CHAPTER I
INTRODUCTION AND DESIGN OF THE STUDY

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1.1 INTRODUCTION

India lives in its villages and the economy of villages depends on the prosperity of agriculture. A state like Tamilnadu also has 70 per cent of its population in rural area which depends on agriculture and other allied activities of either livelihood. Above 40 per cent of the national income is derived from the agricultural sector. Agriculture occupies an important place in the country’s export trade also. It supplied raw-materials to a large number of agro based industries. Thus agriculture holds the key to the process of development of the whole economy. In India, agriculture is very backward on account of vagaries of monsoon, heavy pressure of population on land, small holdings, lack of good quality seeds, fertilizers and pesticides, inadequate irrigation facilities, scarcity of tenure and research, soil erosion and traditional outlook of farmers and the like. Production and marketing of agricultural produce has been and continues to be the burning problem of farmers in Indian villages. While the problem with reference to production is the lack of timely and adequate provision of inputs and credit, the facilities for marketing such as transport storage, market yards and the like. Without these facilities the farmers will be exposed to the exploitations of the traders and communication agents, who serve as middlemen between the farmers and the consumers.

The economic development of most of the developing countries begins with the re-organisation of its agricultural sector. The development of agriculture during the last four decades has registered a significant increase,
resulting in a larger marketable surplus and consequential pressure on the marketing system. A vital change in the marketing system has been brought about with the intervention of State Machinery in agricultural marketing. Regulation of agricultural markets has contributed substantially towards increasing the returns to the farmers for his produce and also in systematic development of market and other marketing activities.

The regulated market is not only a place where certain legal conditions are enforced but it is also a centre which provides a package of facilities to agricultural marketing and an economic centre where adequate demand is built up for the sale of agricultural commodities which can bring satisfactory return to the cultivator. The need for a comprehensive market regulation was felt by the Royal Commission on Agriculture in India as early as in 1928. The commission recommended the establishment of regulated markets which would confer an immense boon on the cultivating class in India. Moreover, the regulation of markets is one of the measures taken for social evolution.

1.2 STATEMENT OF THE PROBLEM

The agricultural producer in India is said to suffer by way of not getting the due price for his produce. The disparity between the final price paid by the consumer and the initial price realized by the farmer appears to be the great loss on his part whereas the middleman is the gainer. Traditionally, most farm products tend to sold in the village itself to small traders because of private
traders giving advance money to the farmers for understanding farming operation and meeting the day to day family expenses, this practice has influenced the farmers to sell their produce to the private traders.

Another set of factors considered responsible for the wide price variation has been the oligopolistic of traders in primary markets, quoting lower prices than that justified by the prevailing terminal market price and the leading price difference is attributed to the excessive seasonal fluctuations in price. Besides, these, there are several other factors like absence of grading, poor communication and transport facility that account for this wise price differentiation.

It thus becomes imperative that to eliminate all such maladies, regulated markets should be formed. These regulated markets have taken cognizance of the sufferings of the farmers at the hands of greedy merchants and have introduced many measures which are beneficial to the farmers. The regulated market established by the British in 1886, in Hyderabad, has achieved a tremendous growth in terms of number of markets, coverage of crops and volume of transactions. Today there is no taluk in India without a regulated market. The goal of establishing regulated market has not yet been achieved fully. It is mainly due to the behaviour of traders who do not want to come to the regulated market for procuring the produce. Consequently, only a few traders go over to the regulated market to participate in the purchase. Taking
into account, this lack of awareness among the farmers, the present study has been carried out. This study highlights the performance of regulated markets and the perceptions of farmers in Kanyakumari district. Besides, only a few studies have been made regarding regulated markets. This study would contribute by filling the gap in this regard. Therefore, such a study has been undertaken by the researcher.

1.3 NEED FOR THE STUDY

The importance of Regulated Markets in ensuring the welfare of farmers and traders cannot be underestimated but there has been a wide gap between the net income of the Regulated Market and the increasing growth in market arrivals. This discrepancy is serious, leading to financial crisis, behavioural consequences and also adverse impact on both the traders and the farmers. In the present scenario due to hectic changes and severe competition, any system has to re-orient itself to the growing needs and expectations of the beneficiaries, but for which the very survival of the system itself will be at stake. Therefore it is essential that the Regulated Market System in India has to be critically evaluated keeping in view the agrarian economy of India and the dominating role of agriculture in the Indian System.

1.4 REGULATED MARKETS IN TAMILNADU

In a developing country like India, Agricultural marketing infrastructure plays an important role in fostering and sustaining the tempo of rural, and
economic development, Agricultural marketing in a broader sense, is concerned with the marketing of farm products produced farmers.

According to National Commission on Agriculture (XII Report), Agricultural marketing is a process which starts with the decision to produce a saleable farm commodity and it involves all the aspects of market structure or system and includes pre and post harvest operations like raising and harvesting the crop, assembling, grading, storage, transportation and distribution. An efficient marketing system is needed to achieve the objectives of price stability and rapid and equitable “distribution of the farm commodities. Even the small farmers have to be made much more market oriented to break the syndrome of subsistence farming.

1.4.1 Royal Commission Recommendations

The need for an efficient marketing system has been realized even in the pre-independence period. The Royal Commission which was set up in 1928 recommended protection of farmers from the hands of traders and middlemen and also for the provision of better marketing facilities and basic infrastructure.

1.4.2 Enactment of Acts Regulations to establish Regulated Markets

In pursuance of the Royal commission recommendations, the Government of Madras enacted the “Madras Commercial Crops Market Act 1933’. According to the act, a regulated market for cotton was formed at
Tiruppur in Coimbatore District and the second regulated market for groundnut was also formed at Villupuram of South Arcot District.

Later in the year 1959, the act modified as “Tamilnadu Agriculture Produce Market Act 1959” This modified Act envisaged the formation of market committees at District Head Quarters with the functions of identifying agricultural produce, notifying them under the Act, establishing regulated markets in important assembling centre to regulated and control the market transactions.

Subsequently, the 1959 Act was modified as the “Tamilnadu Agricultural produce marketing (Regulation) Act 1987 and Rules 1991” and brought into force with effect from 01-02-1991.

1.4.3 Directorate of Agricultural Marketing and Tamilnadu State Agricultural Marketing Board

As per these Acts Regulations, a Directorate of Agricultural Marketing and Tamilnadu State Agricultural Marketing Board was formed in Chennai with the following functions and objectives.

i) To regulate assembling and sales of marketable agricultural produce.

ii) To establish District Market Committees and to control their functions.

iii) Grading the agricultural produce in order to get justifiable price to farmers.

iv) To educate and propagate among farmers the importance and role of market committees and regulated markets towards their welfare.
v) Helping to eradicate the function of middlemen and pave congenial atmosphere among the farmers’ traders and consumers.

1.5 DISTRICT MARKET COMMITTEES

To regulate and supervise the activities of regulated markets in the districts, “District Market Committees” were formed. At present there are 21 market committees in Tamilnadu. These market committees are governed by a committees comprising of members (nominated by government) and headed by Chairman. The secretary of the market committee is the executive head to control overall establishment in the office of the Market Committee.

Under the control of “District Market Committees” regulated markets, sub regulated markets and check posts are formed in order to regulate and to have effective control over the activities of farmers and traders.

1.5.1 Regulated Markets

At present in Tamilnadu there are about 277 regulated markets, 15 sub-regulated markets and 44 check posts 108 rural godowns and 108 grading centres covering the entire State except Chennai and Nilgiris District.

Competitive and remunerative prices are ensured for the produce sold by the farmers through closed tender system in the Regulated Markets. Free grading facilities for agricultural commodities and issuing pledge loan during distress sale are also available in the Regulated Markets.
The farmers of states of Maharashtra, Karnataka and Andhra Pradesh, sell their produce only through regulated markets as compulsory marketing is in force. 1 to 2 per cent of the value of the produce is collected as market fees from the traders who procure the produce from the farmers. The procurement method is simplified in Tamil Nadu so as to benefit the farmer. 1% of the value of the produce is collected as market fee from traders.

1.5.2 District–Wise Distribution of Regulated Markets in Tamil Nadu

The district–wise distribution of regulated markets in Tamil Nadu is presented in following table.
### TABLE 1.1

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Name of the District</th>
<th>Total number of regulated market</th>
<th>Percentage to total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Kancheepuram</td>
<td>15</td>
<td>5.4</td>
</tr>
<tr>
<td>2.</td>
<td>Vellore</td>
<td>12</td>
<td>4.3</td>
</tr>
<tr>
<td>3.</td>
<td>Tiruvannamalai</td>
<td>16</td>
<td>5.8</td>
</tr>
<tr>
<td>4.</td>
<td>Cuddalore</td>
<td>10</td>
<td>3.6</td>
</tr>
<tr>
<td>5.</td>
<td>Villupuram</td>
<td>17</td>
<td>6.1</td>
</tr>
<tr>
<td>6.</td>
<td>Salem</td>
<td>19</td>
<td>6.9</td>
</tr>
<tr>
<td>7.</td>
<td>Dharmapuri</td>
<td>16</td>
<td>5.7</td>
</tr>
<tr>
<td>8.</td>
<td>Coimbatore</td>
<td>18</td>
<td>6.5</td>
</tr>
<tr>
<td>9.</td>
<td>Erode</td>
<td>25</td>
<td>9.0</td>
</tr>
<tr>
<td>10.</td>
<td>Tiruchirapalli</td>
<td>19</td>
<td>6.9</td>
</tr>
<tr>
<td>11.</td>
<td>Thanjavur</td>
<td>13</td>
<td>4.6</td>
</tr>
<tr>
<td>12.</td>
<td>Pudukkottai</td>
<td>10</td>
<td>3.6</td>
</tr>
<tr>
<td>13.</td>
<td>Madurai</td>
<td>6</td>
<td>2.2</td>
</tr>
<tr>
<td>14.</td>
<td>Ramanathapuram</td>
<td>20</td>
<td>7.2</td>
</tr>
<tr>
<td>15.</td>
<td>Tirunelveli</td>
<td>20</td>
<td>7.2</td>
</tr>
<tr>
<td>16.</td>
<td>Kanyakumari</td>
<td>6</td>
<td>2.2</td>
</tr>
<tr>
<td>17.</td>
<td>Theni</td>
<td>7</td>
<td>2.5</td>
</tr>
<tr>
<td>18.</td>
<td>Dindigul</td>
<td>8</td>
<td>2.8</td>
</tr>
<tr>
<td>19.</td>
<td>Nagapattinam</td>
<td>8</td>
<td>2.8</td>
</tr>
<tr>
<td>20.</td>
<td>Tiruvarur</td>
<td>8</td>
<td>2.8</td>
</tr>
<tr>
<td>21.</td>
<td>Nilgiris</td>
<td>4</td>
<td>1.4</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>277</strong></td>
<td><strong>100.00</strong></td>
</tr>
</tbody>
</table>

**Source:** Farmers Hand Book 2010 – 2011.
1.5.3 Services Rendered in the Regulated Markets of Tamil Nadu

Regulated Markets provides facilities such as correct weighment by using electronic weigh bridges and weighing balances, godown facilities, bank facility, immediate payment, daily price information, rest sheds, drinking water facility, cattle sheds, free medical aid to farmers, input shops, phone and fax facilities etc.

Under "AGMARKNET" centrally sponsored scheme 93 regulated markets have been provided with computer and Internet connectivity for effective price dissemination among farmers through AGMARKNET website. The information on commodity prices prevailing in various markets is made available, the farmers would be able to get better price of their produce by moving their produce to the market which pays higher. During the year 2007-08, 100 Regulated markets were computerized through AGMARKNET.

1.6 FACILITIES AVAILABLE IN THE REGULATED MARKETS OF TAMILNADU

The following table shows the Facilities available in the Regulated Markets of Tamil Nadu.
**TABLE 1.2**
Facilities Available in the Regulated Markets of Tamilnadu

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Market Committees</th>
<th>Own land</th>
<th>Godown</th>
<th>Rural Godown</th>
<th>Transaction shed</th>
<th>Drying Yard</th>
<th>Farmers Rest Shed</th>
<th>Sanitary facilities</th>
<th>Drinking water facilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Kancheepuram</td>
<td>7</td>
<td>-</td>
<td>5</td>
<td>4</td>
<td>7</td>
<td>2</td>
<td>6</td>
<td>5</td>
</tr>
<tr>
<td>2.</td>
<td>Vellore</td>
<td>9</td>
<td>6</td>
<td>4</td>
<td>6</td>
<td>4</td>
<td>2</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>3.</td>
<td>Tiruvannamalai</td>
<td>13</td>
<td>5</td>
<td>7</td>
<td>14</td>
<td>11</td>
<td>6</td>
<td>10</td>
<td>9</td>
</tr>
<tr>
<td>4.</td>
<td>Cuddalore</td>
<td>5</td>
<td>2</td>
<td>3</td>
<td>11</td>
<td>5</td>
<td>3</td>
<td>9</td>
<td>5</td>
</tr>
<tr>
<td>5.</td>
<td>Villupuram</td>
<td>12</td>
<td>4</td>
<td>9</td>
<td>26</td>
<td>13</td>
<td>10</td>
<td>22</td>
<td>12</td>
</tr>
<tr>
<td>6.</td>
<td>Salem</td>
<td>5</td>
<td>1</td>
<td>2</td>
<td>4</td>
<td>4</td>
<td>--</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>7.</td>
<td>Dharmapuri</td>
<td>9</td>
<td>1</td>
<td>4</td>
<td>7</td>
<td>7</td>
<td>3</td>
<td>11</td>
<td>7</td>
</tr>
<tr>
<td>8.</td>
<td>Coimbatore</td>
<td>18</td>
<td>58</td>
<td>11</td>
<td>19</td>
<td>21</td>
<td>6</td>
<td>14</td>
<td>12</td>
</tr>
<tr>
<td>9.</td>
<td>Erode</td>
<td>14</td>
<td>12</td>
<td>9</td>
<td>19</td>
<td>16</td>
<td>3</td>
<td>14</td>
<td>14</td>
</tr>
<tr>
<td>10.</td>
<td>Tiruchirapalli</td>
<td>12</td>
<td>13</td>
<td>10</td>
<td>24</td>
<td>13</td>
<td>3</td>
<td>19</td>
<td>11</td>
</tr>
<tr>
<td>11.</td>
<td>Thanjavur</td>
<td>10</td>
<td>11</td>
<td>4</td>
<td>17</td>
<td>7</td>
<td>6</td>
<td>9</td>
<td>9</td>
</tr>
<tr>
<td>12.</td>
<td>Pudukkottai</td>
<td>3</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>13.</td>
<td>Madurai</td>
<td>4</td>
<td>--</td>
<td>2</td>
<td>1</td>
<td>3</td>
<td>3</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>14.</td>
<td>Ramanathapuram</td>
<td>14</td>
<td>8</td>
<td>10</td>
<td>12</td>
<td>10</td>
<td>2</td>
<td>12</td>
<td>13</td>
</tr>
<tr>
<td>15.</td>
<td>Tirunelveli</td>
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<td>3</td>
<td>12</td>
<td>9</td>
<td>13</td>
<td>10</td>
<td>14</td>
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</tr>
<tr>
<td>16.</td>
<td>Kanyakumari</td>
<td>5</td>
<td>2</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>5</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>17.</td>
<td>Theni</td>
<td>4</td>
<td>--</td>
<td>2</td>
<td>3</td>
<td>6</td>
<td>1</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>18.</td>
<td>Dindigul</td>
<td>6</td>
<td>1</td>
<td>4</td>
<td>6</td>
<td>7</td>
<td>-</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>19.</td>
<td>Nagapattinam</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>-</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>20.</td>
<td>Tiruvarur</td>
<td>1</td>
<td>-</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>21.</td>
<td>Nilgiris</td>
<td>--</td>
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<td>--</td>
<td>--</td>
<td>--</td>
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<tr>
<td>Total</td>
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<td>167</td>
<td>129</td>
<td>108</td>
<td>194</td>
<td>158</td>
<td>68</td>
<td>171</td>
<td>143</td>
</tr>
</tbody>
</table>

**Source:** Farmers Handbook 2010-2011.
1.6.1 Notified Commodities

All the important commodities, in all totally 42 commodities like cereals, millets, pulses, oilseeds, cotton, turmeric, etc. have been notified in the State of Tamilnadu so far under the Act. Though there is provision in the Act for notifying fruits, vegetables, cattles, poultry, sheep, pisciculture and apiculture products, these commodities are yet to be notified in Tamilnadu. But in some of the regulated markets non-notified commodities also do come for sale. Action has been initiated to notify fruits, vegetables and flowers. Necessary action is being taken for Uniform notification of agricultural commodities throughout the state during this financial year.

1.6.2 Functions of regulated markets in Tamilnadu

As for transaction practices, the regulated markets of Tamilnadu stand unique and distinct from the rest of the country. In the regulated markets of Tamilnadu no shops are let out to the traders to run their business and the regulated markets function as the direct meeting ground for the farmers and traders to sell and buy respectively under the efficient and effective supervision and guidance of the market committee staff.

The agricultural produce brought by the farmers are graded by qualified graders, weighted by licensed weigh men and with lot numbers allotted, the products are exhibited to the traders to see themselves are quote their prices through closed bids. The closed bid system followed in Tamilnadu regulated
markets ensure competitive price. Only if the prices offered by the traders are acceptable to the farmers, the traders all allowed taking the stock on payment. Otherwise the farmers are free either to take back their produce or store in the godowns of the regulated markets. The services rendered to the farmers in the regulated markets are totally free of charge and the farmers need not pay any amount towards commission or any other charges. A market fees of Re. 1/- Rs. 100/- worth of produce sold and licence fee are collected from the traders only.

1.6.3 Advantages derived from Regulated Markets in Tamilnadu both for the Farmers Traders

For Farmers

i) Drying yard provided

ii) Grading facilities given

iii) Correct weighment is ensured through licenced weighmen.

iv) Price according to quality of produce.

v) Competitive price through secret bids.

vi) Immediate payment for sales.

vii) Elimination of intermediaries like brokers and commission agents.

viii) No deductions from producers and all service at free of charge.

ix) Storage facilities provided.

x) Correct and up to date market information provided.

For Traders

i) Facilities to buy required quantities of product at one place.

ii) Elimination of middlemen like brokers and commission agents.
iii) Ample choice for good quality and graded commodities.
iv) Purchase of produce with less overhead charges.
v) Market information readily available.
vi) Godown and Communication facilities provided.

1.6.4 Pledge Loan Facilities to Farmers

In order to avoid distress sales by the small and marginal farmers in the peak season, Regulated Markets are issuing pledge loan to farmers. Under this scheme, the farmers can store their agricultural produce in the godowns of Regulated Markets for a maximum period of 6 months and take pledge loan of 75% of the total value of the produce up to a maximum of Rs.2,00,000. Likewise Pledge Loan facilities are extended to traders also with the rate of interest specified from time to time.

Interest at the rate 9% for traders is charged for pledge loan facilities. During the previous financial year interest rates were reduced from 8% to 5% for the benefit of farmers.

1.6.5 Tamil Nadu Farmers Development and Welfare Scheme

Under this scheme, the farmers who sell one metric tone of paddy (or) equivalent value of their agricultural produce through Regulated Markets every year will be enrolled under this scheme and are eligible for a grant of a lump sum amount up to Rs.1,00,000, in case of death/ permanent disability occurring due to accident / death due to snake bite. In case the eligible farmer looses both
the hands or both the legs and both the eyes due to accident, is eligible for a grant of Rs.75,000/-. In case of losing one hand or one leg or one eye or hip disability due to accident the farmer/tenant is eligible for a grant of Rs.50,000/-. The farmers need not pay any premium for this fund. The Market Committee concerned and the Tamil Nadu State Agricultural Marketing Board will bear the premium amount of Rs.10 per individual per year equally.

1.6.6 Construction of drying yards in the villages

Out of 10 per cent of Agricultural commodity wastage, 6% loss is due to not adhering proper post harvest practices. In order to minimise the post harvest losses in grains, the department has taken up construction of drying yards at village level. From the year 1997 under this scheme, 1228 drying yards have been constructed at a total cost of Rs.23.20 crores. During the year 2007-08 constructions of 100 Drying Yards at a cost of Rs.2.50 crores is under progress. This scheme shall continue during 2008 – 09. Now 158 drying yards are available in Tamil Nadu.

1.7 REVIEW OF PREVIOUS STUDIES

These studies had been undertaken earlier enabled the researcher to formulate the research problem and to proceed with the study. They also helped the researcher in identifying the important factors to be included in the study.

The researcher has referred to some of the important studies and a brief account of them is given below.
T. Subbi Reddy and N.V. Narasimham (2000) attempted to study the efficacy of the Hindopur Regulated Market with a view to providing an insight into the working of the Regulated Markets in Andhra Pradesh. He found that the Committee was facing difficulties in conducting effective supervision of auction, weighment and payment for sale. There was no government agency to provide up-to-date market information.

Sivarama Prasad (2001) stated that a network of warehouses all over the country could serve not only as a place of storage, but also as a place of orderly transactions of selling and buying, thus eliminating the need for the farmer to travel long distances to market their produce.

V.K. Agarwal (2001) suggested that there was a dire need for establishing more and more Regulated Markets and the co-operative movement should be strengthened.

Gopalan and Gopalan (2001) conducted a study on the Marketing efficiency of the co-operatives in a potato region in Tamil Nadu and observed that the marketing societies had weakened in this region because of the existence of small monopolies and malpractices of the commission agents at

the assembling point. However, the study concluded that the overall level of the marketing efficiency of selected marketing co-operatives was good.

A. Shankariah, et al., (2012)\(^5\) examined the performance of an Agricultural Market Committee from the standpoint of the producer – seller in Konda district in Andhra Pradesh. They found that most of the farmers were aware of the existence of the Market Committee; many of them did not have any idea of its composition. Farmers had no faith in the nominated members. They preferred to increase the number of farmers and their effective participation in the Market Committee. Traders were dominating in fixing the price. They suggested that it was the duty of the trading community, bureaucrats and politicians to take remedial actions to improve the performance of the Market Committee before it was too late.

Ojha (2013)\(^6\) made an attempt to evaluate the services rendered by commission agents to the farmers. They concluded that a big majority of the farmers did not prefer to sell their produce through commission agents. Commission agents were not providing adequate physical and financial facilities to farmers. A majority of the farmers rated the service rendered by the commission agents as “Bad” and “Very Bad”.

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Muthusamy (2013)\textsuperscript{7} conducted a study of the utilisation of the Regulated Markets by farmers and traders in South Arcot District, Tamil Nadu. The study observed that the socio-economic factors, the perception of Regulated Markets, the volume of turnover and the satisfaction regarding various services that prevailed in the market yard had a significant influence on the farmers and traders in utilising the Regulated Markets.

N. Ajjan (2006)\textsuperscript{8} made an attempt to identify the constraints for efficient functioning of the Anamalai Regulated Market in Coimbatore district. The study showed that the real problems were operational bottlenecks rather than structure defects and to solve them policy suggestions could be made.

Richard J. Sexton (2006)\textsuperscript{9} explored the responses of co-operatives to the forces shaping Agricultural Marketing. He emphasised the need to understand their role in a market-oriented economy. He found that the sector-wide financial crisis was no doubt the most significant force affecting Agricultural Marketing.

\begin{itemize}
\end{itemize}
S.S. Sangwan (2009)\textsuperscript{10} emphasised the establishment of more cold storages near the producers could enable more storage and could also reduce the burden on transport which in turn might favourably affect the post–harvest season prices.

C.Fred (2002)\textsuperscript{11} made an attempt to determine whether dynamic relationships between agribusiness, sales and research existed. Statistically significant dynamic relationships were identified.

Raju and Rao (2003)\textsuperscript{12} analysed the two important and major Regulated Markets working in Guntur district. The study showed that utilisation of the market yard was only to a small extent by farmers due to their ignorance about the facility and the pressure to dispose of the produce at the earliest.

Bhag (2004)\textsuperscript{13} showed that the Regulated Market could not attract the producers and the market had no proper infrastructure facilities like good storage, transport, processing, financing and standardisation facilities open to all the functionaries.


Upender and Manohara Chary (2006)\textsuperscript{14} examined the relationship between market arrivals and prices of paddy in terms of price elasticity in the Regulated Markets and showed that the prices of paddy could be low during the peak marketing period as compared to the prices in mid-and lean marketing periods.

Raisuddin (2006)\textsuperscript{15} in his study on the Agricultural Markets of South Asian countries reported that the reforms in agricultural markets had been very slow and marginal in all the countries except Bangladesh. For a successful reform program, a capacity to monitor change and detect emerging problems early was a necessary prerequisite. The adverse effects of imperfections in any tier of a marketing channel spread rapidly throughout the entire marketing system.

Gauraha (2007)\textsuperscript{16} attempted to identify the constraints responsible for poor arrivals of agricultural produce in the Regulated Markets of Madhya Pradesh. This study concluded that the main constraints responsible for arrivals of agricultural produce were the location of the mandi yard at a great distance from the production point, delay in payment and auction, and lack of basic infrastructure facilities.


Grover, *et al.*, (2007)\(^{17}\) critically examined the financial and physical performances of the Hisar Regulated Market in Haryana. The study showed that the total income of the Market Committees witnessed a tremendous increase, but the arrivals of the major commodities decreased, which needed attention.

Singh and Singh (2007)\(^{18}\) in their study reported that the market had earned no profit due to huge expenditure and mis-management.

Singh, *et al.*, (2008)\(^{19}\) reported that the objectives of the Regulated Market were not practised. Grading and standardization of produce were not done. The farmers’ representation was ignored. The auction method of sale was not accepted.

Jain (2008)\(^{20}\) in study on the structure and market functions of the Raipur Regulated Market in Madhya Pradesh concluded that most of the farmers were not aware of the functioning of the Regulated Market. Adequate storage facilities were not available. The study suggested the need for imparting training in grading and standardisation to the staff.


Selvaraj, *et al.*, (2008) showed that the notification of commodities was not uniform among the Regulated Markets. The study also saw positive growth in terms of arrivals and receipts. Most of the farmers were not aware of the functioning of the Regulated Market.

Atibudhi (2008) critically analysed the operational and organisational structure of Regulated Markets to ascertain the farmers’ attitude to the Regulated Market Committee and regulatory measures of the markets in Orissa. The study showed that the infrastructural development was not adequate. About 76 per cent of the farmers had no specific idea about the Regulated Market Committee and its functions.

Nahatkar, *et al.*, (2008) concluded that the variation in arrivals of cotton was found to be higher than the variation in the prices. The study also showed that farmers were more responsive to lagged cotton prices than current prices.

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Singh and Rohal (2008)\textsuperscript{24} reported that though regulations had been effective in lowering the margins of middlemen and increasing the share of the products in the consumer’s price, there was large scope to eliminate the large number of market intermediaries.

Selvaraj and Sundaravaradarajan (2008)\textsuperscript{25}; Chinnaiyan and Nasurudeen (2009)\textsuperscript{26} and Chinnaiyan and Nandagopal (2009)\textsuperscript{27} concluded that the educational status of the farmers was found to be an important factor which influenced farmers’ awareness of the Regulated Markets and also suggested that publicity and propaganda activities should be strengthened and marketing officials should visit the villages regularly to propagate the benefits the farmers could avail from the Regulated Markets in the marketing of farm produce.

Ravikumar, \textit{et al.}, (2010)\textsuperscript{28} concluded that the price of the competing crops had a significant positive influence on the prices of selected commodities and farmers were very price-conscious.

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Mavonda (2010) suggested that in regulated environments there may be “ideal-type” strategies for effectiveness and across all environments the concept of equifinality is not supported.

Khodiar, et al., (2012) concluded that the major share of revenue was collected through market fee in all the selected markets and that a major portion of the revenue was spent on establishment.

Kaur and Kaur (2012) in their study showed that there had been a significant growth in the infra-structural facilities. Over the years with an increasing trend in arrivals, the income of Market Committees had also increased significantly which was ploughed back for further expansion of infrastructure facilities, including the development of rural roads conducive to the interest of the primary producers and ultimate consumers.

Reddy and Jaya (2012) commented that a market-led extension system established its position by helping the farmers in realising high returns for the produce; minimised the production costs, improved the product value and its marketability. They also stressed the need for the information technology,

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electronic and print media for disseminating the production and market information.

Nazer and Mohamed (2013)\textsuperscript{33} commented that the government was rendering yeoman service to the farmers by means of providing subsidies, concessional credit, free power supply and fixation of minimum price. But all these facilities did not reach the farmers in all villages.

Tarit (2004)\textsuperscript{34} studied the problems of infrastructure in the Agri Markets and villages of Sundarban in West Bengal which showed that all the wholesale agricultural markets in the Sundarban region lacked the minimum required infrastructural support for agri–transaction process.

Asok (2004)\textsuperscript{35} focussed the need for a long term perspective in the field of agricultural market keeping in mind the agri-production, consumption requirements and global change and gave a proper direction to all sections of the agri–marketing system, so that integration did not have negative fallout on the economy.

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Zonuntluanga (2005)\textsuperscript{36} strongly felt need for the establishment of serviceable godowns in villages in the vicinity of their cultivation fields so that the farmers would be able to store their products in these godowns after harvest.

Raghurama (2005)\textsuperscript{37} stated that organised marketing institutions must be set up in the rural areas to provide better price, the infrastructure for development, higher income, higher standard of living to the farmers and to remove exploitation of the formers by the middlemen and money lenders.

Krishnaswamy, and Chand, (2008)\textsuperscript{38} pointed out that the fundamental mistake made in India was that production and marketing were considered two separate and independent functions. Also the efforts to develop agriculture were directed more towards production than marketing. A mere call to ‘produce more’ without providing for an efficient marketing machinery which could assure a fair return to producer-seller carried no conviction with the farmer.

Thakur, \textit{et al.}, (2008)\textsuperscript{39} highlighted the efficiency or otherwise and suggested remedies for improvement in the functioning of regulated markets.


The authors found that there were practically no sales in the market yards of such markets where sufficient investment had not been made to develop the marketing facilities.

Irani, J.K., (2008)\(^{40}\), inferred that in India sale in the village was the most convenient and least troublesome method of sale to the farmer, and nearly 65 percent of the marketable surplus of all agricultural commodities was disposed of in the village itself.

Venkataravanappa, K., (2007)\(^{41}\) showed that the regulated markets have not succeeded in achieving their aims. It is found that the important marketing functions are not provided in the regulated markets. Only a small percentage of sale of agricultural produce of most of the commodities pass through the regulated markets. Under these circumstances the regulated markets serve merely a fund collecting agency for the government by levying the market fee on all the agricultural produce irrespective of whether they are brought for sale to the regulated markets or not.

Somasundaram, (2006)\(^{42}\), highlighted the advantages for the agricultural sector, secured through an assured market and minimum support price citing sugar cane, wheat and rice and cotton as examples. According to him such an

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assured market with a minimum support price is not available for most other crops.

Sumathy, and Paramasivan, (2007)\textsuperscript{43} evaluated the Dynamics of Farmers’ Market (Ulavar Santhai). In Tamil Nadu, Regulated Market and Ulavar Santhai schemes are available for maintain the minimum price for agricultural products. But the performances of these schemes are not satisfactory and they are unable to meet the full requirements of the farmers. Agriculturalists need innovative training for marketing their products, on the lines of industrial products. Agricultural products must have certain minimum support price and the farmers and cultivators should decide the price.

Rajkumar, and Kavitha, (2008)\textsuperscript{44} has pinpointed that the most of the farmers lack interest to improve agriculture and its allied occupations because even after huge capital investments on fertilizers, pesticides, etc. they may get losses due to natural calamities like floods, cyclones, droughts, etc. or even due to poor market. Educated rural youth are also migrating to cities for some kind of employment neglecting agriculture.

Gursharan Singh Kainth, (2008)\textsuperscript{45} conducted an in-depth study on the impact of future trading on Indian agriculture. He says that there is need to


have a strong and resilient agriculture sector attracting investment for raising production and productivity. Agriculture should be made a remunerative option.

Raghurama, (2008)\textsuperscript{46} suggested that the rural areas are devoid of basic infrastructural facilities like communication, all weather connecting roads, timely and adequate credit, transport and marketing facilities that are needed for development. Thus organized marketing institutions must be set up in the rural areas to provide better price, higher income, and higher standard of living to the farmers, to remove exploitation of the farmers by the middlemen and money lenders and also one of the infrastructures for development.

Sivakumar and Sivakumar (2008)\textsuperscript{47} reported that the Farmers Preference and Market Promotion Activities with reference to Rice Herbicides. The major objective of discovering and using herbicides has been to replace the arduous, backbreaking manual weeding and also save time required for performing weeding operations. Ever rising wages and fuel costs have also necessitated the farmers to switch over to herbicides for controlling weeds. Use of herbicides has got its own advantages.


Balasubramanian, and Eswaran, (2008)\textsuperscript{48} pointed out that the village traders exploit the illiterate farmers by fixing the prices for below the cost of production. Moreover, the cotton growers also use the services of regulated markets negligibly. Thus, they face a number of problems on the marketing front.

Rao, and Rao, (2009)\textsuperscript{49} highlighted the Direction of Trade in Indian Agricultural Commodity Exports. They noticed that the agriculture holds a prominent place in Indian Policy making not only due to the contribution to GDP but also due to the dependence of large population on this sector for its livelihood.

Sunil Kumar, (2006)\textsuperscript{50} identified that marketing of agricultural produce has proved to be a major constraint in many areas for higher investments in production. The lack of a good market and the consequent loss of remunerative price lead to inadequate repaying capacity in the hands of farmers. The existing marketing infrastructure created in our country is merely suitable for marketing of food grains.

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Dudhati, and Khunt, (2007)\textsuperscript{51} concluded that the problem of revalidation is more acute in the case of foundation seeds than in certified seed production. Besides this, producer and traders have felt the problem of high price of foundation seeds, high cost of transportation and delay in processing and revalidation.

Mahendra Dev, S., (2007)\textsuperscript{52} examines the issues and policies under market reforms in agriculture. There are several issues relating to the price policy which need to be addressed keeping in view the changes in agriculture sector over time. The domestic market reforms in agricultural sector started only in the last few years. Basically, domestic market reforms involve removing all controls relating to domestic trade and processing. However, recent experience on hoarding of wheat and pulses indicate that some kind of control is still necessary on storage limits.

Govindarajan, \textit{et al.,} (2006)\textsuperscript{53} revealed that the market efficiency of the rural markets can be increased by management of the markets and allocation of factors such as number of employees involved in publicity and propaganda work, number of traders participating in the sales and number of villages covered by the regulated markets. Improving the market efficiency of these

rural markets is necessary to meet the requirements of the economy in the context of globalization.

Uma and Giribabu, (2006)\textsuperscript{54} found that in cashew nut it was 225.5 percent higher than paddy crop in Andhra Pradesh where as in Tamil Nadu it was 93.3 percent. Finally, the study also revealed interesting wage differentials scenarios in terms of gender and crops for Tamil Nadu and Andhra Pradesh. In cashew nut, Tamil Nadu labourers received better wages than their counter parts in Andhra Pradesh, while in paddy crop it was vice versa.

Selvaraj and Sundaravardarajan (1998)\textsuperscript{55} revealed that all the regulated markets witnessed positive growth rate in terms of arrivals and receipts. The highest growth rate of arrivals and receipts were noticed in Aranthangi regulated market (44.94 per cent) and Keeramangalam regulated market (30.69). The lowest growth rate of arrivals and receipts were noticed in Pudukottai market (1.25 %) and Aranthangi regulated market (4.65%).

Radha Mohan \textit{et al.}, (2001)\textsuperscript{56} had undertaken a study on functioning of regulated markets in Gorakhpur Division (UP). It revealed that with respect to market fee, the justified amount is not charged but on records only 25 -50 per


cent fee was entered and rest of the 50 -75 percent amount was taken away by the mandi workers without giving any receipt.

Bhag (2002)\textsuperscript{57} study revealed that the regulated markets of Damoh district of Madhya Pradesh could not attract the producers in a broader way, as the market has no proper infrastructure facilities. Authors were of the opinion that special attention should also be given to provide better storage, transport, processing, financing and standardization facilities to all functionaries. For efficient functioning of regulated markets, there was need for a full-fledged programme of training for the marketing staff at all levels.

Parminder Kaur \textit{et al.}, (2003)\textsuperscript{58} revealed that over the years it is not only the numbers of regulated markets have increased but the infrastructure facilities required for orderly marketing of agricultural produce have grown at a faster rate with increased arrivals. Income of market committees have also increased significantly which is being flown back for further expansion of infrastructure facilities including development of rural roads and other facilities which were conducive to the interest of primary producers and ultimate consumers.


Pendnekar (2003)\(^{59}\) revealed that the Provision of adequate amenities like platform, cattle shed, grading, canteen, toilets etc, were facilities not only clean and hygienic but also attract more producer-sellers. In spite of significant increase in income and expenditure on amenities the market suffers from lack of adequate market area especially during peak season.

Kulkarni (2004)\(^{60}\) pointed out that, there is a need for the establishment of more regulated markets so as to extend marketing facilities to large number of producer and seller.

Rangi and Sidhu (2005)\(^{61}\) studied role of commission agents (CA) in agricultural marketing in Punjab This problem is going to be aggravated in the years to come, which would have wider social, economic and political implications for the Punjab economy in general and agriculture sector in particular.

Barman and Devi, (2004)\(^{62}\) revealed that despite the non-availability of required infrastructure, most of the farmers of Assam used to sell their produce in traditional “hatta” or weekly bazaar instead of carrying their products to the regulated markets.

Pant et al., (2004)\(^{63}\) found that the utilization of the facilities at the regulated markets by the farmers was very poor as they considered that these facilities were not helpful to them. This is probably due to illiteracy of the farmers and poor functioning of the market extension wing of the market committee.

Balakrishnan et al., (2001)\(^{64}\) studied the arrivals and prices of potatoes at Mettupalayam market in Tamil Nadu, and the specific relations between them, using time-series data for 16 years, (1962-1977). The study showed that potato price fluctuations in the selected market were governed not only by the supply of potatoes from Nilgiris, but also by the arrivals from the upcountry markets and their price. Warehousing and cold storage facilities need to be expanded to store the produce when the price is not attractive.

Ravi Kumar et al., (2001)\(^{65}\) concluded that in general, arrivals showed mixed trend, whereas, prices showed an increasing trend for the selected commodities in Anakapalle regulated market of Andhra Pradesh. There exists an inverse relationship between seasonal indices of arrivals and prices of selected commodities.

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Mishra et al., (2002) revealed that the state intervention attempted to standardize and organize agricultural marketing on a widespread geographical basis, but at the minimum cost to itself, with the purpose of protecting the interest of farmers.

Rajesh and Sundaresan (2002) studied the attitude of farmers towards regulated markets and constraints with respect to physical facilities at regulated market storage, grading and market information in Madurai district of Tamil Nadu. Authors found that the farmers are not happy on the functioning of regulated markets at their region.

Kiran (2005) observed during the field survey in sample markets that other major foodgrain produces and cash crops are marketed in exchange of inadequate farmer’s margin under unfavourable market conditions. As the flow of agricultural, produce is towards the only terminal market in Agartala, retailer’s margin in all cases is same in the marketing of respective agricultural produce.

Marimuthu, (2010)\textsuperscript{69} mentioned that the Linking small farmers with high value urban and export markets would lead to development and growth of the rural sector. Direct marketing enables the farmers to realize just prices for their produce by eliminating all types of middlemen and they are getting money immediately.

Sathya Sundaram, (2011)\textsuperscript{70} conducted study on Revamping Agricultural Marketing. The results indicated that the agricultural marketing and processing have become a complex problem to the farmer. He has to dispose the marketable surpluses, and at the same time get a remunerative price for his produce. There has been some shift in consumption pattern and consumers’ tastes. This calls for sophistication in agricultural marketing.

\textbf{Research Gap}

Eventhough there are so many studies related to the functioning of regulated market at Tamil Nadu and India, there is no exclusive study on the performance of regulated market and the farmers and employees view on its functioning at the Kanyakumari district. Hence, the present study has made on attempt to examine it with the help of proposed research model.

\textbf{Proposed Research Model}

The proposed research model is given below:


1.8 OBJECTIVES OF THE STUDY

Based on the proposed research model, the objectives of the study is confined to

i) To examine the trend and growth of the performance of various regulated markets at Kanyakumari district;

ii) To reveal the profile of the farmers and their marketing practices at the regulated market;

iii) To analyse the motivating factors to choose the regulated market and the farmers’ view on regulated market;

iv) To examine the problems encountered by the farmers in the regulated market and the expected remedial measures;

v) To study the profile of the employees and their view on regulated market;
vi) To examine the problems faced by the employees at the regulated market; and

vii) To identify the suggestive measures to enrich the performance of the regulated market.

1.9 HYPOTHESES OF THE STUDY

Based on the objectives of the study, the following hypotheses were framed.

1. There is no significant difference among the marginal, small and big farmers regarding their marketing practices, view on various aspects related to the regulated markets.

2. There is no significant difference among the clerks, superiors and officials regarding the view on various aspects related to regulated market.

3. There is no significant impact of problem perception on regulated market on the overall attitude towards regulated market among the employees.

4. There is no significant association between the profile of farmers and their view on various aspects in regulated market.

1.10 DESCRIPTIONS OF THE STUDY AREA

Kanyakumari District is situated at the southern tip of the peninsular India. Strategically, it is placed at the foot of the Western Ghats with Tirunelveli District at the north-east, Kerala state at the north-west, the Bay of Bengal in the south-east, the Indian Ocean in the south and Arabian Sea in the west. It enjoys moderate climate, good rainfall and many agricultural activities. It lays 77.05° of the Eastern longitude and 8.35° of the Northern longitude. The
district has an area of 1684sq. km and its head quarter is at Nagercoil. The district is also known as "The District of Ponds" or "The Lands End".

1.10.1 Administrative divisions

Kanyakumari District comprises of 4 taluks (that is Vilavancode, Kalkulam, Thovalai and Agastheeswaram). For administrative convenience, the District has divided into two Revenue Divisions (that is, Padmanabhapuram sub division and Nagercoil sub division). There are two taluks under Padmanbhapuram sub division and two taluks under Nagercoil sub division. The District consists 97 Village Panchayats (996 wards), 9 Panchayat Unions (113 wards), 1 District Panchayat (11 wards), 56 Town Panchayats (912 wards), 4 Municipalities (117 wards).

1.10.2 Demographic features

According to the provisional figures for the 2011 census Kanyakumari district has a population of 1,863,174 and 82.47 per cent of the district is urbanised. After Chennai, it has the highest population density in Tamil Nadu, with 1106 persons per km\(^2\). The literacy rate of 90.25 per cent is the highest in Tamil Nadu. The district also has a high female sex ratio, as 1010 females are born for every 1000 males.

1.10.3 Agriculture

Kanyakumari District is predominantly an agricultural district and of the total geographical area of 14,500 ha, 48,140 are under cultivation. The
cultivation of main crops is paddy, rubber, coconut, tamarind, tapioca, fruits, vegetables, pulses and other commercial crops. Coconut is a major plantation crop, cultivated extensively in this district. The estimated cultivation is in 20,700 hectares, yielding 21 crores nuts per year. About 97 percent of rubber cultivation in Tamil Nadu Kanyakumari in 21,000 ha, yielding 22,000 tonnes of high quality natural rubber a year. This rubber is in the form of sheets and latex offers ample scope for further industrial production of various moulded, extruded, dipped and pressed products. Paddy occupied the pride of place in the agriculture scenario of Kanyakumari District. This high production tempo was maintained for nearly 60 years.

1.10.4 Irrigation

Kanyakumari District gets its water source from five rivers Thamiraparani, Valliyar, Ponnivaikal, Pampoorivaikal, and Pazhayar. There are four dams Pechiparai, Perunchani, Chittar I and Chittar II and two diversion-weirs, constructed across these rivers to store water. Water for irrigation purposes are channeled through 6 channels-Pandiyan Kal, Thovalai Channel, Regulatory Kal, Anandanar Channel, Nanchinad Puthanar Channel, Padmanapuram Puthenar Channel and Chittar Pattanam Channel.

1.10.5 Climate and rainfall

The District has a favourable agro-climatic condition, which is suitable for growing a number of crops. The proximity of equator, its topography and
other climate factors favour the growth of various crops. The paddy varieties grown in the second crop season in Thovalai and Agasteeswaram taluks are grown during the first crop season in Kalkulam and Vilavancode taluks. This shows that there is distinct variation in the climatic conditions prevailing within the district. Unlike other district in Tamil Nadu, it has a rainfall both during the South West and the North East monsoons. The South West monsoon period starts from the month of June and ends in September, While the North East monsoon period starts from October and ends in the middle of December. Rainfall is generally high in the northern parts of the district. The annual rainfall ranges between 90 and 160 cm and the average is 140 cm.

1.10.6 Distribution of land holdings

The land holding pattern of the district has decreased in the last five decades considerably. According to agricultural census the average size of holdings was 0.39 ha in 1970-71, and it has come down to 0.10 in the 90’s. While the agricultural workers are increasing, the cultivators are in decline.

1.11 METHODOLOGY

1.11.1 Research Design of the Study

A research design is a framework or blue print for conducting a research project. It details the procedures necessary for obtaining the information needed to structure and/or solve the research problems. A research design lays the foundation for conducting the project. It enumerates the information
needed, the design of the research, the specified measurement and scaling procedures, the construction and pretest of questionnaire, the sampling process, the sample size and the plan of data analysis.

In the present study, the applied research design is descriptive. A descriptive research design is concerned with describing the characteristics of a particular individual or a group. The present study satisfies all aspects related to the characteristics of a descriptive research design.

1.11.2 Population of the study

The population of the present study is the farmers and employees at various regulated markets in Kanyakumari district. There are six regulated markets namely Vadasery, Eathamozhý, Monday Market, Thoduvatty, Kaliakkavilai, Kulasekaram regulated markets in this district. The number of farmers and employees at these regulated markets during 2010-11 are shown in the Table 1.3.

<table>
<thead>
<tr>
<th>Sl.No.</th>
<th>Regulated Markets</th>
<th>Number of respondents</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Farmers</td>
<td>Employees</td>
</tr>
<tr>
<td>1.</td>
<td>Vadasery</td>
<td>579</td>
<td>19</td>
</tr>
<tr>
<td>2.</td>
<td>Eathamozhý</td>
<td>433</td>
<td>14</td>
</tr>
<tr>
<td>3.</td>
<td>Monday market</td>
<td>412</td>
<td>12</td>
</tr>
<tr>
<td>4.</td>
<td>Thoduvatty</td>
<td>324</td>
<td>9</td>
</tr>
<tr>
<td>5.</td>
<td>Kaliakkavilai</td>
<td>319</td>
<td>11</td>
</tr>
<tr>
<td>6.</td>
<td>Kulasekaram</td>
<td>297</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>2364</strong></td>
<td><strong>73</strong></td>
</tr>
</tbody>
</table>

Source: Records of Regulated Markets during 2010-2011.
In total, there are 2364 farmers visited the regulated markets in the Kanyakumari District. As a maximum of 579 farmers are seen at Vadasery regulated market. It is followed by 433 and 412 farmers in Eathamozhy and Monday market respectively. The maximum of 19 and 14 employees are working in Vadasery and Eathomozhy regulated market whereas the minimum of 8 and 9 employees are working in Kulaskeharam and Thoduvatty regulated markets respectively.

1.11.3 Sampling Procedure

The sample size of the farmers are determined on the help of the formula $n = \frac{N}{Ne^2 + 1}$ whereas N is the population and e is the expected error ie 5 percent level. The samples size of the farmers is $n = \frac{2364}{2364(0.5)^2 + 1}$ which comes to 342 farmers. The stratified proportionate random sampling was followed to distribute the sample size of farmers among the population. The census method was adopted to determine the sampling plan to select the number of employees working at six regulated markets. The distribution of sampled farmers and employees are shown in Table 1.4.
TABLE 1.4
Distribution of Sampled Respondents

<table>
<thead>
<tr>
<th>Sl.No.</th>
<th>Blocks</th>
<th>Number of Respondents in Farmers</th>
<th>Employees</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Vadasery</td>
<td>84</td>
<td>19</td>
</tr>
<tr>
<td>2.</td>
<td>Eathamozhy</td>
<td>63</td>
<td>14</td>
</tr>
<tr>
<td>3.</td>
<td>Monday market</td>
<td>59</td>
<td>12</td>
</tr>
<tr>
<td>4.</td>
<td>Thoduvatty</td>
<td>47</td>
<td>9</td>
</tr>
<tr>
<td>5.</td>
<td>Kaliakkavilai</td>
<td>46</td>
<td>11</td>
</tr>
<tr>
<td>6.</td>
<td>Kulasekharam</td>
<td>43</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>342</strong></td>
<td><strong>73</strong></td>
</tr>
</tbody>
</table>

Out of 342 farmers, 84 and 63 farmers are belonging to Vadasery and Eathamozhy regulated market respectively. The minimum of 43 and 46 farmers are belonging to Kulasekharam and Kaliakkavilai regulated market respectively. As a maximum of 19 and 14 employees are selected from Vadasery and Eathamozhy regulated market respectively. As a minimum of 8 and 9 employees are selected from Kulasekharam and Thoduvatty regulated market.

1.11.4 Data Collection

The required data for the study was collected with the help of interview schedules. The separate two schedules were prepared for farmers and employees. The schedule for farmers consists of four important parts. The first part covers the profile of farmers and their marketing practices whereas the second part of the schedule focuses on the motivational factors to choose the regulated markets. The third part of the schedule discusses the level of expectation and perception on services from the regulated market. The final
part of the schedule includes the problems encountered by the farmers and the expected remedial measures to enrich the services offered by the regulated markets.

The second interview schedule for employees consists of three parts. The first part includes the profile of the employees and their perception on the functioning of regulated markets whereas the second part focuses on the problem in the regulated market. The third part consists of the suggestive measures to enrich the performance of regulated market.

The pilot study was conducted among the 50 farmers and 10 employees at Vadasery regulated market. Based on their feedback, certain modification, additions and simplification were carried out. The final schedules were prepared and used to collect the required data to fulfill the objectives of the study.

1.11.5 Framework of analysis

For analysing the data collected during the investigation, the following statistical tools were used. They are based on the nature of the data and the relevance of the information required fulfilling the objectives of the study.

1. Growth Rate Analysis

The growth rate analysis was carried out to assess the growth performance of Regulated Markets in Kanyakumari district. The data related to various aspects of the Regulated Market from 2001-2002 to 2010-2011. The annual growth rate was computed by
\[ y = a + b_1 x_1 + e \quad \text{(Chinnappa and Reddy, 1999)} \]

Where
- \( y \) = Performance variable
- \( x_1 \) = period (year)
- \( b_1 \) = regression coefficient
- \( a \) = intercept and
- \( e \) = error term

To compute the compound growth rate, the exponential function of the form mentioned below was used

\[ Y_t = AB^tV_t \quad \text{…….. (1)} \]

Where,
- \( Y_t \) = performance variable
- \( t \) = time
- \( v_t \) = error term
- \( A \) = \( Y \) in the base of year
- \( B^t \) = \( 1+g \)
- \( g \) = being the constant rate of growth to be estimated.

Taking logarithm of (1) gives

\[ \log Y_t = \log A + (\log B)^t + \log v_t \quad \text{…….. (2)} \]

By defining
- \( Q_t \) = \( \log Y_t \), \( X_t = a \), \( a=\log A \), \( b = \log B \)
- \( V_t \) = \( \log V_t \)
- \( Q_t \) = \( a + b x_t + v_t \quad \text{…….. (3)} \)

We obtain the value of \( A \) and \( B \) of (1) using the above definitions value of ‘\( g \)’ obtained as follows

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Log $B = b, \ B = \text{Antilog}\ b$

$B = 1+g, \ g = B – 1$  (Hiremath et al., 1996)

2. Analysis of Variance (ANOVA)

The analysis of variance examines the differences in the mean values of the dependent variable for several categories of a single independent variable or factor. The ANOVA may be One-way or N-ways. It depends upon the number of dependent variables or factors discussed simultaneously. If only one variable or factor is discussed, it is called as One-way ANOVA. When the number of dependent variables discussed simultaneously is two, it is a Two-way ANOVA.

In order to find the significant difference among the groups regarding one or more than one factor, the ‘F’ statistics have to be calculated through the ANOVA.

$$F \ \text{ratio} = \frac{\text{Variance between groups}}{\text{Variance within groups}}$$

is calculated and compared with the respective table value of ‘F’ at the required level of significance (Malhotra, 2004). In the present study, both the One-way and the Two-way ANOVA have been used.

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3. Factor Analysis

Factor analysis is a general name denoting a class of procedures primarily used for data reduction and summarisation. In research, there may be a large number of variables, most of which are correlated and which must be reduced to a manageable level. Relationships among sets of many interrelated variables are examined and represented in bonus of a few underlying factors. Factor analysis is somewhat similar to multiple regression analysis, in that each variable is expressed as a linear combination of underlying factors. The amount of variance a variable shares with all other variables included in the analysis is referred to as communality ($H^2$). Factor loading indicates the level of correlation between variables associated with the factor. The eigen value represents the level of variance explained by each factor. The factor scores are composite scores estimated for each respondent on the derived factors. The cunbach alpha indicates the reliability of the variables in each factor. (Arun, 1998)\(^74\) In the present study, the factor analysis was used for data reduction purpose.

4. Multiple Regression Analysis

Multiple regressions involve a single independent variable and two or more independent variables. (Ray, et al., 2002)\(^75\) The multiple regression answers the following questions;

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Can variation in dependent variables be explained in terms of variation in independent variables?

How much of the variation of dependent variables can be explained by independent variables?

What is the contribution of independent variables in explaining the variation in the dependent variable.

The general form of the multiple regression model is as follows:

\[ Y = a + b_1x_1 + b_2x_2 + \ldots + b_nx_n + e \]

Where y – dependent variable

x_1 x_2 \ldots x_n independent variables

b_1, b_2 \ldots b_n regression coefficients of independent variables

a – intercept and

e – error term

The regression analysis was used (Shajahan, 2005)\textsuperscript{76} to find the impact of the independent variable in the present study.

**5. Discriminant Analysis**

Discriminant analysis is a technique for analysing data when the criteria or dependent variables are categorical and the predictor or independent variables are interval in nature. The objectives of discriminant analysis are as follows.

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\textsuperscript{76} S. Shajahan, (2005), A Study on the Level of Customers’ Satisfaction on various Modes of Banking Services in India”, *The ICFAI Journal of Bank Management*, 4(1) February, p.79-84.
1. Development of discriminant functions or the linear combination of the predictor or independent variables, which will best discriminate between the categories of the criterion of the dependent variable (group).

2. Examination of whether any significant difference exists among groups, in terms of the predictor variables

3. Determination of which predictor variables contribute to most of the inter group differences,

4. Classification of cases to one of the groups based on the values of the predictor variables and

5. Evaluation of the accuracy of classification

The un-standardised canonical discriminant functions (Subburaj et al., 2030)\textsuperscript{77} were estimated by

\[ z = a + b_1x_1 + b_2x_2 + \cdots + b_nx_n \]

Where \( z \) – Discriminant criterion
\( x_1, x_2, \ldots, x_n \) Discriminant variables
\( b_1, b_2, \ldots, b_n \) Canonical discriminant co-efficients

The Wilk’s Lambda was calculated as a multi-variant measure of group difference over discriminating variables. The relative discriminating power of the variables was calculated by

\[ I_j = K_j \left( \overline{X}_{j1} - \overline{X}_{j2} \right) \]

Where \( I_j \) – the important value of the \( j^{th} \) variable
\( K_j \) – unstandardised discriminant coefficient for the \( j^{th} \) variable

\( \bar{X}_{jk} \) – Mean of the jth variable for the kth group

The relative importance of a variable \( R_j \) is given by

\[
R_j = \frac{I_j}{\sum_{j=1}^{n} I_j}
\]

6. Index Preparation

The descriptive variables or the group of descriptive variables are measured with the help of an index (Puhazhendhi and Satyasai, 2002)\(^78\). The index was prepared by

\[
I = \frac{\sum_{i=1}^{n} S_i}{\sum_{i=1}^{n} MS_i} \times 100
\]

Where,

- \( I \) = index
- \( S_i \) = Score obtained in each variable
- \( MS_i \) = Maximum score of each variable
- \( E_1 \ldots n \) – number of variables in a particular measurement

7. SERVQVAL Score

The SERVQVAL score represents the perception and expectation of the customers concerning in any of their purchase various aspects. (Gagliano and Hath, 1994)\(^79\) The service quality of any business or service organisation is measured with the help of the SERVQVAL score or the SERVPERF score. In the present study, the service quality of Regulated Market is measured by the


SERVQVAL score. (Paswan et al., 2004) It represents the gap between the farmers’ perception and expectations of various aspects in a Regulated Market.

1.12 LIMITATIONS OF THE STUDY

The study is subjected to the following limitations:

1. Only market arrivals of selected major commodities are included to evaluate the performance of the regulated markets.

2. The memory bias of the respondents on account of their illiteracy often made them self-contradicting their stand. However, an attempt has been made to minimise the recall bias through repeated questioning.

3. The descriptive variables are quantified with the help of likert five point scale.

4. The linear relationship between the dependent and independent variables are assumed.

5. The scope of the study is confined to only Kanyakumari district.

1.13 CHAPTERISATION

Chapter-I

Chapter I focuses on the importance of the study, reviews various previous studies, research gap, proposed research model, objectives of the study, methodology, limitations and chapterisation.

Chapter – II

Chapter II covers the trend and growth rate of market arrivals, revenue from market arrivals, income and expenditure and the performance of various regulated markets in Kanyakumari District.

Chapter – III

Chapter III presents the profiles of the farmers, their entrepreneurial behaviour, the cropping pattern, and the marketing practices of the farmers.

Chapter – IV

Chapter IV discusses the attitudes, perceptions and expectations of the system and services of the Regulated Markets, problems in the regulated markets and expected measures to enrich the services of regulated markets.

Chapter – V

Chapter V discloses the profile of the employees, their view on the working of the regulated markets, problems faced by the employees and the suggestive measures to enrich the service of the regulated markets.

Chapter – VI

Chapter VI presents the findings, conclusion and the suggestions for the effective functioning of Regulated Markets.