CHAPTER - I

INTRODUCTION AND DESIGN OF THE STUDY

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1.1 INTRODUCTION

Cashew is one of the most valuable and most nutritious, processed kernel in the global commodity markets and has the potential to generate employment and revenue at national and international level.¹ It is a kidney shaped nut, product of Brazil, introduced by the Portuguese to Mozambique and India during the sixteenth century.² The cashew tree earlier served only as a means of controlling coastal erosion before the fifteenth century. In fact, the people of this century did not know the value and importance of the cashewnut and cashewnut shell liquid. But they consumed the cashew apple and threw the cashewnuts away. The value, importance and usefulness of cashewnut was recognized during the last part of the sixteenth century, that too, only after it reached India and Mozambique from Brazil.

It is interesting to note that cashew spread within these countries with the aid of elephants that consumed the cashew fruit along with it’s nut. As the nut was too hard to digest, later, the undigested nut was expelled with the droppings and that resulted in the spurt of cashew plants throughout these countries. Subsequently, the tree spread to a number of countries in Africa, Asia, Latin America and to the West Indies.³ The Portugese traders thus introduced the cashew tree into India and Africa to prevent soil erosion. Cashew is now widely cultivated for its kernel, fruit, cashew nut shell liquid and other products. However, it is mostly found in the coastal regions of
South Africa, Madagascar, Tanzania, and in South Asia, from Sri Lanka to the Philippines.  

The Cashew tree though in existence for a long time was identified as a useful plant only in the early twentieth century. The earlier reports about cashew are from Brazil, French, Portuguese and Dutch observers. Thevat (1558) a French naturalist who visited Brazil during the period of French settlement, first described the plant being located in the north east.\(^5\) He saw some local people harvesting the cashew fruits and squeezing juice from them into a jar. Ganda Vo (1575)\(^6\) was the first Portuguese writer who described the cashew apple as a refreshing fruit during hot seasons and the cashew kernel as tasting better than almonds. The Tupi natives of Brazil called the cashew ‘acaoju’ which became ‘caju’ in Portuguese. The Maconde tribe in Mozambique referred to it as the Devils nut. The cashew tree and its products are known by different names in different countries and regions of the world.\(^7\)

**Portuguese** : Caju, Cajueiro, Pe de caju, Castanha de caju, Maca de caju.

**French** : Cajou, Acajou, Ancardier, Nox de cajou, Pomme de cajou, Amande de cajou

**English** : Cashew, Cashew tree, Cashew tree, Cashew nut, Cashew apple, Cashew Kernel
Spanish : Maranon, Nuez de maranon

Tamil : Muntri maram, Muntri paruppu, Andi

Malayalam : Parangiandi

Hindi : Cadju

Sinhalese : Cadju

Italian : Ana cardio, Noce of anacardio, Mandorlad anacardio

Dutch : Acajou, Kashu

German : Acajuban, Kashunuss

Swatili : Mkanju, Korosho

Somali : Bibbo, Bibs

Indonesia : Jambu mente, Jambu mete

Thus, it is evident that the value, importance and popularity of cashew tree and cashew kernel, cashewnut shell liquid are now known throughout the world. Therefore, cashew attracts not only producers and consumers world wide but also provides better scope for research.
1.2 STATEMENT OF THE PROBLEM

Cashew industry is one of the most important sources of employment and income especially to the rural people in Kanyakumari district. It also fetches foreign earnings. So its role is important in the determination of economic development of the District. Similarly in Kerala and some other southern states, it plays a key role in employment generation and economic empowerment. The economic and political importance of the cashew industry is based on the great number of workers employed and the amount of foreign currency earned through cashew exports.

From its inception during the mid 1920’s, the industry registered factory work force increased to 8 per cent in Travancore. Since then, this number has fluctuated, reaching to 60 per cent at its highest, but never declining below 32 per cent. The majority of all cashew workers are women that is, about 95 per cent. Since 1960, it is remarkable to note that most of the female workers of India have been working in cashew industries. This is also true in the case of cashew industries in Kanyakumari District. Except in roasting, only women workers are engaged in Shelling, Peeling, Grading, and Packing sections.

It is interesting to note that nearly three fourth of the workers employed in Roasting and Shelling sections belong to the Shceduled caste and Backward communities. From the Forward Caste and Muslim
community, only 14 and 8 per cent of the women workers are engaged and that too in the other categories of work.\textsuperscript{9} The educational standard of the women engaged in cashew industries is very poor. Most of them have education up to secondary school level. Those who have education upto secondary level are employed in clean operations like Peeling and Grading. Moreover, the majority of workers in the cashew processing industry belong to the economically most disadvantaged sections. Thus, most of the women workers in the cashew are socially, economically and culturally backward. Women workers have different level of efficiency that can be seen in cashew processing industry.\textsuperscript{10}

An increase in industrial productivity from time to time or from region to region is a result of certain factors. The factors influencing industrial productivity are so numerous, complex and indextricably intertwined that the task of evaluating units is beset with almost innumerable difficulties. As for as cashew industry is concerned, technological innovations, size of industrial unit and government policies would not have any impact on the determination of labourer efficiency. On the other hand, the skill, experience, age, educational qualification, intensity of work and socio-economic factors such as living conditions and demand for income and saving factors determine the efficiency of workers, A host of studies are available on cashew industries. But no systematic study has been done to analyze the efficiency of labourer in cashew industry.
The problem of the present study is to analyze the efficiency of labourer in cashew industry in Kanyakumari District. Out of the total 540 cashew industries in Tamil Nadu, about 85.5 per cent of the cashew industries are located in this district. This is a labourer intensive industry where 95 per cent of the workers are women. They are mostly employed in almost all types of cashew processing especially in Shelling, Peeling and Grading. Woman labourers of different caste and age groups, marital status, level of education and economic background are working in cashew industries. They are paid weekly on the basis of their performance in terms of shelled, peeled and graded cashew kernel, per kilogram. This performance of the cashew labourer is termed as labourer efficiency. In cashew industry, such efficiency level differs from labourer to labourer, time to time and even quality of cashew. In fact, the nature of interest, attitude, aptitude, capacity, skill and taste of cashew labourers differ from one to another. It influences their efficiency, productivity and wage. The difference of labourer efficiency in cashew processing shows that the difference ranges between 6 to 18 kgs in Shelling 7 to 12 kgs in Peeling and 60 to 100 kgs in Grading per day. Moreover, time engaged in cashew processing is from 8 or 8.30 a.m to 5 or 5.30 p.m. This vast difference is also influencing their efficiency in the cashew industry.

Above all the researcher himself has found performance variation existing among natives, working in cashew industry. In fact, scores of his
neighbours go to cashew industry and they engage themselves in either of the processing activities like Shelling, Peeling and Grading without time variation, but their efficiency in production differ considerably. This is quite common in women labourers working in all cashew industries. This may be due to factors like caste, age, education, years of experience, physical health, family income, demand for money, home and working environment, and quality of cashew nuts. Hence, through this study earnest attempt is made by the researcher to find out the factors that determine the efficiency of labourer in cashew industry in Kanyakumari District, which is the sample area for the study.

1.3 THEORETICAL BACKGROUND OF THE STUDY

The studies carried out by scholars like John Thomas (1965)\textsuperscript{12}, Russell (1969)\textsuperscript{13}, Bala Subramanium (1979)\textsuperscript{14}, John (1990)\textsuperscript{15}, Rachel James (1981)\textsuperscript{16}, Balanpillai (1986)\textsuperscript{17}, Deepa (1994)\textsuperscript{18}, Kurup (1994)\textsuperscript{19}, Salam and Mohana Kumaran (1996)\textsuperscript{20} and Rajan and Binil Kumar (2004)\textsuperscript{21} have identified the following important propositions.

1. Skill, experience, education and health are some of the factors.

2. Lower wages and absence of labourer welfare measures are the major problems faced by workers in Kanyakumari District.

3. All processes except roasting is done by women labourers. About 95 per cent of the workers working in the cashew industry are from socially and economically disadvantaged sections.
4. Socio-economic factors determine the efficiency of cashew labourer and youngsters are unwilling to work in shelling process.

5. Sanitary facilities like toilets are lacking in almost all the factories. Shift curtains are made by the workers for this purpose. No crech facility is available.

6. Cashew workers do not get enough working days though a minimum output per day has been prescribed by the managements for dearness allowance.

7. Some variations exist always in the (cashew processing) output level.

8. Quality and availability of cashew nuts affect the labourer efficiency.

9. Alternative opportunities available for the women workers in agriculture, match factory, brick making, construction, petty trade, tailoring and household works affect the cashew processing.

Most of the studies have indicated the problems faced by the workers particularly in the production and marketing of cashew, methods of processing, employment, productivity and related activities in cashew industry. A few studies have determined the labourer efficiency, but the aims and objectives of such studies are different and pertains to industrial crisis and women workers and productivity. The high export demand for cashew kernel is identified as factor leading to rapid expansion of cashew industries. It is interesting to note that no systematic study has been attempted to discern the factors which determine the efficiency of labourer
in cashew industry either in India or abroad. Hence, the present study that deals with the determinants of labourer efficiency in cashew industry in a district level, is felt inevitable and undertaken.

1.4 REVIEW OF LITERATURE

Different aspects of cashew nut processing have been studied by several scholars throughout the world. In fact, the studies discussed in various research publications are related to the cashew production processing, marketing and exporting and importing at national and international levels.

The availability of literature related to the efficiency of labourer in cashew industry is rarely found in India and abroad, though a few scholars like Rachel James (1981), John (1990), A.C Rajan and M.T Binil Kumar (2004) and the Ministry of Labour (1981) have studied the problems in cashew industry. In this context it is worth reviewing some of the available literature on cashew products, cashew marketing and cashew labourer.

Chirayath John Thomas (1965)\textsuperscript{22} in his work entitled “A Study on Cashew Industry in Kerala” has analyzed the problem of cashew industry. This is also an analytical study of the cashew tree, cashew products and processing methods, the export prospects of cashew kernel and the shell liquid and the growth of trade unionism. This study highlights the methods of processing, employment and productivity and the welfare activities under
taken in cashew industry. The study indicates cashew’s potentiality as a foreign exchange earner with better organization and improvement at different levels. It shows how piece-rated workers in the Shelling and Peeling section are given a guaranteed minimum daily wage. It is understood from his work that cashew manufactures association like Kerala Cashew Manufactures Association and India Cashew Exporters Association have helped in exchange of research information for the growth of knowledge and techniques in the manufacturing and storing of cashew kernel, cashew shell liquid and its by-products and derivatives.

A study has been conducted by the State Planning Board (1969) identifying various problems faced by cashew industry in the 1960’s in Kerala State. The Board observes that storage of raw materials is major problem in cashew industry.

Russel (1969) in his study entitled “Cashew nut Processing” has analyzed the different stages of processing involved in the extraction of kernel from the raw cashew nut. The study depicts the importance of drying before storing the raw nut. The study also states the merits in manual and mechanical methods of shelling. It stresses on the effective utilization of by-products for increasing the income of the cashew processing industry.

Emam Beevi A.J, (1976) in her study entitled “The Impact of Minimum Wage Legislation on Cashew Industry” has examined the impact
of minimum wage act in Kerala. It is observed from the study that the initial effect of minimum wage law has resulted in an increase in wage rates in processing units which come under the factory act. She has found that the average daily earnings of workers increased as a result of the average fixation of minimum wage. But the annual average earning has decreased owing to the diversion of processing activities from Kerala to Tamil Nadu and resulted in reduction of the number of working days in Kerala.

Balasubramaniam (1979) in his study entitled “Import Promotion of Cashew Nut into Japan” has examined the reasons for drastic fall in the exports of cashew kernel. He has found that poor cashew crops, reduction in the inflow of raw cashew nuts from East African countries, relatively high price of raw material and consumer resistance to the resultant higher price of cashew kernel are main reasons for falling of exports.

The Proceedings of the National Seminar on “Cashew Industry” (1981) has papers giving detailed account of the problem and development of the cashew industry in India. There has been general agreement among the participants that the basic problem of cashew industry is acute shortage of raw cashew nuts. The seminar points out that the need for the technologically advanced processing machinery to keep down the cost of production and to establish auxiliary industries for the commercial use of the by product is essential. It has created a wide fluctuation in the price of
cashew kernel and calls for joint effort by India, Brazil and Mozambique to bring some stability in the price level.

Kannan (1983)\textsuperscript{28} in his study entitled “Cashew Development of India – Potentialities and Constraints” has analyzed major issues involved in the cultivation, distribution, processing and marketing of cashew and examined the prospects of development of cashew industry in India. The major finding of the study is that the general policy of promoting exports without adequate appreciation of the industry with its linkage with the processing and the cultivation of crop in the agricultural sector. The study has revealed the high level of profitability in the industry and the low level of wage. He has also found that the workers in Kerala have experienced erosion of quantum of employment owing to the diversion of the processing activity to Tamil Nadu.

The High Level Committee on “Industry, Trade and Power” (1984)\textsuperscript{29} in its report has observed that organized labourer and minimum wage legislation has not succeeded in ensuring the workers a reasonable wage or continuity of employment. The committee has also found that the social purpose of setting up the Kerala State Cashew Development Corporation has not achieved its goal in a substantial manner as it provided employment to 22,000 workers for 100 days in a year and that too at a higher cost. The committee comes to the conclusion that there were practially no advantage in organization of the cashew industry in a factory scale, since the cashew
processing industry did not involve high technology. The committee suggests that organizing the industry in the household sector would be more logical and advantages to both manufactures and workers.

Rachel James (1981) in her study entitled “Problem of Workers in the Cashew Industry” has examined the problem of cashew workers in the cashew industry in Kerala. The study shows that the main problem faced by casual workers in the industry is that they do not get enough working days. Until the supply of nuts is increased, the problem of having more working day cannot be solved. The study has found that workers have been exploited by the employers. A minimum output per day has been prescribed by the management for Dearness Allowance. This means D.A is given only when minimum output produced is ready. The prescribed minimum output is what a worker can produce on an average in a day under below normal working condition.

Though variation will always be there in the output level, the management insisting on the minimum output is with a view to deny payment of D.A. The workers are often given small or in adequate quantities for processing so as to make them in eligible for D.A for some days. Therefore, a worker who works for six days may not get D.A for all days. Workers who offer a bribe to the ‘meisthiri’ (Headman, who distributes the raw materials) get enough raw nuts. So, apart of this meagre income has to be set apart to please the headman. The study also highlights another
problem involved in Shelling. As it is done by sitting on the floor and beating nuts with a light hummer, the shell liquid that splashes out in droplets has an abrasive effect on the skin. She concludes that Shelling is the most un-pleasant job in the cashew industry. Moreover, when import of raw materials is falling, local nuts that goes to the cottage sectors, cannot help cashew factories much to provide more working days.

Jacob Baby (1985)\textsuperscript{31} in his study entitled “A Blue Export Development of Cashew and Processing in Kerala” has analysed the reasons for agglomeration of cashew industry in Kerala. He has found the availability of skilled labourer in abundance and the dynamic entrepreneurship of the business men as the main reasons for the concentration of cashew industry. But, these factors have been due to the fact that the processing of raw cashew nut in Tamil Nadu amounts to one third of what is prevalent in Kerala. The study suggests the need for using improved technology and simple gadget to improve the efficiency of workers and increased productivity, to take on fierce competition from Africa and Brazil.

Balan Pillai (1986)\textsuperscript{32} in his study entitled “Economic Impact of Collective Bargaining on Cashew Industry in Kerala” has analysed the prospect of cashew industry. His study is on the economic impact of collective bargaining on cashew industry in Kerala. In this study, he has examined the extent to which collective bargaining of the labourers could be
held responsible for the decline of the cashew industry in Kerala. He has found that both market forces and industrial relations forces as the relevant factors for the decline of the industry. It is observed from the study that collective bargaining is only a major step towards solving the economic issues of cashew workers.

Thomas Mathew and Rama (1986) in their study entitled “Production and Export of Cashew” analyzed the production and exports of cashew from India. Their study depicts that the state of Kerala, Maharashtra, Andhra Pradesh, Karnataka and Tamil Nadu are the major producers of raw nut. However, the cashew processing industry is mainly concentrated in the states of Kerala and Tamil Nadu. It is observed from the study that Kerala contributes around 60 per cent of the cashew exports from India. According to them, cashew industry plays a vital role in the growth of national economy. Their study indicates that the cashew nut processing unit was initially started at Mangalore in Karnataka and later shifted to Kerala in 1925 due to the availability of skilled labourer.

Ratheesh Kumar (1990) in the article entitled “Cashew Cultivation in India” analyzed the nature of cashew cultivation in India. The study indicates that cashew is a dry land crop and it can be grown in hillside and other areas where no other crop can ordinarily be grown. It does not require irrigation and bring in good yields even under the conditions of water scarcity. It provides the highest return for a given investment among
horticultural crops. It is not labourer intensive as other plantations and agricultural crops. It is the most important marketable commodity in the country and abroad.

John (1990)\textsuperscript{35} in his study entitled “Problems of Cashew Workers in Kanyakumari District” has attempted to identify the problems of cashew workers in KanyaKumari District of Tamil Nadu. The study reveals that lower wages and poor working environment affect the interest of cashew labourers in Kerala. The availability of cheap labour, absence of labour problems and availability of raw nuts, low investments, availability of land at low cost and absence of any intervention motivates the establishment of more and more cashew industries in Kanyakumari District. He suggests that the cashew industry in Tamil Nadu should be brought under Minimum Wages Act and social welfare measures like Provident Fund, Gratuity and Employees Security Insurance (ESI) should be made statutory for the development of cashew workers.

Report (1982)\textsuperscript{36} on the study entitled “Living Conditions of Cashew Workers in Cashew nut processing industry in Kerala” has examined the nature of working conditions of workers in cashew industry. It shows that 89 per cent workers worked on piece rate basis and the remaining 11 per cent on time rate basis. All piece rate workers are women and the women employed in Shelling, Peeling, Grading and packing are employed on piece rate basis. No male worker is found to have been employed on piece rate
basis. The survey indicates that there is no system of payment of any bonus, or allowance to the workers other than annual bonus at rates agreed to with the unions of workers. Payment of wages and dearness allowance is normally made on weekly basis. The graders were paid daily during day time and their working hours extending over nine hours with one hour lunch break. Earned leave is allowed at the rate of one day for every 20 days worked, casual leave at the rate of 10 days in a year in most of the factories. The report also shows that drinking water facility, washing facility, rest shelters, canteens, crèches and medical facilities are not found in most of the factories. Moreover, no housing facility has been provided by any factory. But, provident fund, pension, gratuity, maternity benefit and industrial accident benefit are paid according to the gratuity act 1972.

Abdul Salam, Aravindakrishnan and Pushpalatha (1991)\textsuperscript{37} in their article entitled “Cashew Production Technology” have analysed the recent trend in cashew production technology. The study reveals that new crop management and crop protection strategies are important to increase cashew productivity. They further state that concentrated and integrated efforts by researchers, farmers and extension workers, supplemented by media support can increase the production and productivity of cashew in the country.

Dayanandan (1991)\textsuperscript{38} in his study entitled “The Kerala State Cashew Development Corporation – An Evaluation Study” has made an evaluation on the performance of the Kerala State Cashew Development Corporation.
The study points out that the financial position of the corporation remains poor on account of high operating cost, heavy borrowings and huge interest burden. It is observed from this study that the corporation has failed to procure adequate quantity of raw nuts to ensure work round the year for its factories.

Mandel (1992)\textsuperscript{39} in his study entitled “Cashew Production and Processing Technology” has examined the cashew production and processing technology in cashew industry. The study highlights the background of cashew plantations, diseases of cashew trees and the cashew processing technology. He suggests that effective plant protection measures should be adopted for increasing the productivity of cashew plantations. He also points out the need for introducing high yielding varieties of cashew plant suitable to different climatic and soil conditions.

Gangadharan Pillai (1992)\textsuperscript{40} in his study entitled “International Trade of Cashew – Problems and Prospectives” has initiated a discussion at the national workshop on cashew in Kannur (Kerala) about the problems and prospects in international trade of cashew. He points out that the most important problem faced by the Indian cashew industry is inadequate supply of raw cashew nut. He further notes that, the development of cashew industry in Mozambique, Tanzania and Kenya, the major cashew growing countries, has resulted in lower import possibilities and India is facing serious competition from low price kernel from such countries. Another
problem faced by our cashew trade is the competition from substitute nuts like almonds and pistachio. He opines that any increase in production of raw nut will help to increase export and there by earn more foreign exchange. Since this is a highly export oriented industry, he suggests that increase in production of raw cashew nuts will help to substitute imports and can save foreign exchange.

Giridhar Prabhu (1992) in his study entitled “Trade and Trade problems and Strategies of Cashew” has attempted to investigate the problems of cashew trade in India. He points out that wrong harvesting practice, absence of research and development activities, existing land ceiling act, absence of plantation status to cashew, scarcity of high yielding varieties of cashew plant, purchase tax and sales tax in cashew trade are the important problems faced by the cashew processing industries in India. Besides, overcoming the problem of shortage of raw cashew nuts, he suggests that wrong harvesting practices can be avoided by dissemination of information and imparting training to growers. Moreover, introduction of cashew arched management can also solve many of the problems.

Kamaladharan (1992) in his study entitled “Monopoly Procurement of Raw Cashew nut in Kerala” has made an attempt to examine the advantages of monopoly procurement of raw cashew in Kerala. He found that cashew farmers, the cashew industry, the cashew workers and the
government have benefited invariably from the introduction of monopoly cashew procurement.

Raj Narain (1992)\textsuperscript{43} in his study entitled “World Market for Cashew” states that quality control is the primary requisite to boost the export trade of cashew kernel from India. He suggests that a pre-condition for a successful export marketing strategy for cashew kernel or any product is that the product must confirm to market requirements and the cashew exporter needs to be familiar with individual market.

Krishnaswamy (1992)\textsuperscript{44} in his study entitled “World Market for Cashew” has reviewed the world market for cashew kernel. He highlights that India lost monopoly in the world market for exporting cashew kernel due to the entry of East African countries in processing raw cashew nut. He further states that the USA is the largest importer of cashew kernel and the second largest importers are the European Countries.

Dayanandan and Sarangadharan (1993)\textsuperscript{45} in their study entitled “Comparative Analysis of Cost Structure of Cashew Processing Industry” have analyzed the cost structure of cashew processing industry in private and public sectors in Kerala. They found that the cost of production is more in public sectors in Kerala. They further require immediate attention of the Government and the top managements of Kerala State Cashew Development Corporation. They recommend that the Government should appoint at the
top level, persons with professional expertise for modern management practices. They have stressed on the need for professional management of funds and other functions do away with the existing short comings.

Deepa (1994)\(^{46}\) in her study entitled “Industrial Crisis and Women Workers: A Case Study of Cashew Processing Industry” has traced the historical back ground of cashew industry in India, working conditions of labourers and causes for industrial crisis and women workers. The main objective of the study is to analyze the industrial crisis and women workers in cashew processing industry in Kerala. She has pointed out that alternative opportunities available for the women workers in agriculture, brick making, constructional work, match industry, petty trade and some of them found employment as household servants hampers cashew processing work. Thus, the study also reveals that the selection of alternative activity as well as the specific kind of activity is determined to a large extent by the caste status of the individual worker.

Unni Krishnan Kurup (1994)\(^{47}\) in his study entitled “Cashew Processing in Kerala” has analysed the cashew processing in the private sector, Kerala State Cashew Development Corporation and cooperative sector of cashew industry in Kerala. The study aims at analyzing the cost structure and profitability of the cashew processing industry in the private, public and cooperative sectors. It has found that the average processing cost per bag is least in the private sector. It is observed that private sector is
efficient in processing maximum volume of raw nut and generating more
days of employment.

Abdul Salam and Mohana Kumaran (1996)\textsuperscript{48} in their study entitled
“Towards a more sustainable Cashew Industry in India” have highlighted on
schemes to be implemented for the better prospects of cashew industry in
India. They have pointed out that the production and productivity of cashew
nut should be enhanced in a sustainable manner in order to sustain the
cashew industry in the country. They suggest on the need for a strategy to
ensure large scale production and distribution of colonel planting material of
elite varieties at marginal rates, adoption of drip irrigation and high-tech
agriculture and encouraging, the replanting of sterile plantation. Scientific
management of the existing plantations, encouraging the farmers to take up
new plantation in fresh areas, effective transfer of production technologies to
the formers and strengthening of cashew research would help enable boost
the production and productivity of cashew in the country.

Balasubramoniam (1996)\textsuperscript{49} in his study entitled “Three Decades of
Cashew Development in India” has investigated on the development of
cashew in India. The objective of the study is to review cashew development
during the last three decades. He has discussed on the development project
formulated and implemented monitored and modulated during each of the
five year plan periods. He has also evaluated the developmental measures
taken for increasing the areas and productivity of cashew nuts, export performance of cashew kernel and reducing the import of raw cashew nuts.

Raj Mohan Pillai (1996)\textsuperscript{50} in his study entitled “Cashew Industry over the last thirty years – A Look Back” has studied the progress of the cashew processing industry over the past 30 years. He has pointed out that generic promotion of Indian cashew should be undertaken with more vigour in the existing market especially in USA and Europe where the market growth is very little and is more or less saturated.

Basavaraj Banakar and Shankar (1994)\textsuperscript{51} in their article entitled “Export of Cashew Product from India” state that apart from cashew nut, cashew nut shell liquid is also an important export item and it is exported to Germany, Japan and Korea to the tune of Rs 3.4 crores during 1992-93. They also point out that there are 1677 cashew processing factories in the country. The total processing capacity is about 6 to 6.5 lakhs million tons of raw nuts and India exports cashew kernel to the American Zone, European Zone and West Asia Zone in large quantities and to the African Zone in small quantities.

Musalier Shahul Hassan (1996)\textsuperscript{52} in his article entitled “The Trend of Cashew Export in Consumer Packaging” has made a study on the trend in the export of cashew in consumer packaging. The study suggests that the consumer packed products should be in line with international standards of
packing and pricing in order to compete with foreign markets. It has identified the non availability of suitable packing method of international standards as one of the main constraints. Further the study states that the major constraint in marketing consumer package is the local language requirement of the countries where products are retained, and also statutory labelling regulation that differs from country to country.

Subramaniam, Umarani and Arulmozhi (1997) have analyzed in their study entitled “A Study on Defective Cashew nut and Cashew Processing Units”, about the propagation of cashew to the deficit areas. They point out that cashew has now become naturalized in India. The areas of cultivation and centres of production are steadily increasing year by year to meet the shortage of cashew nuts. It is observed form the study that defective raw materials imported from African countries, detected recently tells upon the quality of the processed nuts.

Suresh Zantye (1998) in his study entitled “Cashew Processing and Marketing” has examined the processing of cashew and its marketing in India. The study aims at analyzing the different methods of processing and marketing. It points out the problems involved in processing and marketing of cashew. The study suggests that effective measures should be taken to improve the processing techniques and expand the size of the market so as to increase foreign earnings.
Bharathan Pillai (1996)\textsuperscript{55} carried out an interesting study entitled “Imports of Cashew Augmentation”. It deals with various aspects on imports of cashew like dwindling phenomena, domestic production needs, augmentation of domestic cashew production so as to meet the increasing exports. This is identified as due to the phenomena of non availability of raw cashew nuts from foreign countries.

Pillai and Bhat (1998)\textsuperscript{56} in their study entitled “Plant Hygiene and Infestation Control in Cashew Processing units and Quality Improvement” have examined the mechanism involved in plant hygiene and infection control in cashew processing units. The objective of the study is to analyze the infectious diseases that effect the cashew industry workers. The study recommends to provide improved working environment and various measures to maintain the health of workers so as to improve their efficiency.

Baskara Rao (1998)\textsuperscript{57} in his study entitled “National Perspective for Cashew Development” has analyzed the national perspective for cashew development. The study has dwelt at length on the growth of cashew industry production and exports in India. The study highlights that cashew has been one of the source of income and employment and as it fetches foreign earnings its contribution to the national economy is quite significant.

Ramalingum Pillai (1998)\textsuperscript{58} in his study entitled “Changing Need in Packaging of Cashew for Export” stresses on the need and importance of
changing the design and style of packing of cashew for exports. The study points out that in order to attract the international market and to compete with cashew kernel from Africa and Brazil, the package should look attractive.

Manual Fernandez and Sudheer (2000) have examined the cashew processing methods. It is an analysis of different techniques applied in cashew processing. The study points out on the devices applied in both traditional and modern methods especially in Roasting, Shelling and Peeling. The study recommends modification of cashew processing activities so as to improve the quality of cashew kernel and increase the efficiency of labourer in terms of productivity.

Rajan and Binilkumar (2004) in their study entitled “Spectral Study on Cashew Industry” highlights the weaknesses, opportunities and threats in cashew industry. It shows that youngsters are unwilling to work in manual Shelling process owing to social status of workers in the industry, comparatively lower wages. Prevalence of strong trade union and lack of sufficient stock yard for raw nuts are the other areas of concern. The study also points out that under cultivation of cashew nuts annually results in reduced production of raw cashew nuts. As, India faces competition in cashew market from countries like Vietnam and Brazil, it suggests that
internal production of raw cashew nuts should be enhanced to sustain the cashew industry.

Lindberg, Anna (2005)\textsuperscript{61} has made an intensive study entitled “Modernization and Effeminisation in India with reference to Kerala Cashew Workers since 1930”, shows that the women of cashew factories in Kerala suffer from greater poverty deprivation and starvation than the average Malayalee. There has been a widening gap between feminity and masculinity. Female workers of cashew industry are one of the most exploited groups in Kerala. The limitations imposed upon them by poverty and gross unequal power relations, limitations imposed by capital and labour can be reasons for the more pronounced exploitation of female workers over males. It is observed from the study that although women have had the potential for collective power, they continue to suffer discriminatory and humiliating treatment by their employers. At the same time, these limitations are largely overcome by setting the agenda in their own trade union. It is also stated in the study that a large number of female cashew factory workers still do not receive the protection of labour laws when it comes to wages, bonus, maternity leave, pensions. Moreover employment in cashew factories has been seasonised and decentralized. Women have become members of trade unions and participate in strikes and other radical working class activities. The study concludes that most of the female cashew factory workers are from lower castes and modernization of cashew workers
through trade union has strengthened the role of women in achieving their basic rights.

1.5 RESEARCH GAP

Most of the studies reviewed above focuses on cashew industry and its perspectives, development of cashew industry in India, problems faced by cashew labourers, international trade and cashew industry production, marketing of cashew and socio-economic conditions of cashew labourers in cashew industry. There are several studies which deals with expansion of cashew production, productivity and marketing and problems faced by labourers in cashew industry in general. The available studies on cashew and cashew industries stress only on quality and quantity improvement and enhancement of sustainable international cashew market. But, the study on labourer efficiency in cashew industry has been neglected. Therefore, this kind of a study is essential to know how one labourer is different from another labourer in productivity and what are the factors responsible. It is also worth studying how for the socio-economic conditions of labourers are bond to change their efficiency in cashew industry.

Cashew processing involves five major activities namely, Roasting, Shelling, Peeling, Grading and Packing. Except Roasting, women are engaged in all other processing activities and hence productive capacity in Shelling, Peeling, Grading and Packing would differ from women to women
and also depending on the quality of raw cashew nuts. It is noticed that no systematic indepth study has been undertaken so far to discern factors that determine labour efficiency in cashew industry and such a study is very essential to measure the efficiency of labourer in cashew industry. Hence the present study is carried out with a view to fill this research gap in the field of cashew industries at the district level.

1.6 OPERATIONAL DEFINITIONS OF CONCEPTS

Cashew

It is one of the most important nutritious food items introduced to India by Portuguese about four hundred years ago. It is a kidney shaped nut. It is the only raw material for the cashew industry obtained from the cashew plant. Its kernel contains fat, protein, carbohydrates, minerals and vitamins. As it is a delicious food, it attracts, the people of all countries. So it occupies an important place in almost all functions and celebrations and also is used to please and honour the guests and very important persons. It is the source of employment income and foreign exchange.

Cashew Industry

Cashew industry was first established in Quilon kerala (India). It is the place where cashew nuts are converted into cashew kernel. The major
processing activities such as Shelling, Peeling, Grading, Packing and Drying are done here. This is one of the agro- based traditional industry in India.

**Cashew Labourers**

Cashew labourers are those who are engaged in cashew processing activities. In this study, it refers to the women labourers engaged in Shelling, Peeling and Grading of cashew.

**Labourer Efficiency**

It refers to the quantity of processed cashew kernel in Shelling, Peeling and Grading per day by a worker. It is measured in kilogram. The efficiency of a labourer in cashew industry is determined by the time taken to let out the finished product. The factors like background, caste, education, age, experience and quality of raw materials also will be taken into account.

**Kanyakumari District**

It is the selected area for the present study, located at the southern tip of India. It is the second smallest district in Tamil Nadu. Cashew processing provides employment and income opportunities to a large number of women in the district. About 85.5 per cent (2011) of the cashew industries of Tamil Nadu are located in the district.
1.7 SCOPE OF THE STUDY

The present study is mainly concerned with efficiency of labourer in cashew industry. It analyses the efficiency of women labourer in cashew Shelling, Peeling and Grading in the industries of Kanyakumari District. The study also examines the problems faced by the cashew labourers. The study also aims to cover the cashew production, export, import and processing in India.

1.8 OBJECTIVES OF THE STUDY

The specific objectives of the study are:

1. To analyse the trend of cashew production, its processing methods and export and import from and to India.
2. To list out the profile of cashew industry and the socio-economic conditions of cashew labourers in Kanyakumari District.
3. To examine the variables determining the efficiency of cashew labourers.
4. To study and suggest the factors that motivate the labour efficiency in cashew industries.
5. To analyse the perceptions on the problems of cashew labourers in the study area.
1.9 METHODOLOGY

The present study is an empirical research based on the survey method. The methods adopted in the choice of sample, selection of respondents, collection of data and tools of analysis are briefly discussed in this part.

1.9.1 Sampling Design

There are 32 districts in Tamil Nadu. Kanyakumari District is the second smallest District of Tamil Nadu. About five thousand people including men and women are engage in cashew processing activities. This is the only district having this much of population working in cashew industry. It is also interesting to note that the Portuguese visited and introduced cashew to Kerala and only after that a large number of cashew industries were established and developed with much women labourer force in Kerala. As Kanyakumari District was the part of Kerala before November 1956, cashew processing activities spread to this district. Due to this connection the number of cashew labourers, and cashew industries is higher than that in any other district of Tamil Nadu. In fact, out of a total of 540 cashew industries in Tamil Nadu, 462 industries (85.5 per cent) are found in Kanyakumari District. Therefore, Kanyakumari District has been selected as the area for the present study.
The cashew nut factories are owned and run by five categories of organizations in the sample district. Two hundred and fifty respondents were selected by applying stratified random sampling technique. The sample design is depicted in Table 1.1.

**TABLE 1.1**

**Sampling Design**

<table>
<thead>
<tr>
<th>S. No</th>
<th>Type of Organisation</th>
<th>No. of Factories</th>
<th>No. of Selected Factories</th>
<th>No. of Employees</th>
<th>Sample Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Owned and Processed by same</td>
<td>101</td>
<td>5</td>
<td>571</td>
<td>57</td>
</tr>
<tr>
<td>2</td>
<td>Owned and processed by single person</td>
<td>138</td>
<td>6</td>
<td>681</td>
<td>68</td>
</tr>
<tr>
<td>3</td>
<td>Direct Leasing</td>
<td>101</td>
<td>5</td>
<td>539</td>
<td>54</td>
</tr>
<tr>
<td>4</td>
<td>Indirect Leasing</td>
<td>67</td>
<td>5</td>
<td>449</td>
<td>45</td>
</tr>
<tr>
<td>5</td>
<td>Commission Processor</td>
<td>55</td>
<td>4</td>
<td>459</td>
<td>46</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td>462</td>
<td>25</td>
<td>2699</td>
<td>270</td>
</tr>
</tbody>
</table>

*Source: Department of Statistics, Government of Tamil Nadu, K.K. District*

For the purpose of the present study, a sample size of 10 per cent of the effectively functioning cashew factories were selected. Out of 462 cashew factories, 21 factories were found to be partially functioning. Hence these were neglected and of the 2699 employees working in the selected factories, 270 respondents were fixed for collecting primary data. Tippet random sampling technique is followed in choosing the sample respondents. These selected respondents have been classified based on the type of activities they undertake.
Accordingly, out of the total sample size of 270 respondents, 108 are from Shelling, 107 from Peeling and 55 Grading work. Data collected through interview schedule pertaining to eight from Shelling, seven from Peeling and five from Grading type respondents has been found inadequate and hence rejected. Therefore, the ultimate sample size is confined to 250 respondents for the purpose of this analysis.

Primary data related to family size, literacy, community, religion, age, experience, economic conditions, demand for money, physical health, availability of social welfare activities, efficiency in cashew processing, and problems faced by the labourers has been collected from the selected sample respondents.

Secondary data related to the present study has been collected from Books, Journals, Statistical Reports, News papers, Magazines and Websities. Moreover, secondary data has also been collected from various publications of the Cashew Report of “Promotion Council of India”, and the Directorate of the “Cashewnut and Cocoa Development of India”. Published and unpublished records of private cashew processing units have also served as source of secondary data used in the study.

1.10 CONSTRUCTION OF TOOLS

An interview schedule was prepared by the researcher for collecting necessary data. The schedule was finalized after collecting a comprehensive
review of literature connected with the topic of the study, discussion of problem with the officials concerned, identification of variables, preliminary interviews, pre-tests and by incorporating the pertinent suggestions of the co-researchers and officials of the Department of Agriculture.

1.11 PERIOD OF THE STUDY

The primary data required for the study were collected during January 2010 to March 2010. The secondary data collected covers a period of ten years from 2000 to 2010.

1.12 COLLECTION OF DATA

Primary data were collected from the sample respondents through direct personal interview by using a pre-tested interview schedule. The investigator interviewed the sample cashew labourers personally and the objectives were clearly explained to them to get accurate and adequate information to the questions related to the study.

1.13 GEOGRAPHICAL COVERAGE

The study covers the whole of Kanyakumari district which has four Taluks namely, Agasteeswaram, Kalkulam, Vilavancode and the Thovalai.
1.14 FIELD WORK

The field work for the study was carried out by the researcher himself. It was conducted during the period from January 2010 to March 2010. An interview schedule was used to collect primary data (Vide Appendix-A). The respondents were interviewed in their work place after a self introduction and sometimes in the presence of the owner of the organization. The schedule was administered to the labourers in the vernacular and the data were recorded by the researcher in the schedule and a thorough check up of the data was also made. Each interview took about two hours on an average.

1.15 FRAME WORK OF ANALYSIS

The analysis of the thesis consists of three parts. The first part of the analysis is concerned with analyzing the socio economic conditions and the determinants of labour efficiency. Percentage analysis is used to analyse the socio-economic variables. The various determinants of labour efficiency is measured and analysed with the help of labour production at various levels and situations.

The second aspect of the analysis is related to measuring the growth level of cashew industries in India and Tamil Nadu, for which compound
growth rate and simple growth rate is arrived at by using values of current and previous periods.

In the third part of the analysis, factor analysis is applied to find out the most important factor that motivates the efficiency of the respondents followed by multiple regression. The various constraints faced by all the three types of respondents have been identified and measured with the help of ‘F’ statistics and Index analysis.

1.16 DATA PROCESSING

After completion of collection of data through the interview schedule, a check up of the data was made. The missing data were collected immediately by referring to the sample labourers and afterwards the coding of the data was completed with the help of a Master Table. The coded information was transmitted on transcription cards for further processing. Afterwards, classification tables were prepared for further analysis from transcription cards. The analysis of the data was made with the help of desk calculators and computer.

1.17 LIMITATIONS OF THE STUDY

This study suffers from the following limitations.

1. The study covers labourer efficiency in Shelling, Peeling and Grading sections only.
2. The time element is also an important factor in determining the efficiency of labourer but this study could not adequately deal with that.

3. Labourer efficiency varies from industry, to industry person to person and even from quality of cashew nuts. Hence, it is not easy to measure the efficiency of labourer in relation to their socio-economic status.

4. The present study is also affected by the limitations of secondary data that is non-availability of adequate and relevant data and up to date information about cashew processing industry in India, Tamil Nadu and Kanyakumari District

1.18 CHAPTER SCHEME OF THE STUDY

The present thesis has been organized into seven chapters. The first chapter entitled “Introduction and Design of the Study” provides a brief information about the topic, problem, theoretical background and significance of the study, review of related literature, research gap, objectives, methodology, scope, limitations and the scheme of the report of the present study.

The second chapter entitled “Cashew Production and Processing in India” deals with cashew production in the world and India and cashew industries and their development in India and Tamil Nadu. It also presents
the details regarding export and import of cashew and the role of India in the cashew market and the number of cashew processing industries in India and Tamil Nadu.

The history and development of cashew industry and the problems faced by the industry and trend of cashew production, productivity and the socio-economic conditions of labourers working in cashew industry in Kanyakumari District are presented in the third chapter, titled “Profile of Cashew Industries and Socio-Economic Conditions of Sample Respondents”.

In the fourth chapter an indepth analysis of the title of the project is given. It is entitled “Determinants of Labour Efficiency in Cashew Industry” which focuses on the determinants of labourer efficiency in cashew industries in Kanyakumari District.

In the fifth chapter titled, “Factors Motivating Labour Efficiency in Cashew Industries”, the elements motivating labourer efficiency in cashew industries is analysed vividly.

The sixth chapter titled. “Perception on the Problems faced by the Sample Respondents” deals with the problems of labourers in cashew industry in the study area.
The seventh chapter titled “Summary of Findings, Suggestions and Conclusion” forms the last part of the study that provides a brief summary, findings and also suggestions for the improvement of labourer efficiency.
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