ABSTRACT

The diary supply chain, as all other agri-businesses, is complex. Technically, the diary chain starts at raw milk production & ends when other processors, institutions & consumers utilize products that were created in the value chain. As consumer’s habits and decisions are not static, it imposes urgency for change in the supply chain in order to have consumers ever-changing needs met. However, this ever-changing demand has a direct effect on the people within the supply chain they have to change (or) adopt accordingly.

Supply chain is an integrated manufacturing process wherein raw materials are converted into final products, then delivered to customers. At its highest level, a supply chain is comprised of two basic, integrated processes.

1) The production planning and inventory control
2) The distribution and logistics process.

Dairying is considered as the important source of income whose agriculture depends on monsoon. Indian dairying is recognized as one of the instrumentals for social & economic development. The nation’s milk supply comes from millions of small producers, dispersed throughout rural areas. The major challenge for the dairy sector is undoubtedly to raise milk production to meet the increasing demand that arises from almost inevitable expansion of population & presumably growth of income.
The milk industries remain strategically important to the economy with background & forward links to several ancillary sectors. Out of the 40 tons of milk that is marketed annually through the organized sector of the dairy co-operatives handles 45% and the private sectors handles the remaining 55%. The dairy co-operative movement has spearheaded the development of the sector and made remarkable progress. With the globalization of the Indian economy, the dairy industry has really become highly competitive. After delicensing of the industry, private entrepreneurs set up commercial venture that would make the competition tougher for the cooperatives who suffer from schizophrenia of balancing social obligation with financial viability.

Under section 11 of the Indian contract Act of 1872, a minimum of 25 (Or) more individual owning milch animals can form a primary dairy co-operative society with 1 (or) more villages as its area of operations. The members of the primary co-operative milk society have to supply milk to the society, which will procure milk on quality basis and they will receive payment once in 10 days (or) 15 days from the society.

Milk is highly a perishable commodity and the surplus can’t be stored for a long time. The members of the society are much tempted to supply milk to the private milk traders. This affects the supply of milk to the society and the union. Another main reason for incurring losses is due to lack of knowledge on systematic network construction for collection of milk for the union from various societies located in the study area. Many milk producers’ union like Anand Milk Union Limited (AMUL) is earning profits and is well utilized by the members of the society. Hence, an attempt has been made to identify the main reasons for the poor performance of the Krishnagiri union and the attitude of the milk producers towards the union.
The main Objectives of the study are

1) To study the performance of the Krishnagiri district co-operatives milk producers’ union and milk producer’s societies.
2) To identify the factors influencing the supplier to provide milk to the society in the study area.
3) To analyze the supply chain network of milk depot.
4) To assess the sustainability of the Krishnagiri federation milk supply chain management
5) To identify the difficulties faced by the milk suppliers in providing milk supplies to their specific societies
6) To identify the problem faced truck operators in the Krishnagiri milk supply chain network.
7) To find and suggest improvements in the depot operation for reducing the cost of transportation
8) To make suggestions at the policy level with respect to the functioning of Krishnagiri milk producers’ federation.

In thesis Inductive theory of construction is used and idiographic models of explanation are used to explain the concept related to the study. Convenience sampling and multistage stratified random sampling method was adopted for the study. Krishnagiri district was selected purposely as the sample district. Out of 43 only 10 milk routes in Krishnagiri were taken and they were divided into 2 blocks namely hill terrain and normal surface terrain area. The total size of the sample was 400 consisting of 200 from hill terrain and normal surface terrain.

The present study is organized into three parts. The first part covers introduction, design of the study, review of literature and Profile of study area. The 2\textsuperscript{nd} part discuss about performance of milk supply chain and the
evaluation based on six criteria like metrics for order planning, evaluation of supply link, measures and metrics at production level, evaluation of delivery link, measuring customer service and satisfaction, supply chain and logistics cost and was found that Aavin performance is not upto the expected level. The other section of the second part discuss about the main factors influencing the milk supplied by the members and the truck operators to the society. The last section of the second part covers the sustainability of Aavin milk supply chain and performance evaluation of selected sample societies. The third part of the study presents the key findings and gives comprehensive conclusion of the study. At the end of this chapter, certain policy suggestions have been made for the better working and the maximum utilization of Krishnagiri milk producers’ federation.

The various tools are used for this study are basic supply chain logics, simple statistical tools like percentage, chi-square, analysis of variance, operation research techniques are used to construct models. Flow based algorithm is also used to find the shortest route with maximum capacity.

Most of the respondents were not maintaining proper records, only two blocks of Krishnagiri district were covered due to time constraint, unable to trace the bias of the respondents , study is applicable to only similar ado-climatic conditions, study were mainly concentrated only on transporting milk with lower cost only were considered as some limitations of the study.

The present research work has led the researcher to identify the overall operations of supply chain management in the milk industry. The various facts of the study have been presented in this report in appropriate places. In general, the study not only reveals about milk depot performance but also provides efficient supply chain management in dairying.