

McDonald's Food Chain Case Study



It was early evening and one of the 25 McDonald's outlets in India was bustling with activity with hungry souls trooping in all the time. No matter what one ordered - a hot Maharaja Mac or an apple pie - the very best was served every time. But did anyone ever wonder as to how this US giant managed the show so perfectly? The answer seemed to lie in a brilliantly articulated food chain, which extended from these outlets right up to farms all across India.

US-based fast food giant, McDonald's success in India had been built on four pillars: limited menu, fresh food, fast service and affordable price. Intense competition and demands for a wider menu drive-through and sit-down meals - encouraged the fast food giant to customize product variety without hampering the efficacy of its supply chain. Around the world (including India), approximately 85% of McDonald's restaurants were owned and operated by independent franchisees. Yet, McDonald's was able to run the show seamlessly by outsourcing nine different ingredients used in making a burger from over 35 suppliers spread all over India through a massive value chain.

Between 1992 and 1996, when McDonald's opened its first outlet in India, it worked frenetically to put the perfect supply chain in place. It trained the local farmers to produce lettuces or potatoes to specifications and worked with a vendor to get the perfect cold chain in place. And explained to the suppliers precisely why only one particular size of peas was acceptable (if they were too large, they would pop out of the patty and get burnt). These efforts paid off in the form of joint ventures between McDonald's India (a 100% wholly-owned subsidiary of McDonald's USA) and Hardcastle Restaurants Pvt. Ltd, (Mumbai) and Connaught Plaza Restaurant (New Delhi).

Few companies appreciate the value of supply chain management and logistics as much as McDonald's does. From its experience in other countries (Refer Exhibit II & III), McDonald's was aware that supply chain management was undoubtedly the most important factor for running its restaurants successfully. Amit Jatia, Managing Director, Hardcastle Restaurants Private Limited said, "A McDonald's restaurant is just the window of a much larger system comprising an extensive food-chain, running right up to the farms". McDonald's worked on the supply chain

management well ahead of its formal entry to India. "We spent seven years to develop the supply chain. The first McDonald's team came to India way back in 1989," said S. D. Saravanan (Saravanan), Product Manager, National Supply Chain, McDonald's India.

Note A cold chain refers to the warehousing, transportation and retailing of products under controlled temperatures. Such a chain is necessary for ice creams, frozen vegetables, processed meats, dairy and bakery products. While frozen foods need sub-zero temperatures up to -20°C, products like butter, which require chilling, need about 0-4°C.

Background Note

McDonald's was started as a drive-in restaurant by two brothers, Richard and Maurice McDonald in California, US in the year 1937. The business, which was generating \$200,000 per annum in the 1940s, got a further boost with the emergence of a revolutionary concept called 'self-service.' The brothers used assembly line procedures in their kitchen for mass production. Prices were kept low. Speed, service and cleanliness became the critical success factors of the business. By mid-1950s, the restaurant's revenues had reached \$350,000. As word of their success spread, franchisees started showing interest.

However, the franchising system failed because the McDonald brothers observed very transparent business practices. As a consequence, imitators copied their business practices and emerged as competitors. The franchisees also did not maintain the same standards of cleanliness, customer service and product uniformity. At this point, Ray Kroc (Kroc), distributor for milkshake machines expressed interest in the business, and he finalized a deal with the McDonald brothers in 1954.

He established a franchising company, the McDonald System Inc. and appointed franchisees. In 1961, he bought out the McDonald brothers' share for \$2.7 million and changed the name of the company to McDonald's Corporation. In 1965, McDonald's went public. By the end of the 1960s, Kroc had established over 400 franchising outlets. McDonald's began leasing/buying potential store sites and then subleased them to franchisees initially at a 20% markup and later at a 40% markup. Kroc set up the Franchise Realty Corporation for this. The real estate operations improved McDonald's profitability. By the end of the 1970s, McDonald's had over 5000 restaurants with sales exceeding \$3 billion.

However, in the early 1990s, McDonald's was in trouble due to changing customer preferences and increasing competition. Customers were becoming increasingly health-conscious and wanted to avoid red meat and fried food. They also preferred to eat at other fast food joints that offered discounts. There was also intense competition from supermarkets, convenience stores, mom and dad delicacies, gas stations and other outlets selling reheat-able packaged food. In 1993, McDonald's finalized an arrangement for setting up restaurants inside Wal-Mart retail stores. The

company also opened restaurants in gas stations owned by Amoco and Chevron. In 1996, McDonald's entered into a \$1 billion 10-year agreement with Disney.

McDonald's agreed to promote Disney through its restaurants and opened restaurants in Disney's theme parks. In 1998, McDonald's took a minority stake in Chipotle Mexican Grill - an 18-restaurant chain in the US. In October 1996, McDonald's opened its first restaurant in India.

By 1998, McDonald's had 25,000 restaurants in 116 countries, serving more than 15 billion customers annually. During the same year, the company recorded sales of \$36 billion, and net income of \$1.5 billion. McDonald's overseas restaurants accounted for nearly 60% of its total sales. Franchisees owned and operated 85% of McDonald's restaurants across the globe. However, much to the company's chagrin, in 1998, a survey in the US revealed that customers rated McDonald's menu as one of the worst-tasting ever. Undeterred by this the company continued with its expansion plans and by 2001, it had 30,093 restaurants all over the world with sales of \$ 24 billion (Refer Exhibit I for key statistics of McDonald's). By mid 2001, the company had 28 outlets in India.

In Search of Perfect Logistics - The Story of the Cold Chain

In 1996, when McDonald's entered India, it was looking for a distribution agent who would act as a hub for all its vendors. Mumbai-based Radhakrishna Foodland Private Limited (RFPL) was chosen for the job as it was already a distributor for its sister concern, Radhakrishna Hospitality Services, a catering unit supplying to offshore institutions. The iceberg lettuce from Ooty, mutton patties from Hyderabad and sesame seed buns from Punjab were all delivered to RFPL's distribution centre (cold storage) in its refrigerated vans.

RFPL stored the products in controlled conditions in Mumbai and New Delhi and supplied them to McDonald's outlets on a daily basis. By transporting the semi-finished products at a particular temperature, the cold chain ensured freshness and adequate moisture content of the food. The specially designed trucks maintained the temperature in the storage chamber throughout the journey. Drivers were instructed specifically not to switch off the chilling system to save electricity, even in the event of traffic jam.

"This centralized distribution system is unique to McDonald's. We have to ensure that the integrity of the product is maintained throughout the cold chain," said H. Shriram, General Manager, Distribution Centre, RFPL. FJ Walker of Australia, a McDonald's partner, helped RFPL build a cold storage in Thane. Another cold storage with equipment worth about Rs.75 lakh was built in Delhi in 1998. RFPL also handled McDonald's inventory management. It had to anticipate future requirements and contingencies and plan for optimum utilization of the refrigerated vehicles.

Meeting McDonald's "cold, clean, on-time" delivery standards was no easy task considering that there were 30 suppliers situated all over the country. AFL Logistics Ltd (ALL), a joint venture between and Coughlin of the US, and RFPL was responsible for ensuring these standards. Coughlin's task was to make sure that McDonald's had the proper amount of supplies and

materials at each restaurant. The challenge was the physical movement of material and inventory control in a country with bad roads and basic infrastructure bottlenecks.

To meet McDonald's high standards, Coughlin ensured that quality, temperature and packaging requirements were met. At the same time, unused capacity in the vehicles was used to transport goods from other vendors. This helped Coughlin deliver the lowest cost with the highest quality. RFPL also handled in-city distribution to restaurants. "We make a projection of demand from each of the restaurants based on historical data and ask the suppliers to meet the demand. This information is also sent to the logistics company. The suppliers, in turn, give us feedback on their ability to meet the demand," Shriram said.

According to Vinay Adhye (Adhye), director, RFPL, "Managing logistics for McDonald's is as complicated and demanding as rocket science." To begin with, while the restaurants were not supposed to stock more than three days of inventory, the time limit for distribution centres or warehouses was a stringent 14 days to minimize costs and optimize quality control. This required round-the-clock monitoring of pick-ups and truck movements. Since most of the items were perishable, McDonald's standards covered the entire delivery schedules.

For in-city delivery, the truck was monitored from the time it left the distribution centre till the time it reached the restaurant. Not just that, the time taken in offloading was noted too. Adhye further added, "The restaurant gives us a strict 30-minute window in which time we have to complete the delivery. And in the last two and a half years we have missed the window only once."

The products were transported from the suppliers' end to the distribution centre in refrigerated and insulated vehicles through a system of consolidation to ensure better utilization of vehicle capacity. While the temperature in the reefers ranged from -18° to -22°, that in chilled trucks ranged from 1 to 4°. "At no point is the cold chain disturbed, so much so that if any of the McDonald's restaurants face a power breakdown, reefer trucks are arranged to ensure that temperature is maintained", said Shriram. He further added, "We have a contingency plan and a back-up at every point, in the event of a failure".

RFPL was also responsible for cleanliness (including the personal hygiene of the drivers), and the packing and temperature control of the food (digital probes were inserted into items selected at random) it transported. There were also data logs to track the movement of each batch. This meant that in the case of a complaint from a restaurant, the batch could be identified, isolated, and dumped. To perfect the system, the RFPL team travelled to a number of countries, including Turkey, the Philippines, Australia, and the US. AFLL also followed similarly detailed procedures.

McDonald's insisted on standardization by its suppliers. Vista Processed Foods & Kitran Foods (Vista & Kitran Foods), which supplied the pies, nuggets, vegetable, and chicken patties, commissioned a new facility for the purpose in 1996, complete with insulated panels, temperature control, and chill rooms. McDonald's also assisted its suppliers with improvements. For instance, it helped Trikaya Agriculture develop a variety of iceberg lettuces (which is a winter crop) that would grow all year round. And for quality control, Trikaya's post-harvest

facilities included a cold chain consisting of a pre-cooling room to remove field heat, a large cold room, and a refrigerated van with humidity controls.

Outsourcing at its Best

McDonald's sourced ingredients from all parts of India. (Refer Table I). The iceberg lettuce was specially developed for India using a new culture farming technique. This variety of lettuce was similar to the lettuce McDonald's used elsewhere in the world. To meet the demand consistently, McDonald's helped Trikaya Agriculture grow the lettuce throughout the year and even in rain-shadow areas. The crop was harvested between 45 days, depending on the climate. The crop was harvested early in the morning and immediately stored in vacuum pre-coolers installed at the farm. The pre-cooler brought down the temperature of the lettuce from 26° to 3°.

McDonald's was able to bring technology to its suppliers too. Vista and Kitran Foods was formed through a joint venture between Vista and OSI Industries, US, for chicken products; and between Kitran and Kitchen Range Foods, UK, for vegetable patties. Vista and Kitran's Taloja plant was commissioned in December 1996.

"We have developed a supplier chain to get fresh vegetables and chicken. We test everything that comes into our plant," said Jose Azavedo, CEO, Vista & Kitran. The plant had a Hazard Analysis Critical Control Point (HACCP) system to ensure quality. The ready-to-cook patties, manufactured at the plant, were stored in rooms at -26° c. McDonald's had also applied supply chain technology when setting up Dynamix Dairy Industries Limited. The Dynamix Dairy plant, with technological collaboration from various international firms, including Schreiber International Inc, US, went in for backward integration, by tying up with cooperative organizations at the district level.

The joint venture with Baramati Cooperative Milk Marketing Federation resulted in facilities across Baramati to collect milk. "We did a survey of Baramati and set up 35 bulk cooling stations with 50 tanks where milk can be collected, checked and stored at 3°", said A. R. Sumant, General Manager, Milk Procurement, Dynamix Dairy Industries Limited. "Our aim was to ensure that the milk producer does not travel more than 2.5 km to deliver his product. That ensures longer life for milk," he added. Once collected, the milk was transferred to Dynamix's plant in insulated tankers. Dynamix procured 3.5 lakh litres of milk every day, which was used to make processed cheese exclusively for McDonald's. The product was made according to the multinational's specifications.

TABLE I
OUTSOURCING THE INGREDIENTS

Cheese	Dynamix Dairy Industries Ltd., Pune
Dehydrated onions	Jain Foods, Jalgaon
Iceberg lettuce	Trikaya Agriculture, Pune
Chicken patty	Vista Foods, Taloja
Veg. Patty, Veg. nuggets, Pineapple/Apple pie	Kitran Foods, Taloja
Chicken (dressed)	Riverdale, Talegaon

Buns	Cremica Industries, Phillaur
Eggless mayonnaise	Quaker Cremica Pvt. Ltd., Phillaur
Sesame seeds	Ghaziabad
Iceberg lettuce	Meena Agritech, Delhi
Fish fillet patties	Amalgam Foods Ltd., Kochi.
Iceberg lettuce	Ooty Farms & Orchards, Ooty
Vegetables for the patties	Finns Frozen Foods & Jain Foods (Nasik, Jalgaon)
Mutton and mutton patties	Al Kabeer, Hyderabad

Source: Business India, October 4, 1999.

McDonald's convinced its suppliers to set up two separate production lines for chicken and vegetable patties, keeping in the mind the link between food and religion in India. This was in sharp contrast with its global practice, where McDonald's suppliers produced all types of patties from the same line. These two production lines were housed in two different rooms and the only way a worker could cross over from one line to the other was by passing through the shower room.

This eliminated all chances of contamination. However, from a supplier's point of view, more lines meant a reduction in capacity utilisation and high cost of production. To minimise costs, McDonald's helped Vista & Kitran Foods produce derivatives of chicken and vegetable nuggets (not based on McDonald's recipe) for Indian hotels and restaurants and thereby reach new markets. Vista & Kitran's higher margin and higher capacity utilization for non-McDonald's products helped it remain cost competitive. McDonald's philosophy had been 'one world, one burger' i.e. the McDonald's burger should be consistent in terms of cost and quality throughout the world. To ensure this, all of McDonald's suppliers followed the internationally acclaimed HACCP systems wherein both inputs and finished goods were subjected to chemical and microbiological tests.

This kept food fresh and free from contamination. Apart from this, the entire production line was automated using sophisticated technology, barring only the final compilation of the bun, cheese and patty - which was done by hand.

Questions:

1. What is a 'Cold Chain'? Explain how McDonalds managed the components of the cold chain. Critically comment on the role played by the unique centralized distribution system in McDonald's supply chain.

2. 'McDonald's is one of the few companies that has placed substantial emphasis on effective and efficient supply chain management system as a means to leverage for competitive advantage.' In the light of this statement, analyse the steps taken by McDonalds to standardize its supply chain in India.

