

CHAPTER 2

REVIEW OF LITERATURE

2.1 Introduction

Before proceeding further it is pertinent to take Stock of the available literature and research problem. A plethora of literature some of them is available on Export Competitiveness of Major Horticulture. Some of major works have been reviewed as under:

Sidhu (2005) Article titled ‘fruit and vegetable processing industry in India: an appraisal of the post – reform period’ has examined fruit and vegetable product processing industry in India. The study period has 1991 to 2001. Data have taken various sources like annual report of the department of food processing industries, ministry of agriculture, economic survey and statistical outline of India. Study said that production of processed fruits and vegetables have been increased which was in 1991 2.80 lakh tones to increase in 2001 9.90 lakh tones. Study find out that number of licensed processing units under the fruits product order have increased in the post- reform period and these all units have been positive affected of the fruits and vegetables industry. Study said that export of processed fruits and vegetables have also increased in the study period due to globalization and liberalization. Major exported destination of fruits and vegetables product to Saudi Arabia, United States of America, Netherlands, Kuwait, Germany, United Kingdom, Egypt, Sri Lanka, United Arab Emirates, Turkey, Spain, Indonesia, Russia and France. Further the study said that these products purchased by the high class people not poor or lower class people due to value addition and high costs. But the suggested that after post-reform fruits and vegetables industries have increased and APEDA has also dominant role in the export of these products.

Mittal S. (2007) in her research paper ‘Strengthening backward and forward linkages in horticulture: some successful initiatives’ has analyzed SAFAL Market and Namdhari

fresh. These marketing instruments have dominant role in the horticulture products supply chain between buyers and sellers. The paper finds out that such policy or models developing which have supported to horticultural farmers and consumers. This paper has suggested that Indian horticulture sector is facing low productivity, narrow irrigation facilities and limited cold storages facilities, roads, transportation which have major problem for horticulture products development. SAFAL Market and Namdhari fresh have provide big opportunities for buyers and sellers and it declined market risks and increase supply chain between producers-wholesaler and consumer. The study talks about that in the 1991 to 2004 exports of fruits increased 102 thousands tones in 1991 to 488 thousands tones in 2004 but the study suggested that 30 percentage of India's fruits and vegetables product have wasted due to limited cold chain.

Mittal S. (2007) in her working paper 'Can horticulture be A Success Story for India' has analyzed horticulture crops, trends and production and export performance in India. Examined demand and supply of horticulture products in India and Export Competitiveness of major horticulture crops from India. Study suggests that some major policies regarding to horticulture crops. In this working paper data have taken from many institute like Indian horticulture board database which is published by the National Horticulture Board(NHB), Directorate of Economics and statistics, data regarding to cost of cultivation has taken from Commission for Agricultural Costs and prices, Export and Import data have taken from India trade data base of CMIE and APEDA. Cost benefit ratio (CBR), percentage and Revealed Comparative Advantage (RCA) method have been used for the study. The study talk about agricultural diversification is a major rational choice of horticulture crops and technological and institutional will push for the development of horticulture crops. SAFAL and its similar market have more important for horticulture development. Small and marginal farmers attract to horticulture crops due to their profit. Further the study suggested that due lack of regular trade partner fruits and vegetables trade have fluctuated. The study talks about Banana, Mango and Grapes in fruits and Potato, Brinjal and Tomato in vegetables have more productive in India. India's major export of fresh fruits and vegetables destination is Bangladesh. Some other export destination which are U. K, Saudi Arabia, Netherlands and Franc, Malaysia, Singapore and UAE. This working paper Africa, Kenya, Thailand, Israel, China and

some other countries by the learned for the horticulture crops development which will be beneficial for Indian fruits and vegetables Crops. The study suggested that some problems create related to horticulture crops in India like cold storage facilities, irrigation facilities and transportation cost which be solve by the government and trained farmers should be engaged in the horticulture crops.

Mittal (2009) has examined the feasibility of diversification through benefit cost analysis and by comparing the commodities of food grains and horticultural group. Paper suggests that it is beneficial to move towards horticulture crops from cereals and food grains production, because high benefit cost ratio of horticulture has been reported as compare to cereals. It focuses on the reasons of cultivating food grains and cereals by farmers, when the cultivation of horticulture crop is economical and profitable. It explains the efficient way of re-allocation of land by which optimal output and income can be generated, with the focus on domestic demand, exports target and improvement in the economic condition of farmers. The use of land for horticulture sector offers an alternative option and a major source of accelerating growth of agricultural sector. The paper has examined that if the implication of policy fronts could be in a right manner then would be beneficial for the desired growth in the agriculture sector. Some suggestions have suggested through which horticulture production would increase. The paper has focused on fresh vegetables and fruits using the 14 years data from 1990- 1991 to 2004 – 2005. Data has taken from various reports published by the national horticulture board (NHB), reports of the commission for agricultural cost and prices& ministry of agriculture. Study focuses on importance of small and marginal farmers and advocated that small farmers are going feed India. It is important to motivate them for horticulture production which is a growth accelerating sector in agriculture.

Bhattacharyya (2011) in his article entitled with ‘revealed comparative advantage and competitiveness: A case study for India in horticulture products’ talks about India has a comparative advantage in vegetables, fruits and flower trade in the Asian, European Union and United States America and Canada markets compared to other south east Asian countries. Two broad indexes have been used – revealed comparative advantage (RCA) and comparative export performance index. Data have taken various sources like

agricultural and processed food products export development authority, ministry of commerce and industry government of India, national statistical bulletins of CMIE, national horticulture board and food & agricultural organization of United Nations. The study says that India's rank in terms of global exports in the year 2008 was 14 for fruits and 15 in vegetables. Potato is increasing vegetables in India. The study says that India has comparative advantage in the vegetables fruits and flower industries few south East Asian countries. Indonesia has the largest share of export in agriculture in her trade balance. India has the lowest share in import of agricultural products. Further the study says that India provides the much employment in agricultural and china has the second employment provider in her agricultural sector. China is increasing in its share of total world export but the other countries conditions have similar. The study suggested that India has been a significantly comparative advantage whole China, Thailand, Malaysia and Indonesia in European and North America in the vegetables markets and India has comparative advantage in the fruits over china, Thailand and Malaysia. In the case of flower exports china and Thailand have always much competitiveness than India, only 2005 India was more than Indonesia. The study suggests that India has a comparative advantage its major competitor in EU market in the vegetables and fruits sector but not in the flower sector after 2005 Indian horticulture export performance is increasing. APEDA has been major role for promoting of the Indian horticulture products.

Roy and Sengupta (2011) article titled 'behavior of India's horticultural exports: does price competitiveness play a determining role?' has analyzed the export of horticultural products from India during 1961 to 2005. In this study price data have taken in FAOSTAT. Augmented dickey-fuller, time series and co integration test have been used. The study suggested that export of horticulture goods depend on production, export price, world unit price, and world demand and producer price. Thus export of horticulture depends on their price factor and some other factor like productivity, transportation cost, packaging and his quality. Further the study find out that most of horticulture export determine the relative export price in the long run and short run. Export of banana, coffee and spices have positive and significant impact on the production of horticulture in the long run.

Gosh (2012) in his paper ‘Carrying capacity of Indian horticulture’ has analyzed Indian horticulture products demand growth rate for fruits is 3.34% and vegetables is 3.03%. In using also from 1998-1999 to 2006-2007. The required growth rate of horticulture sub – sector demand for 2050 is less than this study. The study finds out that where cultivation of food crops has create less income than spices. Further the suggested that Mango, Banana, Aonola, Citrus, Guava, Sapota and Pineapple have maximum land area cover than other horticulture fruit product and fruit products have been more important for rural India. The study suggested that horticulture cropped area spread will be spread on the hills, arid and riverside area, semi- arid and irrigated arid area. Onion, grapes, potato and litchi have important export products but the study awarded from changing climate situation for our horticulture products because these products are more sensitive. Finally the study suggests that some reforms like institutional, marketing, credit and pricing, technological endowment for the horticulture developments.

Aneja (2013) in his article ‘Horticulture development in India: A multi aspects Analysis’ has analyzed important role of horticulture crops in India and state level role of horticulture development in India. Data have been taken from Indian horticulture board (NHB), Director of economics and statistics, Center for monitoring on Indian economy (CMIE), and export data taken from agricultural and processed food products export development authority, directorate general of foreign trade. Revealed comparative advantage and percentage method have been used for this study. The study period has taken 1991 to 2010. The study finds out that fruits and vegetables are dominant role in the horticulture crops and their area and production have been increased. Maharashtra and Andhra Pradesh have more developed than other state in the production of horticulture crops. The study suggested that grapes and mango exports earn the maximum foreign exchange for the India and onion, potato are important role in the fresh vegetables. Further the study suggested that India is not keeping revealed comparative advantage in the exports of fruits and vegetables besides Mosambi, Grapes, Mango and Onions.

Choudhary (2013) article entitled ‘Contribution of national horticulture mission in agriculture development’ talks about 4 % targeted of horticulture sector achieve by the

development of horticulture crops which have dominant role within agriculture sector. Study advised that after launching the national horticulture mission (NHM) horticulture production have been increased and generate more employment for its farming sector. Further study advocated that more foreign exchange will come by the export of horticulture production.

Dastagiri et. al. (2013) in his article ‘Indian vegetables: production trends, marketing efficiency and export competitiveness’ has analyzed area growth rate of vegetables cultivation is 4.12% and vegetables production growth rate was 6.48% . Study period was taken 2001 to 2010. In this study Analytical Techniques, Logistic model, Delphi Technique, Shepherd formula, Acharya modified marketing efficiency formula has used. Primary survey has also conducted for marketing channels, marketing cost, market margin and price spread. The study finds out that Tamil Nadu, Manipur and Rajasthan have less marketing cost than Andhra Pradesh and west Bengal. Due to direct marketing in Punjab was too low marketing cost for all crops and no price spread in Punjab. Marketing margin in Andhra Pradesh and west Bengal has more for all crops than other states. Further the study finds out that producer part in consumer rupee was highest in Punjab, Tamil Nadu and Manipur compare to Andhra Pradesh, west Bengal and Rajasthan. Export trends of fresh vegetables in 2001 to 2010 was 22.2%, during the study period export growth was high for tomato, potato, onion and Sharlots. The study suggested that all vegetables are competitive in the international market and all vegetables growth rate was more than 4% except sweet potato. Finally study suggested that such policies marked by the government which has promoted vegetables production, export and direct marketing model.

Patil et. al., (2013) in this article ‘Export of horticulture products the path ahead’ has analyzed export of horticulture product was big in 2011 – 2012 at the 14000 crores tune. The year of 2012 is acceptable ‘year of horticulture’ that’s tremendous development for horticulture products. but the study talks about export competitiveness of horticulture products is low due to low crop productivity, limited irrigation facilities, lack of cold storages, market access and transportation facilities. Further the study suggested for export increasing technology which is focuses of horticulture crops. Post-harvest

management, developing irrigation facility, qualitative production and packaging of horticulture products, development of seaports, air ports and inland ports which will increase export support infrastructural and trained manpower involve to export of fruits and vegetables. While IPM protocol will increase for the safety of Indian horticulture products which will encourage poor farmers. The study argued that united state America, United Arab Emirates, United Kingdom, nether land, Malaysia, Saudi Arabia and Kuwait are more important destination of India's horticulture products.

Dastagiri (2014) in his article 'India's export horticulture markets in multispeed world Economic trends of export, prices, elasticity and policies' has analyzed from India's export of horticulture, price trends, elasticity's and major importer country of India's horticulture products. The study period of this paper was 1990-1991 to 2012-2013. Data have taken many sources such as agricultural produce export development authority (APEDA), directorate general of commercial intelligence (DGCIS), national horticulture board, center for monitoring on Indian economy (CMIE), international trade statistics year book, planning commission reports, national bank for agricultural and rural development, Exim bank. In this paper compound annual growth rates and trend of horticulture exports, price elasticity of export have been used. The study says that India's horticulture products were exporting to maximum 130 countries. The study suggested that export growth rates of fruits- Mango, Pomegranate and Grapes are more during 1990 -2000 than 2000 – 2012. Export growth rates of vegetables – Onion, Gherkin, Green chilies, Potato are 8.4%, 2.3%, 5.0%, 13.1%, -28.9% respectively. But the study period export growth rates of Green chilies are negative due to low export prices and lack of demand. The study suggested that export growth rates of fruits, vegetables and flowers are positive besides Mushrooms and Walnut. Further the study suggests that export of horticulture products growth rates more than horticulture price growth rates besides Walnut and Mushrooms and all fruits, vegetables and flowers are elastic besides walnut and mushrooms. The main importer countries of Indian fruits are Bangladesh, United Arab Emirates, Pakistan, Malaysia, Sri Lanka, United Kingdom, Saudi Arabia, Nepal, Netherlands and France. Vegetables are exported to Saudi Arabia, United Arab Emirates, Pakistan, Malaysia and United Kingdom. But the study has forced for searching new markets of Indian horticulture products which will possible more foreign earning.

Kondal (2014) in his article ‘Trends in area and production of horticulture sector in India’ has analyzed inconstancy of all horticulture crops in India and to check the relationship between horticulture sector’s area, production and horticulture sector export from India and import to India. The study suggests that high and strong relationship between horticulture production and horticulture export from India. Kondal says that coefficient of variation value of mushrooms production is very low compared to other horticulture crops. Study observed that horticulture exports has increased from 5184.21 crores in the year 2001- 2002 to 17371.19 crores in the year 2010-2011 and imports are also increased due to decrease in the productivity of horticulture crops. The adaptation of modern technology in horticulture crops productivity has increased.

Vanita et. al., (2014) in this article ‘Export Competitiveness of fresh vegetables in India’ has analyzed total vegetable exports from India during 2000 to 2010. In this article Time series, an Exponential Growth model, Markov chain analysis and Coefficient of variation, Revealed Comparative Advantage method has been used. The study suggests that India place at 24 as exporter of vegetables and India’s prominent fresh vegetable exports have United Kingdom, United Arab Emirates, Nepal, Sri Lanka and Saudi Arabia approximately 55 % of total vegetables export from India. Study advocated that India has a comparative advantage in Onion and Peas compared to other vegetables. Tomato, Onion and Potato have major Exported vegetable which have 50 % of total production in India. Further the study suggested that Bangladesh has static market for export of Tomatoes and Onion from India and Maldives, Nepal, and Mauritius are static markets for export of Potato while Singapore, Pakistan, Sri Lanka, Bangladesh and Mauritius are already existing market along with new emerging markets of India can be encouraged.

Kondal (2014) article entitled ‘performance of horticulture sector in India’ has analyzed the performance of horticulture sector in India and introduce to the effective factors on horticulture export and imports. The study ranged from 2001- 2002 to 2010 – 2011. In this study Annual Growth Rate, Regression, Coefficient of Correlation and Percentage Method have been used. Kondal advocates that export of horticulture increased in total agriculture export during 2001-2002 to 2009-2010. But export growth rate of horticulture was weakening after 2008-2009. The study suggested there is a good significant

relationship between export/import of horticulture and agriculture Export/Import and total national Export/Import in India. Study talks about there are a good and significant effect of production and Exchange Rate on the horticulture exports and imports in India. During the study period Maharashtra has big role in the contribution of major horticulture crops in terms of area, production and productivity in India.

Aneja (2015) article entitled ‘Cost – Benefit analysis of major agriculture and horticulture crops in India’ talks about cost benefit ratio and diversion trends of Indian agriculture sector to horticulture sector. The study period was conducts 1991 to 2012 and data have taken from various sources like director of economics and statistics, Report of the Commission for Agricultural Cost and Prices, National Horticulture Board and Cost Benefit Ratio used for this study. The study finds out that area of Food Grains, Rice, Coarse, Cereals, Sugar cane and Pulses have declined while area of horticulture has increased. Further the study talks about area and production of fruits has increased while vegetables area has constant. Finally the study suggested that Cost Benefit Ratio is more than Cereals which will promote for Indian small and marginal farmers for horticulture crops.

Dastagiri (2015) in his article ‘International market signals for Indian horticulture export markets: policies and prospects’ have analyzed market indication of exports and prices of Indian horticulture product and introduce to their destination. The study period has taken 1990 – 1991 to 2012 -2013. Data has been taken various sources like Agricultural Produce Export Development Authority, Directorate General of Commercial Intelligence (DGCIS), National Horticulture Board, FAO Stat and Center for Monitoring on Indian Economy (CMIE), NABARD, EXIM Bank and Export Companies. Compound Annual Growth Rate, Price Elasticity, and Regression Model have been used for this study. The study suggested that all elasticity’s of Fruits, Vegetables and Flower are elastic besides Walnut and Mushroom. The study suggested that Fruits and Vegetables duties have free. West Asia and East European markets have major destination for Indian horticulture products. Further the study finds out that horticulture goods quantity export growth rates more than price growth rates besides Walnut and Export Price Coefficients are indicate exports of horticulture products to increase their price variation.

Patel (2015) in this article ‘Scope for the horticulture industry to grow and flourish in India’ talks about last five year horticulture production has increased 30 percentage and after launching the National Horticulture Mission(NHM) production of horticulture have also increased. Study talks about scope of horticulture sector like big opportunity for farmers of earning money and in the India weather is changing time to time so adoptability of horticulture crops is higher. Horticulture products are more important for human health because it provides nutritional safety as 85 gram of fruits and 200 gram of vegetables per head per day. Further the study says that Indian horticultural Crops provide big opportunity of Agro – industries which generate large number of employment and major role of horticulture products are export from India to European and some gulf countries. But the study suggests that some Cereals have Government Minimum Support Price but Fruits and Vegetables don’t have it. So it should be includes and increased cold storages facility and crops insurance for horticulture production which will benefited for farmers and Insurance Companies.

Kondal (2015) in this article ‘Bilateral Vegetable Trade between China and India: An Empirical Analysis’ has analyzed the prominent factor effecting vegetables trade between India and China. The whole bilateral trade analysis investigated by Multiple Regressions. The study has opined the prominent factors like production of Vegetables and Exchange Rate as Independent and Vegetables Exports and Imports as Dependent Variable. During the study period 2001 to 2012 the growth rate of India’s vegetables export to China increased. The R^2 value is 0.93 with respect to India’s vegetables export to China and respect to India’s vegetables imports from China the R^2 value is 0.87. The study suggests that India should have to concentrate of vegetable export on the neighboring countries such as Bangladesh, china, Sri Lanka and Pakistan. By adopting the Modern Technology in the Vegetables Crops and set up for the promotion of exports from India.

Yadav (2015) article entitled ‘Growth trends and status evaluation of horticultural crops in India’ has analyzed and evaluates the status of Indian Horticulture Crops. The study talks about what is the growth situation of area, production and productivity in India. Study investigated that from 2001- 2002 to 2012-2013. In this study simple linear regression, Karl Pearson’s Co-efficient of Correlation, Percentage Method has been used.

The study talk about Indian population is increasing very fastly and it's Food Security and mall nutritional needs may be much for future. Then Agricultural diversification is compulsory as sift to horticultural crops. The study suggested that area and production of horticulture crops has been increased due to dung, proper irrigation facilities, and improvement of barren land area. Vegetables ranks first in terms of area and Production, Fruits are second rank and Plantation crops ranks third in the area and production terms. In the year 2001-2002 area of fruits was 4010 thousand hectares which was increased 6838 thousands hectares in the year 2012- 2013, in the year 2001-2002 area of vegetables was 6156 thousand hectares which was increased 9205 thousands hectares in 2012-2013. While area under spices decreased during the study time. Production of fruits was 43001 thousand metric tons in 2001-2002 which was increased 81043 thousand metric tons in 2012-2013. Vegetables production was 88,622 thousand metric tons in 2001- 2002 which have increased 1, 62,187 thousand metric tons in 2012-2013. The study gives some ideas such as area and productions both have increased which has highly correlated that is 0.963 degree. Thus study suggested for future horticulture crops and their productivity will be high which would be beneficial for increased Indian future generation and horticulture is much near to ecology and helps in environmental reformation.