



## **Paving the Way for Business Quality with Integrated Business Innovations: A Case Study Of VERKA**

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### **Introduction**

In today's highly competitive business environment, Customer satisfaction level is a single most factor which measures the fitness level of a business organization. Best quality at lowest cost is a hallmark for every entrepreneur in all spheres of activities they perform and all products & services they deliver; Taylor (2003).

There is no choice left other than sustaining excellence by making Total Quality happen not only for survival of the organization but also for the survival of individuals. Question now is how? Answer lies in TQM- Total Quality Management; Paton (1994).

TQM is not a fixed destiny. It is a continuous journey towards excellence. A strong foundation based on Quality Assurance system in any organization is a must for TQM; Stratton (1993). This is essential to adopt a systematic approach towards regular setting of higher goals of improvements and achieving them continually; Tari (2004).

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Installation and maintenance of an internationally recognized ISO: 9000 Quality Assurance system at all the prime production shops of an organization is a first step for its journey toward excellence. This system provides a structured platform for continuous improvement based on Deming's PDCA cycle; Sun (2000).

To do things that you alone can do best requires a high degree of creativity and innovation. It requires a culture where failure is not punished but it is treated as one step towards success. Such quality culture has to be fostered and nurtured in an organization. Only then improvements will take place at a faster pace to match with the changing needs of the customer; Fullerton (2001).

### **Quality Assurance System**

Organizations that prepare themselves to endure the test of time, maintain cutting edge on a clearly laid down vision, policy and strategies. The vision guides and communicates with the organization's people ensuring steadfast commitment to their own aspiration for determining a constancy of purpose; Byrne (1997). Vision therefore stipulates a process of communication, which builds trust and enables permeation of clear and consistent values through the rank and file of the organization.

In order to explore various aspects of international competitiveness MILKFED has identified **seven key dimensions** (popularly known as 7Cs) that are as follows:

1. Consistent Quality
2. Committed delivery
3. Customized product-mix
4. Contemporary products
5. Competitive price
6. Complaint price
7. Complaint settlement

## 8. Culture of customer service

### **Core Values**

The path of vision is lit up by the four core values, which are embedded in every activity by the people. These Core Values are:

- Customer Satisfaction
- Concern for people
- Consistent Profitability
- Commitment to excellence

To meet the expectations of the customers regarding better quality products at a competitive price and faster delivery is formulating a suitable Quality Policy; Stratton (1993).

### **Quality Policy**

1. Attaining market leadership through enhancing customer satisfaction.
2. Achieving continual improvement in productivity, quality and saleability of products.
3. Active involvement of all people in achieving objectives and targets.
4. Adherence to a quality management system based on ISO: 9001:2000 and its periodic review for continued effectiveness.

### **Quality Objectives**

In order to achieve highest level of customer satisfaction, MILKFED has set an organizational level Quality objective in line with its Quality policy. The quality objective is set to enhance customer satisfaction through-

- 1 Improvement in productivity and product quality.

- 2 Skill enhancement of people and
- 3 Reviewing market trends.

The organizational level Quality objective is further broken into department level objectives and targets for achieving improvements. Against each departmental objective & target a detailed action plan is made and implemented. The status of fulfilment of the action plan is reviewed periodically at different levels.

### **Quality Management at MILKFED:**

MILKFED is using various quality management tools and techniques namely 5S activities, Kaizen Activities, Brainstorming, PERT, CPM, PDCA Cycle, Failure Mode Effect analysis, Control Chart and Histograms.

In respect of quality, the Federation has established new milestones and received certification under ISO: 9001:2000 and HACCP: 15000. Quality milk is collected from producers by trained staff after inspection or testing. Incentives are paid to milk producers based on testing. The aim is to provide remunerative prices to milk producers directly by avoiding middle men and manufacture and supply of best quality of milk. The ISO certification has enhanced the national and international competitiveness of Milk Plant, which is the first Dairy Plant in the country to have got ISO-9002 certification. Recently MILKFED has received the ISO/HACCP certification as per IS/ISO 9002 and IS 15000, which are also first integrated certificate awarded by BIS.

### **TQM & JIT Manufacturing**

Implementing JIT system requires implementation of a TQM system, where quality of the part produced by each piece of equipment is known. JIT

is the next logical step in the TQM process; Prajogo (2006). The various steps that are part of the JIT system is essentially parts of the TQM and include:

1. Cutting lot sizes
2. Cutting setup times
3. Total quality management
4. Flexibility of manufacturing
5. Withdrawing buffer inventories
6. Simplifying buying practices

### **TQM Model at MILKFED**

TQM model at MILKFED rests on three pillars, namely the Total Employees Involvement (TEI), Just-In-Time (JIT), and Total Quality Control (TQC), encompassing all these is continuous improvement involving Kaizen and Small Group Activities.

There has been a paradigm shift in the people's involvement where employees are treated as partners A.S. Mishra Manager Quality Control says, "If we are to stop at participation alone, TQM will stop just before that." Collaboration according to him will have to be induced slowly into the system. This ownership in involvement is much more meaningful than ownership is brought about by communication, training, respect for each other and openness. He feels that it is important to make every employee a happy member of the organization. This is the crux of people's involvement.

At MILKFED it has been significant that increases in productivity have been achieved by merging incentives into salary. By giving recognition, rewards and responsibilities to the workmen, there has been a continuous individual improvement. The TEI also helped evolve work culture, work ethics, improved housekeeping and formation of teams for improvement activities.

MILKFED has undergone a sea change with regard to housekeeping, workers involvement and work culture through Kaizen and small group activities (SGAs) Workers, who in the past were idle have now, occupied positions as partners. Each worker has been trained in multiple-functions. They clean; they set machine times and are responsible in handling and maintenance of machines.

JIT as generally perceived is the supply of parts for the producing. But Mishra says that “In our TQM model it is something much beyond. The first thing which he points out is to expose and eliminate waste. The next thing is to find the requirements of the customer (be it internal or external) and expose them so that they can be tackled. There is emphasis on cost reduction through waste elimination explains Mishra because the customer will always choose product which has the lowest unit cost. The results of JIT he says “have been mind- boggling. The manufacturing system has become flexible, inventories have been reduced, and vendors have been benefited.”

#### **About Organization: MILK FED-PUNJAB**

The Punjab State Cooperative Milk Producers’ Federation Limited popularly known as MILKFED Punjab came into existence in 1973 with a twin objective of providing remunerative milk market to Milk Producers in the State by value addition, marketing of produce and to provide technical inputs to milk producers for enhancement of milk production.

The Federation was registered much earlier, but it took shape in the 1983 when all milk plants of the erstwhile Punjab Dairy Development Corporation Limited were handed over to Cooperative sector and the entire State of Punjab was covered under Operation Flood to give farmers a better deal and customers better products. The set up is a three tier system, Milk Producers Cooperative Societies at the village level, Milk Unions at District level and Federation as an Apex Body at State level.

### **The Umbrella Brand:**

Verka products are available in a number of retail outlets across states of Punjab, Himachal, Haryana and Chandigarh through its strong distribution network. The network follows an umbrella branding strategy. Verka is a common brand for most product categories produced by various unions: liquid milk, milk powders, cheese, sweets, ice creams and condensed milk. By insisting on an umbrella brand, MILKFED not only skillfully avoided inter-union conflicts but also created an opportunity for the union members to cooperate in developing products.

### **Working Environment:**

The manufacturing process is labour intensive. As in any team concept, rewards and incentives are linked to team output. MILKFED profits are distributed amongst the milk producers. Every Friday, between 10:00 a.m. and 11:00 a.m., all employees at Verka meet at the nearest office, department, branch or depot to discuss their quality concerns.

### **Brand Extension**

Changing times brought new trends, needs, tastes and hopes. Verka dynamic as ever, too acquired newer forms. Consumers could have their own pick as Verka came up with varied varieties of cheese like the Processed Cheese, Cheese Spread, and cheese singles. And there were milk powders like Dairy Whitener, Skimmed Milk Powder and Infant Milk Powder. Health Drinks like Verka Vigor, Verka Lassi, Sweetened Flavoured Milk and a mango drink called Raseela. Then there were Curd and a whole lot of different flavours of Ice Creams. Milk had never meant so much before.

The process of organizing societies at village started in Punjab as early as 1978. By the end of March, 2005 there were 6104 functional Dairy Cooperative Societies (DCS). Efforts were made to strengthen the existing

DCS and to revitalize the defunct/ closed Societies. Average milk procurement during 2004-05 was 7.81 lacs kg per day as compared to 7.45 lacs kg in 2003-04. As a step to bring transparency in Milk Procurement at the village level and accuracy in the milk payment system and to boost the confidence of the Milk Producer Farmers, MILKFED has installed around 1000 Automatic Milk Collection Centres and 1035 Electronic Milko Testers at village level Dairy Cooperative Societies.

The Federation is providing technical input services like veterinary Health Care, Artificial Insemination services, prophylactic vaccination, supply of balanced Cattle Feeds & quality Fodder Seeds to the specific target group (Milk Producers Cooperative Society's Members) at their door steps with a view to enhance milk production at low cost.

MILKFED assisted District Cooperative Milk Unions perform large number of inseminations, serving societies through single and cluster artificial insemination centers.

Acquiring and application of best technologies in breed improvements is the key to improve the animal production and helping in raising the milk producers' income. MILKFED continued to assist dairy cooperatives in the state in animal breeding, feeding and health care.

MILKFED has its own Sperm Station at Khanna (District Ludhiana) for production of excellent quality of Frozen Semen. MILKFED'S Sperm Station has recently been awarded IS/ISO:9001-2000 Certification by B.I.S. MILKFED Punjab has become the first Cooperative Sector organization in Northern India to get International Quality Management Certified for its Sperm Station for providing Frozen Semen of elite bulls of Cattle & Buffaloes of International Standards.

Government of Punjab has identified Dairy Sector as thrust area for rural development. Recently MILKFED Punjab has signed Memorandum of



understanding (MOU) with State Bank of India, State Bank of Patiala and Oriental Bank of Commerce for providing loan up to Rs. 50,000 without any collateral security to Milk Producers farmers for purchase of milch cattle on soft terms and low rate of interest.

MILKFED has started production of various types of Cattle Feeds at its Cattle Feed Plants as per the requirement of the milk producers viz ISI-Typer-II, High Energy & By-Pass protein Cattle Feeds. Federation has introduced Buffalo feed which has rich FAT contents and meets the nutritional requirements of Buffaloes.

Cattle Feed Plants are producing mineral mixture as per ISI specifications with a view to provide good quality mineral mixture at reasonable rates to dairy Farmers. MILK FED has established Urea Molasses of Lick Brick Plant of 5 M.Ts. per day capacity at Cattle Feed Plant, Bhattian which is catering to the needs of dairy farmers throughout Punjab. Earlier the Urea Molasses Bricks were produced by hot process and now to decrease the cost of UMB it has been modified to produce by cold process. Both Cattle Feed Plants have obtained ISO certification to ensure best quality of Cattle Feeds.

Considering the shortage and non-availability of quality fodder seeds, MILKFED, Punjab in the year 1984 started its own Fodder Seed production and distribution programme. It has established automatic Seed processing Plant at Bassi Pathana, Distt. Fatehgarh Shaib. It has a capacity to process fodder seed at a rate of 2 M.Ts per hour.

### **Women Dairy Project**

MILKFED Punjab with a view to empower rural women has undertaken Women Dairy Project in six districts namely Hoshiarpur, Ropar, Patiala, Jalandhar, Ludhiana and Amritsar under Support to Training & Employment Programme (STEP) at an outlay of Rs. 8.37 crores with 90% grant from Govt. of India. Under these 390 women Dairy Cooperative

Societies have been organized having 19,980 women beneficiary members.

STEP constitutes scheme for providing support services in organizing the Cooperative Societies for sustainable functioning. The process is coupled with creating awareness campaigns for member women concerning management of the societies, enhancement of milk production by providing Breeding, Feeding and managerial services to the beneficiaries.

MILKFED is serving nationwide consumers through its network of Regional offices and strong Distribution channels. MILKFED markets a wide range of Products which include liquid Milk, Skimmed Milk Powder, Whole Milk Powder, Ghee, Butter, various types of Cheese, Tetra-pack Lassi, SFM, Ice Cream, Milk in variant of Standard, Toned, Double Toned and Panjabi Premium Milk etc. under the brand name of VERKA. Verka is brand leader in milk powders particularly in northern & eastern sectors and SMP marketed by Milkfed commands a premium price over powders manufactured by competitors.

Federation exported milk products to the tune of Rs. 11.42 crores against export of Rs. 6.98 crores during the year. Milkfed has established its ghee market in Middle East. Verka ghee reaches all the Emirates and is available almost in all the super markets. The penetration is so deep that verka ghee is available in far off labour camp. MILKFED Punjab ventured into the manufacture of Indian Sweets during different festivals. Tremendous response from customers was received and the quality of sweets marketed was highly appreciated by the consumers.

### **Adoption of Information Technology**

Computerization in MILKFED was started during 1987-88 with the installation of two Main Frame Computer Systems one at Milk Union, Jalandhar and other at MILKFED Head Office to process the data of Milk Unions. With the introduction of Personal Computer during 1992-93, the data processing was decentralized at Milk Union level. The activities like Milk

Billing, Payroll, Financial accounting, Marketing of Liquid Milk, Sale of products through Dealers and Milk Bars and different C.I.S. reports to Govt have been computerized. Keeping pace with changing, technology SAP based ERP was implemented at milk union Ropar in 2002.

MILKFED is catering to the need of unions in software development and providing training to staff in the operation of applications software and computer packages. The window based office automation package is being used in MILKFED and Milk Unions for routine office work. Computers have been inter-linked under Local area Network at MILKFED Head Office and Milk Union Ropar, Jalandhar, Ludhiana and Amristar.

E-Mail facility has been provided at all locations. Milk fed has launched its Web-site and is receiving large number of trade enquiries from the buyers through its web site.

### **Milk Plant Mohali- Symbol of White Revolution**

The Ropar District is one of the smallest districts of Punjab forming only 4.3% of the total area of the State. About 40% of its area is sub-mountainous and not very conducive for dairying because of scarcity of green fodder. Despite all these bottle necks, Milk Union Ropar District commenced its operations in the year 1979. Milk Plant Mohali of Ropar Union is now one of the best plants in Co-operative sector.

The salient points of its performance are summarized as under:

1. **Functional Societies:** Total 856 societies have membership of 45144 Milk Producers functioning at present. Of this, 110 societies are from Fatehgarh Sahib Distt., 75 from Patiala Distt. and remaining 671 societies fall in Ropar Distt.
2. **Financial Status of Societies:** Almost all the societies affiliated to this plant are running in profit and distribute their earning among the

members in the form of bonus.

3. **Capacity Utilization of Plant:** During the year 2004-05, average 202% installed handling capacity of the plant per day has been utilized and during the year 2005-06 average 203% handling capacity has been utilized per day manned with 532 employees.
4. **ISO Certification:** In the field of Quality, this Plant has established new milestones and received certification under ISO: 9001: 2000 and HACCP: 15000.

## **Conclusion**

### **(a) Quality Certification**

India is a signatory to WTO Agreement on sanitary and phytosanitary (SPS) making it obligatory to adopt the standards, guideline and recommendations issued by Codex Alimentations Commission, which advocates of HACCP.

The Indian standard on Food Hygiene Hazard Analysis and Critical control point (HACCP) – system and guidelines for its application, IS: 15000:1998 is technically equivalent to the codex document on the subject. For food industry in India, adoption of HACCP has become imperative to reach global standards, demonstrate compliance to regulations and customer requirements for providing safe food to millions.

### **Bureau of Indian Standards (BIS) offers two certifications to the food industry**

- a) Food Safety Management System Certification (HACCP) against IS: 15000: 1998.
- b) HACCP integrated with quality Management Certification provides for twin certification of Management System IS/ISO 9001: 2000 and certification of HACCP against IS 15000: 1998 through one audit and

under one certificate.

During the post liberalization period, MILKFED in order to keep pace with an all-round development, decided to go in for certification of various Milk Plants and Cattle Feed Plants under International standards. Milk Plant, Ludhiana was the first Dairy Plant in the country to get ISO-9002 certificate. Thereafter with the introduction of HACCP, decision was taken that besides taking certification for Milk Plant, Ludhiana all other plants will take joint certificate under ISO-9002 and IS-15000 (HACCP). Eight Milk plants and two Cattle Feed Plants have already got this certification.

### **(b) Dairy Cooperative Movement**

A recent decision of the district cooperative milk unions in Punjab to sell milk under a single brand VERKA will definitely strengthen the cooperative dairy sectors.

This welcome development provides a competitive edge in today's market-driven economy. Before consolidation, the unions were selling their own brands in their respective territories. This was despite the fact that a national brand like Amul was available to them. At a time when there was a need to strengthen the common works brand in the wake of foray into production of various value-added products, the unions' passionate clinging to their local brands defied business logic.

In recent years, cooperatives have not been able to do effective marketing of their products as compared to big players due to their inability to generate adequate resources for advertisements, publicity events, and the like.

As a result, the cooperatives are always on the look out for cost effective methods to prune their expenditure on publicity, while remaining competitive at the same time by canalizing their resources into other needful areas.

Consolidation under a single brand led to a significant decline in the publicity expenses incurred by each union. This will enhance appeal as a unified brand with a clear identity that the customer can relate to.

Further consolidation of the brand provided clear identity of the strengths of cooperatives to customers. It is a perfect marketing tool to propagate the cooperative concept as a viable business strategy for the benefit of the consumers.

Despite cooperatives making immense progress in all fields, brand building has been a neglected area. Brand-building and consolidation, and highlighting the ways in which cooperative products are different from private sector products, are needed if cooperatives are to emerge as competitive business units.

Despite brand consolidation, MILKFED must take all necessary steps to ensure quality. Quality has been the trademark which has enabled it to build a strong customer base. The quality has to be standardized and strictly maintained. MILKFED must re-evaluate and devise effective strategies in this regard. Its ability to work on these lines will determine its competitiveness as compared to other private players.

The dairy sector has played a big role in building the image of the cooperative sector in recent times. The decision of the district unions forge unity through a single brand definitely provides a new direction to the cooperative dairy sector. This will mould public opinion towards cooperatives in a more favourable way.

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