

# A Study of the Total Quality Management at AMUL

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**Abstract**—*Total Quality Management is a very wide term which affects performance efficiency of any organization. In this era of technology when we are talking about accuracy, TQM initiatives help an organization in achieving its growth motives easily. In order to achieve the performance efficiency an organization has to undertake TQM initiatives with all variables i.e. from the procurement to the customer satisfaction. In this study the researcher has tried to study the various initiatives taken by AMUL to improve its organizational efficiency. The Amul pattern has been a model for the establishment of other dairy co-operatives in the country. Since the study is being done on the co-operative model TQM practices have been analysed at all the three levels of the structure. The researcher has also tried to bring out its effect of these factors have helped AMUL to survive in this competitive environment.*

**Keywords:** *TQM, AMUL, dairy co-operatives, technology, performance measurement*

## 1. INTRODUCTION

Total Quality management is a process in which continuous improvements in the products, services, processes takes place. It focuses on the customer needs and expectations to enhance customer satisfaction and firm performance. Performance Measurement is not only a way of determining what has already happened, but it is also a way of getting people to act in ways that will bring about desired future outcomes. Aligning performance measurement with organizational goals is in a way a challenge for the organization Nowadays, businesses are operating in very tough environment. Customers are becoming more and more demanding and desire products at ever lower prices. For all this there is a requirement of accuracy, timeliness, convenience, responsiveness, quality and reliability of the services offered by them. For this we further require an efficient supply chain management which is a network of supplier, manufacturing, assembly, distribution, and logistics facilities that perform the functions of procurement of materials, transformation of these materials into intermediate and finished products, and the distribution of these finished products to customers.

India has emerged as the largest milk producing country in the world after Operation Flood and Gujarat emerges as the most successful State in terms of milk and milk product production

through its dairy cooperative movement. The Kaira District Cooperative Milk Producers' Union Limited, Anand became the focal point of dairy development in the entire region and AMUL emerges as one of the most recognized brands in India, ahead of many International brands.

Each level in the Anand Pattern is operationally self sufficient. They do not have to look at the other level for any help. All the three levels support each other for the success of the system.

## 2. OBJECTIVES OF THE STUDY :

In order to understand the significance of the study the researcher has formulated various objectives

1. Various TQM initiatives at the organization.
2. Relationship of TQM & Performance Management

## 3. REVIEW OF LITERATURE

According to B.Bowonder, B R Raghu Prasad and Anup Kotla in his paper "ICT Application in a Dairy Industry: The e-Experience of Amul" he has analysed the use of ICT in the dairy industry by the Gujarat Cooperative Milk Marketing Federation Ltd. The system makes it easy for the farmers to get the cash payment as soon as the milk is delivered. The Amul experience indicates that if properly designed and implemented, the rural poor can benefit from ICT platforms. Customization of IT platforms for use in rural communities is emerging as a major opportunity for change.

According to **Satbir Singh, Euan Fleming and Tim Coelli** in his paper "Efficiency and Productivity Analysis of Cooperative Dairy Plants in Haryana and Punjab States of India" analysis the impact of the liberalisation policy on the Cooperative dairy plants in India. According to his findings privatisation alone is not the answer to higher performance in the processing sector of the industry. Plant managers and public policy makers should make efforts to achieve higher performance through actions on both the demand and supply side of the milk and milk products industry.

According to Sanjib Dutta in his article “Innovations in Rural India” has said AMUL has changed rural India by helping farmers gain higher returns through a more effective utilization of resources by its innovative supply chain and logistics management.

#### 4. TQM INITIATIVES AT AMUL

##### 4.1 Village Level:

###### Procurement:

As Amul is in the Dairy sector, the only raw material which it has is milk. Since milk is a perishable commodity and it has a very low shelf life, care has to be taken. Control is one of the dimensions of milk procurement. The information technology is best utilized at Amul. At the village level they are using AMCUS (Automated Milk Collection Stations) which has helped in maintaining the quality, making faster payments to the producers and in saving the collection time. The Milk collection information at different villages are available to all dairies (or Unions) to enable them make faster decisions in terms of production & distribution planning and disease control. In collecting and supplying raw milk from milk producers to the dairy plants, 80 per cent of Amul's village cooperative societies have been conforming to the standard of ISO 9001:2000.

###### Logistics

To reduce the transportation expenses Amul has introduced BMC (Bulk Milk Cooling System) this is a refrigerated container having a capacity of 20 liters. The Union can collect the milk from such societies having this unit only once a day. To encourage the societies to take this cooler the Union is paying a commission of 0.12 paisa per liter. Outsourcing to contractors have helped in cost effectiveness. Societies are at a distance, where the van cannot reach within the stipulated time the union has established chilling centers for them.

###### Cattle Care

To improve the breed of the cattle semen bank have been formed. Cattle feed is provided at a very reasonable rate through its village societies known as Amul Daan. Mineral mixture powder also given to overcome the weakness inherited due to lactation and to improve the reproductive efficiency. For genetic improvement Artificial Insemination was introduced.

###### Veterinary Facilities:

For availability of doctors at doorstep Mobile veterinary vans and Mobile Diagnostic Laboratories were established. Union also organizes FIP Programme. In this they identify the infertile animals and tag them. Then continuously 4 camps are organized for them in which they are provided with the cattle feed, nutrition and mineral mixture powder.

##### District Level

Anand Milk Union Ltd's (Amul's) plants have become the first in the food industry to comply with the ISO 22000:2005 standards of food safety management. The food safety management systems in Amul's dairy plants at Anand, Food Complex at Mogar and Kheda and satellite dairy at Khatraj have been accredited as conforming to the international standards. The accreditation is aligned with recognition of quality management systems at the three product units of Amul. These units have sustained compliance with the standards of ISO 9001:2000, CODEX HACCP (Hazard Analysis and Critical Control Points), and GMP (Good Manufacturing Practices) since 1999<sup>6</sup>.

The synergy between the standards assured synchronised control of all elements in the food chain from raw milk, primary milk producers, milk procurement, reception and chilling of milk to production processes, utilities including water, air, steam, engineering, manpower, sanitation, communication, hygiene, packaging, storage, crisis management and overall environment at Amul plants. The concerted control throughout the food chain ensures considerably safe, healthy and superior quality dairy and food products.

To further increase the efficiency of the manufacturing process, the federation has established a plant for manufacturing the packaging pouches. Pouches are the most popular, convenient and accepted packaging for marketing of liquid milk. The Packaging Film Project (PFP) was established to give a competitive edge to the Co-operative Dairy, by ensuring access to the best quality food grade packaging pouch film, for high speed pouch filling machines, that operate at speeds 75 per cent higher than at present.

##### State Level (Federation)

Federation is responsible for marketing of the products so employees are an important efficiency indicator. Various programmes have been initiated for their development :

*Self Management Leadership Programme:* The objective of this Programme is to make the employees a better leader through improved self esteem, to improve the quality of communication and to relieve stress so as to give better output to the organization. For this visits to Brahmakumaris, Mount Abu for them

*Hoshin Kanri:* It creates a shared vision across the organization so that every employee is able to find his/her role in strategic thrust area.

*ASC/BRM/Friday Meetings:* The objective is to create a culture of flatter organisation & encourage shared vision/goal of the department. This helps in bringing transparency and information sharing, employee participation in decision making

*AQC*: AQC used as a tool for Business Consultancy to WDs to improve their distribution efficiency. It is an excellent review forum for monitoring.

*SGA*: SGA stands for Small Group activity. In this the work force is divided into different groups having a group leader, facilitator and 4-5 members. The projects are generally undertaken for 4-5 months time. The major areas which are being looked upon are: Improve ROI & Sales, Reduction in 2nd Leg Dispatch Time, Inventory Management, Improve Market Reputation, Cost Control (Fax, Telephone), New Product Development.

*Kaizen*: Kaizen is basically small improvements carried out by individuals in his/her day to day work.

The purpose of kaizen movement is to create a culture of continuous improvement in the organisation. Best Kaizen is rewarded

Kaizens are being done on thrust areas, systems & processes, communication, coordination, learning, housekeeping, etc.

**Housekeeping**: The housekeeping aspect is based upon 5'S principle:

Segregation (Seri)

Arrangement (Seition)

Cleanliness (Seiso)

Maintenance of Standards (Seiketsu)

Discipline (Shitsuke)

This concept was further extended to the Dealers and Wholesalers. The evaluation was based upon the cleanliness maintained, Damaged Stock Management, Pest/Rodent Control, Ventilation, Temperature (Cold Storage, Deep Freeze Cold room, Product Temperature, Ante-Room Temperature, Functional Thermometer).

These practices have helped inculcating awareness to keeping their work area clean and to maintain a proper inventory of the products, further managing the wastage efficiently.

## 5. CONCLUSION

From the above study it is clear that GCMMF realized that it had to become more customer centered. This meant that it required to pay close attention to the customers need and quality. To conform to this it launched the concept of "Total Quality Management" or TQM to ensure the high quality of the products from the starting point (i.e. the village farmer who supplied milk) right through the value chain until it breached the consumer. This meant the involvement of farmers, transporters, factory personnel, wholesalers and retailers each of whom had a role to play.

GCMMF has to cater to two extremes i.e. the farmers at one end and the consumers at the other. They have to satisfy both the ends i.e.; give maximum amount for the milk given to the farmers and the best product at lower price. To meet the requirements of the both GCMMF took the help of TQM and information Technology to gain control on the procurement, processing and distribution functions.

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