectiveness. It also served as an effective deterrent to competition.

Adhering to its dominant strategy, Seven-Eleven Japan opened the majority of its new stores in areas with existing clusters of stores. For example, the Aichi prefecture, where Seven-Eleven began opening stores in 2002, saw a large increase in 2004, with 108 new store openings. This represented more than 15 percent of the new Seven-Eleven stores opened in Japan that year.

By 2014, Seven-Eleven had stores in 42 of 47 of the prefectures within Japan. With an increased demand for "close-by, convenient stores" when there were fewer small- and medium-size retailers in a given area, Seven-Eleven felt that besides bringing stores to new areas, it could also continue to open stores in densely populated urban areas such as Tokyo, Nagoya, and Osaka.

With Seven-Eleven franchises being highly sought after, fewer than one of 100 applicants was awarded a franchise (a testament to store profitability). The franchise owner was required to put a significant amount of money up front. Half this amount was used to prepare the store and train the owner. The rest was used for purchasing the initial stock for the store. In 1994, 45 percent of total gross profits at a store went to Seven-Eleven Japan, and the rest went to the store owner. The responsibilities of the two parties were as follows.

Seven-Eleven Japan responsibilities:

- Develop supply and merchandise
- Provide the ordering system
- Pay for the system operation
- Supply accounting services
- Provide advertising
- Install and remodel facilities
- Pay 80 percent of utility costs

Franchise owner responsibilities:

- Operate and manage store
- Hire and pay staff
- Order supplies
- Maintain store appearance
- Provide customer service

Store Information and Contents

Seven-Eleven had more than 16,000 stores in Japan by January 2014 (see Table 3-3). In 2004, Seven-Eleven Japan changed the standard size of new stores from 125 square meters to 150 square meters, still significantly smaller than the size of most U.S. 7-Eleven stores. In 2013, daily sales at a store averaged 668,000 yen (about $6,528 in March 2014 at an exchange rate of about 102 yen to a U.S. dollar), which was almost twice the average at a U.S. store.

Seven-Eleven Japan offered its stores a choice from a set of 5,000 SKUs. Each store carried about 3,000 SKUs on average, depending on local customer demand. Seven-Eleven Japan emphasized regional merchandising to cater precisely to local preferences. Each store carried food items, beverages, magazines, and consumer items such as soaps and detergents. The relative sales across product categories in 2012 for Seven-Eleven Japan are given in Table 3-5.

The food items were classified into four broad categories: (1) chilled-temperature items, including sandwiches, delicatessen products, and milk; (2) warm-temperature items, including box lunches, rice balls, and fresh bread; (3) frozen items, including ice cream, frozen foods, and ice cubes; (4) and room-temperature items, including canned food, instant noodles, and seasonings. Processed food and fast-food items were big sellers for the stores. In 2012, processed and fast foods contributed about 53 percent of the total sales at each store. More than 1 billion rice balls were sold in 2004; this amounted to each Japanese citizen eating approximately eight Seven-Eleven rice balls a year. The top-selling products in the fast-food category were lunch boxes, rice balls, bread-based products, and pasta. By 2013, Seven-Eleven Japan had 171 daily production facilities and 158 distribution centers across Japan.

TABLE 3-5 Sales by Product Category in 2012

	Percentage of Total Sales
Processed foods	26.6
Fast foods	26.0
Fresh/daily foods	12.3
Nonfoods	35.1

Source: Data obtained from Seven Eleven Japan Annual Report 2012.

Other products sold at Seven-Eleven stores included soft drinks, nutritional drinks, alcoholic beverages such as beer and wine, game software, music CDs, and magazines.

Seven-Eleven was focused on increasing the number of original items that were available only at their stores. In 2004, original items accounted for roughly 52 percent of total store sales. In 2007, Seven & i launched Seven Premium private brand products for sale at its stores. By February 2010, Seven Premium offered 1,035 SKUs; this number was expected to grow in the future. Private brand products were sold across all store formats and were viewed by the company as an important part of the expansion of synergies across its various retail formats.

Store Services

Besides products, Seven-Eleven Japan gradually added a variety of services that customers could obtain at its stores. The first service, added in October 1987, was the in-store payment of Tokyo Electric Power bills. The company later expanded the set of utilities for which customers could pay their bills in the stores to include gas, insurance, and telephone. With more convenient operating hours and locations than banks or other financial institutions, the bill payment service attracted millions of additional customers every year. In April 1994, Seven-Eleven Japan began accepting installment payments on behalf of credit companies. It started selling ski-lift pass vouchers in November 1994. In 1995, it began to accept payment for mail-order purchases. This was expanded to include payment for Internet shopping in November 1999. In August 2000, a meal delivery service company, Seven-Meal Service Co. Ltd., was established to serve the aging Japanese population. Seven Bank was set up as the core operating company for Seven & i in financial services. By 2013, virtually every Seven-Eleven Japan store had an ATM installed, with Seven Bank having almost 18,000 ATMs. The company averaged 111 transactions per ATM per day.

Other services offered at stores include photocopying, ticket sales (including baseball games, express buses, and music concerts), using multifunctional copiers, and being a pick-up location for parcel delivery companies that typically did not leave the parcel outside if the customer was not at home. In 2010, the convenience stores also started offering some government services, such as providing certificates of residence. The major thrust for offering these services was to take advantage of the convenient locations of Seven-Eleven stores in Japan. Besides providing additional revenue, the services also got customers to visit the stores more frequently. Several of these services exploited the existing Total Information System (described later) in the store.

In February 2000, Seven-Eleven Japan established 7dream.com, an e-commerce company. The goal was to exploit the existing distribution system and the fact that stores were easily accessible to most Japanese. Stores served as drop-off and collection points for Japanese customers. A survey by eSBook (a joint venture among Softbank, Seven-Eleven Japan, Yahoo!Japan, and Tohan, a publisher) discovered that 92 percent of its customers preferred to pick up their online purchases at the local convenience store, rather than have them delivered to their homes. This was understandable, given the frequency with which Japanese customers visit their local convenience store; 7dream hoped to build on this preference along with the synergies from the existing distribution system.

In March 2007, Seven-Eleven Japan introduced "Otoriyose-bin," or Internet shopping. The service enabled customers to buy products that were typically not available at the retail stores. Customers were allowed to order on the Internet with both pick-up and payment at Seven-Eleven stores. No shipping fee was charged for this service. The company built Seven Net Shopping, its Internet site, aimed at combining the group's stores and Internet services. In April 2007, "nanaco" electronic money was offered in Seven-Eleven stores. The service allowed customers to prepay and use a card or cell phone to make payments. The service was offered as a convenience to customers making small purchases and was also a reward system offering one yen's worth of points for every 100 yen spent by the customer. By 2013, 21.45 million nanaco accounts had been issued.

Given Japan's aging population and an increase in the number of women working outside the home (Seven-Eleven estimated that in 2009, more than 70 percent of women in their 40s worked outside the home), Seven-Eleven wanted to exploit its "close-by convenient stores" to better serve its customers. The company attempted to do this by increasing the number of high daily consumption rate products from 500 to 900 and by bolstering its Seven-Meal service for home delivery.

Seven-Eleven Japan's Integrated Store Information System

From its start, Seven-Eleven Japan sought to simplify its operations by using advanced information technology. Seven-Eleven Japan attributed a significant part of its success to the Total Information System installed in every outlet and linked to headquarters, suppliers, and the Seven-Eleven distribution centers. The first online network linking the head office, stores, and vendors was established in 1979, though the company did not collect point-of-sales (POS) information at that time. In 1982, Seven-Eleven became the first company in Japan to introduce a POS system comprising POS cash registers and terminal control equipment. In 1985, the company, jointly with NEC, developed personal computers using color graphics that were installed at each store and linked to the POS cash registers. These computers were also on the network linking the store to the head office, as well as the vendors. Until July 1991, the head office, stores, distribution centers, and suppliers were linked only by a traditional analog network. At that time, an integrated services digital network (ISDN) was installed. Linking more than 5,000 stores, it became one of the world's largest ISDN systems at that time. Sales data gathered in each store by 11:00 p.m. were processed and ready for analysis the next morning.

The hardware system at a 2012 Seven-Eleven store included the following:

- ***Graphic order terminal:*** This was a handheld device with a wide-screen graphic display, used by the store owner or manager to place orders. The store manager/owner walked down the aisles and placed orders by item. When placing an order, the store manager had access (from the store computer) to detailed analysis of POS data related to the particular item. This included sales analysis of product categories and SKUs over time, analysis of waste, 10-week sales trends by SKU, 10-day sales trends by SKU, sales trends for new products, sales analysis by day and time, list of slow-moving items, analysis of sales and number of customers over time, contribution of product to sections in store display, and sales growth by product categories. The store manager used this information when placing an order, which was entered directly into the terminal. Once all the orders were placed, the terminal was returned to its slot, at which point the orders were relayed by the store computer to both the appropriate vendor and the Seven-Eleven distribution center.
- ***Scanner terminal:*** These scanners read bar codes and recorded inventory. They were used to receive products coming in from a distribution center. This was automatically checked against a previously placed order, and the two were reconciled. Before the scanner terminals were introduced, truck drivers waited in the store until the delivery was checked. Once they were introduced, the driver simply dropped the delivery in the store, and a store clerk received it at a suitable time when there were few customers. The scanner terminals were also used when examining inventory at stores.
- ***Store computer:*** This linked to the Seven-Eleven network, the POS register, the graphic order terminal, and the scanner terminal. It communicated among the various input sources, tracked store inventory and sales, placed orders, provided detailed analysis of POS data, and maintained and regulated store equipment.
- ***POS register:*** As soon as a customer purchased an item and paid at the POS register, sales and other data (such as the age and sex of the customer) were stored and transmitted to headquarters through the store computer.

The analyzed and updated data were then sent back to the Seven-Eleven Japan stores via the network each morning. All this information was available on the graphic order terminal with the objective of improving order placement.

The information system allowed Seven-Eleven stores to better match supply with demand. Store staff could adjust the merchandising mix on the shelves according to consumption patterns throughout the day. For example, popular breakfast items were stocked earlier during the day, and popular dinner items were stocked later in the evening. The identification of slow and nonmoving items allowed a store to convert shelf space to introduce new items. About 70 percent of the items sold at a Seven-Eleven store changed in the course of a year. About 100 new products were introduced each week. When a new product was introduced, the decision whether to continue stocking it was made within the first three weeks. Each item on the shelf

contributed to sales and margin and did not waste valuable shelf space.

Seven-Eleven's Distribution System

The Seven-Eleven distribution system tightly linked the entire supply chain for all product categories. All stores were given cutoff times for breakfast, lunch, and dinner ordering. When a store placed an order, it was immediately transmitted to the supplier as well as the distribution center. The supplier received orders from all Seven-Eleven stores and started production to fill the orders. The supplier then sent the orders by truck to the DC. Each store order was separated so the DC could easily assign it to the appropriate store truck using the order information it already had.

The key to store delivery was what Seven-Eleven called the *combined delivery system*. At the DC, deliveries of like products from different suppliers (e.g., milk and sandwiches) were directed into a single temperature-controlled truck. There were four categories of temperature-controlled trucks: frozen foods, chilled foods, room-temperature processed foods, and warm foods. Warm and chilled foods were delivered three times daily, whereas room-temperature products were delivered once a day. Frozen products were delivered three to seven times a week, depending on the weather. Each truck made deliveries to multiple retail stores. The number of stores per truck depended on the sales volume. All deliveries were made during off-peak hours and were received using the scanner terminals. The system worked on trust and did not require the delivery person to be present when the store personnel scanned in the delivery. That reduced the delivery time spent at each store.

This distribution system enabled Seven-Eleven to reduce the number of vehicles required for daily delivery service to each store, even though the delivery frequency of each item was quite high. In 1974, seventy vehicles visited each store every day. By 2006, only nine were necessary. This dramatically reduced delivery costs and enabled rapid delivery of a variety of fresh foods.

As of May 2013, Seven-Eleven Japan had a total of 171 daily production facilities throughout the country that produced items were distributed through 158 DCs that ensured rapid, reliable delivery. None of these DCs carried any inventory; they merely transferred inventory from supplier trucks to Seven-Eleven distribution trucks. The transportation was provided by Transfleet Ltd., a company set up by Mitsui and Co. for the exclusive use of Seven-Eleven Japan.

7-Eleven in the United States

Seven-Eleven had expanded rapidly around the world (Table 3-6). The major growth was in Asia, although the United States continued to be the second largest market for Seven-Eleven. Once Seven-Eleven Japan acquired Southland Corporation, it set about improving operations in the United States. In the initial years, several 7-Eleven stores in the United States were shut down. The number of stores started to grow beginning in 1998. Historically, the distribution structure in the United States was completely different from that in Japan. Stores in the United States were replenished using direct store delivery (DSD) by some manufacturers, with the remaining products delivered by wholesalers. DSD accounted for about half the total volume, with the rest coming from wholesalers.

TABLE 3-6 Global Store Distribution for Seven-Eleven in December 2013

Country	Stores
Japan	16,020
United States	8,155
Taiwan	4,919
Thailand	7,429
South Korea	7,085
China	2,001
Malaysia	1,557
Mexico	1,690
Canada	486
Australia	595
Singapore	537
Philippines	1,009
Norway	157
Sweden	190
Denmark	196
Indonesia	149
Total	52,175

Source: Data obtained from Seven Eleven Japan website http://www.sej.co.jp/company/en/g_stores.html.

With the goal of introducing "fresh" products in the United States, 7-Eleven introduced the concept of combined distribution centers (CDCs) around 2000. By 2003, 7-Eleven had 23 CDCs located throughout North America, supporting about 80 percent of the store network. CDCs delivered fresh items such as sandwiches, bakery products, bread, produce, and other perishables once a day. A variety of fresh-food suppliers sent product to the CDC throughout the day, where they were sorted for delivery to stores at night. Requests from store managers were sent to the nearest CDC, and by 10:00 p.m., the products were en route to the stores. Relative to Japan, a greater fraction of the food sold, especially hot food such as wings and pizza, was prepared in the store. Fresh-food sales in North America exceeded $450 million in 2003. During this period, DSD by manufacturers and wholesaler delivery to stores also continued.

This was a period when 7-Eleven worked very hard to introduce new fresh-food items, with a goal of competing more directly with the likes of Starbucks than with traditional gas station food marts. 7-Eleven in the United States had more than 63 percent of its sales from non-gasoline products compared with the rest of the industry, for which this number was closer to 35 percent. The goal was to continue to increase sales in the fresh-food and fast-food categories with a special focus on hot foods.

In 2009, revenue in the United States and Canada totaled $16.0 billion, with about 63 percent coming from merchandise and the rest from the sale of gasoline. The North American inventory turnover rate in 2004 was about 19, compared to more than 50 in Japan. This, however, represented a significant improvement in North American performance, where inventory turns in 1992 were around 12.

Study Questions

1. A convenience store chain attempts to be responsive and provide customers with what they need, when they need it, where they need it. What are some different ways that a convenience store supply chain can be responsive? What are some risks in each case?
2. Seven-Eleven's supply chain strategy in Japan can be described as attempting to micro-match supply and demand using rapid replenishment. What are some risks associated with this choice?
3. What has Seven-Eleven done in its choice of facility location, inventory management, transportation, and information infrastructure to develop capabilities that support its supply chain strategy in Japan?
4. Seven-Eleven does not allow direct store delivery in Japan but has all products flow through its distribution center. What benefit does Seven-Eleven derive from this policy? When is direct store delivery more appropriate?
5. What do you think about the 7dream concept for Seven-Eleven Japan? From a supply chain perspective, is it likely to be more successful in Japan or the United States? Why?
6. Seven-Eleven is attempting to duplicate the supply chain structure that has succeeded in Japan and the United States with the introduction of CDCs. What are the pros and cons of this approach? Keep in mind that stores are also replenished by wholesalers and DSD by manufacturers.
7. The United States has food service distributors that also replenish convenience stores. What are the pros and cons to having a distributor replenish convenience stores versus a company like Seven-Eleven managing its own distribution function?

CASE STUDY

Financial Statements for Walmart Stores Inc. and Macy's Inc.

Table 3-7 contains the financial results for Walmart and Macy's for 2012. Evaluate the financial performance of each company based on the various metrics discussed in Section 3.1, such as ROE, ROA, profit margin, asset turns, APT, C2C, ART, INVT, and PPET. Can you explain the differences you see in their performance based on their supply chain strategy and structure? Compare the metrics for each company with similar metrics for Amazon and Nordstrom from Table 3-1. Which metrics does each company perform better on? What supply chain drivers and metrics might explain this difference in performance?