

based approach to prioritize the implementation of the SER programme with tier 1 suppliers, who would then train the tier 2 suppliers in SER. Throughout 2008, HP audited 142 suppliers at 246 high-risk sites in different countries, out of which 85 suppliers would be reaudited at 122 sites in 2009. Four hundred and forty four low-risk suppliers are already engaged and assessed, i.e., no audits are necessary for them. However, 20 new suppliers are to be audited at 27 high-risk sites in 2009. To raise the standards in supply chain, audits are also done with respect to EICC. Capacity building in SER has been accomplished by various projects in collaboration with local organizations, e.g., workers' training and the Focused Improvement Supplier Initiative (FISI) in China, the hard-disk drive supply chain in Southeast Asia, the Central Europe Supplier Responsibility (CESR) project, and the Health Enables Returns project in Mexico.

Discussion Questions

1. Comment upon the structure and complexity of supply chain requirements at Hewlett-Packard (HP) that makes supply chain mastery at HP an imperative discipline.
2. What are the special programmes at HP that facilitate implementation of HP's strategies and policies towards SCM?
3. How does HP avoid concentration of sources at one place in the globe? How are the sourcing partners distributed globally? What do you think could be reasons for this kind of distribution?
4. Critically analyse as to how HP discharges its social and environmental responsibility through its suppliers across its product life cycles.
5. What are the kinds of benefits which HP reaped by mastering the art and science of SCM?

INDIAN CASE STUDY

AMUL¹¹

Overview

The Gujarat Cooperative Milk Marketing Federation (GCMMF) or commonly referred to as Amul, collects 4,47,000 litres of milk from 2.12 million farmers, converts the milk into branded, packaged products and delivers products worth Rs 6 crore to over 5,00,000 retail outlets across the country daily. Its supply chain would be easily one of the most complicated in the world.

Every GCMMF office displays a photograph that shows a long queue of Gujarati women waiting patiently for the union vehicle to come and collect the milk they have brought in shining oval brass containers. Amul never forgets its primary supplier, i.e., the farmer and it is a whopping Rs 2200 crore (Rs 22 billion) enterprise. The GCMMF now has 2.12 million farmers, 10,441 milk collection centres in villages, and 14 district level unions and their plants.

History

It was way back in December 1946 that a group of farmers from the village of Anand, in order to free themselves from intermediaries and gain access to markets to get due returns, started the Kaira District Milk Cooperative Union. It then joined hands with other milk cooperatives and made the GCMMF. Today 2.12 million farmers, 10,441 milk collection centres at village level, and 14 district level unions. Markets were relatively more primitive and poor in infrastructure. The federation felt that they just could not leave it to market forces and that a proactive strategy was required.

¹¹ *Source:* This case has been adapted from the case, 'The extraordinary story of Amul', *The Smart Manager*, September 2005, with the kind permission of its author, Prof. Pankaj Chandra, Director, IIM, Bangalore. The author expresses acknowledgement and thanks to Prof. Chandra

The Business Strategy and the Market Segment

The GCMMF identified two key action areas under the strategy.

- (i) Matching demand and supply that would need heavy investment and the simultaneous development of suppliers and consumers
- (ii) To engage professional managers and technocrats for effective management of the network and commercial viability

A hierarchical network of the cooperatives was developed while still retaining the focus on farmers. The vast supply chain of Amul has a spread from small suppliers to large fragmented markets. Although GCMMF is directly responsible only for a small part of the chain, a number of distributors, retailers, and third-party logistics (3PL) providers play a bigger role. Managing supply chain effectively and efficiently is critical as GCMMF's competitive position is driven by low consumer prices supported by a low cost system.

Initially, when Amul was formed, consumers had limited purchasing power and modest consumption levels of milk and dairy products. Then, with growth, Amul developed a low-cost price strategy making its products affordable and ensuring value for money for their customers. Making a product base with liquid milk, Amul enhanced its product mix through the progressive addition of higher value products while maintaining the desired growth in existing products. It has competition in high value dairy segments from giants like HUL, Britannia, and Nestle. However, GCMMF makes sure that the product mix is consistent with its basic value of providing milk at an affordable price.

The Federation uses Amul as an *umbrella brand* which covers various product categories produced by various unions like liquid milk, butter, ghee, cheese, cocoa products, sweets, ice-cream and condensed milk. Amul's sub-brands include variants, such as Amulya, Amulspray, Amulspree,

and Nutramul. Edible oil products are branded Dhara and Lokdhara, mineral water is sold as Jal Dhara, and fruit drinks bear the brand name of Safal. By following an umbrella branding, GCMMF has been able to avoid inter union conflicts at the same time facilitating them to develop and improve products.

Distribution Network

As pointed out earlier, Amul products are available in over 5,00,000 retail outlets across India through its network of over 3500 distributors. There are 47 depots with dry and cold warehouses to buffer inventory of the entire range of products.

The GCMMF transacts on an advance demand draft basis from its wholesale dealers instead of the cheque system adopted by other major FMCG companies. This practice is consistent with GCMMF's philosophy of maintaining cash transactions throughout the supply chain and it also minimizes the inventory levels.

Wholesale dealers carry inventory that is just adequate to meet the transit time from the branch warehouse to their premises. The JIT inventory levels help improve the dealers' ROI.

Managing the Supply Chain Network

Given the large number of entities in the supply chain and the need for decentralized responsibility for various activities, effective coordination is critical for efficiency and cost control. GCMMF and the unions jointly achieve the desired degree of control. The unions get assured buy-ins as the plans are approved by the GCMMF's board. It is drawn from the heads of all the unions, and the boards of the unions comprise of farmers elected through village societies, thereby creating control through interlocking.

While the unions coordinate the supply side activities, the federation handles the distribution of end products and coordination with the retailers and dealers. The activities include monitoring milk collection contractors, the supply of animal feed

and other supplies, provision of veterinary services, and educational activities.

Managing Third-party Logistics (3PL) Providers

The union's core competence activity lies in milk processing and the production of dairy products. Accordingly, marketing efforts including brand development were assumed by the GCMMF. All other activities were entrusted to third parties. These include logistics of milk collection, distribution of dairy products, sale of end products through dealers and retail stores, provision of animal feed, and veterinary services.

It is worth noticing that a number of these third parties are not in the organized sector and many are not professionally managed, with little regard for quality and service. This is a particularly critical issue in the logistics and transport of a perishable commodity where the basic infrastructure is already ridden with weaknesses.

Establishing Best Practices

A key source of competitive advantage has been the GCMMF's ability to continuously implement best practices across all elements of the network: the federation itself, the unions, the village societies, and the distribution channel.

In developing these practices, the federation and the unions have adapted some of the global best practices. It could be the implementation of small group activities or quality circles at the federation or a total quality management (TQM) programme at the unions or housekeeping and good accounting practices at the village society level.

More importantly, the network has been able to regularly roll out improvement programmes across to a large number of members and the implementation rate is consistently high. For example, every Friday, between 10.00 a.m. and 11.00 a.m., all employees of GCMMF meet without fail at the closest office, be it a department or a branch or a depot, to

discuss their various quality concerns. Each meeting has its pre-set format in terms of purpose, agenda, and limit (PAL) with a process check at the end to record how the meeting was conducted. Similar processes are in place at the village societies, the unions, and up to the wholesaler and clearing and forwarding (C&F) agent levels.

Examples of benefits reaped from recent initiatives include reduction in transportation time from the depots to the wholesale dealers, improvement in ROI of wholesale dealers, implementation of zero stock-out through improved availability of products at depots, and also the implementation of JIT in finance to reduce the float.

Kaizens—the continuous improvement projects at the unions, have helped improve the quality of milk in terms of acidity and sourness that it may have. For example, Sabar Union's records show a reduction from 2.0 per cent to 0.5 per cent in the amount of sour milk/curd received at the union.

The most impressive aspect of this big time roll out is that improvement processes are turning the village societies into individual improvement centres.

Technology and E-initiatives

GCMMF's technology strategy is characterized by distinct components, namely new products, process technology, and complementary assets to enhance milk production and e-commerce.

Only a few dairies of the world may have as wide a variety of products as produced by the GCMMF network. Village societies are encouraged through subsidies to install chilling units. Automation in processing and packaging areas is common as is the Hazard Analysis Critical Control Point (HACCP) certification. Amul actively pursues developments in embryo transfer and cattle breeding in order to improve cattle quality and increase in milk yields.

GCMMF has been one of the first Indian FMCG firms to employ Internet technologies to implement B2C commerce. Today customers can order a variety of products through the Internet and still be assured of timely delivery with cash payment upon receipt. Another e-initiative underway at GCMMF is to provide farmers access to information relating to markets, technology, and best practices in the dairy industry through Net enabled kiosks in the village.

It has also implemented a geographical information system (GIS) at both ends of the supply chain, which are milk sourcing, collection as well as the marketing processes aimed at delivery to customers.

Farmers now have better access to information on the output as well as support services which

helps them in better product mix, planning, and marketing.

Discussion Questions

1. Why should a company such as Amul undertake a strategic management initiative of SCM?
2. Comment on the distribution network and its challenges at Amul.
3. Name some best practices in management in use in Amul which result in better performance of the supply chain.
4. How can initiatives based on information technology (IT) facilitate better management of the supply chain in a dairy industry unit such as Amul?

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