Chapter II

REVIEW OF LITERATURE

INTRODUCTION

Spices have an important place in the agricultural economy of the world especially India. A large number of studies have been conducted on different aspects of spices such as economic, political, historic, cultural, medicinal, religious, commercial etc, and published as research books, articles and reports. A comprehensive review of literature relevant to the area of research is essential in order to derive intellectual and practical solution to the problem through the application of scientific methods and to understand the work already done in this area. This chapter provides an overview of a few literature and studies from the vast literature available on various aspects of study area and tries to include all the available literature related to the topic. Broadly the literature is divided in two – Theoretical literature and Empirical literature.

2.1. REVIEW OF THEORETICAL LITERATURE AND CONCEPTUAL CLARIFICATION

In this part an attempt has been made to review the major theories and concepts regarding the international specializations, gain from trade, trade and economic growth, export performance and its determinants, the trade scenario after the establishment of WTO, regional integration, bilateral and multilateral agreement and trade etc.
2.1.1 REVIEW OF LITERATURE ON TRADE, GAIN FROM TRADE, AND TRADE AND GROWTH

The concept of comparative advantage was originally introduced by the Classical Economist David Ricardo to explain the basis of international trade. According to him, the basis of international trade is not ‘absolute’ advantage as stated by Adam Smith, but ‘comparative’ advantage. He stated that, even if one country has absolute advantage in all line of production over the other country, it can still benefit from international trade by specialising in the goods where its comparative advantage is more (Dominick Salvatore, 1998).

In order to identify in which item of commodity or industry a country has comparative advantage, one require only observing the sign of the difference between free trade and autarkic relative prices. If the sign is positive, the country has comparative advantage in the production and export of that particular item; if the sign is negative, the country has comparative disadvantage in it (Deardorff, 2004).

The oldest theory of the gains from trade is the neoclassical theory of international trade and real national income. This theory is based on the classical proposition that countries can mutually gain from trade. Till recently, the theory which dominated in the international trade was Heckscher-Ohlin “Factor Endowment Theory”, which states that, under a given set of assumptions, a country would export those commodities that use intensively its more abundant factor of production; i.e. a country has a comparative advantage in commodities, which suit its factor endowments, and it is the difference in factor endowments between countries which gives rise to international trade (Dominick Salvator, 1998).
Several Economists have established that there exists a positive relationship between trade and economic growth. One of the well known studies in this area is done by Alfred Maizel (1968). He has postulated that the essential determinants of growth in primary producing countries are their ability to increase the capacity to import.

K.S. Dhindsa (1981) has discussed the causal relationship between export and economic growth. According to him, export contributes to economic growth in three ways.

1. Other things remain the same; economic growth implies an increase in GNP.

2. Export industries affect the growth of economy through their effect on other industries due to the existence of interdependence among industries. Export accelerates the capital formation, technical change and reallocation of resources.

3. Since exports is the main sources of foreign exchange, it leads to growth via import of capital and intermediate goods, their availability is essential for transferring savings into investment. If the gain from trade is more, then the faster would be the process of economic development.

2.1.2. REVIEW OF LITERATURE ON EXPORT AND ITS DETERMINANTS

Export earnings of developing countries are not encouraging for the past several decades. Two schools of thought have been developed to explain stagnant export earnings. One argues that stagnation was due to deficiency in demand in the developed industrial countries (Demand Deficiency Thesis) and the others
attribute to a deficiency of their supply from the developing countries (Supply Deficiency Thesis).

2.1.2 (a) Demand Deficiency Thesis

Ragnar Nurkse (1959) was the chief advocate of Demand Deficiency Thesis. According to him, trade was an engine of growth for developing countries in the 19th century, but in the 20th century, trade did not work as a powerful engine as in the 19th century. According to him this was due to the slowing down in the rate of expansion in the demand in the industrial countries for the traditional export of the developing countries.

Supporting the Demand Deficiency Thesis, Raul Prebisch and R.W. Singer (1950) argued that, low income elasticity of demand in the industrial countries for the primary products of developing countries are partly attributed to the secular decline in the prices of primary products in terms of manufactures (Secular Deterioration Thesis)

According to Maizels (1968), the retardation in the export of some developing countries was due to the slow growth in the world demand for their primary products.

2.1.2 (b) Supply Deficiency Thesis

Economists like Cairncross, Bieda Decosta and Dhindsa supported the Supply Deficiency Thesis. K.S. Dhindsa (1981) in his study on “India’s Export Performance” found that exports of traditional items are badly affected not by external demand factors, but because of internal supply factors.

Dacosta and Goddamwar (1988) in their study on “Export of Agricultural Commodities from India” proved that the relative
incentive to sell in the export market was frustrated by inadequacies of domestic suppliers.

2.1.2 (c) Other Determinants of Exports

McGeehan (1986) pointed out that non-price factor such as quality, design and marketing are equally important in determining the competitive position. Design can be interpreted to include performance, reliability and appearance. The role of marketing in increasing exports and sales is assuming greater importance as the international market is becoming increasingly competitive. The study undertaken by him in many western countries had found that there is a relation between price and export performance. According to him “The share of individual countries in the foreign export volume are inversely related to their export prices”. Dacosta and Gaddam War (1988) also found similar conclusion in their study.

Ball, Eaton and Steuer (1966) have studied the impact of internal demand pressure on British export performance. They have arrived at a conclusion that the short run variations in the volume of British export were inversely related to the pressure of internal demand. This is in accordance with the classical view that, the domestic demand reduces the quantity available for export.

2.1.3. Review of literature on Export Performance, Its determinants and Measurement

Export performance is considered as the relative success or failure of the efforts of a nation or firm to sell domestically produced goods and services in other nation.

Keld Laursen (1998) in a published paper has given the analysis of Balassa’s Revealed Comparative Advantage (RCA) to explain the export performance of a country. He has compared
Balassa’s Revealed Comparative Advantage (or Export Performance Ratio) with other measures of international trade specialisation such as Michaely Index (and the CTB measure) and the Chi square measure. This report analysed the properties of the RCA index conducting empirical study and concluded that, the best measure of comparative advantage is the Revealed Symmetric Comparative Advantage (RSCA). According to him Revealed Comparative Advantage (RCA) has been applied in large number of reports (Eg: UNIDO; 1986, World Bank 1994) and academic publications (Eg: Aqhino 1981; Crafts and Thomas 1986; Van Hulst et al 1991; Lim, 1997) as a measure of international trade specialization.

Amelia U. (2002), examined the impact of trade liberalization on export growth of some of the developing economics using the export demand function approach, applying dynamic panel data model based on fixed effects and generalized methods of moments estimators. According to her export performance may be expected to depend primarily on-

1. Relative prices of the commodities. Relative price is the price of a country’s exports relative to the foreign price of related goods expressed in common currency.
2. World income, which actually determines the demand for a country’s goods.

Her findings provide empirical evidence supporting the positive impact of trade liberalisation on export growth of the country.

The main empirical findings of the investigations are-

1. Increase in relative prices affects the export growth negatively.
2. There exists a positive relation between the external demand and export growth.
3. Export duties affect the export growth negatively because; it is an indicator of trade distortion.

4. Important determinant of export performance is the process of trade liberalisation.

Macro Fugazza (2004) analyzed the export performance and its determinants in his studies ‘Policy issues in International Trade and Commodities’ published by UNCTAD. According to him, there is no clear policy implication emerge from economic literature, which clearly states the relationship between the trade liberalisation and economic growth. It is the empirical observations which strongly assert the positive correlation between the output growth and export performance.

Determinants of export performance can be split into internal and external factors. Internal factors are related to supply side conditions of the exporting country and external factors include foreign market access/entry conditions and a country’s location.

Internal factors i.e. supply side components are influenced by

1. Location and the policy variable of the country
2. Size of the country
3. Economic policy of the country
4. Development variables like technology, public investment etc.

External factors i.e foreign demand is influenced by various elements.

1. Geographical condition of nation –It implies that, other thing remain the same, countries situated at the centre of a fast growing region are more likely to be benefited from trade than others.
2. Competition and Trade policy. This creates similar impact on trade like geography.

3. The quality and quantity of physical infrastructure. They are the development components which are expected to play important role in the modern world.

Looking at the respective determinants of export performance, the study revealed the important differences across countries and regions. As far as Asian countries are concerned, both the internal and external factors prove to have played more or less an equal role in determining of export performance. But for sub-Saharan African countries external factors are more important than internal factors.

UNCTAD (2005) in its report analyzed important trade and development issues facing developing countries. The report says that export performance cannot be the only good fortune to be producing goods in high demand; rather, it is likely to be the outcome of a combination of various elements framing the production environment and export product’s access to international market. The report gives the result of empirical investigation conducted by the UNCTAD secretariat regarding the determinants of export performance of both the developed and developing countries. It stated that the relative importance of demand and supply factors change from country to country depending to a great extend on the stage of development of external sector. The foreign market access is the demand factor and which is a critical determinant of export performance. Market access can be improved through WTO negotiations on tariffs and non tariff barriers, trade adjustment and policy space, regional economic co-operation and integration etc.

Luca De Benedicties et.al. (2001) in a seminar paper presented in the University of Ancona, Italy has given a note on the Balassa’s
Revealed Comparative Advantage Index measure and normalization of original index. According to them, countries will specialize in the production and export of goods in which they have a comparative advantage. But, when one moves from theory to measurements, a major problem arises. Prices under relative autarkic condition are unobservable variables, and it hampers the measurement of actual or shadow comparative advantages. In order to overcome this obstacle, in empirical literature there is a customary practice to analyse specialization pattern using Revealed Comparative Advantage (RCA) measures. According to them usual approach of RCA is used to compare sectoral shares of the nation with their international analogous and to infer the existence of comparative advantage through the examination of actual output and/or trade flows as done by Balassa and others. The first and still most widely used RCA measure built on exports is the only information variable is the Revealed Comparative Advantage Index developed by Balassa (1965).

They have given the RCA index measure used by Balassa in the paper. If we are ‘c’ to denote a specific country, ‘w’: the world economy or the entire set of countries considered in the analysis, ‘s’ a specific sector then,

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\text{RCA or Balassa index is } \frac{X_{cs}}{X_c} \cdot \frac{X_{ws}}{X_w}
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They have given two other index developed by Laursen (2000) and Proudman & Redding (1998) to remedy some of the short comings of the Balassa index. By using the RCA measurement they have calculated the RCA of Italy, France and Germany in different sectors.
P. Arunachalam (2013) in an article titled ‘Is ASEAN Free Trade Agreement for Asian Economic Integration?’ analysed India’s Free Trade Agreement with ASEAN. The objective of the study was to analyze the problem and prospects of the FTA for India, particularly farming and fisheries sectors. According to him the increase in India’s share of world exports between 2000 and 2008 was just 0.4%, but it was around 5.1% in the case of China. Nearly half of the world trade is being conducted in the framework of various regional arrangement in which India had no option. Free Trade Agreement with ASEAN is significant for the reason that it is the first multilateral trade agreement entered into by India. It connects India with one of the most dynamic growth areas of the world.

He concluded that in a free trade area, competitiveness decides the pattern of trade flows. Therefore, free trade agreement with ASEAN offers a wide market for Indian exporters. Competition in the domestic market with ASEAN and exposure to new markets could develop India’s competitiveness in new areas, both in agriculture and in industry.

2.1.4. Review of Books on Spices

Gibbs (1909) in his book “Spices and How to Know Them” analysed the early history of spices. According to him, the term spices and condiments are applied to those articles which, while processing in themselves no nutritious principles, are added to food to make it more palatable and stimulate digestion. According to him the different grades of spices take their names from the country or city from which they are exported, each different kind having a flavour of its own. Best grades come mostly from Penang, and are called ‘Penang Spice’ while spices of nearly as good a quality comes from ports of Malabar.
Ridley (1912) in his book “Spices” stated that, ‘the history of the cultivation and use of spices is perhaps the most romantic story of any vegetable product’. According to him, from the earliest known eras of civilisation, spices were eagerly sought in all parts of the world. The earliest explorers in their search after gold, paid almost as much attention to drugs and spices, and it was the pursuit of these as much as anything which led to the first rounding of the Cape of Good Hope, and the colonization of the East Indies. According to him the greater part of the spices that have been valued by man are derived from the Asiatic tropics, while the other quarters of the globe have produced comparatively few. Pepper, cardamom and cinnamon are the natives of Southern India and Ceylon.

Parry, J.H. (1994) in his book “Europe and a Wider World; 1415-1715” analysed the dominant influence exerted by Europeans outside Europe. According to him the expansion of Europe was not a deliberately planned one; nor was it willingly accepted by non-Europeans, but in the 18th and 19th centuries, it proved irresistible; so much so, that the Western nations devoted much of their energy to quarrelling over the spoils. It was the valuable products- spices- of India that led them to quarrel with each other. According to him although India was known to Europeans only by hearsay, its products were known to them very well.

Rosengarten F, (1969) a well known writer on spices in his book “The Book of Spices” examined the history of spices. He stated that some of the spices known in India today such as black pepper, cinnamon, etc. were known in Egypt for thousands of years and were included in ancient herbal medicines. He has classified spices into ‘major spices’ (5 items) and ‘minor spices’ (42 items). He considered pepper, cardamom, chillies, ginger and turmeric as major spices and
described the various aspects of these spices in the book “Spices and condiments”.

John W. Parry (1969) in his book titled “The Story of Spices” stated the places of pepper cultivation and the uses of pepper. Accordingly, pepper is cultivated in many tropical and sub-tropical parts of the world including India, Ceylon, Malaysia, Indonesia, Thailand and Brazil. Both black and white pepper berries are imported whole by spice merchants. Both of them have numerous culinary uses including seasoning and flavouring of meats, soups, fish, vegetables, eggs, sauces, salads, etc.

J.S. Pruthi (1976), in his book “Spices and Condiments” described the different varieties of black pepper in the world trade. According to him different items of spices have taken their names from the localities where they are grown or port through which they are exported. He also explains the processed forms of black pepper and its various uses by people in different countries.

Purseglove et al. (1981), in their books “spices” graded the standards of pepper producing countries. In their opinion, among the three major pepper producing countries viz. India, Malaysia and Indonesia, India has the most advanced system of grading and standard fixing. According to them government has prescribed the obligatory grading and standardisation of a large number of agricultural products under the label of ‘AGMARK’ both in the country and abroad.

Som Nath Mahindru (1982), in his book “Spices in Indian Life” explained the role of spices in the Indian life from 6500 BC to the middle of 20th century. The Portuguese merchants tried to possess pepper from Malabar region and sought the permission of Zamurin (The Ruler) of Calicut to trade in Kerala. In addition to it, they took
away numberless pepper vines by force in order to cultivate it outside India. They thought that they can grow them there and could make more money. However, the Zamurin knew that the Portuguese would not be successful. The remarks made by Zamurin at that time is still popular in Kerala “They can very well take away all pepper vines from us, but how they can steal the Thiruvathria Nattuvela (Peculiar Climatic condition) from us”?

Nadakumar (1996) in his book “Global Spices Trade and the Uruguay Rounded Agreement” stated that the spice sector has been characterised by unplanned production. The result of unplanned production is the volatile markets with widely fluctuating prices. Unplanned production has also turned spice producing countries into ‘prices followers’ rather than ‘price setters’. According to him some spice producing countries have fallen in to the low quality low price trap. Because of the small quantities produced and their widely varied indifferent quality, these countries have been forced to sell spices at low prices. This results in bringing down international prices significantly at low level.

Farroqi AA et al (2005) in their book “Cultivation of Spice Crops” described that, globalisation and liberalisation of world trade in agriculture and the resultant changes in economic order has opened up new vistas of growth. One of the important areas in which India has domination in the global market traditionally is spices. According to them in the new world environment, for international food marketing, quality competitiveness has become very important.

Ian Burnet (2011), in his book “Spice Islands” analysed the history of spices and spices trade, the history of trade routes, discovery and exploration etc. The book gives many uses of these
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exotic spices and the history of these trades over the period of more than 2000 years.

2.2. REVIEW OF EMPIRICAL LITERATURE

Several empirical studies have been conducted in different aspects of spices, but only few are available in the spices exports. In this section an attempt is made to examine the major earlier empirical work done in the spices exports in the export performance studies in general and also the studies related with other products.

2.2.1. Empirical Literature on Spices, Spices Export and Export Performance of Spices

Baby Jacob (1985) in his PhD thesis titles “A Blueprint for Export Development of Kerala – A Study on Selected Agricultural Products” stated that Kerala has had enjoyed vertical monopoly over the export of spices, cashew kernels, seafood, coir and coir products. In case of some of these items the monopoly was lost already, while in some other items it was under threat. His study was a review of the policies of the government and an evolution of performance and programmes of the various organisations with the responsibility of the development of respective agricultural commodities.

He suggested that Government has to adopt comprehensive and time bound programmes to increase production and productivity, to recapture market share, to develop new markets, to maintain consistency of quality, to promote new products and to attain an overall growth rate commensurate the increasing world demand for spices.

Muhammed Sajjad (1987) in his article ‘India’s Cardamom Trade with Middle East’ pointed out that; there is a change in the pattern of India’s cardamom trade with Gulf countries. He has given
a detailed explanation on the economics of cardamom cultivation and the future prospects of the product. According to him, high price of Indian cardamom is the reason for declining export volume. Therefore a competitive pricing strategy is the only solution to overcome the problem.

Gopinatha Menon (1988) in his PhD thesis ‘Processing Procurement and Marketing of Pepper with Special Reference to Co-operative Sector’ has made a detailed study of the various aspects of production, processing and marketing of pepper. His study has mainly emphasized the cultivation, processing and marketing aspects of pepper. He has analysed the domestic and international market for pepper, problems and suggestions for improving the return of the producers and traders, the role of co-operative societies in the field of pepper marketing etc.

Paul (1992) in his article titled ‘Agriculture Export of India- Issues of Growth and Instability’ stated that the least developed countries have comparative advantage in the production of many agricultural products. But the comparative advantages enjoyed by these countries are not exploited by them. According to him, the poor bargaining power in the international market and, tariff and other protection strategies followed by developed countries is the reason for the lack of utilisation of comparative advantage. He also opined that the agricultural export of developing countries is fluctuating and this affects their economic growth.

Jeromi et al (1993) in an article titled ‘World Market and India: An Analysis of Growth and Instability’ examined the growth of world pepper market for the period of 1975-1990. Their finding was that, among the exporting countries, Sri Lanka recorded the highest Annual compound Growth Rate (CAGR) of 24.59% during the study
period. But it was mainly due to its low base in the initial years. In the case of India, the growth was positive and statistically significant. The growth rate of pepper producing countries was statistically not significant.

Mamatha (1995) in her thesis ‘Export Trade of Selected Spices in India- An Economic Analysis’, estimated the growth rate of production and export of selected spices for the period from 1970-71 to 1991-92. For the study she has taken pepper, ginger, turmeric and chillies. She found that, the positive growth rate in respect of production and export of these spices was due to the increased demand from international market and domestic production. In her study she also found that the increased domestic production and export of spices were mainly because of the measures taken by the Spices Board of India such as improved methods of production, assistance for the export of spices by setting of facilities for upgrading quality and technical advice on scientific post harvest operations and processing.

Madan (2000) in his article ‘The Indian Black Pepper, Economics and Marketing’ described the state of black pepper industry in India at that time in relation with the international pepper market. It also examined production of pepper and value added pepper products and their economic contribution, fluctuation in pepper price in the international market and its impact on the industry, the direction of export of pepper at that time and the future of Indian pepper in the international market.

Jayesh (2001) in his MSc thesis ‘Production and Export Performance of Pepper and Cardamom in South India- An Economic Analysis’ has examined the production and export performance of the two important spices i.e. pepper and cardamom. In his Study he
found that, all the South Indian States except Karnataka (-0.47\%) and Tamil Nadu (-1.62\%) recorded growth in areas and production of pepper. But in the case of cardamom all the South Indian states record a negative growth in area, while there is a significant growth in production and productivity. He also found that there is a positive growth in unit value, export value and export quantity of pepper, but negative growth was recorded in the export of cardamom during the study period.

Economic Times (2001) in a report ‘Global Recession and Indian Spice Export’ reported by quoting the Spices Board official that global recession at that time dropped the prices of Indian spices in the global market. India’s spices exports had fallen 9.7\% in the seven months of 2001 from 1.44 lakhs tones of previous year to 1.3 Lakh Tonnes. Report quoted the official of spices board that ‘down trend in Indian spices exports including small cardamom, coriander and cumin continues and can be attributed to fall in demand in importing countries including the US, European Union and Japan, which are reeling under economic recession.’ At that time India was also facing stiff competition from other spice producing countries like Guatemala which did not have much domestic market for spices and had an export oriented production. Those countries were offering their products at very low prices in the international market.

Philip. A.P. (2003) in his PhD thesis ‘Marketing of Spices: A Study with Special Reference to Pepper and Cardamom’ analysed the marketing of spices with the objectives of major factors influencing the marketing, the role played by the spices Board of India in the marketing, the future prospects of the Indian Spices in the changing global economic scenario taking the data from 1998 to 2002. He used statistical tools like averages, percentages, ratios and Chi-Square test for the analysis. He found that domestic and
international markets offer plenty of opportunities to Indian species, provided, one is able to commute the emerging challenges effectively.

Manju (2004) in her MPhil dissertation titled ‘India’s Spice Exports with Special Reference to Cardamom’ stated that 80 percentage of export earnings from spices are coming form few spices. There exist wide instability and fluctuation in export earnings. So, adequate steps have to be taken to widen the export basket of spices by including new spices like vanilla, paprika, herbal spices, medicinal spices and organic spices. India’s exports of spices are only 8 percent of the total spice production

Douglas et al (2005) in their report ‘Herbs, Spices and Essential Oils: Post – harvest Operations in Developing Countries’ examined different spices, essential oils and herbs, and their post harvest operations in developing countries. According to them the most important spices traditionally traded throughout the world are products of tropical environments such as – pepper, cardamom, ginger, cinnamon, turmeric, capsicums, vanilla, nutmeg/ mace, cloves and all spices/ pimento. The important spices crops from non- tropical environments are cumin, coriander, mustard and sesame seeds and the oregano, herbs sage, mints and the thyme bay.

Their report shows that there are 40 to 50 spices of global economic and culinary importance. There is also large number of spices that are used in traditional cooking in the area of their natural occurrence but they do not reach in market. There is well known stable, long term internal market for major spices, but they are facing competition from other spices producing countries.

Peter et al, (2005) in their article ‘Spices Production and Export from India, Scenario through Five Decades’ examined the spices production and exports from India for a period of 40 years from 1960
to 2000. They stated that the export quantity and export earnings during the study period showed an increasing trend except for five years which showed a decreasing trend in quantity. They reported that the export earnings from spices was only ₹16 crores during 1960-61 and it increased to ₹2025 crores during 1999-2000.

Hema et al (2007) in their article ‘Volatile Price and Declining Profitability of Black Pepper in India: Disquieting Features’ analysed the instability in the price of black pepper plunged down to ₹74/kg from a peak of ₹250/kg of 1999-2000. They examined the profitability of the pepper cultivators and analysed the price behaviour and the mechanism of price transmission in black pepper. According to them, until new and diversified export market for pepper is not exploited; the farmers would suffer due to a further crash in gate price due to huge surplus stock.

Ibrahim.Y.C (2007) in his MPhil dissertation ‘Export Performance of Indian Spices in the WTO Regime: A study with Special Reference to Pepper’ has given the findings of the study. According to him, out of the 16 major spices and spices products, fourteen are potential for export and promotion of their export are desirable as far as their export earnings are concerned. He also found that WTO has an unfavourable effect on Indian pepper export, but the introduction of WTO compatible Export Subsidy Schemes for pepper had a favourable impact on the pepper export in recent years. He also found that the poor performance of pepper export was mainly due to the high domestic demand.

Sujatha .R.V. et al (2007) in their article ‘Structural Changes in Pepper Export from India- An Econometric Analysis’ stated that during the WTO regime, the newly emerged spice producing countries pose a substantial threat to traditional exporters like India.
New entrants do not have much domestic market, which compels them to sell their products at cost price or even below it in foreign market. Their attempt was to study direction of trade of pepper in the new world trade scenario by dividing the study period into two - Pre WTO (1981-82 to 1994-95) and Post WTO (1995-96 to 2003-04). The analysis was by using Markov Chain Model. They found that during the pre-WTO period, USA & USSR were the stable export markets for Indian Pepper, but during WTO period, USA and Canada were comparatively stable markets. Germany and Italy were the most unstable markets for Indian spices during the both periods.

The Economic Times (2008) in a study report stated that the country’s seeds spices exports skyrocketed by 95 percentages to ₹116.80 cores in the first seven months of the fiscal year because of the strong demand in the global market. The newspaper had given the statement of the Spices Board that over all spices exports in seven months of that year have gone up by 7 percent in terms of quantity and 14 percent in terms of value, but it is still lower what our country was expected. According to the report ‘Had there been no economic crisis at the global level, the exports would have been more’.

Thomas T.P. (2009) in his PhD thesis ‘Problems and Prospects of the Spices Trade in Kerala’ studied the problems and prospects of the spices trade in Kerala with the objectives of finding the problem and prospects of black pepper and cardamom, the origin and growth of spices trade, the performance of black pepper and cardamom sector, the impact of WTO agreement and India’s free trade agreement on spice trade in Kerala. The study covered a period of ten years (from 1997-98 to 2006-07). He used the arithmetic such as average, percentage and, statistical tools such as trend analysis,
weighted mean, chi-square test and Friedman’s repeated measures analysis of Variance (F-Test) for analysing the data.

He found that, at the global level, pepper and cardamom from Kerala are facing stiff competition from other major producing countries like Vietnam (for Pepper) and Guatemala (for Cardamom). India’s dominant position in the global supply of these products is declining and India is losing her big heritage. There is a pepper and cardamom crisis in Kerala.

Krishna Das M. (2010) in his thesis ‘Production and Export Performance of Major Indian Spices – An Economic Analysis’ has given the result of his study on the production and export performance of India’s major spices from 1979 – 80 to 2006 – 07. Objectives of his study were, to examine the growth in production, productivity and the area of major spices, to find out the instability in production of major spices, to analyse the growth in exports, and find out the direction of major spice trade.

He used four important tools for the analysis of data such as Compound Growth Rate Analysis, Instability Analysis, Markov Chain Model and Regression Analysis. He found that the growth in area under chilli was found to be negative, while production showed increasing growth due to increased productivity. According to him the production, productivity and the area of black pepper and turmeric showed positive and significant growth during the study period. Production and productivity of black pepper is more stable than other spices.

The export of turmeric, chillies, coriander and cumin were found to be increasing both in terms of value and quantity. Even though the volume of export of pepper had declined, export earnings were found to be increasing. Exports of major spices were not stable
and export shares to major destinations of spices export were found to be declining.

Angels S et al (2011) in their article ‘Impact of Globalisation on Production and Export of Turmeric in India- an Economic Analysis’ examined the production and export performance of Indian turmeric for the period from 1974-75 to 2007-08. They analysed the growth rate of area, production, productivity and export of turmeric using Compound Growth Rate (CAGR) analysis, the instability related with turmeric such as area of cultivation, yield, production, market price, export value and quantity using Standard Deviation (SD) and changes in the direction of trade by using Markov Chain Approach.

They found that there was a significant growth in production and export of turmeric during the study period and has high instability in production, export and domestic and international market prices. They also found that the export share retention for Indian turmeric during the study period has been high in minor importing countries (87 percentage) followed by UAE (49 percentage) Iran (41 percentage) and UK (35 percentage). The countries such as USA and Japan have not been the stable importers of Indian Turmeric.

Indian Institute of Foreign Trade (2011) in the research paper of Ministry of Agriculture, Government of India ‘Analysis of Export of Spices from India to Middle East (Gulf cooperation council)’, analysed the spice trade with Middle East. The primary objective of the study was detailed analysis of the current situation, changing market trend, and future outlook in the spice trade with the Middle East.

The report stated that, out of the 109 spices listed by the ISO, India produces as many as 75 in its various agro climatic regions.
Spices exports have registered substantial growth during the previous decade, registering an Annual Average Growth Rate (AAGR) of 13 percent in value and 9 percent in volume. India commands a favourable condition in the world spice trade with 48 percent share in volume and 44 percent in value. Spices are exported to more than 150 countries. Even though export constitute nearly some 10-12 percent of estimated annual production of spices with 4 million tonnes (2009 – 10) there is high demand for spices in domestic market. Spices are grown in some 2.5 million hectares in million of tiny holdings in the country and efforts would be needed to foster this potential growth sector of the country.

This paper analysed the export performance of major Indian spices to Middle East from 2006 to 2009 with the help of UN Comtrade six digit HS classified data using Compound Annual Growth Rate (CAGR) and Revealed Comparative Advantage (RCA). The study found that the spices in which India has been growing at a much greater than the world are nutmeg and cinnamon. RCA for commodities like pepper (not dried/grounded) cinnamons, cloves, turmeric, saffron and curry have been showing an increasing trend, while spices like dried pepper, cardamom, cumin seeds coriander seeds and caraway seeds have decreasing RCA values.

S. Krishnan (2012) in his PhD thesis ‘Impact of WTO on Spice-Sector in India – An Econometric Analysis’ examined the impact of WTO on Indian spices with the specific objectives of examining the trend in area, production, productivity of spices, to examine the direction and magnitude of export of spices since reforms, to identify the major determinants of spices production and trade and assess the impact of reforms and spice industry since globalisation. He used single Kink and Two Kink model for the analysis.
He found that even though India exports only 10 percentage of our total production, it contributes almost 50 percentage of the rest of world’s requirement. In totality there had been an upward trend as regards to area, production and productivity of spices. During the WTO regime the major barrier for export of spices and spice products as of now is SPS compliance. There are also some non-technical barriers for trade.


He also analysed the problem faced by pepper cultivators and exporters as a result of globalisation. He used compound growth rate, correlation, regression, instability index, benefit-cost Ratio and RCA for analysis. He found that globalisation process and the establishment of WTO have influenced spices trade in many ways. Even though the state has good prospects for spices industry, existing productivity of major spices and their domestic prices are the challenges to our exports.

Satya Sandaram (2012) in an article ‘Spices: Boosting Exports’ examined the recent trend in spices exports. According to him India’s natural advantage of diverse climatic condition helps the cultivation of wide range of spices in different regions. In recent years, spice export has been showing an encouraging trend. But even though the production was satisfactory, the trade was hurt by weak export demand during 2011-12. So it is now time to move up the value chain to command a higher share of the export market. He hopes that recent steps of Spices Board to focus on organic crop cultivation in the coming years and the establishment of a chain of
Spices Banks across the country are expected to boost our spices exports.

Srinivasa Rao (2012) in his article ‘Indian Spices Export: Their Growth and Instability’ analysed the growth and instability of Indian spices export from 1960 to 2010. The major objectives of the study were to discuss the trends in growth and instability of Indian spices exports both by volume and value during the period (1960-2010) and identifies the future growth prospects and challenges of Indian spice trade.

The analysis was mainly by using the Compound Annual Growth Rate (CAGR) and Coefficient of Variation (CV). He found that during the fifty years of the study period, total spices exports grew at an Annual Compound Growth Rate of 12.83 percentages in terms of value and 5.01 percentages in terms of volume. The growth rate of total spices export during the post reform period are much higher in value (16.42 percentages) and volume (7.61 percentages). The instability is higher in export value than export volume. He concluded that, India is expected to emerge as the global processing hub of spices in the coming years.

Mary.PU (2012) in her PhD thesis ‘Role of Spices Board in the Cultivation and Export of Spices: A Study with Special Reference to Kerala’, studied the role of Spices Board in the cultivation and export spices in Kerala with the specific objectives such as, the role played by the Spices Board in the development of the two segments of spices sector such as cultivation and exporting, the problems faced by growers in cultivation and exporting, the problems faced by growers in cultivation and marketing of spices etc. The study was conducted using some statistical software. The researcher found that most of the schemes for the cultivators are underutilized by them due to
technical reasons, lack of time by information lack of initial founds etc. But the schemes for the export promotion have been utilized by exporters to a remarkable extent.

Sajith Mohan et al (2013) in their article ‘Marketing of Indian Spices as a Challenge in India’, analysed the marketing challenges of Indian spices taking the recent years data (from 2008-09 to 2011-12) for studying the problem. They used both primary and secondary data and also simple statistical tools like averages, percentages and graphical presentations. They found that Indian spices export basket consists of around fifty spices in whole form and more than eighty products in value added form constitute a major segment of the country’s total exports earnings. According to them the important marketing challenges that Indian spices are faced are- low productivity, poor product quality, in sufficiency of legal provision, in adequate surplus for exports and insufficient quantities of quality spices.

Spices Board of India (2013) in its report ‘Review of Export Performance of Spices during 2012- 13’ stated that despite of decline in total export in the country, Indian spices exports have been able to record strident gain in both volume and value in rupee terms. Spices Board stated that it is the first time in the history of spices exports, that growth in volume registered an all time growth of 22 percent. Spices exports have registered substantial growth during the last five years registering an annual average growth rate of 20 percent in value and 10 percent in value and India commands a formidable position in the world spice Trade. During 2012- 13 a total of about 699170 tonnes of spices and spice products valued ₹11171. 6 cores (US $ 2040.18 million) have been exported from the country against 575270 tonnes valued ₹9783. 42 crores ( US $ 2037. 76 million ) in 2011-12.
Business Standard (2013) in a report titled ‘Syrian Crisis Spices up, Jeera Exports from India’ stated that as per the Spices Board of India data, this year jeera (cumin seed) exports have touched nearly 80000 tonnes till second week of December 2013 and more exports are likely to take place in days to come. The report stated that, Syrian Crisis coupled with dismal crop condition in other jeera (cumin Seed) producing national has created an advantageous situation for jeera export of India.

2.2.2 Empirical Literature Related with Export Performance of other Products in the New World Trade Scenario

Narinder Kaur (1996) in the abstract of doctoral thesis published as an article, titled, ‘India’s Exports-An Analysis of Instability and Performance’ analysed India’s export trend from 1970-71 to 1992-93. She found that there was an increase in imports by about 29 times while exports increased only about 24 times. The study has been undertaken to assess the performances and instability of India’s aggregate exports. The Gini Coefficient of Concentration has been used to measure commodity concentration and geographic concentration. In order to measure the export performance of the country, compound growth rate and trend growth rate had been used. Commodity wise and country wise instability index have been worked out with the help of linear and exponential trend lines and with the help of Ordinary Least Square (OLS) method.

This study found that India’s relative share in world exports has declined during the study period. Traditional commodities such as spices, tea, cotton fabrics etc. recorded a decline in the share during this period. There was also a change in composition of
comparative exported and direction of trade during the period of study.

Economic Survey of India (2002) stated that during 2001-02 India faced another setback in its exports at large due to the semi-recession faced by the US, one of the biggest trading partners of India. The terrorist attack on the World Trade Centre in the year 2001 caused a net loss of 0.25 percent of US GDP and also had an impact on India’s exports, which grew only at 5 percent in that year.

Nisha Varghese (2004) in her PhD thesis entitled ‘Export of Groundnut from Under Liberalisation Regime- An Economic Analysis’ has given the result of the study conducted in the export potential and direction of Indian groundnut export using Markov chain analysis. She found that India’s groundnut exports are likely to be concentrated in Malaysia and Indonesia. She has also studied the composition, direction and the size of exports in addition to sanitary and phytosanitary measures taken by different countries.

Pramod Kumar et al (2005) in their research paper ‘Horticultural Export during the Post WTO Regime: A Commodity wise Analysis’ examined the changing comparative advantage, composition and direction of trade in horticultural commodities during the “WTO regime. The study was carried out by using HS 8 digit classification of the commodities for a period from 1992 to 2002. The study used two analytical tools in order to analyse the performance of horticultural exports such as Elasticity of Value (EV) with respect to quantity and Revealed Comparative Advantage (RCA). They found that, the export of a large number of horticultural commodities, both primary and processed; have shown increase in the WTO period. But RCA of large number of horticultural
commodities are less than one revealing that the country does not possess comparative advantage in these commodities.

Amita Batra et al (2005) in their ICRIER working paper titled ‘Revealed Comparative Advantage Analysis for India and China’ conducted a systematic evaluation of the similarities of the pattern of Revealed Comparative Advantage (RCA) for India and China on the global market. They also tried to find out the leading manufacturing industries in terms of their RCA in India and China for a period of 2000-2003. In order to study the similarities in the pattern of RCA they used Spearman’s Rank Correlation Coefficient for India and China during the period. They found that there exist some broad similarities in the structure of comparative advantage for India and China. During the study period both countries enjoyed comparative advantage for labour and resource intensive sector in the global market.

Promad Kumar et al (2006) in their article ‘Performance of Onion Export from India: A Temporal Analysis’ examined the changes in composition and direction of onion exports and estimated the export demand for onion. They used 8 digit HS (ITC) classifications to include all the commodity groups of onion and its products in the study. Five yearly interval data for the period 1982-2004 are used to analyse the market shares for the onion exports. Triennium averages are taken as it minimizes the effect of weather and other factors as the export of onion. Changing direction are studied by using Markov Chain.

NaliniRajan Kumar et al (2007) in their article “Performance, Competitiveness and Determinants of Tomato Export from India’ analysed the performance and competitiveness of export of tomato and tomato product from India with the objectives of finding out
impact of trade liberalization on tomato export, export performance, production, changes in the destination of Indian tomato and tomato products and the factors determining the tomato export. They used Revealed comparative advantage technique, Annual compound growth rate, Coefficient of variations and Ordinary Least Square (OLS) methods for the study. They found that the growth rates for the export of tomato and its products were found significant for both pre-WTO and post-WTO period, but in post-WTO period there exists high instability in export of tomato and its product.

Buranghe et al (2008) in their working paper 'India's Revealed Comparative Advantage in Merchandise Trade' analysed the RCA of Indian merchandise trade during the liberalized period (1996-2005) using Balassa’s RCA index. According to them as a country move towards development, its comparative advantage is expected to shift. They found that at the aggregate level India enjoyed comparative advantage in the export of nine out of the total twenty one sections in 1996. By 1998, the number of sections had declined to seven, but in the later years it went up to ten. They also found that at the more disaggregated level of 6 digits, out of the total 5130 products, the number of items where India has comparative advantage, increased from 1172 in 1996 to 1421 in 2005.

Prema Chandra. A (2008) in his article 'Export Performance in the Reform Era: Has India Regained the Lost Ground' analysed the export performance of India in the liberalised period. He used RCA for analysing the export performance. He found that developing Asia’s share in total world manufacturing exports has increased from 19.5 percent in 1979-80 to 36.6 percent in 2005-06. But India still account for a small share around 1 percent at the end of the period. He found that during 1980-81 there were only 37 commodities having a revealed comparative advantage greater than one. It

Naseem Aktar et al (2008) in their article ‘Changing Revealed Comparative Advantage: A Case Study of Footwear Industry of Pakistan’ analysed the comparative advantage of the footwear industry in Pakistan and compared it with India and China in the global perspective. The study shows that as a result of reduction in trade barriers and technological advancements, global export patterns are changing fast. It led to an increase in productivity and change in comparative advantage patterns in world economies. Asian economies such as India and China are enjoying a notable growth in changing circumstances across world. The study was based an UN comrade data of 6 digit HS classification and Balassa’s Revealed Comparative Advantage index. They found that during the period of 2003-06 Pakistan foot wear industry has moved disadvantage position to comparative advantage.

Shinoj and Mathur (2008) in a research article titled ‘Comparative Advantage of India in Agricultural Exports vis-avis Asia: A Post Reform Analysis’, examined the changes in comparative advantage status of India’s major agricultural exports in comparison with the other Asian Exporters during the post reform period (1991-2004) using the Balassa’s Revealed Comparative Advantage (RCA) analysis.

According to them the demand and supply situations in the Asian continent have undergone a rapid transformation due to the growth of world economy and lowering of trade barriers. This tremendous change is due to the establishment of WTO, the
formation of regional trading blocs like South Asia Free Trade Agreement (SAFTA), ASEAN Free Trade Area (AFTA), Bangkok Agreement, emergence of new powers like Turkey and Vietnam with substantial in agricultural trade etc.

This study found that during the post reform period, exports of various agricultural commodities from India have responded differently in terms of comparative advantage. The analysis shows that there was a decline in RSCA estimates corresponding to India’s exports from 0.47 in 1991 to 0.26 in 2004.

Shanmughan J. (2009) in a research paper titled ‘Over All Performance of Tea in India: A Micro Study’ examined the overall performance of tea in India from 1991 to 2005. The intention of the study was to analyse the specific performance of tea- both production and export- in the study area. The study was by using the statistical tools like demand forest, trend analysis, coefficient of variation and compound growth rate. This study exhibited that during the study period there existed wide variations in the export performance of different regions, i.e. export of tea from North India has steadily increased and from South India it has been declined.

Foreign Trade Policy 2009-14 (2009) examined the trade performance of India during the previous five year period. As per the policy report, India’s export witnessed robust growth to reach a level of US $ 168 billion in 2008-09 from US $63 billion in 2003-04. As per WTO estimate the country’s share of global merchandise trade was 0.83 percent in 2003; it rose to 1.45 percent during 2008. It is estimated that nearly 14 million jobs were created directly or indirectly as a result of increase in exports during the five year period. The policy report says that weaker demand in developed economics, triggered by falling asset prices and increased economic
uncertainty has pulled down the growth of India’s exports to developed countries. To overcome this, the policy focused on diversification of Indian exports to other markets, especially those located in Latin America, Africa, Asia and Oceania is needed.

T.P. Bhat (2011) in an article ‘Structural Changes in India’s Foreign Trade’ has analysed the structural changes in India’s Foreign trade form 1970-71 to 2010-11. According to him, over the last four decades, India’s foreign trade has undergone a complete transformation in terms of composition of commodities. He analysed the economic growth and policy frame work, trade liberalization, relationship between economic growth and export growth, relationship between trade and employment and stability of India’s comparative advantage using RCA. He found that there has been little change in India’s merchandise exports structure till 1995-96, but some significant changes have occurred in the later years. According to him, in a number of products India does hold a higher RCA value but her share in the world exports of these products are lower.

Sandeep Das (2012), in a research study titled ‘Agricultural Products Exports in India’ analysed the agricultural products exports in India. According to him, India is the world’s biggest producer of coconuts, mangoes, bananas, milk and dairy products, cashew nuts, pulses, ginger, turmeric and black pepper. According to him spices exports have registered a substantial growth during the last five years registering an annual growth rate of 21 percent in value and 8 percent in volume. Most of the spices exports include pepper, cardamom, chilli, ginger, tamarind, coriander, cumin seed etc. He suggested that in order to boost agricultural exports further, it is essential to practice good agriculture standard for ensuring that
Indian food products are accepted by consumers across the supermarket in Europe; USA and other developing countries.

Shawek Mukherjee and Shahana Mukherjee (2012) in their working paper ‘Overview of India’s Export Performance: Trade and Drivers’ analysed India’s export performance and changes in its composition over time. They identified India’s main export commodities and investigated the relevance and competitiveness of these commodities in major export markets. The study was conducted by using CAGR and RCA analysis. They found that India’s export performance and economic growth are interlinked.

Andrea Beltramello et al (2012) in their working paper ‘The Export Performance of Countries within Global Value Chain (GVCS)’ pointed out that general observation emerging from aggregate export figures is that during the past decades, the international competitiveness of developed countries has gradually been eroded to the advantage of emerging countries. This paper has shown that although the academic debates are still going on how to define the competitiveness of countries, the economic and political discourse typically assesses international competitiveness based on export market shares. Since country’s export bundle incorporate imports of intermediate goods representing a large part of its value, simply looking at the evolution of exports at the industry or even products level may misrepresent the international competitive position of a country. Hence, the process of globalization increasingly challenges this simple measurement of competitiveness by export shares and calls for a more qualified ie disaggregated level analysis.

Sunny Thomas and Waheeda Sheikh (2012) in their study “Growth and Composition of Indian Agricultural Exports during Reform Era’ examined the performance of growth, structure and
composition of agricultural export of India, taking UN comrade two digit its classification data from 1991-92 to 2009-10. For the analysis of data they used Compound Annual Growth Rate (CAGR) percentage share and average values. They found that even though, there is an increase in the absolute quantity of agricultural exports, there is consistent decline in the percentage share of primary product in total export from 17.9 percent to 10 percent during the study period. There is considerable increase in the agricultural export since the onset of globalization and liberalization. The ratio of Indian agricultural export to that of non agricultural export has increased during the study period.

Varsha Dadhich and Dr. Rajkumar (2013) in their study on ‘Growth and Performance of India’s Agricultural Export’ found that during the post reform period (1991-2012), even though there is an increase in the absolute quantity of agricultural exports, there is consistent decline in the percentage share of primary products in total exports from 17.9 percent to 10.5 percent. The ratio of agricultural exports to that on non-agricultural export has increased during the period. They suggested that government has to take some effective steps to increase its agriculture exports in the coming years.

From the literature reviewed above, it is clear that even though large number of studies have been conducted in the various aspects of spices and spice products in the aggregate level and disaggregate level, no comprehensive study has been conducted so far covering the export performance of India’s major spices in the WTO period. Some of the studies are at the aggregate level taking all spices together, and some others are related with the export performance of individual spices. This study considered export performance of major spices taking all aspects of spices exports such as growth, trend in growth, instability in growth, change in the directions and
compositions, performance of spices exports using revealed comparative advantage, and elasticity of value with respect to quantity to find out prospects of earning foreign exchange. The study also compared the export performance of spices exports during the WTO period with pre-WTO period. So the study ‘Export Performance of Indian Spices in the WTO Regime: A Disaggregated Analysis’ is a peculiar study and it is relevant in this context.