CHAPTER – II

REVIEW OF LITERATURE

To develop the clarity and comprehension in any study, it is necessary to review the earlier studies. This would help the researcher to have better understanding of the perspectives of the research problem. By reviewing various theoretical based problems and empirical analysis based issues, the researcher would find out the research gap, if any, to facilitate to pursue his research work. In this sense, the researcher has made an attempt to review various studies of both theoretical and empirical analysis supporting the present study, in this chapter.

Manivannan A., Narmatha N. and V.Uma (2009)\(^1\) in their article Healthy Cattle and buffaloes are the basic factors involved in success of dairying. Calf rearing is one of the most neglected aspects in dairying. Young Calves, reared scientifically will help to improve the socio economic status of farmers through better growth rate and they could become potential milk yielders in future. Adoption of scientific practices could effectively control calf mortality. Non adoption of proven practices could be due to either
unawareness (or) complexity of the technology. Unless the recommended practices are fully adopted by the farming community, getting fruitful results will be difficult. Hence this research study was taken up with objective to find out the adoption land of calf rearing practices among dairy farmers.

Aden I.M. et.al (2008)\(^2\) in their study observed that the major constraints identified by the farmers irrespective of their categories, include lack of quality fodder, land holding, animal purchase, lack of animal health cover, animal feeding, guidelines and training and credit facilities. It was inferred from the present study that animals’ productivity can be enhanced only through better feeding management strategies along with better health cover.

Artukoglu. M.M. Oplgun A. (2008)\(^3\) in their article on “Co-operative tendencies and alternative milk marketing channel of dairy producers in Turkey A case of Menemen” determines the milk marketing structure in Menemenizmir, West Turkey. According to the results of this study, 70% of the producers are the shareholders of the co-operatives; 49.2% of the producers are members of the national chamber of agriculture 47.20%. Total milk production in
the farm is marketed to street seller was 36.11%. Processing plants was 10.1% marketed directly to consumer and 6.6% is marketed to dairy factories. The study also revealed that feed prices in the market are 5% higher than the price of co-operative. The main problems related to organization and marketing together are the lack of knowledge in production low milk prices and the high cost of production.

Gupta D.C et. al, (2007)\(^4\) in their study indicated that most of livestock breeders of the state belonged to the small to semi-medium category with fairly large operational holdings compared to the national average. However due to poor availability of water the potential of land could not be utilized to the full extent and livestock is immediate next source of income. The role of Camel as a source of income generation and draught animal for agricultural purpose has to be acknowledged in view of their dwindling population.

Periya Sami N. (2006)\(^5\) in the article “Milk Production in India” said that the cost of production per litre of milk in India has been worked out to be the lowest in the World. Thus there will be
competitive advantage to increase India’s global share of export in the dairy sector. Since Indian dairy sector is one of the least subsidized sectors in the world, it can therefore afford to take an aggressive skinned in its position in world milk production. India became the world leader in milk production in 2001 with a production of 84 million tones.

Shrikant S. Kalamkar (2005) in his study has found that the state is endowed with the good livestock as well as bovine wealth which is an indicator of advanced state of dairying activity; population of buffaloes as well as its share in total livestock population has increased significantly. This is mainly because of buffalo milk containing high fat and the higher milk yield as compared to cows. Over the four decades the continued higher growth of livestock population in the state is possible because crop income is generally low in Maharashtra due to predominant rain fed cultivation which may have stimulated the farmers to concentrate on allied activities. The density of buffalo is predominant in Western Maharashtra region, which is high irrigated region. The higher the rainfall and higher the percentage of area irrigated the higher seems to be the animal density.
Kajendran. K et al. (2004)\textsuperscript{7} in their article on “Dairy co-operatives and milk marketing in India - constraints and opportunities” review the existing status of milk – marketing and dairy co-operatives in India and provide recommendations to meet future challenges. The study indicated that 80% of milk produced by the rural producers is handled by an unorganized sector. It is found that the dairy co-operatives play a vital role in milk production and marketing. Involvement of middleman, lack of bargaining power by the producers and lack of infrastructure facilities for collection, storage transportation and processing are the major constraints which affect the price received by the producers in milk marketing.

Rajendran K. and Samarendu Mohanty, et al. (2004)\textsuperscript{8} in their article operation flood, launched in 1970, introduced co-operations into the dairy sector with the objectives of increasing milk production, augmenting rural income and providing fair prices for consumers. It was started to effectively utilize donated milk products from abroad for domestic dairy development. These surpluses were used to speed up Indian dairy development in two ways. First the donated milk products were used to reconstitute
milk and therefore provide major cities, liquid milk schemes with enough milk to obtain a commanding share of their markets. Second, the funds realized from the reconstitution and sale of donated products were used to resettle easily kept milk animals and permit their progeny to multiply to increase organized milk production. Procurement and processing and stabilize the major liquid milk scheme position in their markets.

Sidhu R.S and Bhullar A.S. (2004) in their study had emerged that as the farm size increased and land resource constraint was relaxed the share of dairy income towards growth in total farm business income. The growth in the dairy incomes was higher on marginal and semi-medium sized farms than the medium and large farms and the growth in crop income was very less on marginal and small farms. Growth in employment in dairy has compensated for the fall in labour employment in crop section.

Vidhyavathi. A et al (2004) in their article on “Performance of livestock sector in India” indicate the empirical evidence on the performance of the livestock sector, particularly relating to sources of growth and productivity changes. The transitional probability
matrix indicates that the retention share of livestock sector would be higher than the agricultural sector in the future. The transitional probability matrix of different components in total output value of livestock showed that milk group would have the highest retention of share in total output.

Suriyamurthi. S and Ramachandran. S (2003)\textsuperscript{11} in the article “Problems and prospects of Co-operative milk producers union in Tamil Nadu” say that the Rural farmers joined together with production managers to make the country self sufficient in milk. The aim of co-operative society is not to maximize the return on capital employed, but to render service to its members effectively and efficiently.

Babita Bohra et al., (2002)\textsuperscript{12} in their article on “Milk Production marketing and consumption pattern at Peri – Urban dairy farms in the mountain: A case of Lahaghat in Uttaeanchal” indicated that dairy forming are one of the most important economic activities in the rural mountain area of Uttaranchal. Ready market availability prompts small holders to produce more milk, primarily for sale and earn cash income which are so crucial
for their petty needs. These trends however lead to the reduction in the milk to be retained at home consumption by the household members.

Kirlsur V.R. (2002)\textsuperscript{13} in his study on “Economics of milk production in Karnataka” analysed the composition of dairy animals input – output relationship and costs and return profiled in milk production in Karnataka. Net returns and benefit cost ratio were maximum in the case of crossbreed cows compared to indigenous cows and buffaloes, particularly on small and medium farms, than on large farms. Cost of feeds and labour counted for the major share not only in the variables but also in total cost; concentrate was the major component in the variable cost, followed by labour and dry fodder. Yield obtained by small farmer was higher than as it was obtained by the medium and larger farmers.

Kirlsur V.R. (2002)\textsuperscript{14} in his study analysed the ‘Composition of Diary animal input-output relationship and costs and return profiles in milk production in Karnataka’ analysed that net returns and benefit cost ratio were maximum in the case of crossbred cows compared to indigenous cows and buffaloes, particularly on small
and medium farms, than on large farms. Cost of feeds and labour cost accounted for the major share, not only in the variable costs but also in total cost. Concentrate was the major cost component in the variable cost, followed by labour and dry fodder. Farmer category-wise analysis, revealed milk yield obtained by small farmer was higher than – was obtained by the medium and large farmers.

Ganesh Kumar. B (2001)\(^{15}\) observed that percent of graded milch buffaloes in total milch cows are the two most important variables/determinants which contributed to increased productivity in the state. The positive association of productivity of milch animals with number of veterinary institutions and dairy co-operatives suggested that quantitative and qualitative improvement in health and breeding services and marketing facilities would be indispensable in the long run as production growth becomes technology oriented in the near future. The positive association of gross cropped area with the productivity of milch animals in the state reinforced the fact that the crop and dairy sectors are interlinked and complementary. Hence, necessary steps should be initiated to strengthen the positive linkage between crop and dairy
sector which, in turn, will boost the milk production and productivity in the state.

Nita Khnadekar et al (2001)\textsuperscript{16} in their article on “Employment generation from animal husbandry along tribal women” revealed that generation of employment in animal husbandry was higher in road side villages, as compared to the villages situated in the interior and deep interior. Involvement in number of activities in animal husbandry was lower among respondents having large livestock holding. The duration of employment in animal husbandry was higher among respondents having high and medium communication behaviours services. The study also reveals that higher the extension contact, mass media exposure, urban contact, productivity of livestock rearing, as an economic enterprise more was the employment of tribal women.

Surya Murthe. S (2001)\textsuperscript{17} in his article on “Dairy farm sector” suggests that milk production can be improved substantially with minimum cost through cross breeding in case of cows and selective breeding in case of buffalo, scientific and least cost effective feeding practices, prevention and control of disease, and judicious
management, apart from assured market for milk. The steps taken to improve dairy farming will provide not only constant and regular gainful employment but also assured income to farmers and landless labourers in rural areas which in turn improve the standard of living of people in rural areas.

Ashok Kumar Ghosh (2001) observed that most of the dairy farmers were small in size; their milk production is low and they market surplus milk after consumption. However, the co-operative farmers had more cows and were producing more milk per cow compared to non-co-operative farmers. Farmers were following dominant marketing channels for selling major portion of their milk according to the locations. Marketing channels of co-operatives are more efficient than the other channels. The higher and fixed price of milk would help farmers to better dairy farm planning. Majority of the dairy farmers are satisfied with co-operative marketing system. So, keeping in mind for mass of the small producer, co-operative milk marketing system can be developed for betterment of the rural dairy farmers.
Mallikarjuna Reddy R. (2001)\(^{19}\) in his study on the ‘Impact of Breeding Technology on Dairy Development’ has explained that the new breeding technology has resulted in a significant increase in milk yields. The yields of cross breed cow are 1200 litres as compared to 300 litres for local cow. Similarly, the yield of grade buffalo is 900 litres as against 500 litres for local buffalo. The higher yield of the improved breeds is not entirely due to the higher level of feeding. The feed conversion efficiency is higher for improved breeds than is for the local breeds. The milk yield per 10 kg of feed dry matter rises from 1.7 litres for local cow to 3.5 kg for cross breed cow. In the case of buffalo, the increase in milk yield is from 2.1 litres to 2.9 litres.

Animesh Banerjee (1999)\(^{20}\) made a case study about “The export potential of Indian dairy products” and stated that India was primarily an important dependent country of dairy products till early 1970s. In 1990s, India started exporting surplus commodities like skim milk powder, whole milk powder and ghee. The whole milk powder trade was around 12 million tonnes per annum, followed by 11.5 million tonnes of cheese and eight million tonnes
of butter. Thus, the dairy sector’s contribution was a commendable one.

Sagar R.L. et. al, (1988)\textsuperscript{21} in their study observed that all the categories of milk producers perceived finance, cost of medicines, concentrates, mineral mixture, and other inputs, genetic potential of milch animals, efficient artificial insemination services, technical knowledge of animal husbandry practices for rearing the animals, as the most important factors affecting productivity of dairy animals. Irrigation facilities for growing nutritious fodder crops, supply of good quality seed of fodder crops and feeding nutritious green fodder concentrates and mineral mixtures to milch animals were also perceived important factors affecting productivity by the marginal, small and medium large categories of milch producers.

Singh R. et al., (1998)\textsuperscript{22} in their study found positive association between annual milk production per milk animal and the number of veterinary institutions per 100 sq. km. The developments of animal health services in the country have significantly reduced the incidence of animal diseases and avoid yield loss.
Arona C.L (1997)\textsuperscript{23} in his study found that livestock and poultry in Indian tropics and subtropics played a critical role in agricultural economy by providing milk, wool, meat, eggs and draft power and manure. They are living banks for farmers and provide flexible reserve during period of economic stress and buttress against crop failure. Due to the introduction of exotic high producing breeds of animals, machinery and man power training there was an overall improvement in the production of milk, meat, wool and eggs. It has reduced the population percentage living below poverty line.

In the dairy farming activity, buffaloes yield higher returns as compared to cattle stock. It is also seen that buffaloes have been used mainly for milk production. The milk stock accounted for a substantial higher proportion of buffaloes than of the cattle population.

Hari Shankar Sharma (1996)\textsuperscript{24} in his study ‘Ecological impact of Dairy development’ reveals that Indian milk production mainly depends upon buffaloes and cows. According to livestock census of 1987, India has 50 percent of World buffaloes - that is 77.0 million-
and they produce about 50.52 percent of the total milk production of the country. Cows come next in respect of milk production. We have 1/6th of the total world cows that is 199.7 million but they produce about 45 percent of total milk production. Only 3.5 percent of the total milk is produced through 155.9 million goats and sheep etc.

Grover D.K. et al (1996)²⁵ in their article on “Economics of dairying in rural Punjab – A case Study” examine the various aspects of dairying and related characteristics on farms where it was undertaken in small unit, along with the main agricultural activity. The cost benefit analysis revealed that rearing milk cattle on the sample farms was not a profitable venture, based on total cost considerations. There is enough scope to take up popularization of suitable cross-breeding programs and for development of more nutritive, but economic, feeding packages to increase the milk yield per milk cattle.

Chauhan S.K. (1993)²⁶ in his article ‘A study on procurement and Distribution of milk by Himachal Pradesh state co-operative milk producers Federation’ reveals that the milk procurement
increased at the rate of 6.83 percent per annum, but the daily milk procurement from its milk shed was 11.9 percent per annum.

Patel R.K. (1993)\textsuperscript{27} in his study found that India with a cattle population of 197.3 million accounts for nearly 50 percent of the Asian Cattle population and 15.4 percent of that of the World with regard to the buffalo population 53.3 percent of World’s and 55 percent of Asia’s buffalo population.

Shah D. (1992)\textsuperscript{28} in his study found that dairy sub-sector in the agricultural economy of India is important as milk is the second largest agricultural commodity, contributing to the GNP, next to rice. In fact, in 1986-87, which was a drought affected year, milk occupied the first position among all the agricultural commodity, even higher to rice.

Premkumar (1992)\textsuperscript{29} in his article, ‘A study of market planning of milk co-operatives in Himachal Pradesh – A case study of Shimla’, reveals that unit marketing planning methods are carried out through the elements of marketing mix and special organized channel was set up for milk production through co-
operative societies and milk agencies to promote the distribution channel.

Jawana Ram (1991)\(^3\) in his article “Marketing of milk and milk product” a case study of RCDF attempts to explain the marketing activities of dairy co-operative undertaking in Rajasthan, the dairy co-operative have a three tier system. At the village level there are co-operative societies and the state level there are unions and one apex body called RCDF (Rajasthan Co-operative Dairy Federation), the marketing activities of RCDF are discussed under the heads - product strategy and development, channels of distribution methods of pricing and advertising.

Bishnu Priya Mishra (1990)\(^4\) in his study of working capital management in the Orissa State co-operative milk producers Federation Ltd., reveals that the federation relied heavily on long term funds during the first half of the period under study, whereas it has not relied much on long term funds during the later part of the period under study.

Lalwani M. (1989)\(^5\) in his study found that annual milk production per milch animal goes up when the gross cropped area
per 100 milch bovines goes up. The adequacy of feed and fodder resources is a crucial factor in realizing the potential of dairy sector and thus should be expanded for increasing the productivity of milch animal.

Agarwal V.K. (1988)\textsuperscript{33} has made a study about the marketing of milk product in Western Uttar Pradesh and has shown that Co-operative marketing of milk products not only strengthens the producer’s position as a seller and assumes him of regular trade outlet for getting better price, it also integrates marketing and productive operations reduces waste by preventing duplication of agencies and provides facilities for improvement in the quality of products.

Vaidyanathan (1988)\textsuperscript{34} had found that Buffaloes were more efficient than cows in terms of the ratio of lactating to dry animals, the average daily milk yield and the quality of milk as well as in feed intake per unit milk. Buffaloes being relatively expensive to acquire and to maintain, small farmers can less afford them than those owning large farms.
Singh S.P and Tewari. T.B. (1986) in the article, “An Economic Analysis of Inter State Disparities of Milk Production and Institutional facilities in India” pointed out that the institutional encouragement for co-operative societies might greatly help in increasing the production of milk in backward areas of India.

Attwood D.W. and B.S. Baviskar (ed.) (1985) claimed co-operative dairy development as one of the most effective strategies for helping the poor. It was also asserted that milk production does not require much land but mainly family labour which the poor have amply and, as such, the landless poor can easily and profitably participate in the white revolution, deriving employment and additional income for it.

Ratnam C. and Prasad G.V.S.A. (1985) in an article, ‘Factors responsible for changes in milk procurement - A case study of Visakhapatnam milk shed’ has explained that there are different channel of milk procurement for the organized dairy collection centres - managed by the union co-operative societies commission agents and private vendors. The factors responsible for changes in procurement are also dealt with.
Mahlpal Singh et al., (1985)\textsuperscript{38} in an article Analysis of operational efficiency structure of U.P milk co-operatives reveal that higher the efficiency of a co-operative higher is its co-ordination system. Society co-ordination is therefore a significant factor, causing effect on the working of milk co-operative. In other words, a society can be efficient or not efficient based on the co-ordination it affords and extends.

Mahlpal Singh O.S. et al., (1985)\textsuperscript{39} reveal that the greater the input services provided to the member of a milk. Co-operative, greater the efficiency of that village milk co-operative. In other words to make the milk co-operative on sound footing, in the input services have to be adequately equipped with the system. Inadequacy and lesser input services causes inefficiency to milk co-operatives.

Murali Manohar. D. and Sudarshan. G (1982)\textsuperscript{40} in their article on “Dairying as a household industry” indicated that forward class, middle (or) upper middle class peasants, with an ideal background of farm ownership are the real beneficiaries in this field. They are not only in a position to invest their money, but
also able to utilize the opportunities extended by banks and other agencies. In regard to small peasants or agricultural labour, although a few of them adopted dairy as their primary occupation, they are not able to cope up with increasing problems and the demands of the trade. The credit facilities (or) supporting Mechanism are not in a position to come to their rescue on time. The opening of milk collection centers by the dairy development corporation has not been able to solve their problem also. As a result, a large number of them have been alienated from the occupation and paradoxically people belonging to the upper strata of the society are able to gain all benefits.

Velappan D. and L. Chidambarathanu (1982)\(^{41}\) in the book, “Agricultural Economics” says that measures, both preventive as well as curative, should be undertaken on a large scale to tackle various cattle diseases. Proper nutritive fodder, sound breeding, and healthy surrounding would help in the prevention of diseases and surely increase milk production.

Kurien K.V. (1982)\(^{42}\) in his study found that Dairy farming here was taken as a means of additional income, besides small
agriculture income, and it appears to have taken root in this village. It was agreed that more and more families have utilized the People’s Dairy development project as a source for betterment of their economic condition.

Bakshi S.N. (1980)\textsuperscript{43} in his study found that India has a fairly well developed infrastructure for providing veterinary services to the rural households, majority of whom are small marginal farmers and agricultural labourers.

Raj Vir Singh Satish, et al. (1979)\textsuperscript{44} in their article marketing of milk cost and margin, attempts to estimate the marketing cost and marketing margin of standardized milk, processed and sold by a public sector milk plant, situated in North West India. They are of the view that, for the success of the organized dairy sector, it is essential that all the operation of milk marketing, that is, procurement, processing and sale are performed efficiently, so that a remunerative price is paid to the milk producer out of the reasonable price received from the consumer of milk.

Amit Shah, Otto Garcia et al.,\textsuperscript{45} made a comparative analysis of typical dairy farms in Orissa and Haryana, revealed differences
in cost and productivity of dairy farming: an increase in family farm income through milk production exists in Orissa by better breed feed and herd management; small holders using buffalo for milk production in Orissa were found to be more cost competitive than similar farms in Haryana.

The above review shows that most of past studies seem to focus mainly on the problem of marketing as the one that halts the progress of dairying. The studies, have not paid due attention to a benefit – cost analysis of dairying. In these days when the business motive has crept into the village economy a study on the net returns from dairying will be more relevant and realistic. The present study attempts to approach the prospects and problems of dairying from that perspective and thereby fills the research gap.
REFERENCES


39. Ibid p.400


