Chapter No. 02:

Research Methodology and Review of Literature.

- Introduction.
- Food Processing.
- Profiles of Major Players in Food Processing Industry.
- State Profile – Maharashtra.
- Demographic Overview of Maharashtra.
- Infrastructure Overview.
- Study Profile – Marathwada Region.
- Industrial Development of Marathwada.
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- Objectives of the study.
- Research Methodology.
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- Chapters Scheme.
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Introduction:

The food processing sector is critical to India’s development, for it establishes a vital linkage and synergy between the two pillars of the economy- Industry and Agriculture. India is the world’s second largest producer of food and holds the potential to acquire the status with sustained efforts. The enormous growth potential of this sector can be understood from the fact that food production in the country is expected to double in the next 10 years, while the consumption of value-added food products will also correspondingly grow. The growth of this industry will bring immense benefits to the economy, raising agricultural yields, enhancing productivity, creating employment and raising life-standards of a large number of people across the country, especially those in rural areas.¹

Agriculture contributes approximately one third of the India’s GDP. The nation is the second largest producer of fruits and vegetables in the world. The quantum of processing this agriculture produce is however limited and is mainly concentrated at the level of primary processing only.² Due to typical food habits of having the fresh food, this industry remains largely an extension of the household kitchen. The food industry is fairly wide spread in the country with units located all over. The processed foods are not a part of the traditional Indian diet, but are now gaining popularity because of urbanization, rise in per capita income and increased awareness through media.

Since the agriculture based economy of the state have significant advantages for developing various food-processing
industries both at household and non-household level. Unfortunately the state has been lagging far behind to other states in terms of the development of various food-processing industries due to one or the other reasons. Presently, little information is readily available in matter related to the mode of establishing and growth structure, potential and sustainability aspect, nature and extent of participation of different communities, possibility of expansion of certain enterprises which possess location specific comparative advantages and opportunities for their development, kinds of factors influencing the efficiency and growth pattern of different industrial activities in the state of Maharashtra.

Maharashtra has a glorious history. It is a holy land of saints, sages and social reformers. Peasants and workers have toiled for centuries to make Maharashtra the Prime State of India. The State is spread over an area of 308,000 square kilometers. It is divided into six administrative divisions and 35 districts. Mumbai, the capital of the State, is also the Financial Capital of India. It was in Ahmednagar district of Maharashtra that the first cooperative sugar factory in Asia was established. Analyzing the important variables in detail the study recommend a concrete approach for developing a comprehensive plan for expansion of different food based industries in the state. This exercise would not only provide a strong base and alternative option for creation of additional employment opportunities and avenues of income for rural households but it would help in reduction in the rate of rural-urban migration of population.
Food Processing:

Food processing is one of the most important micro enterprises for agricultural country, which plays an important role in the economic development. It can be defined as a process of value addition to the agricultural and horticultural product by various methods like grading, storing and packaging etc. In other words, it is a technique of manufacturing and preserving food subsistence in an effective manner with a view to enhance their shelf life, improve quality as well as make them functionally more useful. These industries are based on local natural resources and indigenous knowledge and skill of the people. Apart from directly contributing to income and employment generation, this sector induces output and employment growth indirectly through its linkages with other sectors. Food processing can be done at home or in food processing industry. Besides reducing unnecessary wastage and losses of perishable items it helps in value addition, raising rural income by generating direct and indirect employment, diversify rural economy and faster industrialization. Above all it makes the product attractive, marketable and demandable. Seasonality in production cycle, processing of highly perishable commodities and variability in the quantity and quality of raw materials are the basic features of processing industry.

The most important point in food processing industry is that a substantial portion being rural based and it has very high employment potential with significantly lower investment. The multiplier effect of investment in food processing industry is 2.5 times than in other industrial sector. The significant benefits for different stakeholders involved in food processing are:
• **Farmer** – the farmers get different benefits from the processing sector.

• **Consumer** – the consumer can consume a variety of products, new products at lower prices.

• **Companies** – the companies are able to get new business opportunities, demand growth.

• **Government** – the processing sector generates both direct and indirect employment and reduces the tendencies of rural migration.

Processing activities may be primary, secondary, and tertiary. In case of primary processing raw ingredients are transferred into edible form such as wheat into flour. In case of secondary processing, the primary product is used to manufacture other foods such as flour into bread and tertiary processing produces prepared convenience foods such as frozen dinners or canned soup etc. In India, primary food processing is a major industry with a number of rice mills, flour mills, pulse mills, and oil seed mills etc. Moreover, there are several thousands of bakeries, traditional food units, and fruits and vegetables spice processing units in unorganized sectors. Important sub-sectors in the food processing industry are, fruit and vegetable processing, fish processing, milk processing, meat and poultry processing, packaged /convenience food, alcoholic beverages, and soft drinks and grain processing. The fruits and vegetable is one of the most important and fast-growing sub-sectors of the food processing sector as fruits and vegetables form an indispensable part of a healthy diet. The fruits and vegetable farming for processing is not only employment intensive, but also enhances the gross returns to the farmers.
In the context of regional development it provides economic justification to build rural infrastructure. Agro industry generates new demand on the farm sector for more output, which are more suitable for processing. Further it creates jobs in some sectors like transportation, distribution, and retail trade as well. With the emerging of new markets and technologies the sector has started producing many new items like ready-to-eat food, beverages, processed and frozen fruit and vegetables etc. The demand for processed food increases with the rise in income and with increased urbanization. Moreover the breakdown of joint family system, changing age profile, social changes (Increasing number of working women), life style factor tend to increase the demand for processed food.

Profiles of Major Players in Food Processing Industry:

1. **Hindustan Unilever Ltd**: (Biscuits, Instant coffee, Tea, Instant drinks, Jam, Syrups, Salt, Wheat flour-atta) - The parent company Unilever holds 51.5 per cent of HUL’s Equity. India’s largest FMCG Company with leadership in Home and Personal care products and Food and Beverages. HUL’s brands so reach across 20 different categories.

2. **Dabur Foods**: (Fruit juice, Cooking paste, Coconut, Milk, Tomato puree, Lemon drink, Chilli powder, Honey) - Dabur foods is a hundred percent subsidiary of Dabur India Ltd. Closely held listed company with promoters holding at 78.4 per cent of the total share capital.
3. **Amul Dairy products**: (Milk products, Ice creams, Chocolates) - Founded in 1946 in Anand, Gujarat. Amul is the world’s largest pasteurized milk brand in the world.

4. **GITS Food Products Pvt Ltd.**: (Sweet Mix, Namkeens, Pure ghee, Dairy whitener, Milk powder) - Unlisted private family owned business. Exports to UK, USA, Australia, Canada and Middle East contributing to the extent on 35 per cent of the revenue.


6. **Haldiram Marketing Pvt. Ltd**: (Sweets, Syrups, Namkeens, Crushes, Chips & Papads) - Started in 1936. Major share in Namkeen and Snack food market in India. Strong presence in northern market in India especially New Delhi. Exports to USA, UK, Canada, Australia, UAE and Singapore.

7. **Parle Agro Pvt. Ltd**: (Fruit drinks & Mineral water) - Leading player in the fruit based beverages segment and bottled water. Its main product is the mango based fruit drink Mango Frooti, which has 75 per cent market share.

8. **ITC Ltd**: (Wheat flour atta, Ready-to-eat meals, Biscuits, Salt, Snacks & Cooking paste) - ITC is a listed company with
British American Tobacco holding 33 per cent stake and Institutions holdings 50 per cent stake. ITC entered into branded & packaged food business in August 2001 with the launch of Kitchens of India Brand. ITC entered into confectionery, staple and snack food items by mid 2002.

9. **Marico industries**: *(Vegetable oils, Jams & Soya products)* - Marico introduced its edible oil brand Sweekar in the year 2001-02 and other major brands of oils are parachute and Saffola. Acquired Nihar from HUL in 2006. Parachute has 48 per cent market share in its segment as of 2008.

10. **MTR Foods Ltd.**: *(Ready to eat curries, Frozen food, Ready to cook gravies, Spices, Ice creams, Instant snack & Dessert mixes)* - Amongst the top five processed food manufacturers in India. Turnover is estimated at US$ 261 million with the export of approximately 10 per cent of total MTR Sales. Recently acquired by Orkla, a Norway based company for US$ 80 million.

**State Profile – Maharashtra:**

Maharashtra is the second largest state in India both in terms of population and geographical area spread over 3.08 lakh sq. km. The State has a population of around 10 crore (2001 Census) which is 9.4 per cent of the total population of India. The State is highly urbanized with 42 per cent people residing in urban areas whereas at national level it was around 28 per cent. The sex ratio of the State is 922 as against 933 for India. The State has 35
districts which are divided into six revenue divisions viz. Konkan, Pune, Nashik, Aurangabad, Amravati and Nagpur for administrative purposes. The State has a long tradition of having very powerful bodies for planning at the district / local level. For local self-governance in rural areas, there are 33 Zilla Parishads, 351 panchayat samitis and 27,935 Gram Panchayats. The urban areas are governed through 22 Municipal Corporations, 222 Municipal Councils, 3 Nagar Panchayats and 7 Cantonment Boards.5

Maharashtra’s economy has witnessed an annual average growth rate of 8.13 per cent during the decade 2001-10. This is the third highest growth rate after Haryana and Gujarat which saw an annual average growth rate of 8.95 per cent and 8.68 per cent respectively among the non-special category States. Maharashtra also has the highest average per capita income of Rs. 45,575 among the non-special category States for the decade 2001-10. In spite of its affluence, the State historically has had a skewed distribution of income. This has resulted in regional inequalities within the State, causing much concern as well as political unrest among the so-called backward regions like Vidarbha which lie in the eastern part of the State.

Maharashtra is situated in the Western region of the country. The state shares its border with Gujarat, Madhya Pradesh, Chhattisgarh, Andhra Pradesh, Karnataka, Goa and the Union Territory of Dadra and Nagar Haveli. On its West is the Arabian Sea. Pune, Nagpur, Thane, Nasik, Solapur, Kolhapur, Sangli, Aurangabad, Amravati and Ratnagiri are some of the major cities
of Maharashtra. India's main stock exchanges & capital market and commodity exchanges are located in Mumbai. The most commonly spoken language of the state is Marathi. Konkani, Hindi and English are the other prominent languages. Maharashtra’s total exports were 35.1 billion in 2009-10. Exports from the state have increased at a CAGR of 17 per cent between 2005-06 and 2009-10. The main products exported from the state are gems & jewellery, software, textiles, readymade garments, cotton yarn, metal & metal products, agro-based products, engineering items, drugs and pharmaceuticals and plastic & plastic items. The Compound Annual Growth Rate (CAGR) of GSDP from 2004-05 to 2009-10 was about 15.6 %. Maharashtra ranks first amongst all the Indian states in terms of GSDP. The Net State Domestic Product (NSDP) of Maharashtra was 125.9 billion in 2009-10. The CAGR of NSDP from 2004-05 to 2009-10 was about 16.0 per cent. Maharashtra ranks first amongst all the Indian states in terms of NSDP. The state’s per capita GSDP in 2009-10 was 1256.1. The per capita GSDP has increased at a CAGR of 13.9 per cent between 2004-05 and 2009-10. The state’s per capita NSDP in 2009-10 was 1139.8. The per capita NSDP has increased at a CAGR of 14.3 per cent between 2004-05 and 2009-10.

**Demographic Overview of Maharashtra:**

Maharashtra is the second largest state of India both in terms of geographical area and population. It has 35 districts divided into six divisions. Maharashtra is a highly urbanized state with 45.2 percent of the population residing in urban areas. The table below gives key demographic indicators and their comparison with pan-India numbers-
### Table No. 2.01:
**Demographic Profile of Maharashtra:**

<table>
<thead>
<tr>
<th>Sr.</th>
<th>Indicators</th>
<th>Unit</th>
<th>Maharashtra</th>
<th>India</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Geographical Area</td>
<td>Lakh Sq. Km</td>
<td>3.08</td>
<td>32.87</td>
</tr>
<tr>
<td>2</td>
<td>Population</td>
<td>Crore</td>
<td>11.23</td>
<td>121.02</td>
</tr>
<tr>
<td>3</td>
<td>Decadal Growth Rate</td>
<td>Percentage</td>
<td>16.00</td>
<td>17.64</td>
</tr>
<tr>
<td>4</td>
<td>Density of Population</td>
<td>Population/Sq. Km.</td>
<td>365</td>
<td>382</td>
</tr>
<tr>
<td>5</td>
<td>Sex Ratio</td>
<td>Females/1000 Males</td>
<td>925</td>
<td>940</td>
</tr>
<tr>
<td>6</td>
<td>Literacy Rate (LR)</td>
<td>Percentage</td>
<td>82.9</td>
<td>74.04</td>
</tr>
<tr>
<td>7</td>
<td>Birth Rate</td>
<td>Per 1000 Mid-year Pop.</td>
<td>16.7</td>
<td>21.80</td>
</tr>
<tr>
<td>8</td>
<td>Death Rate</td>
<td>Per 1000 Mid-year Pop.</td>
<td>6.3</td>
<td>7.10</td>
</tr>
</tbody>
</table>

Source: Economic Survey of Maharashtra 2012-13

**Infrastructure Overview:**

- **Roads:** Total road length in the state, as on March 2012, was approx. 2.45 lakh km. More than 99 percent of the villages are connected by all weather roads and fair weather roads.

- **Railways:** Total length of the rail network in the state, as on March 2012, was 5,984 km.

- **Water Transport:** The state has a 720 km long coast line having two major ports i.e. Mumbai Port Trust and Jawaharlal Nehru Port Trust.
Airports: There are four international airports in the state in Mumbai, Nagpur, Pune and Aurangabad and five domestic airports.

Power: State has highest installed capacity and generation of electricity in the country. The installed capacity as on March 2012 was 20,370 MW, with thermal power contributing to more than 50% of the total capacity.

Study Profile – Marathwada Region:

Marathwada is under development in Maharashtra in its numerical strength, the population of the Marathwada is unique. The languages, manners, costumes, dresses and modes of living have made the region attractive from the standpoint of human studies. The region professes almost all-major religions of the country. It has an unbroken continuity covering millennia and posses socio-cultural traditions which features distinct in many ways from other regions. Marathwada has its hoary past. It has been the cradle of civilization art, architecture and culture represented by Ajanta & Ellora. The Bombay-Pune, the birthplace of modern industrial system was inhabited by entrepreneurs, while Marathwada was known for its undeveloped economy till the beginning of nineties.

The economic history of Marathwada up to 1960 A.D. gives ample evidence of the poverty of people, through the poverty of those times cannot be fully compared to the modern economic prosperity. Only with the advent of the new Govt. policies of 1980 and which were mainly designed in their own interest, the Marathwada attain its stability to move with the industrial trends.
Nizam’s rule, in Marathwada no doubt, brought in-stability in administration had never cared for the well being and prosperity of the people. At the dawn of eighties Marathwada was known as the one of the backward regions of the state. Mass poverty and illiteracy scourged the entire region. The regional leaders and the government had the gigantic task of removing the poverty and misery of the millions and also farming the right policies for the rapid and planed economic development of Marathwada. What is true of Indian agriculture is also true for Marathwada and hence, the chapter starts with discussion on development of agriculture in India.

Table No. 2.02:
Geographical Information of Marathwada.

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Name of District.</th>
<th>Geographical Area (Sq.K.M.)</th>
<th>Talukas</th>
<th>Villages</th>
<th>Population Census -2001</th>
<th>Literacy Rate %</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Aurangabad</td>
<td>8,900</td>
<td>9</td>
<td>1,250</td>
<td>15,21,632</td>
<td>13,98,916</td>
</tr>
<tr>
<td>2</td>
<td>Beed</td>
<td>11,085</td>
<td>12</td>
<td>1,269</td>
<td>11,20,664</td>
<td>10,39,177</td>
</tr>
<tr>
<td>3</td>
<td>Hingoli</td>
<td>5,521</td>
<td>5</td>
<td>662</td>
<td>5,05,188</td>
<td>4,81,529</td>
</tr>
<tr>
<td>4</td>
<td>Jalna</td>
<td>7,405</td>
<td>8</td>
<td>956</td>
<td>8,25,977</td>
<td>7,86,380</td>
</tr>
<tr>
<td>5</td>
<td>Latur</td>
<td>7,304</td>
<td>10</td>
<td>936</td>
<td>10,74,321</td>
<td>10,03,916</td>
</tr>
<tr>
<td>6</td>
<td>Nanded</td>
<td>10,528</td>
<td>16</td>
<td>1,580</td>
<td>14,76,301</td>
<td>13,91,857</td>
</tr>
<tr>
<td>7</td>
<td>Usmanabad</td>
<td>7,510</td>
<td>8</td>
<td>722</td>
<td>7,62,947</td>
<td>7,09,309</td>
</tr>
<tr>
<td>8</td>
<td>Parbhani</td>
<td>5,520</td>
<td>9</td>
<td>1,480</td>
<td>7,61,937</td>
<td>7,29,172</td>
</tr>
</tbody>
</table>

Source: Intellectual’s Sandharbh Maharashtra.

Industrial Development of Marathwada:

The economic development of any state or region is related to the industrial development of the state. The industrial development of any state brings about an increase in the...
production of the state. It increases the employment opportunities and employment in the state and which brings about an improvement in the standard of living of the people. This ultimately results in bringing about the economic development of the state as a whole. The industrial development of Marathwada is not uniform. Some parts of Marathwada are more developed and some are lagging behind. This has resulted in bringing about an unbalanced localization of industries in Marathwada. This unbalanced or unequal localization of industries in Marathwada has generated some problems.8

Table No. 2.03:
District wise Industries in Marathwada

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>District</th>
<th>Running Industries (Regd.)</th>
<th>Sugar Industries (Working)</th>
<th>Spinning Mills</th>
</tr>
</thead>
<tbody>
<tr>
<td>1)</td>
<td>Aurangabad</td>
<td>780</td>
<td>8</td>
<td>1</td>
</tr>
<tr>
<td>2)</td>
<td>Jalna</td>
<td>158</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>3)</td>
<td>Parbhani</td>
<td>185</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>4)</td>
<td>Hingoli</td>
<td>-</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>5)</td>
<td>Beed</td>
<td>101</td>
<td>7</td>
<td>6</td>
</tr>
<tr>
<td>6)</td>
<td>Nanded</td>
<td>269</td>
<td>7</td>
<td>4</td>
</tr>
<tr>
<td>7)</td>
<td>Osmanabad</td>
<td>54</td>
<td>7</td>
<td>5</td>
</tr>
<tr>
<td>8)</td>
<td>Latur</td>
<td>155</td>
<td>10</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Marathwada</td>
<td>1702</td>
<td>49</td>
<td>26</td>
</tr>
</tbody>
</table>

Source: SRTM Research Institute, Aurangabad (2003).

Table No. 2.03 shows district wise number of industries ending 31st March 2001 in Marathwada region. There are 10,071
registered small industries and the largest number of small industries is in Aurangabad district (32.52%) while the lowest number of 135 small industries is in Hingoli district (1.34%). The medium industries working in Marathwada region is 302 and the largest number of 1973 medium industries is in Aurangabad district (65.23%) while lowest number of 10 industries for the same is in Beed district (3.31%). There are total 35 working sugar industries in Marathwada and Aurangabad, Beed and Nanded districts had the 6 largest numbers of sugar industries (17.74%) while the lowest numbers of 2 sugar industries were in Parbhani and Osmanabad district (5.11%). Briefly, out of total 128 working sugar industries in Maharashtra, Marathwada has 35 (27.5%) working sugar industries. Out of 230 spinning mills in Maharashtra, Marathwada had 38 spinning mills and Beed district hold the largest number of spinning mills. Briefly, to eradicate the imbalance in Marathwada region, all districts in Marathwada except Aurangabad should promote the industrialism.

**Importance of Study:**

Food processing Entrepreneurs are encountering a number of constraints pertaining to finance, marketing, technological and export for smooth running of their entrepreneurial units. There is urgent need to provide the facilities which facilitate them setting up of economically viable units and they should be equipped with latest technologies and skills by organizing different entrepreneurial motivational and skill oriented programs frequently. The present study was undertaken in the industrially leading districts of Marathwada region to determine the correlates; the specific training needs of entrepreneurs; to make an
assessment of problems encountered by entrepreneurs to facilitate setting up of sustainable units. A total number of 160 entrepreneurs were interviewed for the study.


The study also suggest that important areas of training preferred by entrepreneurs were quality management, marketing management, packaging techniques, marketing techniques, technology upgradation, financial management, brand promotion, export promotion technique, advertising the products and personnel management. The study further advocate that ‘lack of physical facilities’, ‘lack of sufficient stock of raw material’, ‘lack of managerial competence’, ‘poor attention on advertisement and publicity of the products’, ‘poor working of various industrial agencies,’ ‘lack of cooperation and coordination among different developmental agencies,’ ‘technological gap’, ‘lack of sufficient working capital’, ‘problems in procuring finance from different financial institutions,’ ‘cheaper/ superior competitive substitute,’
‘inadequate supply of export information’, ‘power supply inadequate, uncertain and costly’, ‘preparation, identification and implementation of the project’, ‘licensing and registration’, ‘poor linkage with marketing structure’, and ‘lack of govt. support and incentives’ constituted very serious problems encountered by entrepreneurs for a sustainable unit.

**Objectives of the study:**

The study was planned with the following important objectives:

1. To take the review of development of food processing industries in India, Maharashtra and Marathwada region.
2. To study social, economic, educational and occupational backgrounds of the small entrepreneur engaged in food processing industries in Marathwada region.
3. To assess the development of the food processing industries in Marathwada region.
4. To evaluate existing policies, programs, institutional networks and the involvement of support agencies in promoting food processing units.
5. To study the various factors of entrepreneurs engaged in food processing enterprises and find out the potentialities among them.
6. To identify problems and prospects of the food processing industrial units in the backward districts of Marathwada region;
7. To suggest suitable measures for the growth of food processing entrepreneurship in the Marathwada region.
Hypothesis:

The following hypotheses were formulated for the present study.

1. Food processing units in Marathwada region started under Government Programmes.
2. Food processing units faces the problems of wastage up to 40% during the production process.
3. Infrastructure facilities are not adequate in Marathwada region for food processing industry.

Research Methodology:

The present study is based on both the Primary and the Secondary sources, yet it is mainly based on the primary data. The major sources of secondary data are the Information provided by District Industrial Centers, Financial Institutions, Small Scale Industrial Corporation, Population Census, Statistical Reports, Economic surveys, Survey of Industries, Reports of District Industry Centers, Reference books, Research Journals, Magazines, News papers, etc. The study is conducted in the Marathwada region of Maharashtra State of India. A list of small-scale Food processing entrepreneurs was prepared for each of eight districts of Marathwada region in consultation with officials of department of industry of the concerned districts. A total number of 160 entrepreneurs were constituted the sample for the study.

Keeping the objectives of the study in view, an exhaustive study of food processing industries has been undertaken. For this purpose 160 sample respondents have been selected on the basis of information provided by the District Industries Center (DIC) of
Marathwada region, Financial Institutions and field survey regarding food processing industrial units. To investigate into the origin, performance and problems of the industrial units for which secondary data are not adequate, to throw light on these aspects the primary data is collected through a sample survey of food processing industries. For this purpose, a structured questionnaire is used to collect the data.

**Samples Selected for Study:**

In view of large number of food processing units in the region, it has been decided to carry out a sample study. Hence, the sample respondent units have been selected representing different lines of activity. Out of the total units in Marathwada region 160 units were selected on the basis of purposive sampling method. All the districts of Marathwada region is taken for the detailed study. The study is mainly based on the primary data collected through field investigation, survey and questionnaire. The respondents are therefore personally interviewed with the help of structured questionnaire. The data is collected from both the sources is analyzed in tables and graphs with the help of various simple statistical tools. The samples selected from various districts from the area of Milk and milk products, Spices, Fruits and Vegetables, Oilseeds, cereals, Wheat, Sugarcane, Traditional Foods, confectionary, mineral waters, soft drinks, bread and bakery, Papad, pickles making units, etc. are as follows.
Table No 2.03:
List of Samples selected

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Name of Districts</th>
<th>Samples Units</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Aurangabad</td>
<td>20</td>
<td>12.50</td>
</tr>
<tr>
<td>2</td>
<td>Beed</td>
<td>20</td>
<td>12.50</td>
</tr>
<tr>
<td>3</td>
<td>Osmanabad</td>
<td>20</td>
<td>12.50</td>
</tr>
<tr>
<td>4</td>
<td>Latur</td>
<td>20</td>
<td>12.50</td>
</tr>
<tr>
<td>5</td>
<td>Nanded</td>
<td>20</td>
<td>12.50</td>
</tr>
<tr>
<td>6</td>
<td>Parbhani</td>
<td>20</td>
<td>12.50</td>
</tr>
<tr>
<td>7</td>
<td>Hingoli</td>
<td>20</td>
<td>12.50</td>
</tr>
<tr>
<td>8</td>
<td>Jalna</td>
<td>20</td>
<td>12.50</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>160</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

Primary data from the selected food processing units are collected through canvassing structured schedule and questionnaire prepared for the purpose of the study. Data are analyzed through simple tabular analysis.

**Reference Period:**

The reference period for the field investigation is 2001-02 to 2010-11 and the interviews of sample respondents were conducted in the year 2012-13 in eight districts of Marathwada region. The reference period, while collecting the secondary data is not restricted to particular number of years.

**Scope of Study:**

An attempt had been made to examine the development and problems and prospects of food processing industries in Marathwada region. Overall study is based on National and State
level. For this purpose problems and prospectus and challenges is studied. The study though limited to select of food processing industrial units; the efforts is made to universalize the findings applicable to the entire State or Maharashtra State. Although the food industry and food processing are used interchangeably, there are some differences between these two terms. Generally, the food industry includes four activities: processing, packaging, flavors and additives, and storage and handling; food processing includes only processing activities. As the food industry includes two sectors, manufacturing and services, it is very difficult to analyze the effect of the food industry in terms of value added to the economy and employment generation. This study, therefore, focuses only on food processing Industries in Marathwada region.

**Chapters Scheme:**

The present research work is divided into the following seven chapters.

1. Introduction.
2. Research Methodology and review of literature.
3. Role and Importance of Food-Processing industries.
5. Progress of Food Processing Industry.
6. Performance of Selected food processing industries.
7. Findings, Conclusions and Suggestions.
Review of Literature:

The empirical study by Zhixiong (2010) on Food Processing Industry in China, from 2000 to 2008, indicates that FDI of the food industry has no significant effects on the domestically funded enterprises. Thus China can continue to introduce the foreign capital but prevention of the multinational corporation from monopolizing the food processing industries are to be taken into consideration. The cross country statistical analysis of Tade (2009), suggests, foreign affiliated enterprises play important roles in the technology transfer in compliance with food safety standards. Using data on developed countries over the period 1983-2002, Xan and Awokuse (2005) observed economy size, factor endowment, home country trade cost and host country cost have significant effect on FDI activities in the food processing sector. Makki (2004) observed that the determinants of FDI inflow vary for developed and developing countries. Economic development is positively associated with FDI for developing countries but negatively associated for developed countries. The other reviews in this area are as follows:

1. Bayazid Mardoukhi (1993)⁹ - Rural industries, including handicrafts as well as the traditional and manufacturing industries has existed in Iran since ancient times. Manual industries and workshops in the country, whose production activities have not been mechanized and hence are more dependent on human labor, are contributing significantly towards industrial employment. The lack of sufficient concern and assistance for such enterprises has persisted for a long time and has hampered the development of these
ventures. At present, attention to rural industries can provide appropriate means for employment creation, enhancement of income in the villages, prevention of rural-urban migration and promotion of industrial development.

2. Kurulkar R. P., Mitra, A. K. and Sahoo, B. (1994) studies the role of two agro-based industries, the sugar industry, and the cotton-based industry, in the development of rural areas of Marathwada region, Maharashtra, India, using Thompson's Model of endogenous development. The chapter discusses the nature of investment and employment in agro-based industries, the objectives of planning. It then discusses each of the agro-industries, capital requirements, and potential employment levels. The chapter concludes that agro-based industries have the potential to help rural development in almost all the backward areas of India, but require strong leadership to do so.

3. Alizon Draper (1996) - The street food trade is a growing sector in many developing countries today. Its expansion is linked with urbanization and the need of urban populations for both employment and food. Despite this, the role of street foods in supplying the nutrient needs of urban populations has received little official attention and more notice has been paid to the potential dangers arising from the consumption of street foods than to any benefits they might offer. Much of the bias against street foods, however, is unfounded and based more on prejudice than empirical data. Official data on the street food trade and the consumption of street foods are
largely lacking, but a number of studies have been conducted which show that the street food trade is a large and complex sector, which provides a means of livelihood and an affordable source of food to many millions of people. The potential of street foods for improving the food security and nutritional status of urban populations remains almost totally unexplored.

4. Diagnostic Study Sme The Food Products Cluster (1997)\textsuperscript{12} - The study concludes that No significant improvements in the food processing industry can come through unless we ensure that the raw material itself is of uniform good quality. For this we have to start from the farmer itself. We need to provide necessary inputs and farm management training to the farmers themselves so that the produce that they come up with is of requisite uniform quality. Only then the processing can add value to make the product of uniform good quality. This would also involve upgradation for the post harvest technology and infrastructure available. Some experts can be called from foreign countries even on free basis. Such institutions exist that provide technical expertise not only to run regular programs but also to provide institution building expertise.

5. Gopinath M. D. (1999)\textsuperscript{13} - The study analyzed the choices facing a multinational firm in supplying a foreign market - exports (produced in the home country) and overseas production. Their empirical framework consisted of a four equations system with foreign affiliate sales, exports, affiliate
employment, and FDI as endogenous variables. Data on foreign activities of the U.S. processed food industry in ten developed countries for the time period 1982-94 were pooled to obtain a panel, which was then used to estimate the model.

6. **H. Martin Dietz (2000)** - This report highlights the potential contribution that small-scale food processing enterprises can make to the overall development of the agricultural sector and, in particular, the rural economy in Uganda and Tanzania. The major constraints hindering the development of small-scale food processing enterprises in these countries include: a lack of access to capital for investment and operation; the limited technology choice for entrepreneurs; poorly developed technical and managerial skills among entrepreneurs; and a lack of technical and market information available to entrepreneurs. The author recommends various approaches for improving the operating environment for food processors in order to increase their productivity and competitiveness. The report also notes that improving the flow of information to small-scale food processors is particularly crucial to their future success. A key recommendation on information management and skills development relates to the establishment of advisory services business support centers.

7. **Amiya Kumar Behera (2004)** - There is a need to increase food processing in India from an existing low level of 2 percent up to 10 percent by 2010. This would require an investment of Rs.14 trillion in the food processing sector.
This investment would generate direct employment for about 7.7 million persons and indirect employment for about 30 million. This could also reduce food wastage worth Rs.800 billion. Apart from these advantages, the value addition to the food products will go from 7 to 35 percent, which will increase contribution of this sector to the GNP. The thrust will have to attract foreign and domestic investment, and generate internal accruals of such magnitude. Domestic investment needs to come from the private sector, NGOs and community-based organization, including farmers associations.

8. **Pardeep S. Shehrawat (2006)** - The study indicated that ‘suitable location of entrepreneurial units’, ‘adequate supply of power’, ‘adoption of quality control measures’, ‘good quality of raw material’, ‘timely supervision and guidance’, ‘sound managerial ability of entrepreneurs’, ‘provision of technical guidance counseling,’ ‘proper training of workers,’ ‘easy availability of finance’, ‘identification and use of mega markets’, ‘attractive packaging’, ‘quality products’, ‘good contact with marketing personnel,’ ‘commitment towards enterprises’, ‘high risk taking capacity’, ‘innovative behavior,’ ‘high degree of motivation’ were found as very much effective correlates for economically viable units. The study found that important areas of training preferred by entrepreneurs were quality management, marketing management, packaging techniques, marketing techniques, technology up gradation, financial management, brand promotion, export promotion technique, advertising
the products and personnel management. The study further revealed that ‘lack of physical facilities’, ‘lack of sufficient stock of raw material’, ‘lack of managerial competence’, ‘poor attention on advertisement and publicity of the products’, ‘poor working of various industrial agencies’, ‘lack of cooperation and coordination among different developmental agencies,’ ‘technological gap’, ‘lack of sufficient working capital’, ‘problems in procuring finance from different financial institutions,’ ‘cheaper/ superior competitive substitute,’ ‘inadequate supply of export information’, ‘power supply inadequate, uncertain and costly’, ‘preparation, identification and implementation of the project’, ‘licensing and registration’, ‘poor linkage with marketing structure’, and ‘lack of govt. support and incentives’ constituted very serious problems encountered by entrepreneurs for a sustainable unit.

9. **S. K. Goyal (2006)** - India is the second largest producer of fruit and vegetables in the world. But, around only 2 percent of fruit and vegetable production is processed. This paper reports the consumption of fruit and vegetables in India and the status, growth and potential for fruit and vegetable processing. Production of fruit and vegetables grew at an annual rate of 4.35 and 5.74 percent, respectively during 1992-2002. Consumers’ expenditure on fruit and vegetables has been rising over the years in India. Consumers’ demand for fruit was more responsive than was the demand for vegetables to increased income. The study found that the number of processing units has grown by
about 3.68 percent per annum during 1992-2003. Capacity utilization was about 37 percent in 1992, which has now increased to about 47 percent. Because of low capacity and poor capacity utilization, processing is at very low level. With regards to exports, there is a lack of processable varieties of fruit and vegetables. However, there has been tremendous growth (20.32 percent compound) in exports of processed fruit and vegetables particularly during the nineties following new economic policies, but India’s share of world exports is very low. Among the various processed fruit and vegetable products exported, dried & preserved vegetables constituted the largest share (47 percent). Following economic liberalization, foreign direct investment in the processing sector has been increasing. India has the potential to become a leading exporter of processed fruit and vegetable products. To achieve this, there is a need to remove the constraints facing the industry. Globalization and liberalization have brought unprecedented challenges and severe competition to the processing industry. Firms must be innovative and need to anticipate and respond to the requirements of consumers for their survival and sustained growth. Only then one can hope to see the fruit and vegetable processing industry as a ‘sunrise’ industry.

10. **Veena S. Samani (2006)** - Entrepreneurship is suitable to women and it is possible to do work when she has free time. Self-employed women has no restrictions and time bound work which makes it easy for her to manage the responsibilities of work, home and child at a time. Secondly,
it is convenient for women to control a small business. This pattern of working in small business suits her dual role. With this, there is a growing realization that the strength of a country is in the small business. The researcher found that the collected data would be of great importance as data base. The researcher would recommend more case studies in this direction, so that a women entrepreneur gets more recognition and acceptance. Such studies will help the women to solve the problems faced. It will motivate agencies and government to provide help, support and benefit to women entrepreneurs.

11. **Nisha Harchekar (2008)** - Indian food-processing industry is poised for explosive growth driven by changing demographics, growing population and rapid urbanization along with increased government support. These factors will increase the demand for value added products and thus improve the prospects of food-processing industry in India. The government’s focus towards food processing industry as a priority sector will ensure policies to support investment in this sector and attract more FDI. India with its vast pool of natural resources and growing technical knowledge base has strong comparative advantages over other nations. According to CII has estimates, food-processing sector has the potential of attracting US $33 billion of investment in 10 years and generate employment of 9 million person-days. The food processing sector in India is clearly an attractive sector for investment and offers significant growth potential to investors.
12. Mohammed Asmatoddin, G.T. Pawar And M. Atefuddin (2008)\textsuperscript{20} - A study was conducted in Parbhani city during the year 2004-05 to study the agro-based food processing bakery and confectionary firms in Parbhani city. In this study information was collected on income pattern and employment in bakery and confectionary firms. The sample included small, medium and large bakery and confectionary firms. The information was collected on investment on firms, income and employment generated in different sizes of firms by specially design questionnaire and data were also collected for time series from small, medium and large firm owner. To analyze the data statistical tools used are mean, frequency and percentages. The result revealed that overall total cost per bakery firm was Rs., 12.23 lakh, while it was Rs.5.16 lakh, Rs.9.37 lakh and Rs.22.15 lakh in small, medium and large firm respectively. The net income generated from bakery and confectionary firm on overall was Rs. 8.27 lakh, whereas net income from by small, medium and large firms were Rs. 2.17 lakh, Rs.4.0 lakh and 10.25 lakh, respectively. The annual employment per bakery firm was observed in overall, 2871.24 man days; the proportionate employment of casual, skilled and unskilled workers in total employment was 46.36, 27.37 per cent, respectively.

13. Kachru R. P. (2009)\textsuperscript{21} - Agro processing is defined as set of techno-economic activities, applied to all the produces, originating from agricultural farm, livestock, aquaculture sources and forests for their conservation, handling and
value-addition to make them usable as food, feed, fiber, fuel or industrial raw materials. Agro processing sector has experienced expansion during last 5 decades, starting with a handful of facilities which were mainly operating at domestic/cottage level. The paper provides a summary of the growth history of the sector covering role of R&D, recent trends vis-a-vis crop-wise status of agro processing industrialization and problems, export trends, SWOT analysis and thrust areas for future for achieving greater role of this sector in the national economy.

14. R. Gopal, Pradip Manjrekar & S.S. Dhond (2010) -
The conclusion of the study reveals that - The Indian Sea Food industry is developing quickly with near double-digit positive levels of growth posted consistently year-on-year since the beginning of the decade. The growth is being propelled by the decision of the Indian Government to provide a major impetus to Sea Foods Exports. Growth is a cherished cultural value. A growing company is known better and it attracts better management. It is a source of strength. In industries subject to frequent changes in technologies and external environment, growth is necessary for survival. Globally there are several strategic choices of growth that can be followed by a firm. This study identifies the top Sea Food Export Companies. These companies are then evaluated for growth on basis of quantitative parameters like ROCE, CAGR, Productivity, etc. After due identification of the drivers of growth, this study attempts to investigate the
emphasis laid by the above companies on these growth drivers.

15. **FICCI Survey (2010)**23 - Food processing industry in India is increasingly seen as a potential source for driving the rural economy as it brings about synergy between the consumer, industry and agriculture. A well developed food processing industry is expected to increase farm gate prices, reduce wastages, ensure value addition, promote crop diversification, generate employment opportunities as well as export earnings. In order to facilitate and exploit the growth potential of the sector, the government on its part has initiated extensive reforms. Some of the key measures undertaken by the Government include: amendment of the Agriculture Produce Marketing Committee Act, rationalization of food laws, implementation of the National Horticulture mission etc. The government has also outlined a plan to address the low scale of processing activity in the country by setting up the mega food parks, with integrated facilities for procurement, processing, storage and transport. To promote private sector activity and invite foreign investments in the sector the Government allows 100% FDI in the food processing & cold chain infrastructure. The recent budget has announced several policy measures, especially for the cold chain infrastructure, to encourage private sector activity across the entire value chain.
16. Jiban Kumar Ghosh, Fazlul Haque Khan and Vivekananda Datta (2010) - The study finds that the strength of agro-based industry is comparatively less than those of non-agro-based industries in the organised sector. However, in the un-organised segment, the dominance of agro-based industry is clearly noticed. Importantly, agro-based industry is largely a house of tiny and small enterprises. Analysis of primary level survey data reveals that almost all the sample processing units were existing ones. In West Bengal, the average age of the unit varied from 3 to 22 years. The same ranged between 8 to 35 years in Bihar. In Maharashtra, the age of the unit varied from 25 to 60 years. It is also observed that investors are not keen on registering their units. Evidently, the processing units in West Bengal and Bihar are mostly un-registered units. In contrast, most of the sample units in Maharashtra are registered. Notably, OAME units in all the category of enterprises are seen to be unregistered in all the selected states.

17. Dhiman Pawan Kumar & Amita Rani (2011) concludes that agro based industry is regarded as the sunrise sector of the Indian economy in view of its large potential for growth and likely socio economic impact specifically on employment and income generation. Some estimates suggest that in developed countries, approximately 14 per cent of the total work force is engaged in agro-processing sector directly or indirectly. However, in India, only about 3 per cent of the work force finds employment in this sector revealing its
underdeveloped state and vast untapped potential for employment. There is no denying that India has to live with the problem of unemployment for many years to come. Therefore need arises to make all over development among all sections of the society especially in rural agro based industrial units. The present paper is an attempt to find out the status of agro based units such as rice mill industry in the Patiala district of Punjab and to analyze the various problems being faced by them. It has been found that Rice mill industry in Patiala district is in the crisis and facing the various problems regarding lack of financial assistance, improper marketing channel, high degree of breakdown of finished products and non availability of research lab for quality control. However, if this sector will be properly developed, it can make state Punjab a major player at the global level for marketing and supply of processed food for billion plus mouths to feed.

18. K. Sreenivasa Murthy (2011) - This study made an attempt to review the status of fruit processing industry and the problems encountered by the industry in Chittoor District of Andhra Pradesh. Based on the observations of the problems, appropriate suggestions are also offered to tone up the performance of the fruit processing industry in Andhra Pradesh in general and Chittoor District in particular. The Chittoor Fruit Processing Cluster (CFPC) is the largest cluster of its kind in India. Lack of mutual trust, intense inter-firm competition and a roller-coaster performance marked the growth of the cluster before the interventions in
1998. The other problems afflicting it were unscientific raw material handling practices, primitive processing technologies, unremunerative product-mix, poor product quality and high environmental pollution. The interventions by APITCO, as the Cluster Development Agent (CDA), with the active participation of the firms and their commitment to “swim or sink together” attitude; along with proactive support from National Horticulture Board (NHB), Agricultural and Processed Food Products Export Development Authority (APEDA), Ministry of Food Processing Industry (MFPI), Government of India and Government of Andhra Pradesh (GoAP). Increased exports, domestic sales and employment; led to introduction of HACCP protocols; and setting up of aseptic packaging facilities and effluent treatment plants. An Agri-Export Zone (AEZ) covering the entire district.

19. G. S. Mehta (2012)²⁷ - Over the years, the agricultural transformation through creation of forward and backward linkages with Agro-industry has been emerging as an important option to overcome from the increasing challenges of creating employment opportunities for increasing labour force and sustaining the livelihood of households in rural areas. Most important point in the agro-processing is that a sizeable portion of raw material processed in them being rural based it has a very high employment potential with significantly lower investment. Agro-industry generates new demand on the farm sector for more and different agricultural outputs, which are more suitable for processing.
On the other hand, development of these industries would relax wage goods constraints to economic growth by enhancing the supply of their products. In this context there is a need for improving the capacity of the agro-industries to harness backward linkages with agriculture and allied activities in order to efficiently convert part of the output to value added products acceptable to the domestic and international markets. This would generate employment opportunities for different types of skills through food processing, packaging, grading and distribution. At the same time this will transfer a size margin to farmers through market linkages.

20. Manjari Desai (2012)28 - The Food Processing Industry plays an important role in establishing the farm sector’s formal linkages that result in high income and employment generation while minimizing the wastages. According the Economic Survey of Maharashtra 2011-12, out of the total 4221 FDI proposals (from August 1991 to September 2010) approved by the Government of Maharashtra, 173 proposals are from the Food Processing sector, that is 4.1% of the total proposals. An investment amount of Rs. 1039 crores is expected which is 1.2% of the total investment in the current year. The study has analyzed the current scenario of this industry and its various aspects namely Sources of Finance, Procurement of Raw Materials, Technology, Man Power and Labour Related problems and Marketing and Government Policy implications.
21. Mike Battcock, Sue Azam-Ali, Peter (2012) - This book shows how to provide effective training in food processing, which can open up opportunities for individuals who lack business experience. It explains the importance of needs assessment, course preparation, monitoring and follow-up, and the value of practical work and opportunities for trainers to discuss their ideas and discoveries. With examples of forms and lesson plans, photographs of appropriate training environments, practical case studies and details of institutions that support food processing training, there is a wealth of information for trainers and organizers of training courses throughout the world.

22. Kakali Majumdar (2012) - Food processing sector has been attracting substantial FDI and is among the top ten sectors getting FDI equity. FDI up to 100 per cent equity is permitted under the automatic route in food and infrastructure like food parks and cold chains. There are many areas for investment in this sector which include mega food parks, agri-infrastructure, supply chain aggregation, logistics and cold chain infrastructure, fruit and vegetable products, animal products, meat and dairy, fisheries and seafood cereals, consumer foods/ready to eat foods, wine and beer, machinery/packaging. Though India has a strong raw material base, it has been unable to tap the potential for processing. The paper analysis growing FDI in Food processing industry in India.
23. Surendra P. Singh (2012) - India’s agricultural base is quite strong but wastage is very high and processing of food products is very low. The country’s processing sector is small and processing of food to consumable standards in India has reached only 10% recently. India’s share in exports of processed food in World trade has remained at about 1.5 percent or $3.2 billion. This study examines trends and status of the food processing industry, identifies and discusses constraints/problems slowing down its growth. Though there are many promising dynamics which support the potential for growth of this industry, there are still some significant constraints which, if not addressed sooner, can impede the growth prospects of the Food Processing Industry in India.

24. Mohammad Rais, Shatroopa Acharya and Neeraj Sharma (2013) - This paper provides a detailed analysis of food processing industry in India and its capability, skills and employment opportunities. Food processing industry is slowly and steadily becoming one of the major industries of our economy. Its share in GDP is on continuous rise, with a CAGR of 8.40 per cent, from 2005-06 to 2009-10. There has been a continuous increase in the total plan outlay amount from Rs. 650 crore in 10th plan; to Rs. 15,077 crore in proposed outlay for 12th plan. The sector is growing, but it is yet to compete in the world market. India’s share in world export is meager with 1.17 per cent. There is a wide gap between productivity and processing of items. The factors which have been used to study food processing industry are
S&T capability of sector, its employment generation capacity and skills needed in the sector. The S&T capability segment venture into the changing trend of technology, difference between conventional and modern technology, the areas in which India is lagging behind. The employment generation capacity highlights growth and size of the industry and skills about the kind of human resources involved in the industry, the level of technology used in the sector. The employment generation capacity of the sector is huge, but the industry is not working at its potential. The labor force is highly unskilled, with 80 per cent of them having educational level below 10th standard. The impact of a variety of policies and programmes undertaken by government to develop food processing sector has not been very encouraging. The state needs to strengthen its efforts in S&T capability, infrastructure support and skill set in order to develop food processing industry.

25. Mohd. Asif Ansari, Vikas Kumar, Chhatarapal Singh, Vani Shukla and Rajendra Kumar (2013) - Food safety means assurance that food is acceptable for human consumption according to its intended use and Food Safety Management System means the adoption of Good Manufacturing Practices, Good Hygienic Practices, Hazard Analysis and Critical Control Point and such other practices as may be specified by regulation, for the food business (Food Safety and Standards Act 2006). Food safety is a global issue affecting billions of people who suffer from diseases caused by contaminated food. This is one of the
most widespread health problems and an important cause of reduced economic productivity. Both developed and developing countries share concerns over food safety as international food trade and cross-border movements of people and live animals increase. Governments worldwide are intensifying their efforts to improve food safety by updating national food regulatory systems. The food industry is putting in place modern food safety management systems (FSMS) to satisfy customers and consumers. The situation of food safety in developing countries in the Asia-Pacific region remains, however, far from satisfactory. Food safety can be described as the voluntary approach by some socially conscious and responsible companies that encourage the development, implementation and maintenance of HACCP based programmes in all food related establishments and grading stations for which external monitoring and verification programmes are to be properly established. India is world’s second largest producer of agricultural products after China. Yet, we don’t offer as much choice to our consumers. The Indian food processing industry has tremendous potential because it has a huge domestic market whose demands keep on rising as well as in the foreign market, not just made up by the rapidly growing diasporas but also by international consumers. The aggregates of export of food products as increased by massive 66.4% in just two years from INR 21,805 crore in 2006-07 to INR 36,294 crore in 2008-09. Interestingly, rise had topped the export list in each of the last three years accounting for about total exports of food and food products. And if higher demand at
home last year saw a fall in non basmati rice export, it was more than companies stated by a search in export of basmati rice. Export of basmati rice had more than doubled last year from INR capital 4,345 crore in 2007-08 to INR 9,477 crore in 2008-09. By the end of the year 2009, it is estimated that some 200 million will be added to the 300 million estimated consumers of processed food in India. With the growing per capita income, the ministry of food processing in its vision 2015 document on the prospects and opportunities of the sector estimated that its size would soon travel. This is backed by an Ernst and Young estimation of it growing by 30% - 40% in the next 10 years. We are expected to double our agricultural exports to USD 20.6 billion in coming 5 years. According to the Agricultural and Processed Food Products Export Development Authority (APEDA), our share of farm experts in global trade will grow from 2% - 5%. The experimental material is consists of Six treatments like, Bread, Biscuits, Dairy, Hotel, Fruit and Vegetables and Snacks with Exploratory Research Design under Random Sampling. The observations are recorded on the basis of various parameters are, Types of customers in the companies covered, Food safety status of the respondent firms, FSMS in business growth, FSMS in reducing product loss and FSMS in product shelf life. It is clear that FSMS is helping these companies to stand in much better position than those players who have no FSMS in their enterprise. It is a true fact that India is on the way of becoming a developed country and improving in its literacy level and per capita income not only in urban area but also in rural areas. This is the high time
that every entrepreneur, who want to enter in food industry, or any existing player who is not serious about the role of food safety should be serious to the magic of FSMS in future food business.

26. **Kakali Majumdar (2013)** - Indian food processing industry is primarily export oriented. With the export growth rate of around 15%, its share in the international market is only 1.7%. Again, only 2% of the total food produced in India is processed for further consumption. This is a matter of concern that despite massive potential, this sector remains grossly underutilized. Against this background, the present paper aims to study the export prospect of Indian Food processing industry laying focus on its trends, the problems it faces and possible remedial measures to achieve its high potential. Growth rates have been calculated following the best fitted trend. Revealed Symmetric Comparative Advantage Index has been used to measure the Comparative advantage of Indian processed food export.

27. **Bishnu Bhattacharyya (2013)** - Food processing is the methods and techniques used to transform raw ingredients into food or food into other forms for consumption based on local raw material and indigenous knowledge and skill of the people. One of the important sub-sectors of food processing is fruits and vegetable processing. Though there are enormous potential for the processing activities in Assam yet it is not fully utilized. The sector is encountering a number of problems relating to finance, power, marketing etc. There is
an urgent need to provide facilities for development. In this paper, an empirical study in the Kamrup district of Assam is tried to analyze the prospects and problems of food processing (fruits and vegetables) industry, with certain specific objectives like the study of influencing factors on the growth of fruits and vegetables processing sector and identification of problems with remedial measures. The study is based on empirical data, both secondary data analysis and case study methodologies are utilized. It revealed that availability of raw materials, infrastructure, government schemes and polices are the prime influencing factors for the establishment of sector and lack of finance, shortage of power, inadequate post harvest technology and facility, poor infrastructure facilities constitute very serious problem. Proper training should be given in some areas with perfect involvement of entrepreneur and resource persons at adequate place and objectives. Moreover awareness raising activities should be undertaken.

28. Sreenivasa Murthy (2014)\textsuperscript{36} - This study made an attempt to review the role and financial performance of fruit processing industry in the small and medium sector and their significance role in Indian economy. Globalization is a source of opportunities as well as a source of threats. Specific advantages derived from operating in a global market seem to be exploitable only by large organizations unless Small- and Medium-sized Enterprises (SMEs) can find an organizational solution allowing them to cope with global business opportunities without suffering from limited
resources and without exposing themselves to the risk of direct investment. In the European experience, regional clusters of SMEs have turned into competitive advantage a peculiar - both at once competitive and co-operative relationship strongly based on geographical proximity and on cultural affinity. The study found that the number of processing units has grown about 130 per cent from 1988-99 to 2007-08 in SME sector in fruit processing industry and there has been 100 per cent increase in installed capacity; remarkably increase in investment, employment, exports and domestic sales. Because of low capacity and poor capacity utilization, the processing activity has recorded at very low level. Following economic liberalization, foreign direct investment in the fruit processing industry, particularly in SME sector has been increasing. Chittoor district has the potential to become a leading exporter of processed fruit products in India. To achieve this, there is a need to remove the constraints facing the industry and need lot of encouragement from the Government of Andhra Pradesh.

29. Mike Battcock (2014)37 - This book shows how to provide effective training in food processing, which can open up opportunities for individuals who lack business experience. It explains the importance of needs assessment, course preparation, monitoring and follow-up, and the value of practical work and opportunities for trainers to discuss their ideas and discoveries. With examples of forms and lesson plans, photographs of appropriate training environments, practical case studies and details of institutions that support
food processing training, there is a wealth of information for trainers and organizers of training courses throughout the world.

30. Manjari Desai (2014) - The Food Processing Industry plays an important role in establishing the farm sector’s formal linkages that result in high income and employment generation while minimizing the wastages. According to the Economic Survey of Maharashtra 2011-12, out of the total 4221 FDI proposals (from August 1991 to September 2010) approved by the Government of Maharashtra, 173 proposals are from the Food Processing sector, that is 4.1% of the total proposals. An investment amount of Rs. 1039 crores is expected which is 1.2% of the total investment in the current year.

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