II. Review of literature:

**Dennis R. Heldman and Richard W. Harel (1997)** in their book entitled *“Principals of Food processing”* describes the food processing as conversation of raw material or ingredients into a consumer food products. They focus on details of existing food processing industry in America is reviewed and the steps in manufacturing has been also analyzed. The author explains the food processing as the conversation process required to ensure food products safety and extend self life. However, from this literature it is found that only conceptual information has taken into consideration without any analytical aspects.

**Tony Weves (2007)** published his book *“The global food economy: The battle for future of farming.”* In this book author has mentioned two words Food & Farming intentionally because of his family background. His grandfather owned 81 hectare farm in Canada but after retirement sold his farm & moved on to a successful business. The main aim of this book is to examine in a concise and accessible way the major contemporary dynamics, problems and inequities of the global food economy. As per this book, Capital of the country incredibly and increasingly concentrated mainly on food economy and in many places significant measure of unconsciousness about food. This book can play vital role in helping to nourish them.

**Da-Wen-Sun (2006)** in his book entitled *“Emerging Technologies for Food processing”* focus on modern and innovative tools and techniques for food processing units. The author has contains a critical review of the use of chemicals in biological preservation in this book. Discussion of non thermal processing techniques has been explained, Innovations in food refrigeration are covered. Here, the author is not taken into account operational and functional aspects of management.
H. Panda. In the book “The complete Book on Managing Food Processing industry Waste” (2011), deals with the reuse of food industry waste. Food industry produces large amount of waste. For example, screening of vegetable waste, conversion of bone to edible products, production of earth warm proteins etc. The author gives us ideas to reuse the waste in proper methods.

H. Panda gives us all information about gums and stabilizers in his other book “The complete book on Gums and stabilizers for food industry” (2010). As per this book, Gums are use to make the product thick. It add in the product to improve overall quality of product. India is largest producer of the gums specially guar gum product.

H. Panda stated in his another very useful book for the readers and food technologist “Fruits, vegetables, corn and oilseeds processing handbook” (2010). Fruits and vegetables provide us vitamin and proteins and minerals. India is the second largest producer of both. Author gives the information of preservation of foods, effects of boiling on beta-caratine content of green leafy vegetables, development of cold grinding process etc.

NIIR Board (2001) in the book entitle “Modern Technology of Agro processing & Agricultural waste product” describes information on agro products and preservation of food, some chapters provides information on the various by products of agro products like maize processing for glucose, Bio coal Briquettes from agricultural cellulose. For vast marketing, preservation of food product is necessary for manufacturer.

NIIR board (2012) entitled in their another book “Food Packaging Technology” we get all the information about packaging technology and its types. In the current trend of people, they are getting more concerned with the hygiene and quality of packaging for better contains. Best packaging is preserves or protects the food. Second thing, quilted packaging is attracts to the
consumers to buy the products. In modern trade business, packaging of product is very important. Their policies of packaging are rigid for supplier or manufacturer.

**NPCS Board (2012)** describe in his book entitled “**Modern Technology on Food Preservation (2edition)**” about preservation, means transform raw ingredient into food or transform food into other form for consumption. Canning, drying are the traditional methods of preservation. we come to know the new methods of preservation. Also we can see photograph of machineries used in food preservation.

**NPCS Board (2009)**entitled another book “**Handbook on citrus fruits cultivation & oil extraction.**”In their book described that Citrus fruits are the source of vitamin c. India only represents 4% of global citrus fruit production. Citrus fruit oil is cheaper than other oils .contains classification, information, nutritional values, harvesting etc of citrus fruits.

**Shetty P.K, Ayyappan S, Swaminathan M.S (2013)** entitled their book “**Climate change and sustainable food security.**”In this book they has discussed about changes in climate that’s affected on quality of food products. The climate is the very important factor for agriculture. The book emphasizes the steps to be taken to make agriculture profitable without causing much damage to nature &gives ideas to protect the soil. The Climate is directly affected on food production in term of quality as well as profitability.

**P.K. Chattopadhyayay(2012)** stated in his book “**profitable Agro Based projects with project profile**” gives guidelines to the people who newly entered in the food business. Cereals or grains are the most commonly known human food. Cereals are use for both human and animals food and as an industrial raw material. Major content of this book are project profiles of projects like rice milling or rice products.
Mehta and George (2003) explained the processed food export of Indian food processing industry and it was disrupted by SPS measures of the developed countries. The SPS measures became too stringent resulting in contraction of the agricultural exports which would be a negative impact upon the processing of agricultural products. The study pointed out that the removal or relaxation of overly stringent SPS regulations can generate welfare gains to the consumers. If the restrictions will be severe, the majority of developing countries producers or manufacturers are exporting agro-based products cannot effectively access the developed country market.

H. Das (2005) entitled his book “Food processing operations analysis” carried out unit operation in food processing by identifying dependent & independent variables affecting the operations and developing mathematical relationship among the variables. This book includes comprehensive numerical problems, mathematical modeling, and solutions of numerical problems, exercise problems & MATLAB Problems of food processing operations. This book is help to readers to find out responses at various levels.

Dr. Amiya Kumar Behera (2004), in his Report on APO Multi-Country Study Mission on Rural-Based Food Processing Industry has reported that poverty and unemployment in the rural areas are the two most important challenges India faces. In spite of all the industrial development in the country, agriculture still maintains about 70 percent of the population of the country. It is in the rural areas again where 75 % of the population of the country lives and they will continue to constitute at least two-thirds of labor force. It is imperative therefore that the rural economy is improved, so the burden of poverty can be lessened and the working population overflowing from the villages can be absorbed in off-farm activities. The rural economy cannot be developed fully by improving only the productivity of agriculture, although this will go a long way in improving the rural economy; however, rural industries, subsidiary activity and food processing industry in particular, are of great importance for a rapid transformation of the rural economy, in
India. The economic status of this population can also be improved by increasing non-farm activities, particularly rural food processing industries.

**Hans Megens (2000)** in his article published in Indian Express, points out that India's potential in food and agriculture is underestimated and opines that corporate can be helpful in wasteland development in India. In some cases, the country will benefit by encouraging private sector firms to become primary producers as well. India has over 100 million hectares of uncultivated and degraded wastelands which is not generating any benefit either to the rural population or the country as a whole. Large tracks of such land can be converted into productive cultivable land by an infusion of capital and sophisticated technology to tap deep aquifers, install drip irrigation facilities and in some cases green houses. The cost and technical input required to develop these lands may be far beyond the means of small farmers in the area, but can be undertaken by agri-business corporations. In order to reach the increased goals of food production, reduction of waste, more value added production and increased exports, enormous investments will be necessary throughout the whole food & agro-chain. There is ample opportunity to raise the level of processing if the necessary investments are made not only in processing facilities themselves but also in the supply chain through which these products have to be delivered at the gate of the processing facility. Investments in the infrastructure and logistics systems are extremely necessary for that purpose.

**Frances T.J.M Fortuin** *(Food Valley, Wageningen, The Netherlands)* & **S.W.F. (Onno) Omta** *(Department of Business Administration, Wageningen University, Netherlands)* *(2009)* have focused on food processing industry confronted with increased global competition. The aim of that to find out drivers & barrier explorer to food processing industry as a developed high-tech industry with improve its innovative performance. This study is based on nine multinational food processing companies. This study is first to investigate innovation management concepts related to success in the food processing industry.
Gupta Priya, Kainth Jyoti, Sharma Nikita (2012) explains about organic food in their article “An analytical review of organic food sector - A case study on glimpse & glance.” As per their study, the foods which are produced without include synthetic inputs or not contain genetically modified organisms that are called organic food. Due to change of lifestyle and awareness among consumer there are create demand for organic food across the world. Here, the author has trying to take overview of organic food industry worldwide as a categorical as well as analytical in term of micro environmental factor.

Mr. S Jaykumar & Mr. S. Sankar (2014) in their article “Untapped Retail Market opportunities” focused on retail sector which is second largest sector after agriculture in India. The one part in their study is food & grocery retail sector. As per their study, food sector in India is largely unorganized. The expenditure of Indian household food product is highest in the world. With rapid urbanization & consumerism there exist untapped potential which needs to be explores.

Majumdar Kakali (2013) in his article “Export performance of processed food in India” describes importance of processed Indian foods for export concern. As per his opinion Indian food processing industry is primarily export oriented. The growth rate of Indian export market is 15% in international market. This is a matter of concern; having potential for processed food this sector is underutilized. The present study reveals that out of eight processed food items there are four items where India enjoys comparative advantage in the world market.

Muhamad Kamran Khan, Zil-E-Humma, (2014) Olivier Dangles, in their critical review named “Comprehensive review on flavanones, the major citrus polyphenol” describe that, The consumption of Citrus fruits and juices has been widely investigated for its possible role in the prevention of the cardiovascular disease and cancer. These beneficial effects are mainly attributed to flavanones the typical polyphenols of Citrus species. The present review will summaries the current knowledge about flavanones from their occurrence in plants to the bioactivity of their metabolites in humans.
Mohammad Rais*, ShatroopaAcharya and NeerajSharma(2013) entitled their article “Food Processing Industry in India: S&T Capability, SkillsandEmploymentOpportunities.” Is focuses on analytical study of food processing industries in India. It is the sign of S&T capabilities, skills &employment opportunity. In our economy food industry has slowly & slightly becoming a major industry. But the food industry not working as its potential. As per the study labor force is unskilled as well as uneducated.

Premkumar.T, in his paper ‘FOOD AND DRUG INDUSTRY IN INDIA "AN OVERVIEW" (2006) describe government policies. This paper discusses the present Government policy, regulatory and business trends in food and pharmaceuticals Industry in India. These sectors of industry provide multifarious opportunities to potential investors in this Sector, both domestic and foreign. As several policy initiatives are undertaken by the Government of India since liberalization in August 1991, the industry sectors have witnessed unprecedented growth in most of the segments.

Ioannis Arvanitoyannis (2007), in his book entitled “Waste management of food industries” describes waste management in food industries. As per his concern, continuously increasingly human population demands processed & packaged foods. As a result of this demand, large amounts of water, air, electricity and fuel are consumed on a daily basis for food processing, transportation and preservation purposes. Result is that, the food industry does contribute to the increase in volume of waste produced.

Lagzi Ali &Thimmarayappa R. (2012) describe in there article named “Agricultural processed food products exports from India; Challenges &opportunities” India can become the largest country in world in fruit & vegetable export. Agriculture provides large & various raw material base for food processing. And India be a largest importer for that ready food. India have favorable geographic situation to connect Europe, Japan, Middle East countries. Agricultural processed
food products have considerable export potential as well as beneficial to national economy. It requires correct assignment of world market, high quality of raw produce as well as processed products and competitive production cost.

Patil S.N & Menshi S.A. (2012) given their study entitled “Evaluation of co-operative sugar industries in Maharashtra.” As per their study the sugar industry is big co-operative industry in Maharashtra. That industry has given huge employment to Maharashtra. Some other business are depending upon that industry like sugarcane activation, Chemical industry, transport activity, Machinery, co-operative banks etc. But there are some problems regarding that industry like lack of supply of material, transport, lack of funding etc. Author has evaluated here that problems as well as importance of that business.

Dr. Nilam Arora (2013) focused on Foreign trade through her article “An Analytical study of India’s Foreign Trade in post independence period.” The study of her is represent analysis the magnitude & composition of India’s external trade & deficit in post independence period. As per her article, foreign trade has increased multifold in the post independence period, especially after liberalization. In this study, she has shown structural changes in exports & imports after independence. She has classified items in commodity groups in this study. The conclusion of study is, Bulk items still comprise the main proportion of the national import bill & crude oil production has increased after 2001-02. As it is the share of chemicals, dyes, pharmaceuticals, germs & jewelry, iron & still, machineries, transport equipments, electronics goods, cloths products has been increased.

Kalamkar S.S. in his article (2007) “export opportunities & challenges for Indian organic food” studied about Indian organic farm production & trade.

He has described that an organic farm production & trade emerged an important sector in India in other part of developing world. More than 120 countries have produce organic products &
Australia is leading country to produce that type of product. Author has described importance & problem in organic production in India.

**Tejasvini (2012)** in her article name “rethinking Change; Downsizing Business, Changing Behaviors & still Managing” discussed global change in business, its behavior & skill managing. Utilization of low capacity is unsuitable to highly capital intensive industries. As per British Chamber of Commerce (BCC) survey, 5600 companies found ‘Welcome Progress in confidence level between April June 2009, which has been sustained (BCC2009). Yet the BCC also revealed unemployment is still expected to remain high. In her study, she is described model of facility closure management. It is individual management concern of change in behavior & the recognition of huge emotional impact that on announcement of closure of an entire plant can generate.

**Vinay M. Sharma (2003)** entitled in his book “50 best home business start with Rs. 50,000” describes importance of small scale sector increasing day by day. As per his study out of thousand hundred peoples are start their own business people at home without enough funds. He stated that, successful entrepreneur not only create employment himself but for hundred. That is correct statement because he has created employment directly or indirectly. The book is give us opportunity to choose perfect business from 50 projects which can be started with just Rs. 50000.00.

**Babak Pakbin**, Karamatollah Rezaei and Maryam Haghighi (2015) entitled their article “An Introductory Review of Applications of Ultrasound in Food Drying Process.” In this study application of ultrasound of food dying process have been reviewed. High frequency ultrasonic treatment can be used in food drying processes as a pretreatment or for the improvement of the main process and the traditional driers. Ultrasonic waves at low frequency can also be used as a diagnostic method for measuring properties of the final dried products and controlling the drying process. Ultrasonic pretreatment has direct and indirect applications.
Ultrasonic direct pretreatment improves drying processes by intensifying heat and mass transfer. Indirect implementations of this technology involve the ultrasonic waves as parts of drying systems such as nozzles of spray-driers or freezing sections in freeze-drying systems.

Nafished Soltanizadeh & Mohsen S. Mousavinejad (2015) entitles their article “The effects of Alo Vera (Aloe Barbadensis) Coating on the quality of during cold storage.” Green tiger shrimp (Penaeus semisulcatus) is an important aquaculture species worldwide. Its perishable nature, however, needs preservation methods to ensure its quality and shelf life. In this study, the effects of Aloe vera coating on the quality and shelf life of shrimps during cold storage were investigated. Shrimp samples were dipped in aqueous solutions containing 25%, 50%, 75%, and 100% Aloe vera gel before storage at 4 °C for 7 days. Drip loss, pH, TBA, TVB-N, and texture of both the control and treated shrimp samples were analyzed periodically. There were significant differences between coated shrimps and the control group in all parameters evaluated. Aloe vera at 75% and 100% concentrations was able to prevent lipid oxidation and drip loss properly; however, coatings containing 25% Aloe vera did not have the desired effects on these characteristics. Shrimps coated with higher concentrations of Aloe vera had better textural properties during cold storage. Results also indicated the positive effects of Aloe vera coating on the sensory quality of Shrimp.

Mehrshad Barary, Sajad Kordi*, Masoud Rafie and Ashraf Mehrabi (2014) entitled their article “Effect of Harvesting Time on Grain Yield, Yield Component and some Qualitative Properties of Four Maize Hybrids.” In their article, a field experiment was conducted to investigate the effect of harvest time on yield, yield components and some qualities properties of grain corn based on grain moisture content at Khorramabad. Agricultural Research station in 2010. The experimental design was a split plots based on RCBD with four replications. The investigation factors consisted of grain moisture content at harvest time (20%, 30% & 40%) and flour maize hybrids (NS640, Konsur 580, Jeta 600 and Control SC 704). The moisture contains affected on quality of food product.
The Government of India report on National Manufacturing policy 4th Nov.2011, reveals the strategic measure to be adopted for overall development of this sectors, various reforms to be initiated for the development of world class manufacturing management capabilities. The initiative is taken up to enhance the gainful employment in the sector to reach 220 million jobs by 2025 and to increase the share of manufacturing in GDP from 16% to 25%. The inclusive growth strategy will help to remove all constraints affecting the growth of this sector.

Balagopalan Nayar in his book entitled ‘Foodprocessing industries in India-Regulatory Framework’ different laws govern the food processing sector in India. The prevailing laws and standards adopted by the Government to verify the quality of food and drugs is one of the best in the world. Multiple laws/regulations prescribe varied standards regarding food additives, contaminants, food colors, preservatives and labeling. In order to rationalize the multiplicity of food laws, a Group of Ministers (hereinafter referred as “GoM”) was recently set up to suggest legislative and other changes to formulate a modern, integrated food law, which will be a single reference point in relation to the regulation of food products. The food laws in India are enforced by the Director General of Health Services, Ministry of Health and Family Welfare, Government of India.