

Amul – a case study on it in scm

Education



AMUL - A case study on IT in SCM A live case of Use of IT Amul is a leading food brand in India. It offers a wide range of products like milk, milk powder, butter, ghee, cheese, chocolates, Shrikhand, ice cream and many more. The brand name AMUL is derived from the Sanskrit word " Amoolya", meaning priceless. The first products with the Amul brand name were launched in 1955. Since then, they have been in use in millions of homes in all parts of India, and beyond.

Today Amul is a symbol of many things: Of high quality products sold at reasonable prices, of availability, of service. Amul has been accredited with ISO 9001 and HACCP Certification by QAS, Australia-the first food company in Asia to receive the HACCP Certification " Amul" is a well-acknowledged and live example of making a strong use of IT Formed in the year 1946, Amul initiated the dairy co-operative movement in India and formed an apex co-operative organization called the Gujarat Cooperative Milk Marketing Federation (GCMMF).

Today, this movement is being replicated in 70, 000 villages in over 200 districts in India, transforming the rural landscape. This co-operative revolution has made India the largest producer of milk in the world today. Amul is also one of the largest and most celebrated food brands in India. GCMMF markets its products through 50 sales offices throughout India; and distribution is done through a network of 4, 000 stockists who, in turn, supply 500, 000 retail outlets.

The complexity of logistics can be visualized in terms of: millions of litres of milk to be collected from millions of village members. Interestingly, milk is a perishable commodity; hence a strong coordination function is required in

storing, processing and distributing the milk in required time. The case of Amul's supply chain is noteworthy simply because the movement has not only lead to efficient collection of milk but, more importantly, has used IT to create higher profits for milk producers. Role of InformationTechnologyIT has played a critical role in the development of the Amul brand.

The logistics behind the coordination of approximately six million liters of milk per day from numerous village co-operative societies throughout Gujarat, and storing, processing and producing of milk products at various district dairy societies, is carried out with clock-precision. In these, IT plays a critical role. The installation of over 3, 000 Automatic Milk Collection System Units (AMCUS) at village societies to capture member information, milk fat content volume collected, and amount payable to each member, has proved invaluable in ensuring fairness and transparency throughout the entire organization.

GCMMF is an apex co-operative organization that comprises affiliated member dairies/district milk unions, each having its own manufacturing unit. These member dairies in turn collect milk from members who supply milk twice a day to the respective village co-operative societies. To meet the challenge of growing business, IT was decided as the thrust area that would streamline the production and collection process and the processing of milk products. This is where the installation of AMCUS made the entire operation look simple.

As milk is a highly perishable commodity in the supply chain, the AMCUS initiative is vital for the operations. More importantly, this initiative has increased the trust and transparency for IT in rural areas'. On an average,

around thousand farmers come to sell milk at their local cooperative milk collection center. Each farmer is given a plastic card for identification, at the milk collection counter, the farmer drops the card into a box and the identification number is transmitted to a personal computer attached to the machine.

The milk is then weighed and the fat content of the milk measured by an electronic fat testing machine. Both these details are recorded in the PC. The computer then calculates the amount 1 AMUL - A case study on IT in SCM due to the farmer on the basis of the fat content. The value of the milk is then printed out on a slip and handed over to the farmer, who collects the payment at the adjacent window. With the help of IT the farmers receive their payments within a matter of minutes.

Each member preserves the milk in the cold storage, processing it and producing several products, sold under the Amul brand name. As all products have a limited shelf life, the organization's ability to conduct its operations in a smooth way is much more praiseworthy-especially when one considers the scale of the operations. Amul makes about 10 million payment transactions daily. On the logistics side, more than 5, 000 trucks move the milk from the villages to 200 dairy processing plants twice a day, according to a carefully planned schedule.

Amul took a strategic decision to redesign and re-organize the existing software applications in 1994 to meet the challenges of growing business. Accordingly, Amul assigned the ERP software development project named as Enterprise wide integrated application system (EIAS) which covers a plethora of operations like market planning, advertising and promotion, distribution

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network planning, stock control, sales and accounting, budgetary control, quality control management and co-operative service management.

Each of Amul's offices is connected by e-mail and all of them send a daily report on sales and inventory to the main system at Anand. Also, sales offices, C&F points and wholesale distributors of GCMMF have been connected through the Internet for timely exchange of information. Amul is also in the process of Web-enabling the entire supply chain so that it can capture key information at the source and use the same for decision-making. This would include the likes of transporters, member manufacturing units, oil packing stations, suppliers, depots and the entire field force. A web site (<http://www.amul.com>) has been constructed featuring sports information, recipes and quizzes (to stimulate buyer interest and to establish national brand recognition) and business-to-consumer order placement. Amul has a customer feedback channel which uses e-mail addresses like com for cheese products and com for butter products. E-competency has been established at the supply and distribution ends of AMUL's business.

At the supply end, a computerized database has been established of all suppliers and their cattle. Computerized equipment measures and records qualities and quantities collected. Computers have been set up at member unions and village cooperatives. At the distribution end, stockists have been provided with basic training and computers. AMUL experts assist stockists and retailers to build promotional web pages. AMUL cyber stores have been set up at various locations in India, the USA, Singapore and Dubai.

Each visit to the Indian cyber store sites results in considerable purchases. A strong e-mail database of more than 10, 000 customers has also been developed. In addition to the EIAS, Amul has also been using Geographic Information Systems (GIS) to plot zone/depot boundary as well as a pointer for zone, depot and distributor locations, which are superimposed by product-wise sales data. Going forward, there are plans to introduce features like Internet banking services and ATMs which will enable milk societies to credit payments directly to the seller's bank account.

In line with this vision, officials at Amul are looking at upgrading the plastic cards, which are being currently used only for identification purposes, to smart cards which can be used to withdraw cash from ATMs. Amul has radically altered the complexion of the supply chain-by eliminating the middleman and bringing the producer closer to the consumer-resulting in benefits for both. Amul has also linked distributors to the network and also incorporated Web pages of top retailers in their web site ([www. amul. com](http://www.amul.com)) as part of B2B initiatives.

Distributors can place their orders on the website, [amulb2b. com](http://amulb2b.com), especially meant for accepting orders from stockists and promoting Amul's products via 2 AMUL - A case study on IT in SCM E-commerce. A big achievement of IT in Amul has been the automation of the complex supply and delivery chain. The automated supply chain seamlessly integrates the manufacturing dairy units for production, planning and raw material procurement. It handles distribution of milk from surplus unions to deficit unions.

It is a live example of practicing Just in time supply chain management with six sigma accuracy! Amul's success in leveraging IT to its advantage lies in <https://assignbuster.com/amul-a-case-study-on-it-in-scm/>

the simple fact that the organization has a clear IT vision and has made full use of the potential of IT for managing its supply chain. In 2003, GCMMF won the prestigious international CIO 100 award from IDG's CIO Magazine, USA. The 2003 CIO 100 award recognizes organizations around the world that excel in positive business performance through resourceful IT management and best practices.

GCMMF, whose IT initiatives have been driven by the philosophy of being an IT company in food business, has inspired all its employees to sustain the challenges as a "change agent" by excelling their IT skills in order to transform the people around them towards IT integration on both the ends of supply chain (village dairy farmer to end-consumer), GCMMF has also won the prestigious Ramkrishna Bajaj National Quality Award for the year 2003.

GCMMF has bagged this award for adopting noteworthy quality management practices for logistics and procurement. Over the years, it has established an efficient supply chain that penetrates even the remotest corners of the country. In summary, Amul has developed world-class expertise in the physical distribution of short-life produce. Already advanced in physical logistics, Amul has innovatively explored ways to use IT to enhance its supply chain. (Source: amul.com, ExpressComputers(16 Sept 2002: article by Srikanth R P), and other sources)

GCMMF: An Overview
Members No. of Producer Members No. of Village Societies Milk collection (Total - 2002-03) Milk collection (Daily Average 2002-03) Milk Drying Capacity Sales Turnover (2002-2003) 12 district cooperative milk producers' Union. 2. 28 million. 11, 132. 1. 86 billion litres. 5. 08 million litres. 510 metric Tons per day. Rs 27457 Million. IT Enablers
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used by Amul • Uses automated milk collection system units for collection of milk. • Implemented a customized ERP system which is used in conjunction with GIS. Uses data analysis software for forecasting milk production and increasing productivity. • Has connected all zonal, regional and member dairies through VSAT. • One of the first five Indian organizations to have a Web presence. • Geographic information system for sales and distribution planning. • Data Information System Kiosk for data analysis and decision support to help in improving milk collection. • Web enabled customer feedback channels. • Strong initiatives in e-commerce. 3