

Chapter 2 Literature Review

2.1 Introduction.

This chapter shows what other scholars have written about dairy industry. Attempts have been made to review briefly the specific and relevant literature, which has direct or indirect bearing on the objectives of the present study. Accordingly, relevant literature has been reviewed and presented as follows.

2.2 Strengthening the Operational Efficiency of Dairy Supply Chain in Tamilnadu.

M Subhuraj, T Ramesh Babu, B Suresh Subramonian (2015) Based on the research work carried out on dairy supply chain in Tamil Nadu, India, there are five areas of focus. They are, Creation of Special dairy zone, Implementing dynamic milk procurement method, strengthening cooperative societies, creations of feed bank increasing fodder productivity, Integrated animal health plan and information technology.

2.3 Emerging Trends in Business Strategy. A success story of Mother Dairy.

Rajeev Ranjan, Rahul Bangabash (2015). This required paying close attention to the customer needs and quality. Mother Dairy realized that it was not enough that Mother Dairy itself was wedded to these ideas; the entire supply chain had to conform. Hence it launched a “Total Quality Management” or TQM to ensure the high quality of the products from the starting point (the village farmer who supplied milk) right through the value chain until it reached the consumer. This meant the need for the involvement of farmers, transporters, factory personnel, wholesalers and retailers, each of whom had a role to play.

2.4 Marketing Efficiency of Dairy Products.

N Rangasamy, JP Dhaka (2008). This study on marketing efficiency of dairy products for co-operative and private plants has shown that the marketing cost for toned milk is same for both the dairy plants, whereas it has been found higher for standardized milk, full-cream milk and flavoured milk in the co-operative dairy plant. However, for butter and ghee, marketing cost has been observed less in the co-operative dairy.

2.5 Increasing Operational Efficiency through Improved Customer Service.

Jaana Auramo, Kari Tanskanen and Johanna Smaros (2010). This paper illustrate how new service concepts in which product suppliers get more involved in their customers' operations enable suppliers to arrange their own supply chains more efficiently, while simultaneously providing better service to the customer.

2.6 Integrating Information Technology and Operational Research.

Martin Butler, Pat Herlihy, Peter B Keenan (2010). This paper discusses how a Geographic Information System (GIS) based DSS allows a scheduler interact with optimisation algorithms to plan milk collection routes. The paper goes on to discuss how such a DSS can be integrated with automatic data capture devices and database management systems to provide effective management of milk collection operations.

2.7 Economics of Milk Processing in Dairy Plant in Haryana.

AK Chauhan, KK Kalra, Raj Vir Singh and BB Raina (2006). It has been observed that all the products, except the double-toned milk are being produced above the recommended breakeven level. A comparison of unit manufacturing cost with unit price received by the plant for different products has revealed that ice-cream manufacturing has been the most profitable proposition among different dairy products, and standardized milk has provided the maximum profit margin among the milk pouches manufactured during the study period, 2000-01.

2.8 Amul Co operative in India in relation to Organizational Design and Operational Efficiency.

Dr Ruchira Prasad and Dr Rupali Satsangi (2013). Looking back at the path traversed by AMUL, the features make it a pattern and model for emulation elsewhere are: Producing an appropriate blend of the policy makers, farmers board of management and the professionals, bringing the best of the technology to rural producers, providing a support system to the milk producers without their agro-economic system and plugging back the profits, by prudent use of men, material and machines.

2.9 Marketing effectiveness of channels of Distribution on Dairy Industry.

S Ayyappa Naik Nenavath (2013). In order to satisfy the needs of all customers to get the products timely, additional arrangements have to be made by the Sangam dairy such as keeping the outlets open for additional time. Unlike the complaining

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cells are set up at the factory office and gates, the grievances cells have to install at important places in the towns so as to facilitate the redressal of the grievances of milk customers at a quicker phase.

2.10 Financial Health of Dairy Industry in Andhra Pradesh.

T Hima Bindu, Dr S E V Subrahmanyam (2012). The study deals with the concept of profitability, measurement of profitability in relation to total investment, sales and shareholders' funds in Dairy Industry in Andhra Pradesh during 2001 to 2011. It also deals with the evaluation of earning power, analysis of operating efficiency, analysis of financial efficiency and measurement of financial health of Dairy Industry in Andhra Pradesh.

2.11 Measurement of Scale Efficiency in Dairy Farms.

Barram Aldeseit (2013). Data Envelopment Analysis (DEA) technique estimation of scale efficiency scores showed that on average the majority of Jordanian dairy farmers during the study reference period were not operating at maximum scale efficiency and have a marked potential to improve.

2.12 Employment Generations through Dairy Farming in District Moradabad.

Nizamuddin Khan, Ashish Kumar Parashari (2014). People from different socio-economic groups are engaged in different operations of dairy farming in the study area. The size of landholding is an important economic attribute which determine the level and proportion of dairy farmers located at grass root level. There are various socio-economic attributes such as size of landholding, caste, community, education; age, etc. are constantly affecting the growth and development of dairy farming in the study area and determining the level and pattern of employment generation through dairy farming.

2.13 Opportunities and challenges in Indian Dairy Industry Supply chain.

Rajeev Kumar, Dr Raj Kiran Prabhakar (2013). Despite being the one of the largest milk producing countries in the world, India accounts for a negligible share in the worldwide dairy trade. The ever-increasing rise in domestic demand for dairy products and a large demand-supply gap could lead India to be a net importer of dairy products in the near future.

2.14 Estimation of Cost Efficiency of Dairy Farms in Kenya's Eastern Central Highlands.

Dr Mugambi David Kimenchu, Dr Wambugu, Stephen Kairu, Dr Maina Murangi, Dr Gitunu Antony Macharia (2014). The main challenges to the dairy enterprise were the cost of roughages, the small sizes of land owned and the price of labour. Labour productivity was low. Farm inefficiency was not the main cause of high milk production cost. It was recommended that policy makers generate necessary laws and regulations to ensure that the continued land sub-division is reversed and that the cost of dairy farming inputs is reduced. A law on the extent to which agricultural land should be sub-divided requires being enacted. There is a need for reduction on the taxes levied on animal feed-making ingredients.

2.15 Comparative Study of Various Treatments for Dairy Industry Waste water.

Mrs Bharati S Shete, Dr NP Shinkar (2013). Anaerobic fixed bed reactors (AFBRs) has been successfully and widely applied for the treatment of dairy industry wastewater due to its capacity for microorganism retention on the support and, therefore, the hydraulic retention time can be considerably reduced.

2.16 Structural Changes in Dairy Farming for better margins and local Economy Development in Indian Context.

Anil Chand, Vivek Swami, Dr Jaimini Tipnis (2015). During next few years till 2030 the demand of dairy products is expected to grow at a rate of 9%-12% and

industry at a rate of 4-5%. Clearly Indian industry will struggle to maintain 100% self-sufficiency due to huge local demand, between 160 to 170 Million Tonnes of milk at would be required by 2030.

2.17 Computer Applications in Dairy Industry

M A Deshmukh, SS Chopde, SD Kalyankar, VD Kele (2015). Most computerized systems are capable of generating accurate and detailed documentation of dairy processing under computer control. What is important is that the computer generated records contain all of the information required by the system. The use of computerized systems within the dairy industry continues to increase.

2.18 Working Capital Management of Rajasthan Cooperative Dairy Federation Ltd in India.

Dr SP Mathur, Rekha Swarnkar, Yogesh Soni (2014). During the past decades, India holds a significant position and has undergone revolutionary changes in the profile of dairy industry. There have been considerable improvements in formulating the method and technology of manufacturing the dairy product. In spite of having a significant role in the Indian economy, the dairy industry still faces some problems and challenges.

2.19 Cleaning In Place (CIP) system in Dairy Plant.

Amitha Thomas and CT Sathian (2014). Cleaning In Place (CIP) system of cleaning the interior surface of pipelines, vessels, filters, process equipment and associated things without dismantling. Depending on the processing practice and load of soiling on the process equipment, the cleaning solutions may be used for single cycle or recycled and reused for multi use.

2.20 Implementing of lean Manufacturing Tool in Dairy Industry.

J Vignesh, B Varun Kumar (2015). The main focus of lean manufacturing is to eliminate waste, doing things better in half of the resources as mass production requires, providing higher quality with lesser cost.

2.21 Determinants of Economic Efficiency in Dairy Cattle and Sheep.

M Michalickova, Z Krupova, E Krupa (2014). Dairy cattle and sheep farmers should concentrate on accounting the costs only for categories to which they belong (especially overhead costs) to define objective value of cost for given value of production.

2.22 Economic Efficiency(EE) of small holder Dairy Farmers in Swaziland.

BB Masuku (2014). The findings of the study indicated an average of 79.8% level of EE for smallholder dairy farmers in Swaziland. Therefore, there is a 20.2% potential for smallholder dairy farmers to increase their EE. Hence, the null hypothesis (H_0 = smallholder dairy farmers are economically inefficient) was rejected and the alternative hypothesis (H_1 = smallholder dairy farmers are economically efficient) was accepted.

2.23 Milk Cost, Return and Profitability in Dairy Farming.

Agatha Popescu (2014). Material cost and labor cost represent the most important cost item in total milk production cost. They are closely correlated with income from marketed milk. For the same level of labor cost in dairy farms, material cost has a negative influence on income. In the dairy farms where material cost is similar and constant, labor cost is deeply correlated with income coming from marketed milk.

2.24 Method of Formulating least cost diets for small holder Dairy Production in Sub Saharan Africa.

Sebastian Chakeredza, Festus K Akinnifesi (2008). Commercially available protein concentrates are prohibitively expensive for the smallholder dairy farmers in sub-Saharan Africa. However, these farmers have a number of locally available feedstuffs at their disposal that can be used for home-mixing into the dairy meal concentrate fraction.

2.25 Least cost Diet Plan of Cows for Small Dairy Farmers of Central India.

SN Goswami, A Chaturvedi, S Chatterji (2013). The Linear Programming Technique was applied to formulate the least cost ration plan for daily feeding for the cross bred and local dairy cows separately. The least cost ration plan formulated for

daily feeding for cross bred dairy cows yielding 5 to 10 L of milk per day included 3.50 kg paddy straw, 10.60 kg Napier grass, 1.35 kg soybean cake, 2.08 kg wheat bran, and 0.06 kg mineral mixture, costing 19% less in comparison to the routine feeding plan followed by the farmers.

2.26 Growth and challenges of Dairy Sector in Andhra Pradesh.

Thunga Subha Rayudu, Prof C Lakshmi Nath (2015). As the world is getting integrated into one market, quality certification is becoming essential in the market. However, there are very few plants in the country, which have successfully obtained ISO, HACCP certification.

2.27 Marketing Effectiveness of Sales Promotion Strategies on Dairy Industry.

S Ayyappa Naik Nenavath (2014). The study reveals that in two towns of Guntur and Ponnuru, the majority of respondents stated that the leakage problems are higher in packaging. The management of Sangam dairy organization has to identify well in advance areas where leakage is occurring and has to take corrective steps at

the production level, quality control level, transportation side and lastly, at the time of delivery of products to the customer.

2.28 Indian Dairy Industry.

Bhagyashree S Kunte, Prof Sanjay Patankar (2015). The Common findings of majority of the 14 research papers were as follows: Small herd size. The herd size on an average is found to be below 10-15 animals. Dairy farming is still in the form of a source of livelihood and not commercialised. Fodder and concentrate together contributes the highest proportion of the total costs.

2.29 Pasteurization Process Energy optimization for A Milk Dairy Plant.

Modi A, Prajapat R (2014). The competition and quality aspect limited the profitability of the milk dairy plant. The milk dairy processes are fast growing business but high energy cost is a serious problem. In the current scenario to understand the problems related to high energy consumption of the milk processing

and to suggest methods for their active reduction with the help of different approaches needed proper management of the all processes used in the plant.

2.30 Milk Production Function and Resource use Efficiency in Jaipur District.

Sushila Vishnoi, Pramendra, Vijay Gupta and Raju Pooniya (2015). The study was undertaken during 2013 and 2014 in Jaipur District of Rajasthan with the objectives to examine the input-output relationships and assess the resource use efficiency in milk production. The study covered 100 commercial dairy farms.

2.31 Profitable Milk Business Through Self Help Groups in District of Rajasthan.

Dr Smita Bharnagar, Dr SS Rathore (2015). The Self Employment avenue that can provide employment opportunities in Jaipur District of Rajasthan is dairying and with the spread of milk chilling and storing technology all over the district, the demand for milk had increased. Krishi Vigyan Kendra-Jaipur had launched a programme to promote the level of awareness, skill and managerial ability required for the women to employ themselves gainfully in various fields since household dairying is the single largest activity in the rural areas where women can be gainfully employed.