

PREFACE

The small co-operative dairies in India are running in loss and now getting attention that it deserves, from academicians, researchers and public. It has come to the realisation that without management science techniques in all the production activities, lower-middle income economies countries like India cannot hope for its economic survival in increasing competitive global marketplace. Dairy is a broad activity that supports marginal milk farmers, small retailers and transporters. The co-operatives dairies are receiving considerable attention from the government of India. The studies undertaken by the researchers in India are purely commerce based and lack mathematical approach.

An attempt has been made by this research work using sound analytical base as found in many engineering researches. Complex interrelationship between the target market and the co-operative dairy, is genuinely captured and appreciated.

The approach used in this thesis begins with the assessment consumers' behaviour and its impact on co-operative dairy, a survey was conducted with the help of a questionnaire. The aim of the study is to identify the consumers' buying behaviour. The analysis has been converted into suggestion, which will lead to improvement in co-operative dairy under study. The research has several additional features, which are listed as objectives of the research work.

The objectives are as stated below:

1. Assessing the target market, customers' buying behaviour and to know the needs of consumer for the co-operative dairy.
2. Preparing a marketing plan for the co-operative dairy with focus on promotional and selling side of the business.

3. Formulating a distribution model to minimize transportation cost through Vehicle Routing Problem (VRP), and search for the better solutions.

With the help of these objective the thesis has been outlined with four main chapters.

1. Assessing customer preferences, requirements and perceptions of co-operative dairy
2. Achieving competitive advantages for co-operative dairy through market planning
3. Minimisation of distribution cost using Centre of Gravity (CG) and Vehicle Routing Problem (VRP) methods
4. Minimisation of distribution cost using k-means and cheapest link algorithm

It is hoped that co-operative dairies which are not a profit organisation will become exciting and challenging for improving the financial health of milk producing farmers.