CHAPTER – II

REVIEW OF LITERATURE

Review of literature is very much helpful in gaining a clear comprehension of the previous research efforts conducted on similar lines, which provides a sound base for scientific investigation. It also provides new ideas and approaches for evaluating research efforts in comparison with similar efforts done by others. In this chapter an attempt has been made to present the theoretical and empirical information concerning the present investigation under the following heads.

2.1. Arrival Pattern and Prices of Vegetables and Fruits

2.2. Marketable Surplus and Price Spread of Vegetables and Fruits

2.3. Marketing Channels of Vegetables and Fruits

2.4. Constraints in Marketing of Vegetables and Fruits

2.1 Arrivial Pattern and Prices of Vegetables and Fruits

Sidhu and Chahal (1988), in their article titled, “Price Behaviour of Vegetables in Punjab” studied the behaviour of prices and the factors affecting price structure of important vegetables. It was found that in spite of rising trend in the production of vegetables; the prices had intra year fluctuations. The study revealed that the lowest seasonal index of prices of important vegetables was observed during the peak period. This was due to seasonal production, perishability, lack of cold storage facilities, etc. The study suggested for adopting early and late maturing varieties for more returns.

Parthasarathy et al. (1988) analysed price behaviour of vegetables in Hyderabad markets from 1980 to 1987 and found that an arrivals in general did not declined the prices. Further, price variations were not uniform magnitude in the same month in different year, in case of both tomato and brinjal. The regression analysis of prices over a period of seven years showed a slight upward movement in prices.
Sharma and Sharma (1996) made an attempt to study the variation in wholesale prices of selected vegetables in India. Coefficient of variation in monthly wholesale prices of potato, tomato and onion were 30, 36 and 42 per cent, respectively in Calcutta. However, price variation in Delhi and Calcutta were more than that in Mumbai and Chennai in the case of potato as against high price variation in Mumbai for onion and Calcutta for tomato. Potato price had less variation relative to onion and tomato prices. The wholesale prices were low during February-March in potato and tomato whereas onion prices were low in February–March.

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%) and prices (40% to 80%) of tomato were higher than the variation in arrivals (27% to 60%) and prices (49% to 75%) of lady’s finger. The compound growth rate of arrivals (2.11%) and prices (1.02%) and 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.

Savitha (2001) in her study identified that 68.44 percent of the farmers were bringing the vegetables thrice a week to the Rythu bazar followed by 20 percent everyday and twice week 11.66 percent. She also revealed that 80 percent of the farmers were bringing vegetables in the rabi followed by the khariff and summer. As high as 96.60 percent of the farmers were bringing the vegetables to the Rythubazars in the early morning hours followed by the afternoon 3.40 percent. Majority of the farmers involved in popularising the concept and also motivated the other farmers to participate in the Rythu bazar.

Shivaraya and Hugar (2002) observed that in Belgaum, Hubli, Raichur and Gulbarga markets the prices of onion and potato increased with increase in their arrivals. However, reverse trend was observed in other markets. The correlation coefficient between arrivals and prices of onion showed negative relations in Dharwad, Bijapur and Raichur markets. Similarly in case of potato in Dharwad market. This clearly indicates that the prices 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.

Chahal et al. (2004) studied trends in Market arrivals and prices of green peas in Punjab. They observed that the coefficients of arrivals were 7081.75 in Ludhiana market that was statistically significant, whereas in Hoshiarpur market the co-efficient was found to be negative and non significant. This shows that the market arrivals have increased by around 7082 quintal per annum in Ludhiana market. Co-efficient of prices were estimated to be 60.12 and 74.08 in Ludhiana and Hoshiarpur markets respectively and were found to be significant statistically. It shows that there was an increase of price by Rs. 60.12 and Rs.74.08 per quintal per annum the above said markets respectively

Pawar et al. (2004) studied the behaviour of prices and arrivals of pomegranate in Solapur (Maharashtra) market during the period from 1991 to 2000 and found that the arrivals of pomegranate were maximum during July, August, September and December and the lowest arrivals in the month of April. The co-efficient of correlation between arrivals and prices exhibited negative relationship. Trends in arrivals showed increase at 9.80 per cent annum while prices increased at 8.20 per cent annually during the study period.

Navadkar et al. (2005) In their study on seasonal indices of monthly arrivals and prices of vegetables in Pune (1990-2000) observed lowest coefficient of variation of arrivals for tomato and it was more than 50 per cent during remaining months. Whereas the price was highest during the month of March and below 50 per cent during April to June. In case of bhendi, the coefficient of variation of arrivals was far below 50 per cent for the period from April to October, while it was more than 50 per cent in all the months except in November and May. It was noticed that the coefficient of variation were ranged from 22-79 per cent and for prices these were in the range of 31-69 per cent for cabbage. While for cauliflower the same were 31 to 69 per cent and 24 to 54 per cent respectively. Furthermore, it was indicated that when the arrivals of vegetables were at the higher side, the prices are at the lower side.
Virender kumar et al. (2005) studied the behaviour of market arrivals and prices of selected vegetable crops in four metropolitan markets of Delhi, Mumbai, Bangalore and Kolkata from 1990-2001. The result showed that in case of cabbage the extent of variability in the arrivals was lower in Bangalore and higher in Mumbai. Its prices were relatively stable in Mumbai but were volatile in Bangalore. There was broadly a similar pattern in the price across different months in the Kolkata and Delhi markets. They also found relationship between market arrivals and prices over the years in all the four metropolitan markets. However, across different months, there have been several instances of positive relationship between arrivals and prices in all the four markets.

Rajashekar (2005) studied the cyclic trend in arrivals and prices of vegetables for Mysore K.R. Market. A cyclical trend was observed in the arrivals and prices of vegetables across 156 months period in KR Market of Mysore. A slump in prices was observed in the 35 months period indicating the high arrivals observed in every 30 months. The cyclical components were observed only in weekly prices for K.R. Market

Singh (2005), in his study, has analysed the relationship between market arrivals and prices of vegetables for the period 1989-2004 in Jalandhar district. The study spotlighted that maximum average prices of vegetables under study (potato, cauliflower, peas and radish) were observed in the month of August, whereas the lowest average prices were in the months of January and February. It was further observed that the prices tend to decrease after the month of August up to the months of January and February, and after this the prices tend to rise till they reached the highest in the month of August. The reason behind the lowest prices in the months of January and February was the maximum arrivals in the market and the highest prices in the month of August were attributed to the least arrivals in the market.

Anwarul Haq (2005), in his article titled, “Seasonal Price Variation of Potato in Bangladesh” worked out the indices for the selected markets on the basis of average monthly wholesale prices for the period 1982-99. The results showed that the price indices of potato began declining from March. The coefficients of variation of indices were 27 to 30. Potato price was the highest in the months of November and December because it was the peak-sowing season of potato and a large portion of
potato were used as seed. The differences between the highest and lowest price indices were 79 to 87 in different markets. To prevent violent seasonal variation in prices in the short run, the study suggested the construction of cold storage and processing unit in the study area.

Khunt et al. (2006) analyzed the seasonal indices of potato in Ahmedabad during 1981-2000. The results of the study indicated that the highest index of arrivals was observed in the month of March. The price index of potato was lowest in the month of March when the corresponding arrival was highest. The price index was below average (100) from January to May and above average from June to December. The reason was the pattern of market arrivals.

Yogisha (2007) computed the trend in arrivals and prices of potato in Chikkaballapur, Chintamani, kolar and Srinivasapur markets during 1994-95 to 2004-05. The results showed that in the initial years potato arrivals were increasing and in the mid period it started decreasing while in the later period the arrivals again increased in all markets except Srinivasapur. In case of price trend pattern, decreasing trend in prices of potato were observed in Bangalore and Chintamani. This was mainly due to increased arrivals of potato to these markets.

Shelke (2009), in his article titled, “Economics of Price Spreads in Marketing of Major Vegetables in Parbhani Market” conducted a study in Parbhani area of Maharashtra. The data on arrivals, prices, marketing costs and marketing margins were collected for the period June 2007- May 2008 from APMC, Parbhani. The vegetables selected were spinach, okra, bean, cabbage and bitter gourd. The difference between per kg wholesale and retail price was maximum (1.43) in the case of bitter gourd followed by okra (1.38), cabbage (1.37) and bean (0.84) respectively. The study concluded that during the peak period of arrivals of the vegetables, the wholesale and retail prices were much lowered.

Kurkute et al. (2010), in their study, have made an attempt to identify the trends in arrivals and prices in major markets in the marketing of banana in Junnar tehsil of Pune district of Maharashtra. The time series data on monthly arrivals and prices of banana from Mumbai and Pune markets for the period 1991-92 to 2005-06 were collected from the office of respective APMCs. The results revealed that the seasonal indices of arrivals and prices of banana in Mumbai market were higher
during July to January, whereas February to June was characterized by low prices with low arrivals. In Pune market, higher arrivals with low prices were during August to January and vice-versa during the months of February to July. There was significant growth in arrivals and prices in both Mumbai and Pune markets. But significant increase in arrivals was seen only in Pune market during the 15 years period. The study suggested that in order to take advantage of higher prices; the banana growers should sell their produce during March to August in Pune market and August to December in Mumbai market by adjusting their planting time.

2.2. Marketable Surplus and Price Spread of Vegetables and Fruits

According to Harris (1982) marketed surplus is defined as the proportion of output that is marketed. Marketed surplus may be equal to marketable surplus, but may be less if the entire marketable surplus is not sold out and the farmers retain some stock and if losses are incurred at the farm or during the transit. Harris also verified empirically the relationship between marketed surplus, output and income. She obtained negative relationship between marketed surplus and variables like family size, and distance to market. Farm size was not found as a direct causal variable, but production was significant as Harris put it.

Gill et al. (1990), in their study, analyzed the marketing of grapes in Bathinda district having 52.20 per cent of cultivated area under grapes. During the period 1988-89 it was observed that the farmers in Bathinda district allocated on an average 62.72 per cent of the total cultivated area for grapes. The average yield of grapes was estimated to be 52.62 quintals per acre. Small, medium and large categories of farmers were having 96.58, 97.48 and 98.40 per cent marketable surplus respectively. Only 1.05 per cent of the farmers leased out their orchards to pre-harvest contractors.

Kingra (1994), in his study, has discussed the production, retention and marketed surplus of two fruits (kinnow and melon) and two vegetables (potato and cauliflower) during the year 1992-93. The results of the study indicated that in Ludhiana city, average production of potato was estimated to be 82.75 quintals, out of which 2.07 quintals, i.e., 2.50 per cent was retained for home consumption. The remaining 97.50 per cent of the production was marketed through different channels. But in the case of cauliflower and for both fruits, less than 1 per cent of the production
was consumed at home and remaining 99.11 per cent constituted the marketed surplus.

Mehta and Chauhan (1996), conducted a study on marketed surplus of vegetables for the period 1990-91 in Himachal Pradesh. The vegetable growers from three regions of Himachal Pradesh, i.e., Kangra, Kullu and Solan districts were categorized into small, medium and large groups on their operational holding basis. The study revealed that marketed surplus of food grains was low in all regions. On the other hand, the marketed surplus of vegetables was very high and varied from 80-98 per cent in different regions. The marketed surplus of vegetables in general was very high on large farms. The study also concluded that vegetable crops played a significant role in the household earnings in all the regions.

Ravikesh and Singh (1996), in their study, tried to examine the various aspects of marketing of brinjal and estimated the price spread in the Chitrakoot block of Banda district of U.P. during the year 1994-95. The results of study found that the producer’s share in consumer’s rupee was the highest (95.84 per cent) in channel-I (Producer-Consumer). The percentage of price spread in consumer’s price and the proportion of the marketing cost in the consumer’s price were higher in channel-III (Producer-Wholesaler-Retailer-Consumer) than channel-II (Producer-Retailer-Consumer) due to large number of intermediaries. The share of producer in consumer’s price was 81.02 per cent and 65.79 per cent in the channel-II and channel-III respectively.

Tomer et al. (1997) conducted a research on marketing of grapes and citrus fruits in Hisar and Sirsa district of Haryana for the period 1990-93. The findings of the study on the cost of marketing and margins for these fruits indicated that producer’s share in consumer’s rupee was around 50 per cent when the producer directly sold his produce to the market. However, if the crop was sold through pre-harvest contractor, the share of producer in consumer’s rupee declined to about 40 per cent for citrus and 29 per cent for grapes. The high margins of intermediaries reduced the share of producer in consumer’s price. The marketing margins charged by the middlemen were invariably higher which ranged from 14 to 18 per cent of the price for pre-harvest contractor and 28 to 32 per cent for retailer. The study suggested that fruit grower’s societies should be formed to improve the bargaining power of the
producers and to reduce the other marketing costs incurred on account of large-scale operations.

Singh et al. (1997) conducted a study to examine the marketing costs, margins of functionaries and producer’s share in consumer’s price on potato with reference to Krishi Utpadan Mandi Samitee, Varanasi (one of the biggest agriculture markets involved in marketing of fruits and vegetables in eastern Uttar Pradesh). Two types of channels of potato marketing were studied, i.e. (i) producer-wholesaler-retailer-consumer and (ii) producer-consumer. The results of study indicated that in channel-I, the producer’s share in consumer’s price was found to be 59 per cent. The costs incurred by the farmer, wholesaler and retailer were 11.32, 13.09 and 16.79 per cent respectively of the consumer’s price. In the second channel, no marketing cost was incurred since the producer sold his produce directly to the consumer without involving any intermediaries. No competitive environment existed in the market but during investigation malpractices were observed. Therefore, there is a need to create competition in buying and selling of the produce, and marketing costs should be reduced by reducing the number of intermediaries.

Shiyani (1998) highlighted that the marketing of vegetables has more problems as compared to other agricultural commodities as they have high degree of perishability, bulkiness, higher proportion of retailer’s margin and concentration of trade in few hands. The analysis revealed that in South Saurashtra zone of Gujarat, the overall marketed surplus was more than 90 per cent of the total vegetable production. The commission charges, transportation cost, spoilage cost turned out to be the most important components among all the items of marketing costs. The producer’s share in the consumer’s rupee ranged from 56.87 per cent in tomato to 62.38 per cent in cabbage.

Chauhan and Singh (1998), in their study, have examined the prevailing marketing channels, margins and price spread of common vegetables in Azamgarh district of U.P. during the year 1994-95 and suggested some policy measures for the improvement of existing system. The results revealed that mainly three channels were prevalent in the study area. The net price received by the producer in the most predominant channel comprising producer, commission agent, retailer and consumer was in the range of 60-63 per cent. It was observed that the retailer’s margin varied
from 14-18 per cent of consumer’s price, which was almost one-fourth of the price received by the producers in the area. The study suggests that farmers need to be encouraged to form producer’s co-operatives to reap the benefits of scale economies and organize group marketing.

Kumar et al. (2001) endeavored to assess the marketing costs, marketing margins, price spread and marketing efficiency of cauliflower in Barpeta district of Assam. The study covered the period 1998-99. The results showed that the marketing costs borne by the primary wholesaler and secondary wholesaler were 6.95 per cent and 5.58 per cent respectively in channel-I. The retailer’s marketing costs in channel-I was 5.62 per cent of consumer’s price and 6.25 per cent in channel-II. The margins of primary and secondary wholesalers were found to be 8.50 and 6.23 per cent in channel-I. The retailers’ margin was higher in both the channel-I and channel-II at 24.58 per cent and 33.97 per cent respectively. Price spread as a percentage of consumer’s price was found to be 60.38 per cent in channel-I and 49.36 per cent in channel-II. Producer’s share in consumer’s rupee was the highest in channel-II, i.e., 50.64 per cent in contrast to 39.62 per cent in channel-I. The study concluded that the marketing efficiency was higher in channel-II at 6.86 per cent than in channel-I at 4.02 per cent.

Ladaniya et al. (2003) examined the price spread and relative efficiency of important marketing channels of some major pomegranate growing areas in Maharashtra during the year 2000-01. The study analysis revealed that more the number of functionaries in marketing channels, more the costs and margins, and lesser the efficiency. Marketing efficiency was maximum in marketing through co-operative society. The study indicated that if the retailer’s margin is reduced, the commodity prices can be reduced with increased net returns to the producer. The study suggested that marketing of product at retail level by the producer’s or their co-operatives in cities may result in higher net returns to the producers and in minimizing exploitation of the consumers.

Singh (2004), in his research work, has tried to assess the marketed surplus of kinnow in Punjab as well as for Ferozepur and Hoshiarpur districts for the year 2002-03. The results revealed that at state level, the average per landholding household consumption of kinnow was 1.13 per cent of the total production and marketed
surplus was high to the extent of 98.87 percent. The large category of farmers had the maximum marketed surplus (99.46 per cent) followed by medium farmers (98.51 per cent) and small farmers (97.77 per cent). But the total consumption of kinnow was more in the case of small farmers followed by medium and large farmers. The district-wise analysis revealed that the marketed surplus was almost 99 per cent of the production in both the districts but the total consumption of kinnow was comprised of family consumption, gifts to relatives and payment-in kind to labour.

Neway (2006) indicated two options for commercialization. The most common form in which commercialization could occur in peasant agriculture is through production of marketable surplus of staple food over what is needed for own consumption. Another form of commercialization involves production of cash crops in addition to staples or even exclusively. At the farm household level, commercialization is measured simply by the value of sales as proportion of the total value of agricultural output. At the lower end, there would always be some amount of output that even a subsistence farmer would sale in the market to buy basic essential goods and services. For this reason, the ratio of marketed output up to a certain minimum level cannot be taken as a measure of commercialization. Neway proposed the proportion to be 20 percent of marketable surplus in the Ethiopia as a cut of rate for commercialization.

Kaur and Singh (2007) have worked out the marketed surplus of kinnow in Sri Ganganagar district of Rajasthan for the year 2002-03. The study observed that on an average small orchardists sold 99.37 percent of the marketed surplus through pre-harvest contractor and only 0.63 per cent in the local market. The small orchardists did not sell their produce in distant markets. However, medium sized orchardists sold 61.45 per cent of the marketed surplus through pre-harvest contractor, 0.97 per cent in local market and 37.58 per cent in the distant market. The large sized orchardists sold 62.38 per cent of the marketed surplus through pre-harvest contractor, 0.38 per cent in local market and 37.24 per cent in the distant markets.

Moti (2007) a farm gate transaction usually happens when crops are scarce in their supply and highly demanded by merchants or when the harvest is bulk in quantity and inconvenient for farmers to handle and transport to local markets without losing product quality. For crops like tomato, farm gate transactions are important as
grading and packing are done on the farm under the supervision of the farmer. Therefore, households are expected to base their crop choice on their production capacity, their ability to transport the harvest themselves and their preferred market outlet.

Nikam et al. (2007) conducted a study in the Khatav and Koregao tehsils of Satara district of Maharashtra to examine storage, marketing practices, marketing channels, margins, costs and price spread of potato crop in kharif season using the year 2001-02. The results of the study revealed that as regards marketing, producer-hundekari-wholesaler-retailer-consumer was observed to be the most prominent marketing channel in the area under study. The study showed that the stored potatoes fetched better prices in the market. The producer’s share in unstored potato was 66.03 per cent and in stored potato it was 70.00 per cent. The returns per rupee investment were also more (1.31) in stored kharif potato as compared to unstored potato (1.19) indicating that storage of kharif potato was observed to be economically viable. The study further revealed that the commission, transportation and packaging shared a bulk of the marketing costs of potato.

Maheshwari (2009), in her study, highlighted that the large percentage of the produce of fruits by sampled farmers in Bathinda district constituted the marketed surplus and a very small part was consumed at home during the year 2007-08. The percentage of the retention and marketed surplus of fruits were 0.64 and 99.36 per cent respectively. The study also found that marketed surplus had a direct correlation with the size of the holdings, i.e., with increase in size of holdings, there was an increase in marketed surplus.

Shelke (2009) conducted a study in Parbhani area of Maharashtra and the vegetables selected were spinach, okra, bean, cabbage and bitter gourd. The data were collected for the period June 2007-May 2008. The study highlighted that the retailers received lion’s share of the consumer’s rupee. The retailer’s share ranged from 12 to 41 per cent, while the producer’s net share ranged from 42 to 57 per cent. The study suggested that producers can be highly benefited and increase their share to 95.85 per cent from 55.35 per cent in consumer’s rupee by selling their vegetables directly to consumer rather than selling to wholesalers. Hence, producers should be arranged to sell their vegetables directly in the consumer’s market, wherever possible.
Anuradha (2010), in her study, has found the marketed surplus at the farm level in Amritsar and Patiala districts. The district-wise analysis of marketed surplus of guava during 2008-09 revealed that the marketed surplus was almost 99 per cent of production in both these districts. The total consumption was around 1 per cent of the production. The total consumption of guava comprised of family consumption, gift to relatives and payment in kind to labour. The farm category-wise data related to marketed surplus revealed that except for small farmers of both Amritsar and Patiala districts, the marketed surplus for the medium and large farmers was around 99 per cent. It was about 98 per cent for small farmers for both these districts. The two important aspects neglected by these reviewed studies are the relationship between marketed surplus and market arrivals and marketed surplus and production. However, the present study examined these relationships.

Kumar and Singh (2010) conducted a research in Lucknow Export Zone to know the status of price spread of mango in Lucknow. In the study area during the period 2008-09, mango was marketed through four channels. The margin of pre-harvest contractor and retailer in consumer’s rupee was the highest at Rs.131.44 per quintal (7.73 per cent) and Rs.447.80 per quintal (26.34 per cent) respectively in channel- IV comprising Producer-Pre-harvest contractor-Retailer-Consumer. The total expenses incurred by retailers on (transportation, loading and unloading and mandi charges) were Rs.47.50, 35.00, 22.00 and 32.00 in channels I, II, III and IV respectively. The purchase price of consumer was the highest (Rs.2029.46) in channel-I. The percentage share of the total marketing margin was also worked out to be the highest in the channel-IV (34 per cent). The profit margin of the functionaries also affected the producer’s share in consumer’s rupee, which was inversely related to each other.

Yadav D.B.et al.(2012) in their study on Economic analysis of marketing of major summer vegetable in Satara district of western Maharastra calculated that in Pune (Gultekadi) market the producer’s share in consumer’s rupee for tomato was only 46.76%, while in Karkad and Satara markets it was 56.94 and 56.33% respectively. The producer’s net share in consumer’s rupee for brinjal was more or less same in Karad and Satara markets (64.06 and 61.37%, respectively), where it was less in Pune market (49.76%). In case of summer season okra, it was observe that
producer’s share in consumer rupee was 60.07, 59.77 and 55.40 per cent in Karad, Satara and Pune (Gultekadi) markets respectively.

Dhandhalya M.G. et al. (2012) in their study on Economic viability of sapota orchard and marketing constraints of sapota in Saurashtra region estimated the marketing cost and price received by sapota growers. Sapota growers incurred the highest cost for commission charge of their produce i.e. about Rs. 56 per quintal (i.e. 56.85% of total marketing cost). Other items of marketing cost were transportation charges (16.25%), Packing charges (11.68%), grading charges (8.88%) etc. The total marketing cost per quintal was amount to Rs. 98.50. The net price received by the growers was Rs. 606.50 per quintal.

Sangeetha shroff et al. (2012) in their study on emerging agricultural marketing systems in India – A Case Study of Onion Marketing in Maharashtra calculated the price spread and marketing cost for onion. In case of sales through regulated markets the farmers received Rs. 711/- per quintal, they had to incur marketing cost of Rs. 74.94/- per quintal and hence their net price after deducting marketing costs was Rs. 636.06/- per quintal. The farmers sold the produce to the wholesalers who incurred marketing costs and margins of Rs. 445.05/- per quintal. The sale price of the onion retailer was Rs. 1437.65/- per quintal. Finally it was observed that the share of the farmer in the retailer’s price through sale in regulated market is 44.24 percent, while marketing costs as a percentage of retailer’s price is 44.25 and marketing margins as percentage of retailer’s price is 11.05 percent.

Sidhu et al. (2012) in their study on marketing efficiency of potato under different supply chains in Punjab estimated the price spread of the potato in Apni Mandi of Jalandhar market. There is no middleman involved in the sale of farm produce in the Apni Mandi. There is direct sale of the produce from the producer to consumer. The average producer’s sale price and consumer’s purchase price was Rs. 700 per quintal in Apni Mandi of Jalandhar market. The expenses borne by the producer were Rs. 52 per quintals which were 7.45 per cent of the consumer’s price. The net price received by the producer was 93 percent of the consumer’s price. As compared to the supply chain I (Producer – wholesaler through commission agent—retailer—consumer) and chain II (Producer—retailer (through commission agent)—
consumer) the producer’s share in supply chain III was more on account of direct sale by the producer to the consumer.

Gadre et al. (2012), in their study on Price spread in marketing of White onion in Raigad district of Maharastra state estimated the market margin and price spread. The producers share in consumer’s rupee was the highest (98.95%) in channel I (Producer - Consumer) and it was lowest (65.60%) in channel II (Producer - Wholesaler - Consumer). The producer’s share in consumer’s rupee in other channels is shown to vary from 70.73% in channel III (Producer - Retailer - Consumer) and 68.60% in channel IV (Producer - Wholesaler - Retailer - Consumer). The producer’s share was highest in channel I, in which they had disposed of their marketed surplus directly to the consumers. This higher share was made possible due to the total elimination of middlemen intervening between producers and consumers. The producers share in consumer’s rupee in channel II, III and IV were lower than in channel I, because the producers marketed their produce through the wholesaler and retailer who reaped away large amount from the consumer’s rupee.

Vinod kumar verma et al., (2013) in their study on production and marketing of Cumin in Jodhpur district of Rajasthan found that farmers adopt two channels for marketing of cumin. They are Channel I: Farmer – Village trader – Wholesaler – Retailer and Channel II: Farmer – Wholesaler (Mandi) –Retailer. In the channel I cumin farmer got Rs.9845 /q (62.1%) out of the consumer price of Rs.15854/q. The marketing cost incurred by the producer, village trader, wholesaler and retailer were 0.02 per cent, 0.35 per cent, 2.07 per cent and 4.13 per cent respectively of the price paid by the consumer. In channel II the cumin farmer got Rs.10807/q out of the consumer price of Rs.15854/q, (68.16%). The marketing cost incurred by the producer, wholesaler and retailer were estimated to be 0.24 percent, 2.07 per cent and 4.13 per cent respectively of the price paid by the consumer.

Sowmya Kanta Dwibedy (2013), in his study on Estimation of Price Spread and Marketing Efficiency of Brinjal in different Marketing Channels: A Case Study, estimated price spread in all the three marketing channels. In Channel I (Producers – Commission Agents –Wholesalers –Retailers—Consumers), the commission agent’s margin was 5.02%, the wholesaler’s margin was 7.36%, the retailer’s margin was 5.85% and the producer’s share in consumer’s rupee was 47.69%. In channel II
(Producers–Wholesalers–Retailers–Consumers) the wholesaler’s margin was 10.56%, retailer’s margin was 8.97% and producer’s share in consumer’s rupee was 49.85%. In Channel III (Producers–Collection Centre of Organized Food Retail Chains–Consumers), the market margin for organized food retail chain was 13.29% and producer’s share in consumer’s rupee was the highest, it was 64.87%.

2.3. Marketing Channels of Vegetables and Fruits

Subrahmanayam (1987) identified three channels for marketing of vegetables in Karnataka namely,

- Producer - Commission agent at the market (channel-I),
- Producer - Pre harvest contractor (Channel-II) and
- Producer - Retailer (Channel-III).

The commission charges paid was found to be the major cost constituting 44 to 66 percent of the total marketing cost incurred in all the vegetables namely cauliflower (Rs 23.75/q), french beans (Rs.21.46/q), carrot (Rs. 20.36/q), brinjal (Rs. 19.79/q) and bendhi (Rs. 18.16/q). This was followed by cost of transportation, loading and un-loading, packing charges and marketing fee.

Patil (1989) in his study on marketing of Alphanso mangoes in Maharashtra identified four channel viz.,

i. Producer - Consumer (direct sale)
ii. Producer - Cooperative - Consumer (cooperative sale)
iii. Producer - Commission Agent - Wholesaler - Retailers - Consumer (middlemen sales)

The study revealed that when the contract made at the time of flowering stage the price received by the growers was the lowest (Rs. 28.50/crate) though the crate size was big. 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 sale through pre-harvest contractor was the least profitable.
Kulkarni (1989) in his study on economics of production and marketing of grapes in Bijapur district, Karnataka, identified two marketing channels, they were.

a. Producer – Commission Agents cum Whole Saler - Retailers --Consumers and
b. Producer -- Pre harvest Contractors -- Retailers -- Consumers

The study revealed that selling through commission agent in the market was profitable compared to sale to pre- harvest contractors.

Singh (1990) conducted a study on marketing of pineapple in north Tripura. They identified six different marketing channels in marketing of pineapple namely

2. Producers - Traders - Retailers - Consumers.
3. Producers - Local Traders - Wholesaler (82-Miles Market) - Retailers - Consumers.
5. Producers - Traders - Commission Agents (Dharmanagar) - Retailers - Consumers.
6. Producers - Local Beoparies - Wholesalers (Kailashalar) - Retailers - Consumers.

The producer’s share varied in different markets with highest in village cooperative (80.54%) followed by Kailashalar (59.00%), Pahiacherra (56.59%), 82 miles market (40.74%) and Dharmanagar and Karimnagar Ganj Market (40.00%) each.

Koujalagi and Kunnal (1991) made an attempt to identify the marketing channels and estimated the marketing costs of pomegranate in Bijapur district. They have identified two channels.

Channel 1: Producer -Pre-Harvest Contractor - Commission Agent Cum Wholesaler-Retailer - Consumer.

Channel 2: Producer - Commission Agent cum Wholesaler - Retailer - Consumer.
The average marketing cost incurred by a pomegranate producer seller was Rs.71.94 per quintal. Costs incurred on commission, transportation, packing material and harvesting together accounted for formed 95.88 percent of total marketing cost. The other costs namely labour charges and miscellaneous expenditure constituted the remaining 4.12 of marketing cost.

Gummangolmath (1994) studied the economics of production and marketing of mango in Dharwad district, Karnataka. The study also identified the different channels of marketing mangoes from the farmer to the consumer.

Channel-1 Producer - Commission agent - Retailer - Consumer
Channel-2 Producer- Pre- harvest contractors (wholesaler) - Retailer - Consumer
Channel-3 Producer - Processing Units Agents - Retailer - Consumer.
Channel-4 Producer - Pre harvest Contractor - Commission agent - Retailer -Consumer.

Senthilnathan and Srinivasan (1994) identified the following channels of banana marketing in Thiruchirapalli district of Tamil Nadu.

Channel 1: Farmer - Pre-Harvest Contractor- Secondary Wholesaler
Channel 2: Farmer - Pre- Harvest Contractor - Commission Agent –Wholesaler- Retailer -Consumer.
Channel 3: Farmer - Regulated Market Wholesaler - Retailer - Consumer

Among these, channel-1 and channel-4 were dropped for the study because of the involvement of secondary wholesaler in proven marketing, which was very limited. It was found that channel-2 was relatively more efficient than that of channel-3 since the share of producer in consumer rupee in channel-3 (71.60%) was higher than that of channel-2 (61.27%) mainly due to distress sale to the pre- harvest contractors who were the usual financiers for the farmers.

Chauhan et al. (1998) reported that the marketing of vegetables in Azamgarh district of Uttar Pradesh, three channels were followed by the vegetable growers for the marketing of their vegetables. The channel involving commission agent and retailer was found to be most predominant and adopted by majority of the farmers.
However, the producer’s share in consumer’s rupee was maximum (90 to 94 %) in direct sale of vegetables to consumers whereas, it ranged between 85 and 89 percent when sold through commission agent. Further, in the most predominant channel, which included producer, commission agent, retailer and consumer, the net price received by the producer (60.63%) was found to be lowest. Thus, there is need for the most popular channel to be efficient, cost effective and producer-friendly by regulating the substantial trade margins taken by the traders.

Durga (1999) identified two channels while studying on public intervention in the marketing of vegetables through Rythu bazaars in Vishakhapatnam and they were

2. Producer – Consumer (Rythu Bazar)

The producer cum seller of Rythu bazar gets 100 percent of the price spread of the consumer’s price but in channel-1 above the producers’ share was 65.9percent.

More (1999) in his study on economics of production and marketing of banana in Maharashtra state has identified two important channels through which banana production is moved from the study area passed from the production to the ultimate consumers. They were,

Channel –1: Producer -Commission Agent cum Wholesaler - Retailer - consumer
Channel –2: Producer - Commission Agent - Distant Market

The study estimated the marketing cost incurred by the producer – seller was Rs. 15.17 per quintal, while it was Rs. 38.01 per quintal in case of commission agent – cum wholesaler and Rs. 52.24 per quintal in case of retailer. The average producers share in consumer’s rupee was 58.44 per cent.

Devaraja (2000) has attempted to examine the various channels involved in the marketing of fruits and vegetables in Mysore district. The data were collected for the months of January-October 1999. The study showed that amount spent by the producers towards the marketing of horticulture produce like fruits and vegetables was more than 55 percent of the cost of inputs used for raising the produce. The commission agents played a dominant role in marketing of fruits and vegetables in the district. Direct sales to retailers were less than 10 per cent of total output. The old
practice of selling fruit orchards to pre-harvest contractors was dominant. Most of the produce was sold through auction and bargaining. The study suggested that there is a need to control the activities of commission agents for encouraging self-marketing.

Gangal (2002) studied the performance of banana plantation in North Karnataka and identified two important marketing channels through which banana is moved from producers to ultimate consumers.

Channel–1: Produces - commission agent – wholesales - Retail - consumes
Channel-2: Produces - produces - village trader - consumes

Nearly 70% of the farmers as well as producers were sold the produce through commission agent cum wholesale and remaining 30% was sold through village level traders.

Khunt et al. (2003) in their study “Economics of Production and marketing of pomegranate” focused on utilization and disposal pattern of pomegranate in Bhavnagar district of Saurashtra region, Gujarat. It was evident from the study that the marketable surplus was on an average 98.38 per cent. The share of home consumption, relatives and religious purposes were negligible and loss due to damage was only 0.83 per cent. The marketing pattern of pomegranate samples in different market stated that majority of the farmer (33percent) had disposed off 59.01 per cent of their pomegranate production in the local market i.e. Bhavnagar city. A few of the pomegranate growers (5) sold their fruits in Rajkot city (12.31%). Very little proportion of their pomegranate production was sold in other distant places. In total marketing cost of pomegranate transport cost i.e. Rs.29.52 per quintal accounted for (50.46%) total market cost. The other important items of marketing cost were packing charges (18.08%), grading cost (16.26%) and loading-unloading charges (11.47%). All items put together the total marketing cost per quintal amounted to Rs.58.50 and the net price received by the growers was Rs. 859.66 per quintal i.e 6.8 per cent.

Ladaniya and Wanjari (2003) conducted a study on marketing pattern of ‘Mosambi’ sweet lime in selected district of Maharashtra. In the study, it was noticed that, farmers with small mosambi plantations were more inclined to sell their produce to pre-harvest contractors. This type of decision making by the producers attributed to lack of will to take risks associated with marketing and lack of financial assistance.
required during mosambi production process. While growers with large plantations sold mosambi fruits by themselves in distant market. The market efficiency was found to be higher when farmers themselves marketed the fruits in distant market. It was also opined that, as the market distance and number of intermediaries increased marketing cost and margins in cost of marketing also increased. Further it was noticed that the market efficiency and share of farmers in consumer’s price decreased.

Radha and Prasad (2004) identified 3 main channels in marketing of vegetables in karimnagar district of Andhra Pradesh.

Channel 1: Producer - Consumer
Channel 2: Producer – Retailer - Consumer
Channel 3: Producer- Primary Whole Seller - Secondary Whole Seller - Retailer-Consumer

About 90 percent of the vegetables produced in the district were marketed through channel 3 with high marketing cost of Rs108.41 / quintal. The producer share in consumers rupee was highest in channel 1 (88.35 percent) followed by channel 2 (81.69 percent) and channel 3 (79.29 percent).

Talathi et al. (2005) conducted a study on economics of marketing of sapota in Konkan region. They reported that commodity passes through four different channels of trade namely

Channel 1: Producers - Fruit Merchants - Commission Agents – Retailers – Consumers
Channel 2: Producer - Commission Agents - Retailers -Consumers
Channel 3: Producers - Cooperative Society - Commission Agents - Retailers - Consumers
Channel 4: Producers - Fruit Merchants - Hawkers - Consumers

The producer share in consumer rupee was highest in channel II (34.40%) and it was lowest in channel I (28.39%) followed by 32.23 and 31.61 per cent in channel II and IV respectively.
Kaur and Singh (2007), in their article titled, “Price Spreads and Marketing Efficiency of Kinnow in Sri Ganganagar District of Rajasthan- A Temporal Study” have examined the prevailing marketing channels, margins and price spreads of kinnow in the study area for the year 2002-03 and suggested some policy measures for the improvement of existing system. Two types of channels of kinnow marketing were studied:

(i) Producer-Pre-harvest contractor-Consumer
(ii) Producer-Wholesaler-Retailer-Consumer.

Balaji et al. (2010), in their study, focused on the identification of potato marketing channels, ascertainment of margins of different intermediaries and examination of marketing efficiency in Jalandhar and Hoshiarpur districts of Punjab state. The data were collected through personal interview method for the year 2003-04. The prevalent channels for marketing of potato had been identified as

Producer-Wholesaler- Retailer-Consumer (channel-I) and Producer - Village Trader/Local Wholesaler - Retailer (channel-II).

Yadav et al. (2012) in their study on Economic analysis of marketing of major summer vegetable in Satra district of western Maharastra identified eight channels in tomato, brinjal and okra marketing. The channels used for sale of tomato, brinjal and okra by the growers as follows.

1. Producer- Consumer
2. Producer- Commission Agent at Primary Market - Wholesaler- Retailer - Consumer
3. Producer- Commission Agent at Primary Market - Retailer - Consumer
4. Producer - Retailer- Consumer
5. Producer- Commission Agent at primary market - Commission agent at terminal market - Wholesaler- Retailer - Consumer
7. Producer- Commission agent at terminal market - Retailer- Consumer
8. Producer- Assemblers at local marker- Commission agent at terminal market - Wholesaler- Retailer -Consumer
In the study area, it was noticed that about 70% of grower sold their produce in terminal market and 30% was sold in primary market. Furthermore, it was noticed that in the primary market, the major share of the total quantity marketed was sold through Channel-III (13.34%) followed by channel-V (7.78%). The proportionate share of the rest of the channel in primary market Viz., Channel-I, II, IV, VI were worked out to be 0.10, 5.45, 1.51, and 2.25%, respectively to the total quantity of vegetable marketed. In the case of terminal market, 34.91% produce was sold through Channel-VI. The proportionate share of the rest of channels in terminal market viz, Channel-VII and VIII were 14.54 and 21.12% respectively.

Lalrinsanguii et al, (2012) in their study on Economics of Chow-Chow (Sechium edule) Marketing in Aizwal District of Mizoram identified three major channels of marketing. They are

Channel I: Producer- Commission agent (Association Marketing Societies) - Retailer- Consumer
Channel II: Producer- wholesaler- Consumer
Channel III: Producer- Consumer

It was observed that channel I was the most important channel through which marginal, small and medium farmers transacted 91.18, 91.59 and 92.88 percent of their marketed surplus respectively.

Deepak Bhagat (2012), in his study on Supply chain management in Pineapple Marketing - A Case study of west garo hills of Meghalaya calculated price spread in three major marketing channels.

Channel I: Producer- Retailer- Consumer
Channel II: Producer- Wholesaler- Retailer- Consumer
Channel III: Producer- Pre harvest Contractor- Wholesaler- Retailer- Consumer

Maximum quantity of pineapples in the district was transacted through channel II. It was found that price spread of pineapple was the highest in channel I, followed by channel II and channel III. Producers share was the highest in channel I (60.67 per cent), followed by channel II (52.444 percent) and channel III (37.89 percent). The highest marketing efficiency was found in channel I followed by channel II and channel III.
Sangeetha Shroff et al. (2012) in their study on emerging agricultural marketing systems in India – a case study of onion marketing in Maharashtra identified five marketing channels.

Channel I: Farmer - Commission Agent - Wholesaler - Retailer - Consumer
Channel II: Farmer - Commission Agent - Wholesaler (local market) - Wholesaler (distance market) - Retailer - Consumer
Channel III: Farmer - Commission Agent - Wholesaler - Mumbai Port for Export - Overseas Buyer - Super Market
Channel IV: Farmer – DFPLC (Deepak Fertilizers and Petro Chemical Corporation through Saarrthie service centre) - Organized Retail Outlet (MALL)
Channel V: Farmer - DFPLC (through Saarrthie service centre) - Overseas Buyers

G. Suresh et al. (2012) in their study on Marketing of Grapes in Tamilnadu – a case study of Coimbatore district identified and categorized four marketing channels. They are

Channel I: Cultivators – Pre harvest contractor – Wholesaler – Retailer – Consumer
Channel II: Cultivators – Commission Agent - Wholesaler – Retailer – Consumer
Channel III: Cultivators – Consumer Association – Consumer
Channel IV: Cultivators – Consumer

H. K. Mavi et al. (2012), in their study on investigating the efficiency of various marketing models and problems of Kinnow growers of Punjab, identified six marketing channels for distribution. They are

Channel V: Producer–Wholesaler (through Commission Agent) – Retailer – Consumer (Local market)
Channel VI: Producer–Retailer (through Commission Agent) – Consumer (Local market).

Vinod kumar verma et al., (2013) in their study on production and marketing of Cumin in Jodhpur district of Rajasthan found that farmers adopt two channels for marketing of cumin. They are

Channel I: Farmer – Village trader – Wholesaler – Retailer
Channel II: Farmer – Wholesaler (Mandi) --Retailer

Sowmya Kanta Dwibedy (2013), in his study on Estimation of Price Spread and Marketing Efficiency of Brinjal in different Marketing Channels: A Case Study identified three marketing channels in Bhubaneswar. They were as follows.

Channel I: Producers – Commission Agents –Wholesalers –Retailers—Consumers
Channel II: Producers – Wholesalers – Retailers - Consumers
Channel III: Producers–Collection Centre of Organized Food Retail Chains—Consumers

2.4. Constraints in Marketing of Vegetables and Fruits

Hiremath (1993) studied the economics of production and marketing of lime in Bijapur district, Karnataka and identified the problems relating to production and marketing of lime. The absence of processing facility, absence of cold storage facility, fluctuations in prices were the major problems expressed by 100 percent of farmers and other problems were absence of cooperative marketing of lime, non-availability of packing material at reasonable price and difficulty in transportation.

Sharma et al. (1993), in their study, have identified the problems of storage, transportation and marketing of off-season vegetable crops in Solan district of H.P. The study found that due to poor storage facilities at farmer’s level, the losses to all the major off-season vegetables (tomato, capsicum, beans and peas) were the highest. The losses were higher in the market mainly because of unauthorized deduction. Higher production with minimization of market losses is likely to enhance the market surplus. The establishment of factories using fresh vegetables as raw materials,
formation of co-operatives in the vegetable growing areas and strengthening of market intelligence network are the major suggestions for the overall development of the area in general and vegetable growers in particular.

Thakur et al. (1994) identified the problems encountered by the farmers in marketing of vegetables. They were

(1) Unorganized marketing and low prices paid to farmers,
(2) Lack of mechanical grading, packing, and proper storage facilities,
(3) Malpractices, high and undue marketing margins and costs in markets
(4) Lack of village roads, lack of sufficient and low cost transportation facilities.
(5) Lack of market information and market news, and
(6) Lack of processing units and cooperative societies.

Gummagolmath (1994) identified the problems in production and marketing of mango in Dharwad district of Karnataka. The opinion survey revealed that the problem of alternative bearing was expressed by 100 percent orchardists in all categories of farmers. Problem of non-availability of labour was expressed by most of the medium orchardists (66.67%) followed by small orchardists (40%) and large orchardists (33.37%). Among the marketing problems, the problem of price fluctuation was expressed by 44.44 per cent of small, 36.80 percent of medium and 50 per cent of large orchardists and other problems were high commission and existence of under dealing between wholesaler and commission agents.

More (1999) studied the economics of production and marketing of banana in Marathwada region of Maharashtra state. The study identified the problems faced by the farmers in Banana production. All the farmers mentioned that the Banana production in the study area was facing the problem of Musa sercospora disease. The other major problems included high labour wages, non-availability of quality planting material at right time and non-availability of adequate technical assistance from experts on behalf of government. The problems in marketing were due to variation in the prices across various markets, thus creating uncertainty among cultivators in choosing the markets for sale of produce. High transportation cost was also one of the important marketing problems in marketing of banana in the study area. Inadequate
availability of the loan at right time by the financial institutions was the main problem in the production of banana in the study area.

Rajendran. (2001) made a study of the marketing of agricultural produce with reference to the Royal Commission on Agriculture, 1928. According to the report, realizing the gravity of problems in marketing of agricultural produce including horticultural crops as early as in the starting of the 20th century in 1928, the Royal commission on Agriculture emphasized the need for strengthening the agriculture marketing system to safeguard the interest of the farmers in India. Later after 50 years the report of the national commission on Agriculture in 1976 has also found many defects in the agriculture marketing system and therefore suggested various measures to strengthen it. These reports stated that as much as 56 percent of the consumers share goes to the middlemen and hardly less than 10 percent reaches the farmer while selling takes place. Many research studies also confirmed that the price spread is very large particularly for vegetables.

Begum and Raha (2002) studied on marketing and banana in selected areas of Bangladesh. The existing marketing system for bananas in selected areas of Bogra district, Bangladesh was examined based on data from 40 market intermediaries. Also the marketing costs and margins at different levels of banana marketing and the existing marketing constraints were examined. The results revealed that banana marketing was a profitable venture. However, the major marketing problems were price instability, lack of capital, inadequate facilities and lack of adequate market information.

Sharan and Singh (2002), in their study, highlighted that the selling of kinnow through self-marketing by growers in Rajasthan was found profitable in comparison to contract sale to pre-harvest contractors. Lack of support price and lack of organization were the major problems faced by all the growers in marketing their produce. The other major problems faced were delay in payment, lack of competition among buyers, lack of marketing infrastructure, lack of cold storage facilities, and lack of better and cheaper packing material. The growers also reported other problems like low prices due to seasonal gluts of arrivals in the market, malpractice in weighing method, etc.
Sethi (2003) tried to explain the constraints involved in the production and marketing of fruits and vegetables in north-eastern region. The study found that the production share of this region in India’s total production was as much as 50 per cent in case of pineapple, 13 per cent in case of oranges and 6 per cent in case of bananas. But due to lack of simple technologies of processing, preservation and transportation facilities, the post-harvest losses were estimated to be more than 25 per cent. Hence, determined efforts are necessary to overcome these problems and to raise the production above self-sufficiency level.

Desmond Jolly (2005) felt that farmers market is seen as one solution to the multifaceted problem of our cultures growing isolation, from other people, from the environment and from the sources of our food. People perceive farmers market as gathering places where families can bond with neighbours and visit with friends. Farmers markets also provide a medium by which people can get closer to their food sources. They also tend to distinguish the produce offered at farmers markets as higher in quality, more flavourful, fresher, and healthier than the produce typically found in other outlets.

Brij Bala (2006) conducted a study on marketing system for apple in hills problems and prospects (A case study of Kullu district, Himachal Pradesh). They surveyed 120 apple growers. They identified many constraints faced by the growers such as lack of road facility unawareness inadequate storage facility delayed payment and lack of market intelligence.

Acharya (2009) while studying Market Policy and system Improvement felt that the amendment in the state APMR Acts should be speeded up and model rules and regulations should be adopted to all the states to encourage contract farming and direct marketing arrangements from farmers. The role of APMCs and State Agricultural Marketing Boards should be redefined to inter alia promote value addition in primary markets, rather than just collection of fees and undertaking of construction activities.

Marimuthu (2010), in his study, has identified the constraints in marketing of vegetables. Normally, vegetable crops give higher yield per unit area as compared to cereal crops. Further, increase in vegetable production provides more farm employment. Despite its utility, vegetable cultivation, consumption and marketing in
India remain relatively neglected aspect. The production and marketing of vegetables were affected by many constraints like insufficient and imperfect markets, abundance of intermediaries in channel results in exploitative practices in marketing of fresh produce, scattered production and sometimes in isolated places where even the transportation facilities and other infrastructure was not sufficient, lack of proper grading, improper pre and post-harvest care and handling. The study suggested that if the farmer does the marketing of his produce himself, then the net returns to him would be double.

Karpagam et al. (2010), in their study, found some constraints in grape production in India and discussed government policies and plans for grape development of India. Although grape cultivation is considered as highly remunerative, yet the share of India in world production is very low because of reasons like heavy initial investment for establishing a vineyard, high recurring costs in vineyard management, less exports, high risk of damage to crop because of unexpected changes in weather, marketing problems, etc. Both the central and state governments provide considerable efforts to promote grape sectors like providing soft loans and subsidies for pre-cooling and cold storage. To promote export of fruits and vegetables, GOI has announced Agri Export Zones and Grape Wine Park in grape growing areas of Maharashtra. Besides this, various self-managed Farmer’s Interest Groups (FIGs) like Maharashtra State Grape Growers Association have also been established to promote grape production.

Venkateswara Rao et al (2011) in their study identified that regulated market yards for fruits and vegetables are functioning only at a few centres. The marketing of fruits and vegetables are in the hands of middlemen. Middlemen exist at various levels and exploit the farmers. So large numbers of small farmers are unable to effectively bargain for better price in the wholesale markets, resulting in handling, loss of quality and increase the gap between producer and consumer rupee. They also found that farmers markets are especially beneficial for small producers who have difficulties in selling small volumes during the dry season in the conventional marketing system.

Yadav et al.(2012) in their study on Economic analysis of marketing of major summer vegetable in Satara district of western Maharashtra identified the problems in
marketing of tomato, brinjal and okra. It was observed that 93.33, 76.66 and 70 per cent tomato, okra and brinjal producers respectively were of opinion that they were not getting prices as expected. The prices were always quoted on lower side and there were wide fluctuations in the prices. The problem was more severe in case of tomato. The main reason for the low prices was formation of syndicates by the middlemen, who galloped major share of consumer’s rupee.

Lalrinsanguii et al, (2012) in their study on Economics of Chow-Chow (Sechium edule) Marketing in Aizwal District of Mizoram identified the problems in marketing. High price fluctuation (58.33%) was the most serious marketing problem faced by the farmers. The second problem identified was the lack of proper market (35.42%). Another problem was lack of storage facilities (35.21%) due to which farmers were compelled to sell their produce just after the harvest at a lower price. High charges of transportation (34.17%), high cost of packing material (30.42%) and lack of approach road (15%) were also the other problems faced by the farmers in marketing of chow-chow.

Sidhu et al. (2012) in their study on marketing efficiency of potato under different supply chains in Punjab identified marketing constraints perceived by farmers in Apni Mandi. The major constraints as perceived by the selected farmers were non-availability of drinking water in the Apni Mandi. Farmers have to make payment for the supply of drinking water. This constraint becomes more severe particularly in the months of May and June every year. The next important constraint was unhygienic conditions in the market, inadequate market infrastructure, and frequent change in site for the farmers, dominance of traditional retailers and not Apni Mandi in the real sense. It has been observed by the researcher that large number of vendors come to the Apni Mandi for the sale of grocery items, plastic goods, ready-made garments, cosmetics, snacks, cold drinks, ice-cream, etc., Such a congested scenario in Apni Mandi create traffic problems for the general public and loss of business for the farmers.

Choudhari et al, (2012) in their study on “economic analysis of marketing of aster in Pune” identified high cost in packaging as the major constraint indicated by 49 percent respondents followed by labour problems 46 per cent and time consuming operation by 22 per cent growers. In the transportation, high cost was major
constraint followed by non availability of vehicle in time and high transit losses which were expressed by 88 per cent, 29 per cent and 11 per cent of the farmers respectively. Malpractices in weighing and more number of middlemen were also other constraints which were expressed by 84 and 17 per cent of the farmers, respectively. Other constraints such as unavailability of market information, delay in payment and fluctuations in prices were also faced by the farmers. Fluctuations in prices were the major constraints, expressed by 99 per cent of the farmers.

Mavi et al. (2012), in their study on “investigating the efficiency of various marketing models and problems of Kinnow growers of Punjab”, identified the following problems faced by growers in marketing of Kinnow. About 54% of sample farmers and about 57% of pre harvest contractors reported that the market intelligence system in providing information on market prices of kinnow in important markets of the Punjab was not sound. Farmers could not get the latest information on market prices, change in demand and supply pattern and forecast prices of kinnow. No government agency or private organization was engaged in this process. 38% sample farmers reported that inadequate post-harvest infrastructure contributed to heavy losses. 65% sample farmers reported inadequate processing facilities contributed for ineffective utilization of the kinnow fruit. 67% of sample farmers reported that the kinnow markets were not vertically integrated and therefore resulted in low share of producer in the consumer rupee. 84% of sample farmers reported wide fluctuation in prices of kinnow acted as a deterrent, particularly for small farmers to expand kinnow cultivation in a big way. 47% of sample farmers reported malpractices i.e., the commission for kinnow marketing has been fixed at 6% by the Government of Punjab, where as the commission agents charge between 6 to 8%, where by causing economic loss to farmers.

Saravanam (2012), in his study used Friedman’s test to identify which problem has a greater effect on the vegetable growing farmers. It is found that among the fifteen factors, lack of credit facility (10.45) was ranked first, followed by higher market cost (9.02), delay in payment (9.01), no correct weight (8.77), Intervention of a middleman (8.42), non availability of quality seeds (8.50), price fluctuations (7.94), high cost of inputs (7.80), poor market information (97.76), ignorance of infestation of insect-pest disease control (7.43), lack of transport facility (7.37),higher transport
cost (6.99), lack of finance (6.72), malpractices by traders (5.73) were ranked first, second, third, fourth, fifth, sixth, seventh respectively and so on..

Richard Mahapatra et al, (2013) in their article pointed out that increased production without cold storage facilities farmers will not be able to store their produce for long to sell during the off season when it fetches higher price or sell in far away markets for a better rate. Lack of cold storage facilities is the reason vegetable farmers fail to benefit from the high market price.

Sowmya Kanta Dwibedy (2013), in his study on Estimation of Price Spread and Marketing Efficiency of Brinjal in different Marketing Channels: A Case Study identified the constraints faced by the farmers in marketing the produce. High commission rate was ranked as the primary constraint (85). Price fluctuation (80.35), high transport cost (72.90), distress sale (67.83), lack of information (59.32) and defective weighing (55.30) ranked 2nd, 3rd, 4th, 5th and 6th respectively. The other constraints faced by the farmers in marketing are unnecessary deduction, rejection problem, delay in payment, loss of choice of crop and loss of choice of getting higher profit due to contractual arrangement.

Narayana Reddy. T. et.al. (2013) in their study identified the factors responsible for immediate sale of products by the respondents without waiting for a rise in the prices of agricultural products. 29% of the respondents had to sell their products due to inadequate storage facilities, while 37% stated to sell to clear their debts. Only 11% of the respondents sold their produce with a view to mobilizing working capital for the next year. An analysis of the category wise reasons for the marketing of products reveals that Marginal farmers sold their produce to clear off loans. They also stated to resort to early sales due to lack of storage facilities. The agricultural marketing system prevailing in the study region was characterized by a considerable degree of diversity. The available methods of grading and standardization, storage facilities, mode of payment, unhelpful attitude of the commission agents hampered the economic interest of the farmers.