CHAPTER – I

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NEED AND SCOPE OF THE STUDY:

The development of any country depends on the economic growth. The economic growth of the country depends on the sectoral development. The three major sectors of Indian economy- agriculture, industry and service are dying hard to contribute their best extent possible towards the development of the economy. Over passing years there has been encouraging improvement of the industry and service sectors of the country. However the increase in growth rate of agricultural sector is rather not encouraging and as such special efforts are to be on this sector which is considered rather backbone of the economy and by and large provides the basic need food to the increasing population of the country. An increasing improvement in this sector can be made possible with the support of food processing industry in the country.

India is the world’s second largest producer of food next to China and has the potential of being the biggest with the food and agricultural sector. The food processing industry is one of the largest industries in India which is ranked fifth in terms of production, consumption, export and expected growth. The food industry is on a high as Indians continue to have a feast. The Confederation of Indian Industry (CII) has estimated that the food processing sectors has the potential of attracting US $ 33 billion of investment in 10 years and generates employment of 9 million person-days.

Though the industry is large in size, it is still in nascent stage in terms of development of the country’s total agricultural and food produce, only 2 percent is processed. The need of the hour is to ladder the growth of this food processing industry for which the strengths and
opportunities of this industry should be exploited, relevant weaknesses and threats should be overcome.

In India, Andhra Pradesh has been showing definite positive growth trends and is inclining close towards national trends. Despite slow down of economy at global and national levels referring to industrial development the state was able to achieve a growth rate of 9.22 percent as against national average of 7.16 percent. It is notable in this instance that food processing industry played a great role to that extent. This essentially causes to claim Andhra Pradesh as a state with ‘great potential’ with reference to food processing industry.

Out of the different sectors of food processing industry in Andhra Pradesh Dairy business in Andhra Pradesh hits jackpot as it has grown by leaps and bounds over the past few years to be currently worth Rs. 5000 crore. The rise in demand for milk and milk processed products has catapulted the state to third position in the country in terms of milk production with 1.12 crore tones produced in 2010-2011.

Thus the researcher made an endeavour to probe into noteworthy contributor-Food Processing Industry in India and Andhra Pradesh. Lured to the interesting improvements in the Dairy processing sector of Andhra Pradesh the study was confined and specific, special emphasis was laid on studying the sample dairy unit- Guntur District Milk Producers’ Mutually Aided Cooperative Union Limited., Vadlamudi which is popularly known as ‘SANGAM DAIRY’ (here afterwards the said Cooperative Union Limited will be presented as Sangam Dairy).

Under the operation flood-I, 18 districts were selected within the country for spread of Dairying in India and one among them is the Guntur District in Andhra Pradesh state. Guntur District was selected for development of Dairy under Anand pattern. As a part of the program ‘feeder balancing’ dairy has been established at the village Vadlamudi for balancing the supply of milk, which was called as the ‘SANGAM DAIRY’ This dairy was set up by NDDB with the financial assistance from Indian Dairy Corporation in the year 1976.
The purpose of the study is to analyse the importance of dairying among the small and marginal farmers in Guntur District where the livestock economy is as old as crop husbandry itself in the agrarian set-up. The study undertook economic analysis of dairy farming around the areas of Sangam Dairy through an examination of the cost structure and returns from dairy farming among the different categories (small, medium and large) of farmers in different regions-Narasaraopet, Guntur and Tenali. Further economic analysis continued and ended with the examination of the factors affecting gross returns from dairy in those different regions. The study stepped ahead through an evaluation of financial performance of Sangam Dairy through application of Ratio analysis, comparison of working capital management performance over the years using financial statements etc.,

The Chief Purpose of the study was to probe into the functioning of selected Dairy unit and thereby suggest measures for its better performance.

REVIEW OF CURRENT LITERATURE:

Review of literature gives the guidelines from the past researchers and provides a foundation to the theoretical framework for present investigation. The review of past literature makes the investigator to get an insight into the methods and procedures to be followed.

Balasubramaniam (1960)\(^1\) in his article, “Role of agricultural process in India” evaluates the role of processing of agricultural produce in India’s rural economy. He finds that processing improves the marketing of farm products and reduces the marketing costs and margins, thereby, raising the share of the farmers in the price paid by the consumers. The author says that the processing of food stuffs narrows down the spread between the

producer's price and the consumer's price and the products are made available throughout the year. Further, extreme price fluctuations can also be reduced.

Dineshwar Prasad (1966) 2 in his article entitled "Location and Role of Agricultural Processing Industry in the rural economy of India", points out that the FPIs have an important role to play in overcoming the supply of agricultural commodities. These industries provide a stable level of prices and an assured market for farm products. Further the FPIs even out income disparities between rural and urban areas. He finds that agro-processing industries contribute indirectly towards agricultural production and productivity.

Bandopadyaya (1982) 3 analyzed the trend of India's share in world tea exports using simple linear trend equation. The results revealed that India's share in total world exports of tea had been constantly declining during the study period 1964-65 to 1978-79. One of the causes that contributed to this trend was strut in demand for tea in domestic market due to population boom. Other associated problems were low productivity, high cost production and scarcity of suitable land and capital.

Venkaiah (1984) 4 in his book examines the impact of establishment of rice mills, sugar processing, tobacco processing, gur and Khanasari industries on the rural economy of Andhra Pradesh. He finds that the food processing sector in the study area had changed the cropping pattern of the farmers and had affected positively the employment, wages and income levels of the people in the area.

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Dass et al. (1985)\(^5\) reported the trend in coffee export in relation to general exports from India for the period 1956-57 to 1982-83. The annual trend of export in general had fallen during the period 1972-73 to 1982-83 in spite of buoyant world demand and high domestic production. The share of coffee export in total exports in value terms had increased in the period 1956-57 to 1971-72 and 1972-73 to 1982-83. However, unit values, quantity and export value recorded chronic instability during the same period.

Subba Rao (1985)\(^6\) in his research work made an attempt to analyse the business performance of the Central Arecanut Marketing and Processing Co-operative Limited., Mangalore, Karnataka. He used financial ratios, solvency, liquidity, profitability and other performance variables to measure the overall performance. The study concludes that return on investment as measured by net profit to capital contributed by the shareholders is abysmally very poor. The liquidity ratios are also found to be below standard norms. The study suggests investment of share capital and other long-term funds in current assets to improve overall liquidity. It is also suggested to control the operating cost and interest on borrowed capital to increase the ROI.

Srivastava (1989)\(^7\) in his study, “Agro-processing Industries: Potential, Constraints and Task ahead, indicates that with subsequent secondary and tertiary processing of various raw material, the value added as well as the price of the finished products would be increased. The study observes that agro-processing units account for 39 percent of all factories, 12 percent of fixed capital, 13 percent of working capital and 15 percent of the total capital employed in the industry in the organized sector. It indicates that this 15 percent of capital

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investment has generated 36 percent of the total employment, 26 percent of the output and 21 percent of the net value added. The study concludes that capital productivity in agro-industries is 0.35, while their labour productivity is less than half of the non-agro based industries.

Archana Sood (1989)\textsuperscript{8} in her article points out that the food processing industry in India has utilized 12 percent compared to 64 percent utilization of food material for processing in the United States of America. The author hopes that the Ministry of Food Processing Industries would treat processed food products as consumer products and reduce taxes, provide incentives in order to encourage the processing units which are highly labour intensive.

Mattigatti, et al., (1990)\textsuperscript{9} in his research article evaluated the impact of the dairy co-operative societies on the cost-return structure of buffalo milk production in Dharwad district of Karnataka State. They find that the members of the co-operative societies get a higher rate of net profit than the non-members on total investment. They point out that the co-operative societies get a higher rate of net profit than the non-members on total investment. They further pointed out that the co-operatives have succeeded in procuring better price for the milk producers. Efficiency in operating activities and optimum financial policy may be the reason for a better margin to the members of the co-operative societies. Further, processing adds value for the product thereby increasing the return to the farmers.

\textsuperscript{8} Archana Sood, Food Processing Industries-Strategies and plan of action, yojana, vol-33, No.9, May 1989, pp.22-24.

R.L. Hyderabad (1991)\textsuperscript{10} has analysed the pattern and productivity of financial resources employed by Karnataka Co-operative Milk Producers federation Limited in Karnataka State. It focuses on capital productivity and aimed to ascertain causative factors responsible for the poor ROI. It finds that the KMF had failed to manage its total financial resources effectively and efficiently. The debt capital was the most predominant source employed to finance capital requirements and a large part of the resources raised had been lost in operating activities. Thus the study concludes that high debt and high operating losses had contributed to the poor financial working of the KMF and had impugned the growth of the co-operative dairy sector in the state.

Jalajakshi (1994)\textsuperscript{11} analyzed the trend of shrimps from India for the period 1966 to 1991. Exponential model of the type $Y=ab^t$ was used to work out the trend. Shrimps export recorded a positive trend due to high demand in the importing countries. The negative trend observed for dried and canned Shrimps were attributed to declining demand in the importing countries and increased cost of production in India.

Mamatha (1995)\textsuperscript{12} estimated the trends of production and export of selected spices for the period from 1970-71 to 1991-92. The spices considered were pepper, chilies, turmeric and ginger. She found that positive trends in respect to production and export of the selected spices were due to increased in domestic production and demand for these spices in the international market. The increased domestic production and export were attributed to several measures taken by the Spice Board such as improved methods of production, assistance for


\textsuperscript{12} MAMATHA, 1995, Export trade selected spices in India- An econometric analysis. \textit{M.Sc.(Agri.) Thesis}, University of Agricultural Sciences, Bangalore.
the export of spices by setting up of facilities for upgrading quality and technical advice on scientific post harvest operation and processing.

Singh (1995)\textsuperscript{13} studied the trends in export of dairy products from India during 1990-91 the country exported the dairy products worth of Rs. 2.40 crores and Rs. 13 crores in 1993-94, which shown the increasing trend in export. In the post-GATT era, WTO is going to create favourable export conditions and the dairy industry of the country has the opportunity to emerge as important player in international market. Sah (1998) examined the import of dairy products such as butter, cheese, baby food, skim milk and whole milk powder. He concluded that decreasing trend of these products was due to under Operation Flood phase-I, II and III. The creation of large co-operative milk production and marketing systems will greatly enhance infra-structure for dairy development.

Chaudhuri (1996)\textsuperscript{14} in this study documented early attempts (1890-1924) in a agricultural development in India such as the Royal Commission on Agriculture, the Bombay plan, the Milk Producers Cooperative at Anand, other post-independence dairy development plans, the intensive cattle development project, the fourth five-year plan, the National Dairy Development Board; canalization of imported dried milk, and milk pricing policy.

Khatkar (1996)\textsuperscript{15} on the basis of secondary data observes that although the Food processing industry had attained an annual growth rate of 5.70 percent in 1992-1993 a very large share of the agricultural produce was consumed and exported unprocessed. He suggests


\textsuperscript{15} R.K.Khatkar, status and prospects for food processing industry in India, Indian Journal of agriculture Marketing, 10(2), 1996
that the government should pay due attention to make the food processing industry a viable industrial sector by capturing an export foreign exchange potential of the sector.

Kulkarni et al. (1997)\(^{16}\) presented the review of present food laws relating to milk products in India. Subjects discussed included in his study were milk standards, standards for milk products, tailor-made products, additives, sampling, publicity, quality certificates and licensing.

Alagh (1997)\(^{17}\) covered changes in activities and policies of the Indian agricultural sector particularly dairying in recent years and measures that should be taken to develop a vibrant dairy economy.

Vyas (1997)\(^{18}\) listed the documents on dairy policies and summary of the world dairy scenario in an overview for the Indian dairy industry. The list includes demographic, socioeconomic, technological and legal aspect, measures to be taken to enhance production and quality of milk were discussed and an agenda for achieving improvements were presented.

S.T.Bagalkoti (1997)\(^{19}\) in his thesis entitled, ‘An economic analysis of Agro Processing Industries in India: An Inter-state and Inter-industry study has focused on the manifold restrictions on the inter-regional movement and prices of many raw materials as well as processed products. He points out that synergy between agriculture and agro-processing has not been fully exploited. However the agro climatic regional planning and economic reforms


\(^{19}\) S.T.Bhagalkoti, An economic analysis of agro-processing industries in India: an inter-state and Inter-industry study.
have some elements that favour the growth of agro-processing industries. The study concludes that the growth of industries in any region requires a set of conditions to be fulfilled and accordingly regional industrial growth has to be postulated as a function of the availability of raw material, infrastructural development, per capital income, level of demand and level of urbanization.

Bhasin (1998)\textsuperscript{20} identified the Trade Related Intellectual Property Rights (TRIPs) Agreement, set out in the text of the Uruguay Round of GATT and the policies adopted by the World Trade Organization. The study covered patents, copyrights, trademarks, industrial designs, layout designs of integrated circuits, undisclosed information and geographical indications. These aspects of the Agreement were discussed in relation to existing Indian legislation, and their implications for the Indian dairy industry.

Singh and Singh (1998)\textsuperscript{21} studied India's experience with dairy development in the post-independence period and documented analyzed and lessons were drawn which might be useful for India as well as other developing countries in improving the design and implementation of future dairy development projects. The rational of major policy measures that have been used since 1970 to promote dairy development were examined, which includes cross breeding policy, modern technology (milk and cattle feed processing plants), marketing of liquid milk and milk products, producer and consumer prices and price policy, organizational and institutional policies, public investments, grants and subsidies, inter-state variations in dairy development, dairy science education, training and research. The effect of India's New Economic Policy announced in 1991, and the new world-trading regime were also discussed.


S.I. Bhat (1998) in his doctoral work on the problem entitled, 'Problems and Prospects of food processing industry in western Karnataka, the author examined the nature and the extent of food processing industrial activity in western Karnataka. He suggests that the resources within agriculture needs to be re-allocated for bringing a shift in focus of production from the traditional field crops to new diversified crops. He identifies areas ideal for the growth of fruits and vegetables, aquaculture, floriculture, etc. The study concludes that efforts should be made by the government to further accelerate the pace of development in the FPI by announcing additional incentives, concessions and packages, etc, and calls for preparation of state-wise plans for the development of this sector.

Kathuria (1996) studied the India’s import substituting industrialization strategy, which was accompanied by a heavier dose of export pessimism, which was reinforced by the poor export performance in the early years of planned development. Effective protection rates for domestic production were much higher for export. Domestic protection was also protected by severe QRs on import. Export promotion policies took on export growth rate in the new Uruguay Round, especially in 1980s, and were rewarded by significant increase in the export growth rate in the second half of the decade. Policies were such that export incentives relied primarily on product-specific rebates and imports entitlement licenses, which were marketable at a premium.

Phillips (1997) studied the recent trends in the Asian dairy markets, which included the effects of trade policy, population and income on the demand for milk products and factors that are likely to put constraints on market growth. The prospects for market

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development in Japan, Taiwan, Republic of Korea, Hong Kong, China, Vietnam, Thailand, Malaysia, Philippines, Singapore, Indonesia and India were briefly reviewed.

Vyasulu (1997) justified a discussion of agricultural developments in Indian states only from the start of the New Economic Policy (NEP), launched in July 1991. The focus was on external trade, if the Government encourages the export of agro industrial products rather than agricultural exports total quantity, then several constraints may arise: (1) lack of expertise in processing; (2) entree for the multinationals; (3) lack of existing links between agriculture and food processing. Dairy industries nationwide and sugar Cooperatives in Maharashtra state were cited, however, as "optimistic pictures". The paper finished by dealing with three questions: What is globalization? How is globalization different from foreign trade? Why do globalization and GATT go together? It argues that GATT, leading to food dependence on foreign powers, may not be in India's interests, but states that the outcomes of globalization were not inevitable.

Manmohan Munjial (1998) predicted that the removal of the non-tariff trade barriers from the global dairy trade, taking effect by the year 2000 would result in an increase in the export of Indian dairy products. In order to the Indian dairy industry must confirm to internationally recognized quality standards. The implications of ISO 9000, the HACCP system and two European Union Directives, EC 92/46 (regulating the production and marketing of milk products) and EC 93/43 (governing the hygiene of foods) for the Indian dairy industry were discussed.


Chawla (1998) studied the third session of the Codex Committee on milk and milk products held in Uruguay in May 1998, in the study he discussed about the amendments to the Code of Principle concerning milk and milk products; standardization of milk fat or milk protein in the draft general standard for use of dairy terms in labeling, restriction on the use of annatto, commonly used in Indian butter, maximum permissible lead levels in butter, use of anti oxidants in fat-based products, use of bleaching agents and decolourants in cheeses, use of hydrogen peroxide for the preservation of milk; discrimination against use of buffalo milk in Codex Standards for cheeses; and use of nisin as a preservative in ripened cheeses. Responses of the Codex Committee were outlined.

Chawla (1999) viewed the stipulations of the agreement on application of Sanitary and Phyto Sanitary measures and the Agreement on Technical Barriers to Trade, both of which were drawn up under the auspices of the WTO. The constraints of these agreements were discussed with particular reference to their impact on the dairy industry in India.

Katar Singh (1999) studied the impact of WTO trade agreements on India's dairy industry. The study was discussed in terms of: production, terms of trade, quality standards, product mix, prices and investment. It was argued that India would benefit from trade liberalization as it does not subsidize the export of its milk and milk products and should therefore benefit from increased access to world markets. However, technical developments in the industry must continue if global competition is not to wipe out these gains.

27 CHAWLA, N.K., 1998 Overwhelming support for Indian proposals at the Uruguay Session of Codex Committee. *Indian Dairyman*, 50(8): 5-6


Sharma and Datta (1999)\textsuperscript{30} studied the impact of a reduction in domestic support; improvement in market access and reductions in export subsidies. The major trends in global production, trade and prices of milk products were reviewed and the competitiveness of the Indian dairy industry was highlighted.

Amit K. Mallik and Debasish Sur (1999)\textsuperscript{31} analyses the working capital management of Hindusthan Lever Limited (HLL) a giant in food processing organisation. The objective is to examine in the context of published figures of the accounting statements how far the management of working capital is successful in the case of HLL. The study used various financial ratios and statistical tools to analyse the working capital management such as Current ratio, Quick ratio, CA to TA Ratio, CA to Sales, Inventory Turnover ratio and Debtors Turnover Ratios, Mean, CV, Regression and Correlation statistical tools are also employed. The author notes that the company is seen moving in the right direction of reducing the proportion of inventories and increasing that of debtors, miscellaneous current assets and cash and bank balances

Vyas (1999)\textsuperscript{32} presented India's attitudes to the second round of WTO negotiations from the standpoint of an emerging dairy nation. The main issues that India wished to be raised in the negotiations were: import duties, particularly in relation to dried milk and dried skim milk, Special Safeguards, export subsidies, Sanitary and Phyto Sanitary measures, and the multi-functional role of dairying.


Hubber, A.G, et al (2000)\textsuperscript{33} in his work notes stated that there was tremendous scope for export, especially of mango pulp and mango juices in the Gulf Countries, East European Markets and to South East Asia. They feel that to export to the EEC markets, a linkage with food processing multinational agencies is necessary.

Ashalatha (2000)\textsuperscript{34} analyzed the trend of area, production, productivity and export of cashew kernel, cashew nut shell liquid, imports of raw cashew nuts and unit value of exports of cashew. The trend was studied in two periods, period-I covering 1956-57 to 1970-71 and period-II covering 1971-72 to 1998-99. It was observed that the trend of area production, productivity, kernel import, cashew nut shell liquid-unit value of exports were showing positive trend but the Cashew nut shell liquid quantity exported showed negative trend and nonsignificant.

Ananthi (2000)\textsuperscript{35} analyzed the trend of area, production, productivity and export of India's of non-basmati rice. The trend was calculated by sub dividing the study period into 1949-50 to 1969-70 as first period and 1970-71 and 1997-98 as second period. The area, production, productivity showed positive trend. For export the study period considered was 1980-81 to 1998-99 for basmati and non-basmati rice. The trend was also positive and significant.

Kurien (2000)\textsuperscript{36} examined the impact of globalization on agriculture in poorer countries with particular reference to the WTO, the convention on biodiversity, and trade.


liberalization, which must focus on current techno-economic conditions of the dairy industry. The study examines the growth in milk production in India since 1971, the role of research and development in this and possible future directions of research to ensure increased productivity of Indian dairy livestock.

Kumar (2000) 37 studied the trade policy reforms, which had been affected since 1991. The results of the study reviewed that the import licensing systems has been dismantled, all non-tariff barriers (NTBs) had been phased out from all treadles except consumer goods, the pick tariff rate has been brought down to maximum 50 per cent from 335 per cent. It also shows the progressive declining in average tariff rates applicable to imports conforming major reforms. The trade with south Asia on faster track than all trade India had unilaterally removed all quantitative restrictions on imports on around 2300 items from SAARC countries in 1998.

Sharma (2001)38 studied the effect of Exim policy on dairy sector like after the removal Quantitative Restrictions (QRs), tariff rates will be the only instrument for India's trade policy. There are significant number of items on which QRs had been dismantled in the new Exim policy. It was belonging to the agricultural sector and small-scale industries, which constitute very big section of the Indian economy. Given their small size, they need more time and support to equip themselves in order to face the challenges of a QRs-free regime. Secondly, the developed countries, like USA and EU, were working on the principle that all barriers to their exports had to go. However, these countries were creating many non-tariff barriers for developing countries. If the USA and EU continue the subsidy for dairy sector at

the present levels, then the Indian dairy farmers and processing industry would face a serious threat. Moreover, Indian tariff commitments for most of the dairy products in the Uruguay Round are very low. The government should identify the sensitive products and estimate the appropriate level of tariff rate and also use other non-tariff barriers like anti-dumping duties in accordance with the WTO provisions. The industry must have a close liaison with the standing group constituted by the government of India and give its feedback so that the government can take necessary actions.

Suresha et al. (2001) studied the last three decades, which shows that the Indian dairy sector has recorded a spectacular growth of more than 5 per cent per annum. By entering into a WTO agreement, which includes Technical Barriers to Trade (TBT), Sanitary and Phyto Sanitary (SPS) measures, and Codex Standards, it is almost imperative that India should produce products of international standards at internationally competitive prices to yield profit and to meet the growing competition as a result of globalization.

Smita Sirohi et al. (2001) looked into the structure and level of market access, domestic support, and export subsidies for dairy products and examine the implementation problems of those World Trade Organization provisions, which seek to reduce trade distortions in world dairy markets. The paper outlines emerging issues, which should be discussed in the future round of negotiations in the interest of the Indian dairy industry.

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Bhalla (2001)\textsuperscript{41} discussed the challenges of the dairy industry in terms of quality which includes Quality Management Systems (QMS), Total Quality Management (TQM), ISO-9000 series, food safety standards, Environmental Management System (ISO: 14000), quality of raw milk, combating adulteration of milk, and upgrading quality of testing and analytical laboratories.

Debasis Rej and Debasish sur (2001)\textsuperscript{42} analyses the profitability of Indian food products Industry with particular reference to Cadbury India Limited. The objective of the study is to assess the degree of relationship between the selected performance ratios and some important parameters of the company’s position and to test the statistical significance of the relationship by using appropriate tests.

Mechamache \textit{et al.} (2001)\textsuperscript{43} identified the dairy trade policy reforms with a general objective of increasing farm income in EU. The EU dairy policy was rather complex and involves use of many policy instruments. The document listed includes the price support program (implemented through Government purchases) for butter and skimmed milk powder, import taxes and export subsidies that have been in place since the 1960s. It also includes production quota since 1984-85, as well as a lowering of trade barriers following the Uruguay Round trade negotiations in the 1990s.

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  \item BHALLA, S.K., 2001 Quality - a necessity to face global challenges in dairy industry. \textit{National seminar on technology management for facing global challenge in dairy industry and alumni- convention}, SMC College of dairy science, Anand, India, 9-10 June pp. 61-64.
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Sareen (2002)\(^{44}\) described export certification procedures, particularly for dairy products in India. Issues concerned to exports as well as some activities of the Export Inspection Council to facilitate exports of food products were highlighted.

Guledgudda \textit{et al.} (2002)\(^{45}\) studied the trend in world tea production and export. India's share in the world tea production has slipped gradually from 38.12 per cent in 1961 to 28.83 per cent in 1990-91 and further marginally come down to 27.45 per cent in 1999-2000. Further, its share in world tea export has been similarly decreased gradually from 36.41 per cent in 1960-61 to 18.83 per cent in 1990-91 and further decreased to 17.86 per cent in 1998-99.

Vipla Chopra (2002)\(^{46}\) in her article on the food processing industry in India, the author says that increased utilisation of fruits and vegetables to make different types of processed products is an important way to stabilize food processing industry, increase product availability during off seasons, reduce wastage and utilize the fruits and vegetables as instruments of industrialization. The author also points out that there is an acute need for harmonizing the existing food laws and to bring about a development orientation to them to facilitate faster growth of the industry.

Sharma and Sharma (2002)\(^{47}\) studied the issues of efficiency and global competitiveness of the Indian dairy sector in an open economy environment. The findings of the study indicated that the Indian dairy industry (both production and processing sector) was


technically highly efficient and the Indian dairy industry had achieved remarkable progress during the last three decades despite the restrictions on the imports and exports of dairy products. The major policy implication of the study is that the Indian dairy industry is globally competitive but must be protected from distorted and unfair trade competition from developed countries in a liberalized environment. The study also shows that the effects of commitments by developed countries to reduce tariffs, domestic support and export subsidies had been minimal and unless these countries significantly reduce the trade distorting supports to their dairy sector it will be difficult for India to compete in the world market.

Hatem et al. (2002) studied the stipulation on Egyptian law of safeguard measures under Egyptian Trade Legislation (Article 79 of law 161/1998); the Government can impose temporary import restrictions. When a significant increase of milk powder on imports threatens to create serious injury to domestic producers. Article 81 requires a causal link between the increased imports and serious injury. In article 83 provides that the provisional safeguards measures should take the form of tariff for a duration not to exceed 200 days, which has to be refunded.

Anonymous (2002) presented the stipulation on dairy products in USA to Australian exporter by tariff rate quota, importation range of dairy products without of quota tariff set. In quota 10 to 16 per cent and out of quota 60 to 65 per cent

Singhal (2003) observed the stipulations on dairy products in USA. The bill called ‘Farm Security and Rural Investment Act 2002’ provides the continuation of the existing Milk Price Capital Support Program (MPSP) under this act. The Commodities Credit

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48 HATEM, T., AND ELHAM, M., 2002, Case study on Egyptian safeguard investigation on imports of milk powder: An analysis of the arguments, ITCD Case Studies Index, pp. 2-17


Corporation of US Department of Agriculture was committed to buy unlimited quantities of butter, cheese and skimmed milk powder from dairy plants at prices that enable them to pay a minimum support price for the milk supplied by the farmers. Earlier under the provisions of the, Federal Farm Act of 1996 passed by the Clinton administration, it was proposed to discontinue, the MPSP with effect from Jan.1, 2002 after reducing the support price from US$ 10.35 in 1996 to US$ 9.90 per 100 lb in 1999.

Chadha (2003)\textsuperscript{51} dealt with the existing regulations in quality assurance of milk and milk products. The following topics were covered in his article were: food laws and its implementation effects, proposed draft amendment to PFA Act drafted by the Ministry of Health, proposed changes by the industry (Integrated Food Laws), Hazard Analysis Critical Control Point (HACCP) and its importance in the international trade, and Codex Alimentarious Commission (CAC).

Choudhary (2003)\textsuperscript{52} gave a brief account of the present scenario of milk production in India and the policies that influence the milk producers in this country. The policies for importing and exporting milk and milk products as well as the taxation of these commodities were discussed in the study.

Chawla (2003)\textsuperscript{53} presented the policies needed in improving India's global dairy position. The National Agriculture Policy including the technological, environmental, and economic sustainability; regulations for imports, and compulsory export inspection were discussed. Apart from this the following policy imperatives for global positioning were also discussed: setting up of high-powered monitoring and steering task force, enactment of

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central prevention of infectious and contagious diseases in animals bill, mandatory HACCP for all export oriented dairy units, integrating and restructuring the enforcement machinery and making it accountable, incentive for clean milk production, subsidy for technological enhancement and diversification, Tit and Tat policy etc.

Misra, et al. (2003) studied the increase in agricultural export after economic reforms were initiated. Aggregate agricultural export increased from US$3.2 billion in 1992-93 to US$6.86 in 1996-97, but declined to US$5.5 billion in 1999-2000. Thus, during the nineties agricultural exports increased at 8.96 per cent per annum as compared to only 2.43 per cent during the eighties. Appreciable increase in exports has come about mainly because of devaluation of the economy due to significant reduction in import duties.

Sharma et al. (2003) studied the document of dairy trade policy reforms. In the early nineties, the Government of India introduced major trade policy reforms, which favored dairy sector was no exception to this. The dairy industry was de-licensed in 1991 with a view to encourage private investment and flow capital and new technology in the sector. However, in 1992 the milk and milk products order (MMPO) was promulgated under the essential commodities Act 1955 to regulate milk and milk products production and export import regulation in the country. India adopted import substitution policy, where protection to domestic dairy sector through imposing QRs and other non- tariff barriers, such as canalizing of imports and exports of dairy products.

Sujata et al (2003) in their study focused on present status of export. The total period was divided into two parts i.e., 1989-90 to 1994-95 (pre WTO) and 1995 to 2001-02

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(post WTO) to know the effect of WTO on export of mangoes. Analysis of trend was estimated by compound growth rates. The method of index was used for pre and post WTO periods. They concluded that during the pre and post WTO periods, the export value index increased from 93.73 and 92.23 to 187.14 and 193.89, respectively. Singh (2004) studied the trend of import of total milk (condense + dry + fresh) has reduced by 18.3 percent per year during 1981-01 the reduction was more pronounced during 1981-91. Butter also achieved negative growth in its import value in which import decelerated from US$79841 thousands in 1981 to US$ 4071 thousands in 2001. Between 1981 and 1991, the import value of butter reduced by 39 per cent/Year. However, between 1992 and 2001 the import of butter increased by 28 per cent per year. It was mainly due to deceleration in international prices of butter during that period and lifting of quantity restrictions on its import.

Patel (2004) 57 analyzed the impact of specific measure, on exports of dairy products, which made were distortions in international trade. It’s mainly due to the high levels of subsidies and tariffs, apart from other import protection measures. The producer support estimate for milk in OECD countries was estimated to be US$ 41 billion in 2002-03 as compared to US$ 48 billion in 1986-88. It indicated only marginal downsizing. Export subsidies continue to be significant factor in world dairy trade with the eligible quantities close to 59 per cent of estimated world trade.

S.Mahendra Dev and N. Chandra Sekhar Rao (2004) 58 analyses the opportunities and challenges in processing of rice, fruits and vegetables, oil seeds and live stock products. The objectives of the study were to assess the working of contacts between processors and farmers in Andhra Pradesh. The study concluded that the policy recommendations under five


broad headings-institutional taxes and subsidies, research and training, infrastructure and other suggestions for the development of fruit processing units in Andhra Pradesh.

Kumar, Pramod (2004) 59 in his study attributed the trends of exports growth of meat and poultry products. India had net exporter of meat products and her share in meat exports was gradually increasing especially after the liberalization process started in 1991. India’s exports of animal products grew with 12 per cent growth rate during the 1990s. Among the exports of animal products, buffalo meat contributed the biggest share followed by dairy and poultry products. Poultry products observed the highest growth of 23 per cent. Dairy products were next with a trend growth of 19 per cent followed by buffalo meat with a growth rate of 13 per cent during 1990-91 to 2002-03. Growth rate of other products like insignificant while sheep and goat meat observed 5 per cent negative growth rate.

Sareen (2004) 60 studied the stipulations on dairy products in USA by US Food and Drug Administration regulation and production of grade. The milk safety branch of the FDA regulates dairy products. It covers product safety, labeling, packaging and other relevant issues. The FDA department are involved in products standards, labeling under the Fair Packaging and Labeling Act, and matters related to overall compliance. The Pasteurized Milk Ordinance (PMO) requirements for product and package includes the product must contain the word grade A, must contain the identity of the plant, product standards of identity must be met, temperature cooled to 450 F or less and maintained the bacterial limits specified in the PMO etc.


Mondal (2005)\textsuperscript{61} studied the specification and requirement in case of for milk and milk products for export as per the notification shall be national standards for Codex Alimentarious Commissions or contractual specification agreed between the foreign buyer and exporter, provided the same was not below the national standards of the importing countries. In the absence of either of the above two, the national standards specification as notified shall apply. Some important requirement for dairy products was microbiological criteria for milk products. Pathogenic microorganism should be about organisms indicating poor hygiene within prescribed limits, indicator organisms - within prescribed limits. EIC certification had been recognized by several of India’s trading partners. While with others dialogue for seeking reorganization was presently in process.

Varshney (2005)\textsuperscript{62} studied the stipulation on tariff barriers maintained in the dairy sector by several developed economies which include: advalorem duties that often exceed 100 per cent specific duties that afford a higher level of protection as compared to advalorem duties. Special agricultural safeguards provision was used as additional protection in spite of some countries having high bound duties often measure the extent of market access e.g.-200 per cent bound duties on SMP, WMP, butter and butter oil in Bangladesh, but in USA 39 per cent for SMP, 81 per cent for butter and butter oil it was 90 per cent.

Katti (2005)\textsuperscript{63} studied the facilitating technology and Infrastructure up gradation of all the sectors of the Indian economy. Especially through import of capital goods and equipment, thereby increasing value addition and productivity, while attaining internationally accepted


standards of quality removal of exports cess on all agricultural and plantation commodities. Export of value added dairy and poultry products facilitated and measures to make EPCG Scheme more attractive to exports. Amendment policy has relaxed the export obligation norms under EPCG, for the farm sector, earlier proposal to allow duty free import of capital goods export units in Agri-Export Zone.

Chand (2005)\(^6\) studied the document of trade policy for 1992-1997. The main feature of the policy were that trade was free except for a small negative lists of imports and exports. Imports of three items was banned, 80 items restricted and Eight items canalized. In the very first year of this policy a number of policy initiatives were taken. These are (a) Liberalized exchange rate management systems. (b) Liberalization of import licensing. (c) Export Promotion Capital Goods Scheme under which import of capital goods was permitted at a confessional import duty. (d) Extension of Export Oriented Units and Export Processing Zone Schemes to agriculture, horticulture, poultry, and Animal Husbandry. (e) Adequate export credit at low interest rate and (f) Measures to encourage foreign investments.

Prakash, Brahm, Sharma, D.K.Tyagi, V P (2006)\(^6\) in their study made an attempt to study the current status of the food processing industries in India with special emphasis on fruits and vegetables processing industry, to identify the constraints experienced by it, and to suggest policy measures for strengthening the net work of this industry in India. The study reveals that primary processing adds the value of raw material by 7.6 while secondary and tertiary processing contributes 25 percent. In spite of India being the second largest producer of fruits and vegetables in the world, only 1.8 percent of its total production is commercially processed.


Simi T B, (2006) in their paper stated that India has only one percent share in the world trade of processed food items. This paper presents high rejection of the food and manufactured products for exports in the developed countries based on some health, safety and environmental established standards. There has been some disparity between the standards in South Asian firms to access foreign markets. This paper finally concluded that in the long run higher food safety standards will be beneficial to both developing and developed countries.

M.Visvesvaraya Industrial research and development centre (MVIRDC), World Trade Centre, Mumbai (2008) made a comprehensive study of the Indian food processing industry; it begins with a survey of the present study of the industry. It observes that this industry is likely to era from 9% to 12% in the near future. The country aims to increase its share in the global processed food trade from the present 1.6 percent to 3 percent in the next eight years. With a strong agricultural base, India is in an ideal position to take benefit of the growing food trade business and become a sourcing hub for food products for other countries. The study, besides giving an overview of the present scenario of the processed food industry in India, deals exhaustively with the Agricultural export zones and Special economic zones and the policy framework for the processed food industry in India.


Jabir Ali, Surendra P. Singh and Enefiok Ekanem (2009) in their paper analysed the efficiency and productivity changes in food processing industries from 1980-81 to 2001-2002. They evaluated the performance of major inputs used in the food processing industry and identified the causes of inefficiency across various segments. Finally they gave suggestions to make decisions regarding various technical and managerial aspects to improve productivity and efficiency.

R.V. Sudershan, Pratima Rao, Kalpagam Polasa (2009) opined that food processing has become an attractive area for export and along with that comes the importance of food safety. Thus their research concentrated of food safety research in India as adulterants, additives and contaminants have been used in food processing. They are of the opinion that risk assessment is a must and is helpful for the exporters of processed food in developed countries.

Vijay Paul Sharma (2012) presented the dynamics of structural transformation of the Indian economy and the major drivers of transformation, giving an overview of the past achievements and future challenges of Indian agriculture, finally they identified the key policy issues and strategies to accelerate sustainable broad-based growth in the agriculture sector in the country which is a pre-requisite for the development of food processing industry.

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70 Vijay Paul Sharma, 'Accelerating agricultural development for inclusive growth: Strategic issues and policy options', Vikalpa, volume 37, No.1, January to March 2012.
STATEMENT OF THE PROBLEM:

Review of the literature reveals that there are a number of studies on food processing industry and in specific dairy processing industry. No attempt has been made to compare more than one dairy processing unit, in this regard. No attempt either appears to have been made to analyse/compare the performance and problems of the many dairy processing units. Moreover the operational efficiency is the critical aspect in the success or failure of business. Andhra Pradesh is unique in nature among the Indian states to announce a separate policy for the Food Processing Industry. The state has declared various packages, incentives and concessions for the growth of dairy processing sector. Efforts are being made to develop it by investing huge amounts of funds. Hence, the efficiency with which the food processing units mobilize and utilize the financial resources determines their development. The financial and operational performance of the dairy processing units and the problems surmounting them are of paramount importance to the government as well as to the food processing industry itself. Therefore it is the dire need to probe into various problems and future prospects of the industry. Against this background, an in-depth study is felt essential in this area in order to assess the various problems confronting the dairy processing units and also to examine the prospects of them in the years to come. Such a study is very much essential to identify the issues and challenges of this sector and also to evolve suitable measures to make them viable and more profitable.
OBJECTIVES OF THE STUDY

This study has been undertaken with the following objectives:

1. To review the growth and development of Food Processing Industry in India and Andhra Pradesh.
2. To examine the processing activities relating to Dairy Industry.
3. To study the performance of the Dairy Industry in India and Andhra Pradesh.
4. To undertake an economic analysis of dairy farming in Selected areas.
5. To assess the financial performance of Guntur District Milk Producers' Mutually Aided Cooperative Union Limited., Vadlamudi.
6. To suggest such measures that would go a long way to satisfy the stakeholders of Guntur District Milk Producers' Mutually Aided Cooperative Union Limited., Vadlamudi.

RESEARCH METHODOLOGY

SELECTION OF SAMPLE:
The present study was undertaken in Guntur district of Andhra Pradesh, the whole district comes under Sangam milk producers union, the district is divided into three revenue divisions namely, Narasaraopet (9 percent), Guntur (65 percent) and Tenali (26 percent). Three stage stratified random sampling technique was adopted. Two blocks from Narasaraopet region, five blocks from Guntur region and three blocks from Tenali region were selected at the first stage. Two villages from each selected block comprising of 20 villages and 15 families; five marginal (up to 1 ha), five small (greater than 1 to 2 ha) and five other categories (greater than 2 hectares) were selected. Thus the total sample comprised of 100 marginal, 100 small and 100 other categories of farmers. The rationale behind selection of the number of blocks in the different regions is substantiated with the fact that there is,
• Major competition of private dairies in Narasaraopet, whose concentration on sale at Sangam Dairy was less and hence 9 percent,

• Meagre competition of private dairies in Guntur whose concentration on sale at Sangam Dairy was extraneous and hence 65 percent,

• Nominal competition of private dairies in Tenali, whose concentration on sale at Sangam Dairy was at an average and thence 26 percent. A well structured comprehensive schedule was designed and pre-tested. The data comprises of number of dairy animals, feed cost, fodder, concentrates, veterinary expenses and other fixed investments were gathered from selected respondents.

At the macro level, one decade financial statements were collected from the head office of Sangam Dairy so as to undertake Ratio Analysis in order to analyze the Financial Status.

SOURCES OF DATA COLLECTION:

In view of the specific objectives of the present study, it uses both primary and secondary data. It focuses attention first on the sample dairy processing units and next on various institution and departments engaged in this sector, to obtain factual data. Further the study makes use of published reports of APEDA, WTO, Ministry of Food Processing Industry, DIC and the like.

Data were collected both from primary and secondary source. The researcher personally visited all the selected families with the help of a schedule collected primary data. Secondary sources of data were collected from annual reports, office records, financial statements published and unpublished available from different sources.
USE OF STATISTICAL TOOLS

The data were analysed with the help of tables, charts and graphs. Statistical tools and techniques such as Ratio analysis, linear regression analysis and correlation analysis were used.

LIMITATIONS OF THE STUDY

The study is limited by constraints of resources, access and time.

1. The financial statements are not printed and hence effort is made to collect from various general body meetings.

2. In Andhra Pradesh each district has formed a milk union almost with the same objectives and there is no difference in procedure and policies hence comparison may not be useful among other dairies.

STRUCTURE OF THE THESIS

The study is organized into six chapters:

• Chapter I is the Introductory Chapter that covers the background to the study, problem statement, purpose of the study, objectives, Review of current literature and Limitations.

• Chapter II deals with Growth and Development of Food Processing Industry in India and Andhra Pradesh.

• Chapter III analyses processing activities involved in Dairy Processing Industry.

• Chapter IV analyses performance of Dairy Industry in India and Andhra Pradesh.

• Chapter V presents narration of brief profile of Sangam Dairy and economic analysis of Dairy Farming in Guntur District.
• Chapter VI evinces financial performance of Sangam Dairy.

• Chapter VII presents the analysis of results and findings, summary, conclusions and implications.