CHAPTER 2

REVIEW OF LITERATURE

2.1 INTRODUCTION

In traditional methods of sale of agricultural produce minimum amount of share in the consumer spending reaches to the producer, as different types of middlemen exist between the farmer and sale of the produce. These are called as indirect channels of marketing in the current scenario. But with the passage of time government has taken serious steps to remove the middleman in selling of agricultural produce. So the regulations on agricultural trade started and APMC act came into force. Under it government directly monitors the marketing of agricultural produce by making provisions for direct sale of agricultural produce in the form of regulated markets. Regulated market facilities as social institutions operate in the country to provide fair trade practices in agricultural marketing systems in India. So these markets existed for the sole objective of bringing the upliftment in the agricultural trading class especially the farmer, who was deprived of the reasonable price for selling his produce by other means of sale, and to remove the middleman in between the farmer and sale of the produce. Almost the states in India have implemented the APMC acts in their respective states except some states and have been successful in attracting the farmer and trader class to the regulated markets.

In agricultural country like India a majority of the population depend on agriculture and its allied activities. A market is the ultimate platform for earning livelihood for the farmer by selling it at remunerative
prices. Being an outlet for such kind of selling, these markets need to perform according to expectations. These types of markets perform on the basis of facilities and delivery available in the premises and outside the regulated market. So different type of studies and research has been done so far by the academicians, researchers, government and non-government institutions to know the real performance and constrains in the regulated market system in the country and to bring into light the real agricultural marketing situation prevailing in the country. The literature presented below is an eye opener for the current study and will guide further to know more and more about the performance of these regulated markets. In order to get a proper understanding of the previous research and to relate the present research objectives the literature has been discussed in the following areas.

2.2 Need, Growth and Characteristics of Regulated Markets

2.3 Physical Performance of Regulated Markets

2.4 Financial Performance of Regulated markets

2.5 Problems and Policy Measures

2.2 NEED, GROWTH AND CHARACTERISTICS OF REGULATED MARKETS

Some of the important components of regulated markets are their need, growth and characteristics, which is considered to be a fundamental part of their overall integration and development in the country. In order to get the knowhow of regulated markets one has to study these basic elements in detail.

Market integration is viewed as a continuum characterized by three analytically distinct yet empirically inter-related dimensions: cognitive orientation, structural inclusivity and modes of interaction. As institutions become more integrated they grow in size to include a greater number of
organizations dispersed over a wide geographical area. They tend to develop broader orientation towards the environment taking the interests of a wide spectrum of organizations into consideration. Internal relations among the members are regulated to ensure cooperation and institutionalize conflicts (Izraeli et al 1977). Government marketing enterprises are sometimes seen in a favorable light because they charge their customers the correct price and give them fair treatment. Against this view must be counted the higher margins they take and the capital and subsidies they receive that must be paid for through taxes. Traders and farmer-traders generally require a simple roof and stalls partly or entirely closed at the sides. Grain sellers prefer closed premises, as they generally maintain a stock which must be protected against rain (Abbott 1984).

Patil (1989) in the study on marketing of alphanso mangoes in Maharashtra identified four channels viz. producer to consumer (direct sale), producer to cooperative-consumer (cooperative sale), producer to commission-agents to wholesalers to retailers to consumer (middle men sales) and producer to pre-harvest contractor to commission-agents to wholesalers to retailers to consumer (pre-harvest contract sale). The average price of alphanso mangoes received by the growers was only Rs. 29.40 per crate. Finally he concluded that the direct sale to consumer was the most profitable and the one through pre-harvest contractor was the least profitable. Patel et al (1997) in their study on marketing efficiency of Anand vegetable market in Gujarat reported that lack of storage facilities, delay in payment of sale proceeds, high cold storage charges, monopoly of few middlemen and need of timely display of these perceptive products etc. were the major problems faced by the cabbage and cauliflower growers.
Narappanavar & Bavur (1998) examined the problems in storage, transportation and dissemination of market information in potato marketing in Dharwad, Karnataka and found that farmers were not facing several problems in transportation. Similarly, farmers were making suitable arrangements for storage of potato on the farm itself. However, about 35 percent of the farmers complained on illegal deductions while selling the produce at the market in the form of weighment charges. The other problems noticed were lack of grading facilities, arbitrary hamali charges, low prices and variations in output price and high commission charges. Therefore, it is suggested that there is need for ensuring improved storage to cities and purchase of potato at the local market by the government at the time of heavy arrivals to assure the remunerative returns to the potato growers. The findings of (Mbanasor & Nwankwo 2001) stated that the poor net-marketing-margin received by the producer showed the need of efficient marketing system within the enterprise. The producer had the least marketing efficiency of 4.8 percent as against 15.85 percent for retailers and 37.35 percent for wholesalers.

Public sector extension has to play a much greater role in the changing agricultural situation in India than it has played so far. Public sector extension has to provide information and advice to farmers not only on technologies, but also on solutions to specific field problems, markets, prices, quality, and implications of policy changes. Public sector extension also has to organize farmers to take collective action to adopt new technologies, solve problems, and increase income from agriculture. To perform these roles, public sector extension has to reorganize its structure and functions by embracing wider expertise, decentralizing management, and nurturing a culture of organizational learning (Sulaiman & Ban 2003). Balappa & Hugas (2003) studied following four important marketing channels were identified in marketing of vegetables in different markets. Channel-I: Producer-seller → Village merchant → Wholesaler → Retailer → Consumer, Channel-II:
Producer-seller → Commission agent → Wholesaler → Retailer → Consumer, Channel-III: Producer-seller → Commission agent-cum-Wholesaler → Retailer → Consumer, Channel-IV: Producer-seller → Consumer. Out of the total marketing cost incurred by the product-seller, the commission charge (35.95 percent) accounted for major component followed by expenditure on transportation (32.04 percent) and cost of packing (17.35 percent) in the overall study area, Similar pattern was observed in all the markets except Belgaum and Dharwad markets wherein transportation cost was the major component followed by cost on packing and commission charges. These three components alone accounted for about 85.34 percent of the total marketing cost incurred by the farmers.

Dorward et al (2004) discussed that economists embroiled in the state-led versus market-led development debate on policy in agriculture for the poor hold two broad views: ‘market failure’ and ‘embedded markets’. Each has a different conception of what constitutes a working market and, subsequently, a different view of the appropriate role of the state. The policy implications for each are also different. Views of partial liberalization and weak institutions recognize the importance of state support for institutional public goods necessary for markets to work. However, the market remains the dominant mode of organisation in advanced economies and is, by implication, the most efficient. The central challenge is to extend this ‘working’ market situation to poorer countries and, in particular, to their poorest communities; in short, to ‘make markets work for the poor’. The second view suggests that, in poor economies, markets will fail if states do not coordinate them beyond a narrow range of public good interventions. Improving mechanisms for the coordination of markets, thereby maximizing growth in agriculture, is the main key to poverty reduction because it increases the wealth generated by the agricultural sector. Mahaliyanaarachchi & Bandara (2006) found that agricultural extension in most of the countries both in the developing and
developed world faces a number of challenges today due to rapid commercialization of agriculture. Agriculture is no more just farming, it is a business. Today agriculture includes not only production but also post harvest activities, processing, marketing, advertising and market promotions, information communication technology, etc.

The findings of Nchouji (2006) in the study showed that there is considerable organization in the marketing process and the intermediaries provide productive marketing services at reasonable costs given their technical environment. The study further showed that farmers received 78, 79.4, 79.8 and 83 percent of the prices respectively from the four major staple food grains. The analysis of inter-market price relationships revealed price spread in excess of transfer costs in the study area, implying imperfections in the markets. Sometime as many as several intermediaries are involved in the distribution channels providing services and receiving a reasonable return for their investment of time and money. Some changes may enable marketing cost to be reduced, such as improving the layout and quality of physical facilities in the markets and road improvement and the construction of new feeder roads.

Meijerink (2007) highlighted the vital role of agriculture in sustainable growth and development by evolving appropriate strategy and policy. The attitudes of government and the generality of the people must be changed positively towards cooperative development. Government should create an enabling environment for holding and managing the means for production and marketing in the process of developing under-privileged and disadvantaged areas. The research workshop on collective action and market access for smallholders aimed at enhancing the conceptual and empirical understanding of the role of collective action institutions (e.g. rules and norms, producer organizations, cooperatives, etc.) in improving market access
for the rural poor. The common theme was that collective action brings certain advantages into commercialization activities (Markelova & Meinzen-Dick 2006). Further first and foremost, acting collectively for market access can correct some of the market imperfections that are pervasive in the developing world. The presence of high transaction costs, information asymmetries, and technological gaps can be overcome by farmers organizing around these activities.

Planning Commission (2007) stated that the agricultural markets lack even basic infrastructure at many places. When the APMCs were first initiated there was significant gain in market infrastructure development. However, this infrastructure is now out of date, especially given the needs of a diversified agriculture. At present only one-fourth of the markets have common drying yards, trader modules, viz., shop, godown, and platform in front of shop exist in only 63 percent of the markets. Cold storage units are needed in the markets where perishable commodities are brought for sale. However they exist only in 9 percent of the markets at present and grading facilities exist in less than one-third of the markets. The basic facilities, viz., internal roads, boundary walls, electric lights, loading and unloading facilities, and weighing equipment are available in more than 80 percent of the markets. Farmers’ rest houses exist in more than half of the regulated markets. Covered or open auction platforms exist in only two-thirds of regulated markets. It is evident from the above that there is considerable gap in the facilities available in the market yards. Also the farmers have to deal with non-transparent methods of price discovery and there is often lack of auction of graded items. Some modern markets with electronic auctioning have been introduced, but they are the exception. A major modernization of this aspect of the infrastructure is urgently needed.
Direct marketing encourages farmers to undertake marketing of farm produce at the farm gate and obviates the necessity to haul produce to regulated markets for sale. Direct marketing enables farmers and processors and other bulk buyers to economize on transportation costs and to considerably improve price realization. In Direct Marketing the share of producer is generally 10-20 percent higher as compared to the traditional marketing channels (Planning Commission 2007).

A network of regulated markets was created to promote organized marketing of agriculture produce, except Kerala and Manipur; all the other states had enacted State level APMR Acts. The geographical distribution of regulated markets was skewed towards large states: larger the size of area, more the number of markets. States like Andhra Pradesh, Bihar, Maharashtra, Madhya Pradesh, Uttar Pradesh and West Bengal had share of more than 50 percent of total number of markets. The regulated markets handled about 20 percent of total marketed surplus (Chadha et al 2008). Further efficient agricultural markets are important to transmit the price signals effectively to producers to take decision on production, sale, storage and input purchases. Functioning efficient agricultural markets would protect the consumers through reasonable price for their produce. Shilpi & Umali-Deininger (2008) studied the market facilities and agricultural marketing and concluded with econometric estimation using data from the Indian state of Tamilnadu confirms the theoretical prediction that the probability of selling at the market increases with an increase in the market access index which in turn improves due to an improvement of market facilities or due to a decrease in travel time to markets. The regression and simulation results indicate that market access has a larger positive marginal impact on the propensity to sell at the market by the poorer farmers compared with the large landowners.
Ifeanyi-Obi (2008) stated that improving sales promotion of agro-products is an indirect way of improving or encourages more production in farm products. It is therefore recommended that agro-industries should employ sales promotional activities in order to boost their sales thereby increasing demand of farm products. Also suggestion on how to improve sales promotion given by the respondents should be applied in conducting sales promotion in order to have successful and profitable sales promotion.

Agwu et al (2008) while viewing the actors in the agricultural research, education, extension and farmers system as equal partners, whose interaction/linkages determine the innovative performance of the economy, demands that the government should re-examine the polices that determine the legal position, modus-operandi and management style of the actors. Extension should be more inclusive in documentation and transfer of innovations, expand technology transfer mandate, facilitate farmer innovations and build capability to analyze the same for social and economic development. Landes (2008) came with the findings that since 2000, the policy atmosphere seems to be improving and speculation in agriculture to be strengthening, as evidenced by higher market prices and input subsidies for farmers. Movement and storage restrictions on essential commodities, like wheat and rice, are becoming less common, restrictions on firm size have been largely removed, State marketing laws are evolving to accommodate private marketing channels, and taxes on agricultural products are being reduced and simplified. The power, transport, and other infrastructure problems will likely be solved only in the longer term.

The study of (Kutigi 2009) revealed that all market in the study is characterized by marketers selling more than one type of the grain at a time and transportation and middlemen are the major constraint to marketing of the grains. It is recommended that credit facilities should be provided to the
Marketers by financial institutions or related bodies, lock-up shops should be
provided in the markets so that the marketers can leave the remaining goods
and female adult education centers should be provided to enhance the
marketing of grains in the study area. Aggrey (2009) studied the patterns of
agricultural growth in Uganda and the results revealed that changing structure
of demand with increasing per capita income levels induces changes in
production structure, but at the same time, changes in technological
conditions of production, increasing scale and concentration of production
and institutional arrangements necessitated by changes in location of
production and population, also have significant influence on the pattern of
these changes. The domestic production structure will need to respond to the
changing demand pattern.

Markets play an important role in improving the incomes of poor
farmers. Thus improving market access requires a range of interventions by
the state. These include the provision of marketing infrastructure (depots,
auction pens, telecommunications infrastructure, etc.); information (on prices,
markets, buyers, grades, etc.); extension (technical production issues, quality
requirements, financial and market knowledge) and research (on a wide range
of issues) (Senyolo et al 2009). As found by (Landes & Burfisher 2009) the
measures to improve agricultural marketing efficiency in India can
substantially and broadly benefit India’s economy. Advances in marketing
efficiency has shown to have the potential not only to increase income and
employment economy wide, but to provide positive price impacts for both
agricultural producers and consumers and benefits to all households
particularly for rural and low-income households.

The underutilized fruits like Aonla, Tamarind, Karonda, Citron,
Jackfruit, etc. are the main sources of livelihood for the poor and play an
important role in overcoming the problem of malnutrition. A large number of
these fruits can grow under adverse conditions and are also known for their therapeutic and nutritive value and can satisfy the demands of the health-conscious consumers. However, some of these fruits are not acceptable in the market in fresh form due to their acidic nature and astringent taste. Hence, there is a need to concentrate on research efforts in diversification and popularization of such underutilized fruit crops (Gajanana et al 2010). Albayrak (2010) found that in order to prevent the aforementioned, trade exchanges and wholesale market that act as exchanges, as well as producer’s organizations need to be powerful. Protecting all stakeholders especially the producer and the consumer against speculation, unfair competition and exploitation in the agricultural product markets in Turkey is of importance. Hence, it is necessary to enforce the laws that regulate the marketing activities of the relevant institutions and competition policies in the market.

By leveraging on the available technology, payment systems such as mobile-based and card-based can extend the convenience and will revolutionize the transaction environment with the agricultural value chain (Pandey 2010). Emodi & Madukwe (2010) concluded that to achieve increase in rice production, the actors should be encouraged through policy to use more varieties of linkage mechanisms to enhance networking and knowledge sharing and learning. Policies and programs to strengthen innovative capabilities among stakeholders in rice innovation system should be pursued.

The finding of study conducted by (Ogunleye et al 2010) indicated that majority of the cassava farmers had low level of education but are well experienced in cassava production. Personal savings was their major source of finance and that the major source of marketing information for the famers were trader hence, the needs for agricultural extension agents to assist in the area of marketing so that farmers will be encouraged to adopt innovations.
Cassava farmers are therefore in great need of assistance in marketing of cassava and its products.

According to Ministry of Agriculture (2010) the government has been playing an important role in developing the agricultural marketing system in the country. The Department of Agriculture and Cooperation has three organisations dealing with marketing under its administrative control, namely, the Directorate of Marketing and Inspection (DMI), Faridabad, Chaudhry Charan Singh National Institute of Agricultural Marketing (NIAM), Jaipur, and Small Farmers Agri-Business Consortium (SFAC), New Delhi. The agriculture sector needs well-functioning markets to drive growth, employment, and economic prosperity in the rural areas of the country. Accordingly, this Ministry suggested amendments to the state APMC Acts for the deregulation of the marketing system in the country in order to promote investment in the marketing infrastructure, motivate the corporate sector to undertake direct marketing, and to facilitate a national integrated market.

Findings from the study farm operator benefits from direct marketing strategies: How Does Local Food Impact Farm Financial Performance?, by Park et al (2011) suggest that obtaining an internet connection and accessing the internet for farm commerce increases the likelihood of using intermediated marketing outlets. Using the Internet for farm commerce and operating diversified farms (more enterprises) is associated with increases in the likelihood that the farmer relies on direct to consumer marketing outlets. Finally, an accurate evaluation of the projected earnings from the direct-to-consumer marketing outlet must account for selectivity effects. The market integration and efficiency can also be improved by making up to-date market information available to all participants through various means, including a good market information systems, internet and good telecommunications facilities at the markets. Thus, efforts are needed in
the direction to capitalize on our strengths and remove constrains to meet the goal of moving towards systematic supply chain & logistics management which will lead to agricultural growth and development in India (Halder & Pati 2011).

The results shown by Chizari & Hajiheidari (2011) in their study showed that price policy of the market regulation as like as guaranteed price policy is the most important governmental policies that affect on the maize market margins and therefore it is necessary to try to make precious decisions about it in order to have Stable Marketing Margins (SMM) and to prevent from the fluctuations of price and marketing margins. Stimulating and motivating market participation such as the farmers, importers, wholesalers and brokers for trading in agricultural commodity exchange via establishing new cooperatives can stabilize the marketing margins. Researchers have to assist farmers in indentifying improved varieties with desirable market traits, appropriate agronomic and post-harvest management practices including drying methods, sorting and grading techniques, as well as processing technologies. Extension workers and other development practitioners have join hands with the farmers in addressing marketing problems such as: easing barriers to entry into markets by organizing ginger producers into producers and marketing cooperatives (Geta & Kifle 2011).

Lashgarara et al (2011) found that one of the most important factors for agricultural development is marketing of agricultural products. Information, as the most important facilitator and main core of the marketing system, has an effective role in increasing the marketing system efficiency. Today, farmers need access to updated and exact information in order to improve the quality and quantity of the agricultural products marketing. Information and communication technology (ICT), by accelerating the information delivery, have a key role in agricultural products marketing.
Karahocagil & Ozudogru (2011) studied the agricultural development cooperatives in Turkey; the results revealed that the member farmers and traders were happy with the agricultural cooperatives, as the cooperatives help the members by disseminating information on various issues like production, input gathering, marketing, processing etc.

The findings of Kirimi et al (2011) imply that access to markets may no longer be meaningfully defined in terms of distance to town markets, but rather in terms of the number of buyers competing to buy farmers’ maize in the villages as well as farmers’ ability negotiate and obtain a remunerative price that represents a high proportion of the wholesale price in regional markets. Further implies that there is scope for training farmers in order to improve their understanding of market behavior and gain both confidence and negotiation skills in interacting with traders. Reddy (2011) analyzed that the agricultural development in the less developed districts is a big challenge as they are resource poor regions and crops are grown under more risky agro-ecological conditions, over the time they become specialized in dry land crops, which are technologically less productive and high risk crops, farmers are deprived of physical and financial capital, higher costs in developing, delivering and accessing services (for input or output markets, or research, extension from both public and private sectors), greater competition in their output markets make their agriculture unsustainable.

Begum (2011) analyzed that agricultural marketing continued to be plagued by many market imperfections such as inadequate infrastructure, lack of scientific grading system, defective weightiest and so on. The basic objective of regulating the marketing of agricultural products was to bring both producer and buyer/trader closer and to the same level of advantage.
The results of the study by Chogou & Gandonou (2012) indicated that many farmers prefer to sell under contract rather than to sell freely in the market because itinerant traders provide them with credit to accompany the contract. How the patterns of the modes of transaction will be altered if farmers are offered an alternative source of credit, in addition to the provision of PMIS, remain an open question. The logit regression analysis by Zivenge & Karavina (2012 showed that producer price was the major determinant of market choice among farmers. Other factors such as ownership of cell phone significantly determine the market choice. This study recommends that farmers should develop effective mechanisms for collaboration and linkages, invest in market intelligence, and create a sea change in thinking and practice, and building trust. This will enable them to enhance their bargaining power on prices.

2.3 PHYSICAL PERFORMANCE OF REGULATED MARKETS

One more area in focus should be the physical efficiency of the regulated markets, as an efficient marketing system is effective agent of change and an important means to satisfy the market participant. The physical performance is viewed in terms of physical facilities available in the regulated markets and quantity of arrivals in the regulated market.

Awasthi et al (1985) studied the relationship between arrivals and prices of groundnut in three markets of western region of Madhya Pradesh. They observed an abrupt and sudden decline in the price of groundnut, after the harvest period and subsequent moderate prices increase up to February. The prices after this period increased substantially till August. However, researcher reported a positive association between prices and arrivals of the produce during the study period.
Malathi et al (1988) assessed the degree of concentration among buyer and seller of paddy in Kallakurichi regulated market of South Arcot district of Tamilnadu for different months during 1984-85. The Gini ratio was less than 0.5 in all the months for both buyers and sellers. They concluded that in general, there was less concentration. They further observed that in each month Gini ratio for buyers was smaller than sellers. Sujatha et al (1989) while analyzing the competitiveness in marketing of important commodities in Bangalore regulated market analyzed the market share of the top ten wholesaler/commission agents. Further, they employed Gini ratio technique to explain the extent of inequality in the distribution of volume of business among the traders. The Gini coefficients were found 0.33 and 0.45 for onion and potato and 0.17 and 0.21 for Rice and Ragi respectively during 1986, which indicated the existence of perfect competition in the market for food grains compared to onion and potato crops.

Naik et al (1990) studied the short term and long-term variation in the prices and arrivals of groundnut in Gadag and Ranebennur regulated markets in Karnataka. The results indicated that the arrivals were high in September to October and April to May in Ranebennur market and during October to January in Gadag market. They concluded that farmers sold bulk of their produce immediately after their harvest. The analysis of seasonal pattern in price showed the presence of seasonality over month and this pattern over years in both markets. Arya (1991) analyzed the spatial integration of four markets in Gujarat using zero order prices series correlation analysis. She noticed significant and high correlations in the price movements between the markets and concluded that the markets under consideration were integrated in terms of price movements.
Mundinamani et al (1991) used monthly time series data on market arrivals and prices of groundnuts for the period 1960/61-1983/84 collected from the regulated markets of Gadag and Hubli to estimate indices, trend equations and coefficients of variation. The seasonal pattern of market arrivals and the resulting short run instability in groundnut prices could be eliminated by using a package of measures. In the long run, prices are influenced not only by market arrivals but also by other factors such as the general rise in prices and the steady rise in demand for groundnut products. Thakur & Shandil (1993) conducted a study on steps to increase market arrivals and efficiency of regulated markets in Himachal Pradesh. The study clearly showed the scope for large-scale increase in agricultural produce and market arrival in the regulated markets in future. Further the involvement and competition of three groups that is Private traders, Cooperatives and Government agencies in the regulated markets will eliminate the malpractices of traders and middlemen and help the free market economy function more efficiently to attract and fetch increased volume of market arrivals for sale in the regulated market.

Zubaidi & Muzafar (1994) examined the price efficiency in pepper markets in Malaysia. Co-integration tests of spatial price relationships were applied to weekly black pepper and white pepper prices at six regional markets in Sarawak, Malaysia using data for the period 1986 to 1991. The results revealed that the regional pepper markets in Sarawak were highly integrated. Price changes are fully and immediately passed on to the other markets. The low transportation costs and risk associated with transportation may explain the degree of co-integration observed. Chahal et al (1997) in their study on marketing of tomato in Amritsar market of Punjab identified the following two major channels: Channel-I: Producer-Wholesaler-Retailer-Consumer, Channel-II: Producer-Retailer-Consumer. The price received by
the producer was found to be higher in channel-II (Rs.145.26/Quintal) over channel-I (Rs.117.91/Quintal).

Patel et al (1997) in their study on marketing efficiency of vegetables in Anand market, Gujarat found the attentiveness of market power with 10 big firms in the case of both the cabbage (28 percent) and potato (20 percent). About 28 percent of the marketing firms performed two or three marketing functions representing their vertical combination. However, 12 firms were having horizontal integration. They concluded that however market was regulated since long, some malpractices still existed. The study reported that lack of storage facilities, delay in payment of sale proceeds, high cold storage charges, domination of few middlemen and need of timely display of these sensitive products etc. were the major problems faced by the farmers.

The rural transportation network exerts strong influence on the efficiency of agricultural marketing system. Along with transportation costs to the nearest market, the characteristics of the nearest market can also influence the transaction costs of taking products to markets. For instance, a highly congested market with few facilities can add substantially to waiting time, product deterioration and losses, and costs to farmers and traders (Badiane & Shively 1998).

Selvaraj & Sundaravardarajan (1998) conducted study on performance and attitude towards regulated markets in Tamilnadu, with the objective of knowing the factors determining the farmers’ perception towards functioning of regulated markets. The results 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 percent) and Keeramangalam regulated market (30.69 percent). The lowest growth rate of arrivals and receipts were
noticed in Pudukottai market (1.25 percent) and Aranthangi regulated market (4.65 percent).

Mundinamani et al (1999) studied trends and seasonality in market arrivals and prices of groundnut in Karnataka. They employed orthogonal polynomial regression to analyse the trends in arrivals and prices of groundnut in selected markets. The trend pattern of arrivals of groundnut in the study markets was mixed one and that of prices was almost identical. As far the price trend pattern was concerned a continuous upward movement was seen in all the markets without any exception. This was mainly caused by increase in population leading to an increase in demand for edible oils, general inflationary pleasure and failure of production of groundnut to keep pace with the expanding demand for their products. Zanias (1999) analyzed the seasonality and spatial integration in agricultural (product) markets especially the soft wheat market of five European Union member states (France, Italy, Belgium, Germany and UK). Co-integration analysis was made use of by incorporating the seasonal components of the agricultural price series in testing procedure. The results showed that some of the markets turn out to be integrated, while in some cases a unified market cannot be assumed.

Gaddi et al (1999) conducted study on growth performance of oilseed crops in India. They used co-efficient of variation technique to measure the contribution of area and productivity towards increase in production of crops. The production instabilities were higher when compared to yield and area instabilities. The findings of the study revealed that area was the major contributor of output in the case of Linseed (129.45 percent), Sunflower (97.90 percent), Soybean (82.56 percent) while it was productivity in Sunflower (185.16 percent), Sesamum (112.26 percent), Niger Seed (106.79 percent), Castor seed (63.44 percent), groundnut (57.29 percent) and Rape Seed (34.09 percent). They pointed that provision of remunerative
prices to farmers, supplying various inputs and provision of good marketing facilities as the most promising approach to achieve continued growth in oilseeds production.

Handignur & Kunnal (1999) in the analysis of market power concentration by the intermediaries revealed that the top four sellers and buyers during lean period controlled more than 50 percent of the quantity of Chickpea transacted in all the markets with exception of Bhalki market. The results of Lorenz coefficient of inequality indicated that the high Lorenz value noticed in some of the markets was the result of few large sized farms sharing the major quantity of produce transacted and turnover made by them. Shivaraya (2000) used Zero Order Correlation Matrix to study the potato and onion markets in North Karnataka. He observed a strong integration among all the selected markets both in Onion and Potato except Bijapur in Onion. In case of Potato, the correlation coefficient between wholesale prices of selected markets found to be higher than 0.93 indicating greater integration among Belgaum, Dharwad and Hubli markets.

Patel (2000) studied the market integration and pattern of market arrivals and revealed that all markets have around 40 to 75 percent of the total market arrivals of rapeseed-mustard in peak marketing season. Whereas prices were lower by Rs. 20 to 60 per quintal over mid and lean marketing season in Mehasana district of Gujarat. Further used SND test (Standard Normal Distribution) to evaluate the existence of ideal market integration. The test revealed that all rapeseed-mustard market pairs were well integrated in Mehasana district of Gujarat with respect to price movement.

Tomek & Peterson (2001) stated that applied economists can assist farmers by providing a framework for evaluating choices and by improving the understanding of price and yield behavior, the full extent of costs, and the nature of the risks they face. It is important to clarify the principles that
undergird individual decisions. Ravikumar et al (2001) 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. Therefore the policy implication lies in encouraging the farmers to dispose their produce at the opportune time to get good remunerative prices. It requires providing finance to farmers and better storage facilities either at village level or at market level so as to spread the arrivals reasonably in the lean months of the year.

Gauraha et al (2002) studied the marketing strategies of rice in Durg market of Chhattisgarh, and observed that mostly the producers bring their produce to the yards of the commission agent, where the auction takes place and purchasers who make the highest bid, purchase the produce. The important marketing channels of rice were Channel-I, Producer to consumer, Channel-II, producer to retailer to consumer, Channel-III, Producer to trader to retailer to consumer. The relevant data relating to marketing cost and margin noted that the expenses incurred by the producer in channels I and II were 9.43 percent of the price paid by the consumer, In channel-II and Channel-III expenses incurred and margin taken by the retailer were 3.23 percent and 5.34 percent respectively of the price paid by the consumer. The total marketing cost were Rs. 30 Rs. 67.12 and 67.68 per quintal of rice sold through channels-I, II and III respectively. The marketing cost thus varies according to the length of the distribution channel. Shivaraya & Hugar (2002) indicated that the price of onion and potato were mainly influenced by their arrivals in these markets in accordance with the law of demand and supply. The substantial quantity of arrivals during post harvest months of the year led to decline in prices. The development of warehousing facilities and provision of credit to the farmers against warehouse receipts would go a long way in reducing the variation in arrivals and prices. This also calls for dissemination
of market information relating to arrivals, prices, etc, by the respective Agricultural Produce Market Committees.

Jain (2002), while studying the structural and functional aspects of regulated markets in Damoh district of Madhya Pradesh revealed that due to poor infrastructure of regulated markets the attraction of these regulated markets towards producers was not significant considerable. The study also suggested that special attention need to be given to improve the conditions of these markets like providing better storage, transportation, financing and standardization facilities to all the farmers and traders. Moreover the functionaries should be made aware of the benefits and advantages of using regulated markets. Rangi et al (2002) studied the agriculture market infrastructure in Punjab and came up with the findings as: there are 144 market committees in Punjab. The principal yards with these market committees are 156 because fruits and vegetable markets have separate yards for principal markets of the State. During the year 1998-99, there were 252 focal points, 118 sub-yards and 932 purchase centres. Out of these, about 97 percent of the principal yards were pucca whereas the figures show about 66 percent for the purchase centers. About 93 percent and 98 percent of the sub-yards and focal points respectively were having pucca platforms.

Jairath (2002) under the study of institutional reforms-a case study of agricultural markets in India, consummated that there is a wide gap between the consumer price and producer price as there is multiplicity of market fee system, existence of wide variation in the rates of market fee and its burden on the sellers and buyers for different crop produce along with the imposition of fund/cess for market development and other activities. In the end the study suggested for the free flow of trade with negligible and affordable market charges throughout the country. Navadkar et al (2002) in their study on arrivals and prices of vegetables in Gultekadi Regulated
Market, Pune (1978-97) observed inverse relationship between arrivals and mean prices. The correlation coefficients for all the selected vegetables were highly significant at one percent level of probability. The magnitude of correlation coefficient was the lowest to the extent of 0.61 for cauliflower and it was the highest to the tune of 0.90 in the case of bitter-guard.

Jairath (2002) studied institutional reforms- a case study of agricultural markets in India. Results indicated that the multiplicity of market fees system, existence of wide variation in the rates of market fees and its imposition on the buyers/sellers in different types of crop produce and livestock along with imposition of development fund/cess, substantial market charges and entry tax/octroi inflate the cost of produce and widen the gap between the consumer price and producer price. Study suggested that the policy makers, administrators and planners for free flow of agricultural and horticulture produce and livestock throughout the country. Jain (2002) studied structural and functional aspects of regulated market in Damoh district of Madhya Pradesh with the specific object of functional, financial and physical marketing facilities. The 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.

Ladaniya & Wanjari (2003) conducted a study on marketing pattern of ‘Mosambi’ sweet orange in selected district of Maharashtra. It was noticed that, farmers with small Mosambi plantations were more inclined to sell produce to pre-harvest contractors. Market efficiency was higher when farmers themselves marketed fruit in distance market. Dhage & Rahane
(2003) in their study estimated per quintal cost of marketing of grapes in Nashik district; The study revealed that at the overall level the average per quintal cost of marketing worked out to Rs 557.10 and the major items of cost of marketing were packing (35.32 percent) followed by Transport (32.23 percent) and Commission (19.39 percent). Per quintal cost of marketing observed to increase with an increase in size group of holding.

Jyotish & Dinda (2003) observed that the highest values of ‘r’ for wholesale as well as retail price have been found strongly correlated. It was found that the test statistic obtained from all the pair-wise markets are seen to be greater than the critical value at one percent level of significance. All the market pairs in Hooghly district in terms of both wholesale and retail price were shown to be co-integrated. So, this was mainly attributed to close proximity, good communication facilities and good infrastructure availabilities among the market centres in Hooghly district. The high degree of market integration showed that potato markets in the states are competitive and efficient at the wholesale level.

Kaur & Kaur (2003) study conducted to assess the progress and performance of regulated markets in Punjab with the object of ascertaining the role of regulated markets in the marketing development of the state. The results 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. Chahal et al (2004) studied the price behaviour of green peas in Hoshiarpur and Ludhiana (Punjab) markets from 1994 to 2002 and found that correlation
co-efficient of arrivals of pea in Ludhiana market was positive, where as in Hoshiarpur market it was negative. Also found that correlation co-efficient of prices of both the markets were positive.

Government can take a leading role in the agriculture markets by undertaking investment in services, up-gradation of agriculture regulated markets, storage facilities and other necessary infrastructure in the development of marketing system and provision of credit to private traders in the markets. An initiation of government's efforts towards collection of price information and quantities traded in various markets where private sector participation may be difficult, can go a long way in making markets more efficient and integrated (Bathla 2004). Study by Singh et al (2004) reported that out of the 60 principal regulated markets yards in Orissa, godown facilities were available only in 52 percent of the markets, whereas only 48 percent had proper water supply arrangements. Only 30 percent markets had proper electrification. Only 40 percent of the markets had covered and uncovered auction platforms and only 23 percent of the markets had farmers’/traders’ rest facilities. Thus, infrastructural facilities by and large are inadequate in most of the principal market yards which are required for smooth trading. The study further reveals that the majority of farmers’ opinion that there are poor facilities for processing and grading of agricultural produce, cold storages, packing facilities, etc.

Amitkar et al (2004) studied marketing infrastructure in Himachal Pradesh and integration of the Indian apple markets. The data was collected from various secondary sources. Exponential growth model and cuddy Delia Valls method and co-integrated methods were employed. The study revealed that the Chennai, Delhi and Mumbai markets were well integrated indicating existence of price diplomacy among various markets. A study on growth and development of agricultural marketing infrastructure in Haryana based on the
secondary data for the periods 1980-81 to 2002-03 on important parameters relating to marketing infrastructure was conducted by Goyal et al (2004). With regulations of markets, volume of market arrivals of important crops increased substantially over the years. The increase in market arrival results in increased income of the market committee, a part of which is invested for further expansion of market infrastructural facilities in the state.

Pant et al (2004) examined the utilization of infrastructural and other facilities by traders and farmers created in the primary regulated market yard at Kurchamancity in Nagaur district. The utilization of physical facilities such as shops, auction platforms, bank, communication facilities and post office, market committee office etc. by the traders was poor in some cases and moderate in others. Rural warehouse was not utilized by any agency, which shows poor management of market committee. There was no proper canteen facility, toilets, urinals and bathrooms were not cleaned regularly. The awareness among the producer-seller about godowns and rural warehouses, bank facility, communication facility and post office, market committee, farmers rest house, cattle shed with rest house and dissemination of market news was 13.32 percent, 13.32 percent, 20 percent, 40 percent, 40 percent, 53 percent and 26 percent respectively. The utilization of these facilities 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.

Kumar et al (2004) in studying infrastructure of regulated markets in Haryana observed that growth of regulated markets networks seems to be stagnated owing to large spread of growth taken place in the earlier years. The positive growth was mainly due to increased government investment in construction of regulated markets. It is also found that growth rate in sub markets was higher than that of main markets because of the policy of the
government to development of market infrastructural facilities nearer to the farmers door steps in order to provide better market access to farmers. Further it was also found that positive and significant growth in annual turnover of the markets in the state. Rate of annual turnover was grown by 9.2 percent this indicated that greater market arrivals and prices was taken place in the state according to the growth in agricultural production.

Sharma & Thakur (2004) examined the existing market infrastructure, its performance, limitations, and made suggestions for improvements needed for smooth, orderly and efficient marketing of agricultural commodities in Himachal Pradesh. With regard to transportation, the study found a weak correlation between production/marketed supplies of fruits or vegetables and road density. The use of the available markets was limited due to problem of transport from villages to the market. It was also found that banking and communication facilities available in most of the markets were not used for the benefit of the farmers.

The channels in vogue for marketing of Gingelly are: Channel-I: Producer-Wholesaler at the regulated Market-Miller - Oil Wholesaler - Oil Retailer-Consumer. Channel-II: Producer-Village Merchant/Commission Agent-Wholesaler at regulated market-Miller-Oil Wholesaler-Oil Retailer-Consumer. The producers with small quantity of produce are selling the produce through village merchants. The village merchant is entering the market as farmer and sells the produce to wholesaler at market. The wholesaler sells the produce to miller where the produce gets transformed into oil and cake. From there the oil reach the consumer through oil wholesaler and oil retailer. It was noted that the average net price received by the cultivator was Rs. 1123.87 and Rs. 1093.66 through channel-I and II respectively. The producer had to incur Rs. 1.00 (0.07 percent) towards loading and unloading, Rs. 3.46 (0.24 percent) towards weighing, Rs. 3.00
(0.22 percent) towards transportation and Rs. 2.00 towards market fee (0.14 percent). The net share of the produce was 80.72 percent and 78.55 percent in channel-I and channel-II respectively (Sudha et al 2005).

Hogeland (2006) while studying the economic culture of US agricultural cooperatives concluded that cooperatives have entered a “value added” era that is both inward and outward looking. Cooperatives use their internal processing resources to improve the market value of the farmers’ raw product but they also need external linkages to mass retailers or food service firms to get maximum benefit from that effort. Access to urban markets is a key to increase income for rural and peri-urban farmers. Three aspects determine the success of rural-urban linkages: physical infrastructure, including road networks, reliable and affordable transport, post-harvest storage facilities; relations between producers, traders and consumers; and information on how markets operate, including price fluctuations and consumer preferences. Poor physical infrastructure can have far reaching consequences on producers’ prices, as inadequate roads usually entail very high transport costs. Traders and middlemen are often perceived as inherently exploitative but can in fact play an important role in providing credit and information to producers (Meijerink & Roza 2007).

Haggblade (2007) suggested that agricultural growth requires continual improvements in farm technology, well functioning markets and infrastructure adequate to move goods at reasonable cost from farm to market. Well-functioning markets require property rights, grades and standards and enforceable contracts, which are typically public goods. Infrastructure, such as farm-to-market roads, power lines and ports are likewise normally public goods. So, in general, public good remain critical to ensuring agricultural productivity and income growth. Tollens (2007) observes that there exists no model of how to effectively structure a producer organisation. The question of
effective institution building is still very much on the table as many of the existing institutions have to prove efficient. The markets and institutions supporting agricultural development must be considerably improved and strengthened. This is a daunting challenge as the improvement and strengthening of the key markets and institutions, is something that needs to be done immediately.

Shilpi & Umali-Deininger (2007) stated that the econometric estimation using data from the Indian state of Tamilnadu confirms the theoretical prediction that the probability of selling at the market increases with an increase in the market access index which in turn improves due to an improvement of market facilities or due to a decrease in distance to markets. The regression results indicate that wealthy farmers are able to capture proportionately more benefits from the market facilities in a congested market place. The observed interaction effect also implies that poorer farmers may also be facing stringent credit constraint in accessing cheaper but bulkier modes of transportation. The paper on linking farmers to markets through modern information and communication technologies in Kenya by Mukhebi et al (2007) highlights market information and linkage system (MILS) developed and tested by the Kenya Agricultural Commodity Exchange Limited (KACE) that increases the efficiency of agricultural markets to work better for smallholder farmers and other small and medium sized agro-enterprises (SMEs). The MILS involves harnessing modern information and communication technologies (ICTs) to empower farmers with low-cost reliable and timely market information.

Nchouji 2008 analyzed that in a predominately rural economy like of Giwa, market institutions are important nodes of exchange of goods/services and agricultural produce. Most of the periodic markets are located on roads sides or nucleated settlements with a road link. It also
showed that the development of markets depended on development of road network. It further showed that the scheduling of periodic market is integrated with their location spacing with a closer relationship between market provision, road network and population density. A study conducted by Venkatesh (2008) analyzed the organized retail in India and came up with the findings that marketing and access to markets have been the biggest bottleneck for Indian farming. In the 27,294 rural periodic markets, where small and marginal farmers come to the markets, 85 percent lack facilities for efficient trade. For facilitating trade at the primary market level in the country, 7161 market yards/sub-yards have been constructed but they are ill equipped. An understanding of marketing boards’ origin and their role in the coordination of commercial transactions between farmers and buyers are essential to assess their merit and evaluate their performance (Royer 2008).

A study has been conducted by (Jairath 2008) to know specifically the extent of investment made in promotion of agricultural marketing infrastructure in the country and growth in public and private investments. The state-wise spread of investment was worked out for public, private and total investments. Of the 24 reformed states, only 13 states came forward for investment in the agricultural marketing infrastructure. Of the total investment of Rs 157652 lakh, Madhya Pradesh alone accounted for nearly 36 percent share, followed by Tamilnadu (18 percent) and Andhra Pradesh (13.5 percent). West Bengal accounted for the lowest share. Amongst these states, three states, viz. West Bengal, Orissa and Sikkim, were those states whose share in the total investment were not even one percent taken together and were much below half percent as an individual state. The share of agricultural marketing in India as studied by Jairath (2008) found to be 60.23 percent by private and only 39.77 percent by public. So there is a huge gap between the public and private investments in agricultural marketing in India. The study
also found that public sector is taking fewer steps towards development of agricultural markets rather than private sector.

Information obtained from the respondents showed that lack of capital (43 percent) and lack of modern storage facilities (37 percent) are the major problems of the wholesalers. Also, lack of capital (67 percent) and lack of modern storage facilities (12 percent) are the major problems of the retailers. On the other hand, lack of high yielding and disease resistant varieties (37 percent) is the greatest problem of the banana farmers. The implication is that lack of capital/storage facilities, lack of disease resistant varieties and lack of fund were respectively the major problems of the banana middlemen, farmers and consumers (Enibe et al 2008).

Jari & Fraser (2009) in their paper attempted to identify factors influencing market participation choices among smallholder farmers in the Kat River Valley. Evidence from the research found that smallholder farmers usually use informal markets in selling their produce. The statistically significant variables, at 5 percent level are access to market information, proficiency on grades and standards, availability of contractual agreements, existence of extensive social capital, availability of good market infrastructure, group participation and reliance on tradition. The findings suggest that an adjustment in each one of the significant variables can significantly influence the probability of market participation.

Kumar & Chattopadhyaym (2010) while studying crop diversification in West Bengal found that agricultural infrastructure has been crucial in promoting diversification of crops and ensure sustainable income to farmers. The study concluded that the policies towards the expansion of infrastructure like road network, irrigation facilities, marketing and storage facilities, availability of fertilizers and other inputs has a leading role in agricultural diversification. Glendenning (2010) stated that despite the variety
of agricultural extension approaches that operate in parallel and sometimes
duplicate one another, the majority of farmers in India do not have access to
any source of information.

Pillai (2010) studied the infrastructure facilities of warehousing in
India and concluded that a well-developed and efficient warehousing
infrastructure plays a catalytic role in the economic development of the
country. The government has to develop an effective warehouse management
system which will help in the accurate management of receiving, putting
away, picking and packing, storage location, work planning, warehouse
layout and analysis activities. A survey conducted by Okwoche et al (2010)
on the evaluation of agricultural marketing information systems among
members of farmers’ community based organizations in Nigeri gave the
results as: 45 percent of the farmers joined various community based
organizations to meet the social as well as business needs. Farmers also
sought (35 percent) information on storage and sales of agricultural produce.
31 percent shared information on production, processing, storage and sales.
About 21 percent found friends, neighbors and extension agents as second
most important source of marketing information.

Kumara & Kapoor (2010) in their study shown that vendors use
different channels to market nuts, like self-selling to consumers, selling to
large vendors, and selling to aggregators. Marketing efficiency can further be
increased by removing the channel players if they are not adding any value in
the channel, which was found to be happening in some of the channels. The
study by (Ohen & Abang 2011) concludes that the supply chain of rice in
Cross River State, Nigeria is significantly integrated in the long run. This
implies that facilitative policies that will enhance the provision of
infrastructures such as good roads, market structures and efficient market
information network systems are necessary. Also, the government should
provide price regulatory services to enhance market integration and reduce market exploitation by intermediaries especially in the short run.

The study of Birach et al (2011) reveals that production losses, land size allocated to bean production, production assets, group membership and type of seed variety planted significantly influence output; while cost of transport, quantity consumed at home, quantity stored for food, market price and storage losses influence marketable supply. To enhance production of beans, the farmers should within their existing land holdings, expand proportion of land under bean production and actively participate in farmer group’s activities for easier access to markets. Sorokhaibam & Devi (2011) observed that efficient marketing system is an effective agent of change and an important means for raising the income levels of farmers and satisfaction of the consumers. An efficient marketing system for farm products ensures an increase in the farm production get translated into an increase in the level of income, thereby stimulating the emergence of additional income.

ICT plays a vital role in disseminating information right on time to market the produce and to know about the last price of products, introducing new markets and advertising agricultural products, can help in marketing improvement (Lashgarara et al 2011). Institutions facilitate market linkages and smallholders to sell produce, however more can be done to increase smallholder activities in the market chain. Improving the market access through the improvement in road and other physical infrastructure can by far improve the market access and the level of participation in the market seen by the total volume of sales to the market (Pali et al 2011).

The study of Govindarajan & Shanmugam (2011) concluded that the efficiency of rural regulated markets could be vastly improved by market efficiency 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. The marketing of green peas by Sidhu et al (2011) has been studied by three supply chains, viz. I: Producer → wholesaler (through commission agent) → retailer → consumer; II: Producer → retailer (through commission agent) → consumer; III: Producer → consumer. The net price received by the producer was 67 percent, 69 percent and 94 percent in supply chains I, II and III respectively in the Hoshiarpur market in January, 2009. Further the functional analysis of the factors affecting the marketing efficiency has revealed that with one percent increase in marketing margins and costs, the marketing efficiency declined by 0.45 percent and 0.44 percent, respectively.

Mavi (2012) investigated the efficiency of various marketing models and problems of kinnow growers of Punjab and found that the kinnow growers suffered a loss by selling produce to pre-harvest contractors as their share in consumer rupee was low. It has been brought out in the study that kinnow growers would gain financially by selling their produce themselves in the markets. The lack of market information and marketing infrastructure, inadequate processing and post-harvest facilities and frequent price fluctuations have been identified as the major factors which inhibit expansion of kinnow cultivation in the state. Intodia (2012) reported that the state of Bihar had 95 regulated APMC markets out of which 54 markets had basic marketing infrastructure in place. These 54 markets have been established in total land of around 1595 acres out of which around 813 acres of land is vacant. Therefore the market yards have substantial basic infrastructure in place which can be further improved for providing better facilities to the producers so as to increase the number of producers going to the markets.
2.4 FINANCIAL PERFORMANCE OF REGULATED MARKETS

Financial performance is an important means for raising the income levels of both the regulated market as well as the participants of the market like farmers and traders. It can be harnessed to improve the quality of the regulated market as well as life of the masses.

Singh & Kahlon (1968) in a study on marketing of grapes in Punjab observed that commission agents and retailers were important channels for selling grapes. About 41 and 40 percent of produce was marketed through commission agents and retailers respectively. Further analysis showed that grading and packing formed 72.6 percent of total marketing costs in the primary markets transportation cost accounted for 10.96 percent and 34 percent in these markets respectively. They also reported that reported that the sale of grapes in Punjab through retailer was highest (41.05 percent) followed by sales through commission agents (40.60 percent), wholesalers (11.26 percent) and pre-harvest contractors (4.53 percent).

Kochhar & Thakur (1971) reported that most common mode of marketing apples in Himachal Pradesh was through commission agents which accounted for about 85.63 of the marketable surplus. The next important method of sale was through pre-harvest contractors which accounted for only 14.67 percent of total marketable surplus. Blyn (1973) estimated the degree of market integration by computing the correlation coefficients for de-trended and de-seasonalized prices from eight wheat markets of Punjab and Delhi. Thus, totally nine de-trended price series for 12 monthly prices were arranged and correlated. The results showed that the overall average for 12 months was \( r = 0.68 \). The study further reported that the average ‘r’ was equal to the ‘r’ between Delhi and other markets indicating the dependence of Delhi market prices on the prices at all other collecting markets.
Hugar & Hiremath (1984) studied the efficiency of alternative channels in marketing of vegetables in Belgaum city of Karnataka state, found that the price spread in the case of cabbage (48.31 percent) and brinjal (52.79 percent) were lower when sold through co-operative society, as compared to 50.29 and 24.74 percent, respectively when sold through commission agents. Thus, it was obvious, that the net price received by the producer was observed to be higher from cabbage (57.69 percent) and brinjal (47.21 percent) when sold through the co-operative society as compared to 49.72 and 45.26 percent, respectively when sold through the commission agents.

Sharma & Pant (1988) in their study on marketing of vegetables in south Saurashtra zone of Gujarat found that the total marketing cost incurred by the producer was the highest in highly perishable vegetables, namely Tomato (Rs. 108.04/Quintal) followed by Chillies (Rs. 101.84/Quintal), Brinjal (Rs. 61.75/Quintal), cabbage (Rs. 50.44/Quintal) and Bottlegourd (Rs.45.74/Quintal). The commission charge paid to the commission agent formed the major component of total marketing cost. At the retailers level, the total expenditure incurred was also the highest in the case of Tomato (Rs.139.76/Quintal) followed by Chillies (Rs. 65.98/Quintal), Brinjal (Rs. 61.12/Quintal), Cabbage (Rs. 45.82/Quintal) and bottle gourd (Rs.33.32/Quintal). Among the different items of expenditure at retail level, the spoilage cost formed major component of total retail cost in all the vegetables. However, producer’s share in consumer’s rupee was found to be lower in Brinjal (56.87 percent) and Tomato (56.89 percent) compared to Cabbage (62.30 percent), Chillies (61.01 percent) and Bottlegourd (59.65 percent).

Bhatta & Bhat, (1988) studied the degree of price relationship for areca nut between selected markets of Mangalore and Sirsi, using the correlation coefficient. The commercial nature of the crop and its diversified
market conduct was clear from the fact that there was a direct relationship between supply and price. Chauhan et al (1998) reported that for marketing of vegetables in Azamgarh district of Uttar Pradesh; three channels were utilized by the vegetable growers for disposal of their vegetables. The channel involving commission agent and retailer was found to be the most important and taken on by majority of the farmers. However, the producer’s share in consumer’s rupee was maximum (90 to 94 percent) in direct sale of vegetables to consumers whereas, it ranged between 85 and 89 percent when sold through commission agent. Thus, there is a need of the most popular channel which would to be efficient, cost effective and producer-friendly, by regulating the significant trade margins taken by the traders.

Nahatkar et al (1998) revealed that seasonal index of cotton prices was less in the second quarter (January to March) and maximum in the third quarter (April to June). The coefficient of price variation showed price rise which was higher during first quarter (October to December). Buyers tend to attract more cotton growers to sell their produce at lower prices. The data on cyclical variations showed that after every three years the cycle of cotton prices changes irrespective of the variations in price in the three quarterly periods revealing that within a year there is no sudden shortfall or boom of cotton arrivals in the market. Mali et al (1999) analysed the trend in arrivals and prices of vegetables (tomato and lady's finger) in Pune regulated market during the period from 1978-79 to 1996-97. The coefficient of variation of arrivals (56 to 80 percent) and prices (40 to 80 percent) of tomato were higher than the variations in arrivals (27 to 60 percent) and prices (49 to 75 percent) of lady's finger. The compound growth rate of arrivals (2.11 percent) and prices (1.02 percent) of both the vegetables were significant during the same period and prices of both vegetables showed increasing trend indicating the good integration of Pune regulated vegetable market.
The producers had the least marketing efficiency of 4.8 percent as against 15.8 percent for retailers and 37.3 percent for wholesalers. Because the wholesalers shuttled from one locality to other examining marketing potentials, they were better off in terms of marketing margin unlike retailers and producers (Mbanasor & Nwankwo 2001). The study further revealed that palm oil marketing is economically efficient but technically inefficient. It is therefore imperative to solve the problem of distribution, processing, transportation, poor marketing infrastructure and storage facilities, which would improve the levels of technical inefficiencies in the system. Srivastava & Shukla (2002) undertook 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 percent fee was entered and rest of the 50-75 percent amount was taken away by the mandi workers without giving any receipt. It was crystal clear from observation that without properly knowing the implications of the provisions of the Act, there was a loss to the market committee by way of evasion of market fee.

In a study by (Babu et al 2002) on the sale pattern and marketing of groundnut-a case study in Andhra Pradesh, two important marketing channels were identified as: Channel-I: Producer-Village Trader-Wholesaler (Oil Processor)-Oil Wholesaler-Retailer-Consumer. Channel-II: Producer-Wholesaler (Oil Processor)-Oil Wholesaler-Retailer Consumer. The study revealed that channel-II was found to be more efficient due to higher producer's share as compared to channel-I. The producers are recommended to sell their produce through channel-II, where, village traders are not involved and also to obtain more shares in consumer's rupee. It was observed in the study of (Gadre et al 2002) that the production of white onion on sample farms was 144.91 quintals per hectare, of which 89.23 percent was marketed surplus. The marketing system for white onion was in the hands of marketing functionaries to the extent of 93 percent. The maximum quantity of
white onion was passed through Channel-IV i.e. Producer-Wholesaler-Retailer-Consumer (66.96 percent) followed by Channel-III i.e. Producer-Retailer-Consumer (17.32 percent) Channel-II i.e. Producer-Wholesaler-Consumer (14.62 percent) and Channel-I i.e. Producer-Consumer (1.07 percent). The producer share in consumer's rupee was the highest in Channel-I (98.85 percent) and it was lowest (65.60 percent) in Channel-II.

Shivaraya & Hugar (2002) studied the market integration of onion and potato in Karnataka State, the results stated that efficient functioning of markets is an essential prerequisite of a sound marketing system to provide remunerative prices of the produce to the farmer-sellers as well as to providing of goods at reasonable prices to the innumerable consumers. The analysis of price movement of the commodity in the corresponding and linked markets helps in judging of the extent of efficiency of the marketing system in the region for the selected crops. Verma et al (2002) while studying the marketing and export of fresh vegetables affirmed that the price received depends mainly on the produce prices in local markets and any premium the consumer is willing to pay for higher quality or freshness of produce. When selling to a produce dealer at a farmer's market, the price received depends on the price the broker or grower's agent receives. One of the more difficult marketing decisions is to know when to accept a price and when to wait for something better.

Gauraha et al (2002) studied the following channels in rice marketing in Chhattisgarh: channel-I, Producer to consumer channel-II, producer to retailer to consumer channel-III, Producer to trader to retailer to consumer. It is noted that the expenses incurred by the producer in channels-I and II were 9.43 percent of the price paid by the consumer, in channel-II and Channel-III expenses incurred and margin taken by the retailer were 3.23 percent and 5.34 percent respectively of the price paid by the consumer. The
total marketing cost were Rs. 30 Rs. 67.12 and 67.68 per quintal of Rice sold through channels-I, II and III respectively. The marketing cost thus varies according to the length of the distribution channel. Chole et al (2003) while studying price spread in marketing of Brinjal in Maharashtra state with different marketing channels like i) Producer-Retailer-Consumer, (ii) Producer-Wholesaler-Retailer-Consumer and (iii) Producer-Commission agent-Wholesaler-Retailer-Consumer. The producer’s share in consumer’s rupee was maximum in channel-I (68.28 percent), followed by channel-II (57.94 percent) and channel-III (53.14 percent). The share of retailer in consumers’ price was 21.04 percent in channel-I, 24.37 percent in channel-II and 25.83 percent in channel-III. The share of wholesaler in consumer’s price was 5.12 percent in channel-II and 5.06 percent in channel-III.

Khunt et al (2003) conducted study on utilization and disposal pattern of pomegranate in the Bhavnagar district of Saurashtra region, Gujarat. It was evident from the study that marketable surplus was 98.38 percent. Marketing cost of Pomegranate showed that, Transport Cost i.e. 29.52 per quintal (50.46 percent) formed that total market cost and other important items of marketing cost were Packing Charges (18.08 percent), Grading Cost (16.26 percent) and Loading-Unloading Charges (11.47 percent). All items put together the total marketing cost per quintal amounted to 58.50 and the net price received by the growers was 859.66 per quintal. Wang & Ke (2005) found one major factor that may account for this market inefficiency is over-speculation or market manipulation, of which a number of cases have been observed. In a mature market economy where information is widely available and traders are rational, speculation behaviour will drive away profits, reduce arbitrage opportunities and contribute to market efficiency.
Navadkar et al (2005) in their study revealed that, per quintal cost of marketing of selected vegetables was more in terminal market (112.67 per quintal) than in primary market (57.84 per quintal). The proportionate share of transportation and commission charges to total marketing cost were significantly more in terminal marker. The producers’ share in consumes’ rupee was observed to be the least in terminal market for vegetable like cabbage and the highest in Bhindi in the same market. The nature of inter-market price relationship, or the ability of the marketing system to allocate food grains over space, was examined by analysing prices at 10 markets in Zaria marketing area in 2004-2005 revealed prices spread often in excess of transfer costs, implying imperfections in the markets (Foin 2006).

Matin et al (2008) found five major channels were identified as dominant in mango marketing; channel-I: Farmer → Bairal → Bepari - Aratdar (Local) → Aratdar (Dhaka) → Retailer (Dhaka)-Consumer, Channel-II: Farmer → Bepari → Aratdar (Local) → Aratdar (Dhaka) → Retailer (Dhaka) → Consumer, Channel-III: Farmer → Bepari- Aratdar (Local) → Aratdar → (Other district) → Retailer (Other district) → Consumer, Channel IV: Farmer → Retailer (Other district) → Aratdar (Local) → Retailer (Other district) → Consumer, Channel-V: Farmer → Retailer(Local) → Consumer. According to the volume of mango handled and longevity or participation of the intermediaries in the channel, the channel Farmer Bairal → Bepari → Aratdar (Dhaka) → Retailer (Dhaka) → Consumer ranked first. The results showed that channel-V, Farmer-Retailer Consumer, possesses the highest marketing efficiency followed by channel-IV, III, and II. The performance indicators revealed that the channel-I and channel-II were not relatively efficient in the mango producing regions. The producer’s share in consumer’s rupee was found to be higher in onion than in cauliflower under producer-wholesaler-retailer-consumer and producer-retailer- consumer supply chains due to relatively lower degree of perishability. Further, as the links of supply
chain got reduced, the share of producer in consumer price increased, indicating higher market efficiency under integrated supply chain systems. Though the shortest marketing channel for both onion and cauliflower (Producer-Consumer, Channel-III) seems to be most efficient, very small volume of produce was marketed through it due to its limitations to handle a large quantity of produce (Sidhu et al 2010).

Different supply chains require strengthening at all the levels of infrastructure such as input delivery, credit, irrigation, procurement, post-harvest management, creation of cold store chains, establishment of processing units and modern storage plants and marketing techniques, marketing information. Hence, efficient, value chain management will certainly add value and help in bringing the produce to the market (Reddy et al 2010). Study conducted by Singh et al (2010) on cost benefit analysis and marketing of Mushroom in Haryana examined the important channels of Mushroom marketing. The disposal pattern of mushroom through different channels reveals that the maximum quantity (more than 80 percent) of Mushroom was sold through channel-I, in which there was involvement of all the stakeholders, viz. Grower, Wholesaler, Retailer and Consumer. The channel-II could attract marketing of around 10 percent production of mushroom from all the categories of growers. The marketing of mushroom through channel- III in which wholesaler was absent was 4-5 percent of their produce by small and medium farmers and 10 percent by large farmers.

Similar study of marketing efficiency of green peas under different supply chains in Punjab made by Sidhu et al (2011) found that the marketing of green peas has been studied by three supply chains, viz. I: Producer → Wholesaler (through Commission Agent) → Retailer → Consumer; II: Producer → Retailer (through Commission Agent) → Consumer; III: Producer → Consumer. The net price received by the producer was 67
percent, 69 percent and 94 percent in supply chains I, II and III respectively in the Hoshiarpur market in January, 2009. The producer’s share in supply chain III was the maximum because of direct sale by the producer to the consumer. The supply chain III has been found most efficient because its marketing efficiency was 14.83 as compared to 2.70 in supply chain II and 2.38 in supply chain I. Four important channels identified for kinnow marketing in the study area include: Channel-I: Producer → Forwarding/Commission agent → Retailer → Consumer, Channel-II: Producer → Wholesaler → Retailer → Consumer, Channel-III: Producer → Retailer → Consumer, Channel-IV: Producer → Consumer. The total marketing cost involved in marketing of kinnow was Rs. 480, Rs. 467, Rs. 322 and Rs. 223 for channels-I, II, III and IV, respectively. The price spread of kinnow under different marketing channels in the Jammu region indicated that producers’ share in consumers’ rupee was highest in channel-IV (81 percent), followed by channel-III (59 percent), channel-I (50 percent) and channel-II (45 percent), which revealed that direct sale in the local market provided a higher share to producer in the consumers’ rupee (Bhat et al 2011).

Chalajour & Feizabadi (2012) proposed a model that there is a long-run co-integration relationship between the on farm and the retail prices. Secondly, the marketing margin resulting from this long-run relationship may cause short-run dynamic adjustments between the on farm and the retail prices, which results in the asymmetric causality. This implies that the marketing margin is an important factor when analyzing the causality in the on farm and the retail markets.

2.5 PROBLEMS AND POLICY MEASURES

Problems arise due to inefficiency or low performance of the markets or when the expectations are not met properly. It may be due to poor service delivery by the individual regulated markets to the farmers and traders
or due to lack of adequate infrastructure and staff facilities in the regulated markets or due to some other internal or external constraints. But problems create a new way and chance of further improvement in these markets because problems need to be understood and tackled by our policy makers by their effective and resourceful decisions.

Kohok (1988) cited the problems of Viticultural marketing in Nashik region. They are lack of quick transport, scientific storage and indebtedness of farmers, lack of regulated markets, exploitation by middlemen, absence of grading and standardization of produce, traditional packaging system, problem of transportation, absence of adequate financial facilities, lack of efficient marketing information and organized growers’ movement.

As stated by Koshy (1991) in order to ensure that the benefits of the PDS reach the intended beneficiary population, elaborate administrative arrangements to monitor and control the functioning of the PDS do exist in the states and in union territories. Despite such measures, it has been observed that malpractices such as adulteration of commodities, under weighing, charging prices higher than the stipulated statutory prices and diversion of commodities to the open (or 'black') market, occur frequently. Nagaraja et al (1999) identified the most important constraints in production and marketing of potato in Kolar district of Karnataka by assigning the ranks. The frequent fluctuations in price (Rank-I) involvement of too many Middlemen (Rank-II), Delayed Payment (Rank-III), Insufficient Storage Facilities (Rank-IV), Low Output Prices (Rank-V) and High Market Charges (Rank-VI) were the main constraints in marketing.

It was observed by Kasimila (2001) that the losses caused by poor transportation system is mainly realized by retailers and identified the major causes of these losses, namely absence of Technical Storage, Transport and
Packaging Facilities and unavailability of appropriate markets designed for fruits and vegetables. Improvement of the economic conditions of the horticultural farmers, wholesalers and retailers can be achieved by providing necessary facilities. The results of the study by Belay (2002) reveal that extension agents work under very difficult conditions. Therefore, the Government should adopt very responsible and pragmatic approach to improve the current working conditions of the extension agents, such as Transportation, Housing and Adequate Budget Allocation. If agents are to spearhead rural transformation in the country, their duties should be clearly defined and they should not be made to handle other responsibilities that will compromise their real professional integrity.

Lack of regulated market and co-operative marketing societies were responded positively by 96 percent of the farmers. Due to non-regulatory system of marketing, growers are at the mercy of middle men. Various malpractices such as deduction of more charges, payment by installments, quoting of lower prices than actual, deduction of undue charges etc. are generally followed by these middle men. Moreover, the farmers consent is not being taken before selling the produce. The market infrastructure for the fruit crop is poor in terms of Cold Storage, transportation facility and undependable roads. It is imperative to mention here that the failure of state government in creating the Cold Storage Facility have added to the crisis. Due to uncertainty of Road Facility, the farmers rush their crop to Terminal Markets (Shaheen & Gupta 2002).

National Commission on Farmers (2004) in the report found that inspite of the development of the regulated agricultural produce marketing system, several weaknesses such as distress sales immediately after harvest, absence of grading and packaging at the farm level, inter-locking of credit and markets continued. Regulated marketing system complain about lack of
transparency in weighing and auctions, considerable delay in effecting sales, unauthorized deductions and poor treatment given to them at the market yards. The other weaknesses of the system are [a] poor spread of regulated markets in certain States [b] inadequate development of the rural periodic markets which are the first contact point for the growers [c] inadequate infrastructural facilities at the regulated markets [d] large variations in the market fee/charges across districts/States [e] failure to develop common trade language and [f] inefficient working environment, etc.

Ajani (2005) studied the economic analysis of the marketing of fruits in Lagos state of Nigeria, came to the conclusion that high Transport Cost, lack of enough Capital, Storage Facilities and unavailability of products were the major problems faced by the marketers. Since agricultural production is seasonal and consumption is regular and continuous throughout the year, therefore there is need to provide Transport Facilities, Storage Facilities and also train the marketers on simple techniques to reduce the amount of wastage incurred, to ensure good quality and longer shelf-life of the products.

It could be seen that all the respondents opined that markets far away from the farm, over 82 percent of the respondents opined that higher commission charges was another major problem in marketing of papaya. The other problems were lack of availability of Market Information (79 percent), Storage Problem (76 percent), Price Fluctuations (37 percent) and lack of skilled labour for Packing (19 percent) (Shivannavar 2005). Household transaction will initially have greater influence in the product market and subsequently, household engagements in other markets will also increase in importance as the marketed output proportion becomes larger. However, integration of the household into the product and factor market is not simple
and straightforward due to the endemic problems of missing markets and market failures in developing countries (Gebre-Ab 2006).

The Government of India intervenes in the agricultural markets to achieve certain developmental objectives like food security and price stability. The interventions attempted to bring in regulation of various agricultural activities to protect the interests of producers and consumers. Farmers bring their produce to the market yard daily and transactions take place on the price fixed on a daily basis by the market committee. Such initiatives include Apni Mandi in Punjab and Haryana, Rythu Bazaars in Andhra Pradesh, Uzhavar Santhaigal in Tamilnadu, Krushak Bazaars in Orissa and Hadaspur Vegetable Market in Pune. It is estimated that about 10 percent of total produce is marketed through direct marketing (Planning Commission 2007). Improving agricultural extension that addresses deskillling because of technological changes and also facilitates appropriate technical know-how for alternative forms of cultivation such as organic farming will be of help. Availability of affordable credit requires revitalization of the rural credit market. There is also a strong case for regulating private credit and input markets. A challenge for the technological and financial gurus is to provide innovative products that reduce costs while increasing returns. Organizing farmers through a federation of self-help groups (SHGs) with government, banks and other stakeholders playing a pro-active role would be welcome. Besides, public institutions, there is need for a greater involvement from the civil society (Mishra 2007).

Matin et al 2008 observed that efficient marketing system usually ensures higher level of producer’s share, reducing the number of middlemen and restricting the marketing charges, mal-practices during marketing of farm products. It is found from the study that if the farmers sell their mango directly to the ultimate consumers then they will get more benefit, but it
would not be possible because intermediaries were engaged to transfer mango from the farmers’ field to distant consumers. Chadha 2008 states that the original intention with which the regulated markets were established in the 1950s has outlived its objectives. The marketing system has to respond effectively to the changing requirements in the domestic and international market.

Kutigi (2009) studied the problems associated with marketing of some selected grains in bosso local government area of Niger State and the results reveal that grain (Rice, Maize, Guinea corn and Millet) marketers after identifying their problems were asked the area they needed supports to enhance their marketing activities. The suggestions revealed that 36.4 percent of the respondents suggested that good accessible road should be constructed especially from the rural areas where they purchase their products to the urban centers where these products are sold. On the other hand 31.80 percent of the respondents suggested other ways of improving the marketing of this grains like provision of credit facilities by financial institutions will enable them have capital to purchase in bulk and sell to consumer at any time, provision of lock-up stores/shops in the market, provision of subsidy on petroleum products so as to reduce the cost of transportation.

Zekarias (2010) in the study of avocado production and marketing in southwestern Ethiopia, refers that links production to consumption. Therefore problems in the marketing system affect both the production and consumption system. According to the investigation made by him most of the farmers reported that there is low demand and they get low price for their product and have low bargaining power to influence their price due to nature of the product. As found by Sahoo (2010) to meet the increasing household expenditure, the farmers are tempted to earn more from agriculture. But Infrastructure, Credit Flow, Marketing Facilities, Insurance Provision, Price
Structure and Information Flow do not support them. As a result, farmers face difficulties in managing different risks.

The result of the study by Oguoma et al (2010) showed that farmers encounter high production costs in their efforts to boost production but hardly get fair pricing of their products from the middlemen, the bulk farm gate buyers. The real profit goes to the middlemen who buy up the farm products at almost give away prices and sell at outrageous prices to the consumers. Kumar et al (2011) stated that the major constraints faced by the mint growers in the study area were specified into three categories, viz. production, infrastructural and policy-related constraints. The major problems faced by the farmers in production were lack of Support Price, High Input Cost, Climate Change, Erratic Electricity Supply, Inadequate Market Information and lack of Trained Man Power. Under infrastructural category, the major constraints were lack of basic infrastructure and regulated marketing system and high processing cost. The major policy-related constraints were lack of awareness about export market, illegal trade and existence of intermediaries between farmers and processors and industry.

Rao et al (2011) observed the following problems associated with sorghum marketing in India: High transaction cost is the outcome of multiple intermediaries. The farmer with a small land holding sells his produce through a broker who in turn charges him a commission at a rate higher than the existing rate. A mandi trader market remains the only option to the local producer to sell his produce at a price offered by the traders at that particular mandi. In general, farmers do not have access to reliable sources of price information, and as a result of this, they become hostage to the closest source, i.e., the local mandi. A study performed by Sorokhaibam & Devi (2011) in Manipur stated that there are about 30 assembling markets and 103 primary markets and no regulated markets in the state. Inadequate transport facility
causes glut in the producing area and scarcity in consuming centers at times affecting both the producer for receiving in lower price and the consumer due to irregular supply and high retail price.

This study of Saitone & Sexton (2011) has examined the imposition of minimum quality standard (MQS) by the agricultural producer-controlled marketing organizations (PCMO) that also has direct or indirect authority to regulate production or its quality distribution. The analysis establishes that an MQS may increase net welfare in these settings, even when the standard causes the destruction of nonconforming products, because a PCMO with selling power under provides high-quality product relative to the social optimum and is induced in many market environments to increase quality enhancement by the MQS. Jang & Klein (2011) studied various supply chain models for agricultural enterprises and concluded that the value of agricultural cooperatives especially for small farmers can be very significant in many situations. They can assist small farm producers to effectively access or “organize” new value-added or niche markets for their products.

As an extension of regulated markets, farmers’ markets have been established in the state of Tamilnadu and a study conducted by Begum (2011) on performance of selected vegetable markets revealed that the salient features of these markets, the stalls are equipped with telephone facilities, vehicle parking facility, canteen facilities and facilities for waste disposals. Services of weighing machines have been provided to the farmer sellers free of cost. The present the rate of commission charged in this market is only 6 percent for vegetables and 10 percent for fruits. The findings of Karahocagil & Ozudogru (2011) revealed that agricultural development cooperatives are important institutions for information delivery to its members on inputs, production, processing, marketing etc., the member farmers get higher value of the product than they get before.
Rangasamy (2012) reported that investment made under Scheme for development and strengthening of agricultural marketing infrastructure, grading and standardization for different categories of projects for Kerala state during 2005-06 to 2010-11. The results show that the major share of investment was Cleaning, Grading, Storage and Packaging unit category of projects (30.07 percent), followed by Establishment of private markets/ Purchase Centres/ Collection Centres/Market Yards category of projects (27.97 percent), Market User Common Facility projects (Auction platform, Weigh Bridge, Mechanical Handling Equipments) (21.31 percent), Primary Processing and Value Addition Facility projects (9.47 percent) and remaining investment was contributed by other categories of projects like Pre-cooling/Cold chain facility (5.89 percent), least by Mobile Infrastructure (3.97 percent) and share of other Infrastructures was only 1.38 percent in the overall investment for different categories of projects. Thus, the total investment made for development of Agricultural Marketing Infrastructure in Kerala stood at Rs. 10132.69 Lakhs. Out of 28 States and Union territories, only 16 states came forward for making investment in different projects of agricultural marketing infrastructures. Of the total investment of Rs. 440395.35 Lakhs made, the state of Kerala was accounted for (Rs. 19001.22 Lakhs) nearly meager 4.31 share; while as Tamilnadu accounted for (Rs. 54276.23 Lakhs) i.e., 12.32 percent share in total. In the total investment, the Maharashtra alone accounted for nearly 17 percent, followed by Andhra Pradesh (16.72 percent) and Madhya Pradesh (16.71 percent). The share in the total investment ranged between 10 to 15 percent for only two states viz. Tamilnadu and Rajasthan. The share in the total investment ranged between 7 to 10 percent for the two states viz. Punjab and Gujarat. Sikkim and West Bengal accounted for lowest share. The share was below 1 percent for the four states, viz. Orissa, Assam, Karnataka and Nagaland (Rangasamy 2012).
Many farmers in RMCs of different districts and markets complained about the late payment for their produce. Since traders do not operate in RMC markets and other markets are not under the control of RMCs, effective implementation of market regulations is not possible. In majority of RMC markets weighing equipments are provided for proper weighing of agricultural produce brought for sale. But only in few of the markets licenses have been issued to the weighment. Providing electronic weighing scales at the entry gate of the market manned with trained staff, free weighing of produce brought by farmers, will ensure correct weighment for the farmers’ produce, a basic objective of regulated marketing (Sharma 2012). In the changing agricultural marketing scenario, appropriate infrastructure facilities are to be provided for the benefit of the market users. Infrastructure facilities and grading facilities are now being made available in the market yards for the benefit of the buyers and sellers. In the Regulated Market Committees (RMCs) throughout the State Odisha, there are 551 Godowns (of 100-1250 MT capacity each), 1970 Open and Covered Platforms, 225 Auction Halls, 886 Shops, 22 Cooling Chambers, 19 Mast Lights, 249 Moisture Meter, 122 Small Paddy Cleaners, 16 High Speed Paddy Cleaners, 15 Automatic Weighing & Bagging Systems; 76 Weigh Bridges, 886 Mini Graders, 3616 Electronic Weighing Scales, 2441 Moisture Meters, 1404 Analysis Kits for quality testing of paddy and cotton, 10 Axial Flow Threshers and 10 Rough Cleaners (Sharma 2012).

Market integration requires creating new links and deepening existing relationships between the household, traders, microfinance institutions, and other farmers willing to supply labour and rent land. Reducing transaction cost would improve market participation. The transaction cost in smallholder agriculture arises essentially from lack of information, contract enforcement and coordination; thus, improvement in all these areas will improve market participation (Martey et al 2012). The logit
regression analysis by Zivenge & Karavina (2012) showed that producer price was the major determinant of market choice among farmers. Market risk significantly determines market choice (p<0.01). Market risk size is positively related to market channel choice, with farmers with more marketing channels likely to participate in formal marketing channels. Farmers who are risk averse supply supermarkets, an assured market for their tomatoes. Tractor ownership, proximity to supermarkets and production cycle were not significant determinants of market choice.

2.6 RESEARCH GAP

The researcher must feel satisfied when all the above research work related to the performance of agricultural marketing and development is reviewed. Almost all the broad areas like cause and effect of channels in agricultural marketing, marketing margin of different channels in agricultural marketing, price spread and price trend, economic analysis of markets, coverage of agricultural markets, facilities available in agricultural markets, performance and delivery of agricultural market services, growth, infrastructure and investment in agricultural markets etc. have been studied and explored by many researchers and academicians in different parts of India as well as in the World. But the quest of a researcher must go beyond this and try to explore something innovative, keeping this in concern the researcher supports the present study as there does not exist any exclusive study on the working performance of regulated markets, which covers all the regulated markets of whole district and all the important areas like the present study has covered especially the opinion of farmers/sellers and traders/buyers from all the thirteen regulated markets of Salem district.
2.7 JUSTIFICATION FOR THE PRESENT STUDY

As there exists a space in which the opportunity to undertake the present study of analyzing the working performance of regulated markets in Salem district is accepted and it is imperative for the researcher to get a thorough view and let the people know the past, present and expected future of these social institutions for the betterment of the general public and society at large. The present study cover almost all the important areas in terms of physical performance and financial performance of regulated markets, but much more concern has been headed for the opinion of sellers and buyers towards the working performance of regulated markets in terms of functional performance of these markets as well as physical facilities available in these markets. The detailed report is present in separate chapters in the study.