

CHAPTER-7

Prospective Outline of Food Processing Industries

7.1 Introduction

The availability of both human and material resources in the Kokrajhar District indicates ample prospects of food Processing industries in the District. But, notwithstanding its bright prospect, the devoid of the efficient marketing system, financial support, research and development stand on the way of materialising these prospects in enhancing the productivity of food processing industries in the Kokrajhar District. It has observed that the gap in between prospects and development in the food processing industry sector has been increasing year after year. This gap adversely impacts the overall development of the agriculture, horticulture, industrialisation and socio-economic development, so far as the Kokrajhar District is concern. The food processing sector makes it possible by not only ensuring better market access to farmers but also reducing the high level of wastages of agricultural products. A developed food processing industry will reduce wastages, provide value addition, generate additional employment opportunities as well as export earnings and thus lead to a better socio-economic condition of millions of families. Food Processing industries contribute significantly to economic and social development and act as a bridge between the agriculture and allied sector. (Sarma, G. and et al., 2017) Hence to speed up the progress of the food processing industry careful research work on the prospective outline of the food processing industry is urgently required. Keeping this requirement in purpose this chapter intends to analyse the various prospective dimensions of the food processing industries so far as available in Kokrajhar district of Assam.

7.2 Objectives of the Chapter

The objective of the chapter is to identify the various prospective factors as prevailing in the Districts and to examine as for how by framing effective policy guidelines; these potential factors can be productively implemented in the greater interest of socio-economic development of the District through food processing industry. Hence to speed

up the progress of the food processing industry careful research work on the prospective outline of the food processing industry is urgently required. So, the present chapter intends to analyses the various prospective dimensions of the food processing industries in Kokrajhar District.

That is why the present chapter the following specific objectives are taken under study.

- (i) To identify the various prospective factor from the demand side of the food processing industry in the district.
- (ii) To find out the various prospective factor from the supply side of the food processing industry in the district.

7.3 Methodology of the Chapter

There are a sizeable number of prospective factors are identified in the Kokrajhar district associated with the Food Processing Industries. The quest on prospects of these factors as discussed basically from two points of view so far as the Food Processing Industries of Kokrajhar District is concerned. During the field survey, it is observed that different prospects emerged from different angles, which are basically discussed into two angles. These are prospect from the demand side and prospect from the supply side. Considering this both sides nine numbers of prospects of food processing industries have been identified to be taken under the study. In order to analyse the significance of the various prospective factor five points scale (Rank 1 = No relevant, Rank 2 = Less relevant, Rank 3= Somewhat relevant, Rank 4= Relevant , Rank 5 = Very much relevant) has been used to collect the opinion of the proprietors of the selected industry. Further, opinion obtained from the 90 number of respondents are presented and analyzed through weighted mean to highlight the significance of the respective prospective factors by using the following formula.

$$(\text{Weighted Mean})\bar{x} = \frac{n_1w_1+n_2w_2+\dots+n_kw_k}{n_1+n_2+\dots+n_k}$$

Where w_1, w_2, \dots, w_k be the ranks or weight of 1st, 2nd, ..., kth series with n_1, n_2, \dots, n_k Observations.

7.4 Prospective dimensions of Food Processing Industries from Demand Side

In order to reflect the scenario of prospects, consideration of factors from the demand side is immensely important. It is because of the fact that demand-side always plays an independent role in enhancing the volume of business operation of any kind of Industries. That is why, keeping in purpose this importance of demand aspect, some of each prevailing factors in case of food processing industries are identified below.

7.4.1 Constant enhancement of demand of process food items

Generally, the demand for processed food is rising due to increasing in PCI, change in consumption habit, change of living style, change in family culture, social change, increasing number of hotel, restaurant, hostel etc. of the district. The growth of urbanization has enhanced the demand for process food items. The Increased literacy and increasing per capita income have induced the customers to increase their spend more on value-added food products, which has a higher shelf life, packs greater nutritive value and takes less time to cook. India has the biggest consumption category, with spending on food accounting for nearly 21% of India's GDP and with a market size of \$181 billion. The Indian domestic food market is expected to grow by nearly 40% of the current market size to \$ 258 billion by 2015 and \$ 344 billion by 2025 (Tiwari, S. V. and et al.,2015). Due to these reasons, many new national level food processing industries have entered in India along with Assam. The following table has shown some of the food processing company which have started their operation in Assam recently.

Table No. 7.1**Name of Food processing industry set up in Assam from May 2016 to March 2017**

| Sl. No | Name of the Units | Location | District | Products |
|--------|-------------------------------------------------|------------------------|-----------|---------------------|
| 1 | Asian Thai Foods India(P)Ltd | Food Park, Chaygaon | Kamrup | Noodles |
| 2 | JDB Steel (Food Divn) | IGC Chaygaon | Kamrup | Kurkuri/Uncle Chips |
| 3 | Uma Polymers Ltd. | Food Park , Chaygaon | Kamrup | Packaged Food |
| 4 | Dharampal Premchand Ltd (Confectionary) | IGC Changsari | Kamrup | Confectionary |
| 5 | Dukes Products (India) Ltd | NE Mega Food Park | Nalbari | Chocolate/Biscuits |
| 6 | Rousheena Udyog Ltd.(Unit-II) | Amingaon | Kamrup | Khichidi, Kheer |
| 7 | Dhula Rice Mill (P) Ltd | Hirapara | Darrang | Rice |
| 8 | Sigma Spice Industries Pvt. Ltd | Food Park , Chaygaon | Kamrup | Spices |
| 9 | Ravi Food Pvt. Ltd | NE Mega Food Park | Nalbari | Chocolate |
| 10 | KDG Foods Pvt Ltd. | IGC Chayagaon | Kamrup | Rice |
| 11 | Rousheena Udyog Ltd (Unit-III) | EPIP , Amingaon | Kamrup | Cereal Food |
| 12 | Pride Coke Pvt Ltd (Rice Mill Dvn) | Jorabat | Kamrup(M) | Rice |
| 13 | Maruti Quality Food Products Pvt Ltd | IGC Chayagaon | Kamrup | Atta and Wheat |
| 14 | Aasray Concept Foods | Changsari | Kamrup | Food Products |
| 15 | Mankasia Coated Mental Industries Ltd (Unit-II) | EPIP | Kamrup | Bakery Products |
| 16 | Nezone Snacks | Mission Chariali | Sonitpur | Food Products |
| 17 | JSB Entrade Pvt Ltd (Unit-II) | 12 th Miles | Kamrup(M) | Rice Bran Oil |
| 18 | Aditya Agro Foods | Sarupathar | Nagaon | Boiled Rice |

Source: The Assam Tribune , Page No : 16, 20th May, 2017 (A Daily English News Paper)

Kokrajhar district is the headquarter of Bodoland Territorial Area Districts (BTAD). Due to this reason urbanization is growing rapidly in this region during the last 15 years. It indicates a positive indicator for this industry sector. Along with these, the expansion of hostel, hotel, various central & state government offices, bank, insurance company etc. have led to the demand for the food processing industry product. Along with these Kokrajhar District became the educational hub of the entire Lower Assam.

Due to these reasons, various categories of people like students, staff and working group of people have migrated to Kokrajhar. Due to this reason, various kinds of process food demands are increasing. This is identified one of the important prospective factors for food processing sector in the Kokrajhar District. This reflects that there exists a market in the District itself with a change in the taste habit of the people and opportunities for marketing these products within the district along with the entire Assam.

7.4.2 Tourism Prospect

Kokrajhar district has greater potentiality on the tourism sector because of its geographical, natural beauty and cultural heritage. Due to this reason especially after the formation of BTAD, Kokrajhar district tourism sector has attracted many tourists in the region. This district is culturally so strong because in the area many diverse communities people are live together. The communities are Bodo, Assamese, Nepali, Koch – Rajbongsi, Rabha, Bengali, Bihari etc. Due to this diverse community, many cultural festivals are held during the entire year. The festivals of all the communities are considered a wide variety of stock to attract the tourist. Along with these the district has religious, cultural, natural tourist spot to attract more tourist.

The important tourist place in BTAD area is Chakrachila wildlife Sanctuary. This place is situated five km North West of Kokrajhar town and this area is declared home of Golden langur in 2002, a rare and endangered primate species found only on this part of the world. Chakracila is a unique spot for which rich biodiversity with extraordinary and breathtaking and scenic beauty with large lush green valleys, streams, lakes, hills and waterfalls. Another important tourist destination in BTAD area is Diplai Beel. It is situated about 15 km southward of Kokrajhar; this is water body locally known as Diplai Beel covering an area of 1285 bighas during the dry season. This place is home to many well-known spices of flora and fauna. Besides many local and resident birds, much non-nonresident birds and migratory bird spices also visit the beel every year during different seasons. This place is a popular picnic spot for the resident of Kokrajhar town especially during new year celebrations and the festive seasons of Bwisagu. The wet scenic beauty of this park with lush green hills all around makes it the favourite tourist destination in and around Kokrajhar. There is also a scope

of boating in this park. Another important tourist place is Ultapani Reserve Forest. Ultapani which literally means reverse water is a part of the larger landscape of Manas Biosphere: is just 36 KM from Kokrajhar town. (Report on Department of Tourism, BTAD)

The rural tourism as an element of tourism as a tourism product is a complex rural supply of a given settlement which involves the special elements hospitality and attractiveness, and these elements are organized into special products. Therefore, rural tourism includes heritage tourism, farm tourism, pilgrim tourism, adventure tourism, nature tourism and ancient culture tourism. Therefore, the Bodo culture, Bodo festival and important tourist place of BTAD is the important source of rural tourism in the BTAD area. The tourism sector and food processing industry sector have a positive relationship with each other. The growth of the tourism sector indicates the growth of food processing industry sector. That is why the growth rate of the tourism sector is identified one of the positive factor affecting the growth of food processing industry sector because it is found that after formation of BTAD the growth rate of the tourism sector is increasing in the District. (Sarma, G. and et al.,2017)

7.4.3 Demographic Prospect

The Kokrajhar district of Assam is the gateway of the North Eastern Region because of both the road and rail touch this district at Srirampur before they enter to other district of Assam and the other North Eastern States. The District has a total area of 3,169.22 sq. K.M. and a total population of 8, 87,142 according to the census of 2011. The District is surrounded on the north by the Himalayan Kingdom of Bhutan, by Dhubri district on the south, Bongaigaon District on the East and the Indian States of West Bengal on the west. The District can be easily reached as both the mainline road and rail passes through this District. There are beautiful places to visit in the District, especially on the northern side, where the natural scenario is wonderful. The Kingdom of Bhutan is intricately linked with the district of Kokrajhar in many vital aspects of the life of the people living both in the Bhutan hills and the plains of Kokrajhar. There is a hassle-free movement of the people across the international border for the purpose of business and tours. Kokrajhar is also the headquarter of the Bodoland Territorial Area District which

was created in 2003. This kind of demographic opportunity is identified as one of the great strength of the food processing industry sector (Sarma, G and et al. 2017 and Census -2011).

Hence, in support of these potential opportunities emerged from a demographic dimension, the selected industries can be benefited to a large extent. With a view to materializing these opportunities the selected industries should consider seriously different demographic prospects in a time of framing their production, planning, marketing policies and financial budget.

7.5 Prospective dimensions of Food Processing Industry from Supply Side

With a view to effectively implementing the available demand factors, it is urgently needed to examine and identify factors of supply-side whether these are available in the proportion of demand for or not. To justify this fact here, an attempt is being taken to discuss on some selected factors derived from the supply side in respect of food processing industries of Kokrajhar District.

7.5.1 Abundance of Raw Material

The agro-climatic condition of the Kokrajhar district along with the state favours the growth of a variety of fruits, vegetables and spices. In Assam agricultural productivity is satisfactory and more than 35 per cent of state domestic product comes from agriculture at constant (1980-81) prices. The productions of major horticultural crops in Kokrajhar district of Assam are shown in table no.7.2.

Table No. 7.2**Production Trends of Horticultural Crops in Kokrajhar District (in Tonne)**

| Year and Crops | Tomato | Banana | Orange | Guava | Pineapple | Lemon | Jackfruit | Papaya | Lichi |
|----------------|--------|--------|--------|-------|-----------|-------|-----------|--------|-------|
| 2003-04 | 6996 | 13683 | 862 | 2727 | 4725 | 1311 | 9615 | 6078 | 605 |
| 2004-05 | 7208 | 16874 | 18 | 2938 | 4652 | 1380 | 10820 | 6303 | 650 |
| 2005-06 | 7858 | 1444 | 18 | 3124 | 1050 | 1383 | 3673 | 6048 | 502 |
| 2006-07 | 7879 | 18852 | 677 | 2155 | 1019 | 1395 | 3687 | 5825 | 515 |
| 2007-08 | 7879 | 20165 | 695 | 3432 | 4686 | 2190 | 4690 | 5753 | 1134 |
| 2008-09 | 8421 | 18657 | 741 | 3471 | 2726 | 2452 | 4803 | 5541 | 1184 |
| 2009-10 | 8848 | 20053 | 1017 | 3455 | 4546 | 2617 | 4905 | 5616 | 1180 |
| 2010-11 | 9656 | 20733 | 4451 | 3790 | 7452 | 2617 | 4905 | 31031 | 1180 |
| 2011-12 | 9044 | 23604 | 4547 | 3888 | 7420 | 2754 | 4974 | 9609 | 1214 |
| 2012-13 | 9216 | 21848 | 4774 | 3988 | 8536 | 3364 | 5925 | 10049 | 1327 |

Source: Report prepared by Directorate of Economics and Statistics, Assam on Area, Production, Price and Value of some Horticultural Crops in Assam from 2003-04 to 2012-13

Upon the observation of the table no: 7.2, reflects that most of the raw material produced by the district is mainly used for the processing industry sector. There are great possibilities of establishing fruits processing industry in Kokrajhar district of Assam depending upon the local fruits and vegetables. This helps in accelerating the agricultural production and improving the socio-economic condition of the farming community.

The trends of agricultural crops can be understood from the data given in the following table. The production of different types of farm crops in Kokrajhar district is shown in table no.7.3.

Table No. 7.3**Production Trends of Agricultural Crops in Kokrajhar District (in Tonne)**

| Year and Crops | Total Rice | Potato | Rape & Mustard | Sugarcane | Wheat | Masur | MatiKalai |
|-----------------------|-------------------|---------------|---------------------------|------------------|--------------|--------------|------------------|
| 2003-04 | 119328 | 28335 | 9178 | 2779 | 2727 | -- | 502 |
| 2004-05 | 107991 | 30139 | 10229 | 28880 | 2481 | -- | 545 |
| 2005-06 | 130563 | 18575 | 11133 | 2901 | 3032 | 394 | 884 |
| 2006-07 | 112686 | 26172 | 11151 | 3805 | 3607 | 402 | 1217 |
| 2007-08 | 131035 | 24894 | 12832 | 3884 | 3546 | 381 | 1065 |
| 2008-09 | 112131 | 28504 | 8486 | 4567 | 3106 | 265 | 1617 |
| 2009-10 | 158273 | 33292 | 15812 | 6727 | 3416 | 333 | 558 |
| 2010-11 | 192738 | 39147 | 17413 | 5647 | 5876 | 564 | 1029 |
| 2011-12 | 185448 | 36474 | 17149 | 6855 | 4433 | 639 | 1062 |
| 2012-13 | 181125 | 69427 | 16243 | 6980 | 4093 | 675 | 1051 |
| 2013-14 | 223102 | 71431 | 18170 | 9649 | 1969 | 772 | 1282 |
| 2014-15 | 212989 | 63088 | 18025 | 9888 | 2084 | 1001 | 1601 |

Source : Report prepared by Directorate of Economics and Statistics , Assam on State / District wise Area, Production, Price and Value of some Major Crops in Assam from 2003-04 To 2012-13 and Report on Estimates of Area, Production and Average Yield of Principal Crops in Assam, 2007-08 To 2014-15.

In the light of the table no. 7.3 indicate that the Kokrajhar district has to produce large varieties of crops. So, it is identified as one of the positive supply-side factors for setting up the food processing industry sector. The following table shows some of the food processing units which can be established on the basis of the locally available raw material in the District.

Table No. 7. 4

Opportunity of Food Processing Industries in terms of available raw material in Kokrajhar District

| SI No. | Category of Industry | Finished Products |
|---------------|---------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. | Cereal-based Industries | (a) Rice Mill (b) Partially cooked/quick cooking rice (c) Breakfast cereals and value-added products (d) Attractive packaging and branding (e) wheat flour (f) confectionary and bakery item (g) corn flakes and value-added products including ready to eat snacks. (h) baby corn |
| 2 | Fruits and Vegetable based industries | (a) Chips and wafers (Ready to eat snacks) (b) Juices (c) Jam & Jelly (d) Pickles (e) Dehydrated Vegetable |
| 3 | Pulses and oilseeds based industries | (a) Gram Flour (Basen) (b) Namkeen (Ready to eat snacks) (c) Papad (d) Whole or split dal (e) Edible oil (f) Animal feed |

Source: Poddar , Ratneswar (May, 2014), “Agro Based Industries For Rural Development – Problems and Prospects,” Kurukshetra , Vol.62 , No. 07 , pp. 06 – 09

7.5.2 Availability of Human Resources

The availability of the human resource is also considered one of the positive factors for setting up food processing Industry in the district. The indigenous knowledge and skill of the labour are sufficient for setting up small units of the food processing industry. Therefore, easy availability of labours is identified one of the positive strength for setting up such type of industry which has proved from the data compiled from the opinion of the 90 proprietors of the five categories of industries are presented in table no.7.5.

Table No. 7.5

Opinion of proprietors regarding the availability of Labour / Human Resource in the district

| Category of Industry and Opinion of Proprietor | Rice Mill | Oil Mill | Flour Mill | Bakery | Fruits & Vegetable Processing Industry | Total |
|-------------------------------------------------------|------------------|-----------------|-------------------|---------------|---------------------------------------------------|----------------|
| Abundant | 41 (77.36%) | 6 (100%) | 9 (75%) | 6 (50%) | 6 (85.71%) | 68 (75.56%) |
| Adequate | 12 (22.64%) | 0 | 3 (25%) | 5 (41.66%) | 1 (14.29%) | 21 (23.33%) |
| Scarce | 0 | 0 | 0 | 1 (8.34%) | 0 | 1 (1.11%) |
| Total | 53 (100%) | 6 (100%) | 12 (100%) | 12 (100%) | 7 (100%) | 90 (100%) |

Source: Field Survey

In the light of the table no.7.5, it is revealed that out of 90 industries 68 (75.56 %) is of the opinion that they have abundant labour, where 21 (23.33%) and 01 (1.11%) are of the opinion that they have adequate and scarce labour supply respectively. Hence this table reflected that in the case of majority industry the supply of necessary labour is satisfactory. So, hereby, it can justify that in the case of Kokrajhar District there is an ample prospect of labour supply as needed for the available selected food processing industry (Sarma, G. and et al., 2017).

7.5.3 Supportive Government schemes and policies

The Ministry of Food Processing Industry is the key central agency of the Government of India, responsible for developing food processing industry sector with a view to generating employment opportunities in the rural areas, enabling the farmers to reap the

benefit of modern technology, creating a surplus for exports and stimulating demand for processed food. To build an infrastructure for food processing sector the Ministry of Food Processing Industries (MOFPI) has launched new scheme during the 11th Five-year plan. Among these Mega Food Park Schemes, Schemes for Cold Chain, Value addition and preservation infrastructure and scheme for modernization of existing food processing units. They are also given incentives for investments and under this scheme, the government reduces the excise duty on food processing and packaging machinery from 10% to 6%. The NABARD has generated special fund of Rs 2000 crore with support of Central Government to provide credit facilities to food processing units to set up in the designated Food Parks. Under the Mega Food Park scheme in Assam mega food park has established at Nathkuchi area of Tihu town under the Nalbari District during the 11th Five-year plan. It carries a ray of hope to the farmers as well as to the small processors as it provides adequate infrastructure along with the value chain from the farm to the market. The park will have a central processing Centre (CPC) at Nathkuchi, Tihu covering 50 acres of land supported by six primary processing centres (PPC) and 19 collection centre(CC) spread across the entire region. Instead of these, there is a various organization like Central Food Technology Research Institute (CFTRI), Indian Institute of Crop Processing Technology (IICPT), Indian Institute of Packaging, National Institute of Food Technology Entrepreneurship and Management (NEFTEM) etc. are the Central Government organization ready to help this industry sector. The NERAMAC and APEDA have also played an important role in the development of this industry sector. Export promotion, organizing a buyer-seller meet and market development for agricultural commodities, processed food is undertaken by APEDA. NERAMAC assist farmers in obtaining a remunerative price for their agri-horti produces and assist small food processing units in marketing their products of the region. The table no: 7.6 and 7.7 shows some of the lists of institution and government scheme and policy which help the food processing industry sector(Sarma, G and et al., 2017)

Table No. 7.6**Supportive Government Institution/organization for Food Processing Industry sector**

| SL No. | Name of the Institute/Organisation | Address |
|---------------|-------------------------------------------------------------------------------|------------------------------------|
| 1 | Central Food Technological Research Institute | Mysuru - 57020, Karnataka |
| 2 | National Dairy Research Institute | Karnal , Haryana |
| 3 | Central Potato Research Institute | Shimla , Himachal Pradesh |
| 4 | Central Plantation Crop Research Institute | Kahikuchi , Kamrup ,Assam |
| 5 | National Institute of Rural Development | Hyderabad |
| 6 | Indian Agriculture Research Institute | New Delhi |
| 7 | Indian Institute of Horticulture Research Institute | Bangalore, Karnataka |
| 8 | National Research Centre for Mushroom | Chandigarh, Himachal Pradesh |
| 9 | Indian Institute of Packaging | Andheri East , Mumbai , Maharastra |
| 10 | National Institute of Nutrition | Hyderabad, Tamilnadu |
| 11 | Indian Institute of Crop Processing | Thanjapur , Tamilnadu |
| 12 | Indian Institute of Entrepreneurship Guwahati | Guwahati, Assam |
| 13 | National Institute for Micro Small and Medium Enterprise | Hyderabad , Andhra Pradesh |
| 14 | Entrepreneurship Development Institute of India, Ahmedabad | Ahmedabad, Gujrat |
| 15 | National Institute for Small Business and Entrepreneurship Development, Noida | Noida, New Delhi |
| 16 | North Eastern Regional Agricultural Marketing Corporation Ltd.(NERAMAC) | G.S. Road, Ganeshguri, Guwahati |
| 17 | North Eastern Development Finance Corporation Ltd.(NEDFI) | Guwahati, Assam |
| 18 | National Institute for Food Technology and Entrepreneurship Management. | Sonepat, Haryana |
| 19 | Food Safety and Standards Authority of India | Kotla Road, New Delhi -02 |
| 20 | Agriculture and Processed Foods Export Development Authority | New Delhi -16 |

Source: Ministry of Food Processing Industry Website (www.mofpi.nic.in)

Table No. 7.7**Various supportive Government schemes for food processing industry sector**

| Sl No. | Scheme | Objective of the Scheme |
|---------------|--------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 | Assam Startup Policy | <p>(i) The government will develop a Start up portal and App which will aggregate all information related to the policy, its benefits and procedure of availing them.</p> <p>(ii) Market support and state database shall be made available to entrepreneurs on the portal in the form of market-related surveys, market trends research and market intelligence etc.</p> <p>(iii) The startup portal has a facility of booking system that will enable start-ups to book infrastructure anywhere in Assam.</p> <p>(iv) Providing funding support through fiscal and non fiscal incentives that encourage youth to take up entrepreneurship as a career.</p> |
| 2 | Mega Food Park Scheme | <p>(i) Link agricultural output with food processing unit</p> <p>(ii) Help food processing unit to maximize value addition of agricultural output.</p> <p>(iii) Minimize agricultural Wastage</p> <p>(iv) Set up collection centre , primary processing centre, central processing centre and cold storage house</p> |
| 3 | Make in India | <p>(i) 100% FDI is permitted in this sector.</p> <p>(ii) Financial support to this sector.</p> <p>(iii) Various financial benefit like subsidy , income tax rebate ,incentives , rebate from excise duty and customs duty etc.</p> |
| 4 | National Mission on Food Processing (NMFP) | <p>(i) Providing incentive and subsidy to food processing industry.</p> <p>(ii) Help for research & development of the food processing industry.</p> |

| | | |
|---|---------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | | (iii) Technological cum financial support to food processing industry |
| 5 | Pradhan Mantri Kaushal Vikas Yojana (PMKVY) | (i) Generation of various skills related to this industry. (ii) Generation of financial and digital literacy related to this industry. (iii) Develop soft skill and entrepreneurial skill related to this industry. |
| 6 | Pradhan Mantri Kisan Sampada Yojana | (i) Comprehensive package for the creation of modern infrastructure for this industry sector (ii) Efficient supply chain management system from farm gate to retail outlet |

Source: Ministry of Food Processing Industry, and Assam Start-Up policy Draft 2017 and Annual Report of MOFPI 2016-17

In case of Kokrajhar district also after formation of BTAD, many organization are come forward to provide training to an entrepreneur who runs the small-scale industry like food processing industry sector. The Indian Institute of Entrepreneurship, Guwahati, Department of Science and Technology have conducted many skill development programmes in the district. Along with these in support of BTAD government many exhibitions, trade fair etc. are held in every year in Kokrajhar District. Instead of these, there is a permanent training institute of UCO Bank – Rural Self Employment Training Institute (RSETI), which also conduct many awareness cum skill development programme related to the food processing industry. This is also identified one of the tremendous prosperous factor in Food processing industry sector in the district(Sarma, G and et al. 2017).

Along with these schemes presently Assam government has enacted the Assam Ease of Doing Business Act 2016 which establishes the States single window investment clearance/facilitation system. In this system, Single Window Agency (SWA) is responsible for creating a dedicated centralized web portal for investors to submit investment proposals and compliances and tracking clearances under State and union enactments and a checklist covering all stages and activities.SWA is operational at Bamunimaidam, Guwahati. More than 270 services are now online in the single

window portal – <https://easeofdoingbusinessinassam.in>. (Advantage Assam) The above scheme brings a new ray of hope for the food processing industry sector in Assam.

7.5.4 Technological Prospect

Proper application of relevant technology is immensely important for the food processing industry to achieve the potential opportunities in the competitive marketing environment. That is the reason as for why various government Ministries of Government presently have been giving deep interest in providing multifarious technological support to the food processing sector. In this regards the DST, ICAR, CSIR is worth mentioning.

To compete with the globalised market, the food processing industry sector needs to implement technology in their production process. That is why, it is imperative to give them a conducive environment to improve their production technology, which includes (a) formulation of appropriate national policies and programmes (b) building up technological capacity (c) knowledge flows and technology databases and (d) R&D and inter-firm linkages.

The Ministry of Micro, Small and Medium Enterprises, Ministry of Skill Development and Entrepreneurship keeping in view the concentration of such enterprises have also especially taken some initiative to established several tool rooms and common facilities related to technology development for the food processing industry. Besides, different Ministries have set up their own R&D institutions to address the technological and training/skill requirements of the food processing industry sector. The following are the various government ministries which have taken various schemes for up gradation of technology in the food processing industry. The following are some of the important scheme implemented by the Government of India for technology support in the food processing industry sector.

Table No. 7.8

Technology Support Ministry /organization and their Scheme for the food processing industry

| Sl No. | Name of Government Ministry and Department | Scheme for Technology Support |
|---------------|---------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 | Ministry of Food Processing | (a) Food Processing & Training Centre (b) Entrepreneurship Development Programme (c) Creation/Expansion of food processing/preservation capacities (unit Scheme) (d) Food Safety & Quality Assurance Infrastructure |
| 2 | Ministry of Science & Technology | (a) Science & Society Programme (b) S&T Entrepreneurship Development Programme |
| 3 | Ministry of Agriculture | (a) Cooperative education & training (b) Intensive Dairy Development Programme (c) Fisheries Training and extension |
| 4 | Ministry of Labour & Employment | (a) Vocational Training Programme (b) Training through Industrial Training Institute |
| 5 | Ministry of Tribal Affairs | Vocational Training Centres |
| 6 | Ministry of Human Resource Development | (a) Industry Institute Partnership Cell (b) Support to Training and Employment Programme for Women (STEP) (c) Rashtriya Mahila Kosh |
| 7 | Ministry of Rural Development | (a) Swarnjayanti Gram SwarozgarYojana (b) YUVAJYOTI – Preparing young professionals in Rural Areas |
| 8 | Ministry of Entrepreneurship & Skill Development | (a) Training and Manpower Development Programme (b) Skill Development Programme (c) Management Development Programme (d) Entrepreneurship Development |

| | |
|--|-----------|
| | Programme |
|--|-----------|

Source: Ministry of Food Processing Industry and Annual Report of MOFPI, 2016-17

Along with the scheme mentioned above in case of Kokrajhar District some other Institution also taken the initiative for support of technology enhancement in the selected industry sector. The DICC kokrajhar, KVK Gosaigaon, Office of the Director of Agriculture, CIT Kokrajhar, KVIB Kokrajhar also taken many initiatives for technology support of the food processing industry sector. So it is reflected that technology support is one of the great advantages for this industry sector which help them to diversify their product in the near future. The necessity of proper application of technology in food processing industries emerges basically from two points of view. One is by virtue of implementing technology this industry can improve the quality and quantity of products that can compete with national and multinational producers. Secondly, by applying proper technology this food processing industries can control their cost of production up to a great extent. It will be further helpful for controlling price in the market (Sarma, G. and et al.,2017). So, it has identified as one of the prospective dimensions for the food processing industry sector.

7.5.5 Infrastructure Prospect

The support of infrastructural facility of a region highly influenced on its overall development. In this regards the development of both the agriculture and industry sector is strictly and directly interlinked with the infrastructural facilities. The infrastructural facilities of Kokrajhar District are improved after formation of BTAD. It is found that the position of the Infrastructural facility in Kokrajhar district in the pre-formation of BTAD was not satisfactory. But it is to be mention that after formation of the BTAD in the year 2003, the Kokrajhar is recognized as a headquarter of the BTAD. Being a headquarter of BTAD, the Kokrajhar Districts have enjoyed a lot of privilege apart from which many priorities are given to the development of infrastructure.(Sarma ,G and et.al ,2017)The above fact revealed that a good number of infrastructure facilities are developed which is required for growth of any kind of industry. This would facilitate setting up and running of the industries without any interruption at a low cost. These

facilities would help not only in promoting trade and industrial activities, but also boosting the possibilities of healthy competition, attracting capital investment, generating employment opportunities and developing the social framework in the state. Hence growth rate infrastructure is a positive sign for the selected food processing industry sector.

7.5.6 Financial Prospect

Various financial schemes related to food processing industry introduced by both the central and state government are the basis of justifying the prospects of food processing industry of Kokrajhar district. In this regards Sarothi –The Start-up Assam, Stand up India, North East Industrial Development Scheme, Biponi Scheme, Udyog – Jyoti Scheme etc. are the worth mentioning. Along with these, all the commercial bank has lots of scheme to promote the North East food processing industrial sector. These schemes provide a financial facility that is available for the food processing industry sector. In the light of this fact have an attempt is being taken to examine the various available policy and scheme implemented by the Government of India.

Micro-units Development and Refinance Agency (MUDRA) is an important scheme for promoting small-scale industry sector. MUDRA provides refinance support to Banks /MFIs for lending to micro units having loan requirement up to 10 lakh. Mudra provides refinance to micro-business under the scheme of Pradhan Mantri MUDRA Yojana. Under this scheme, they provide Shishu loan up to Rs 50000.00 , Kishor loan covering loans above Rs 50,000 and upto Rs 1 Lakh and Tarun covering loan above Rs. 5 lakh and up to Rs.10 lakh. In this scheme in case of food processing sector they have support in various activities such as papad making , achaar making , jam/jelly making , agriculture produce preservation at rural level , sweet shops , cold chain vehicle , cold storage , ice making units , ice cream making units , biscuit , bread and bun making , grading , sorting , aggregation of agro-industries etc. NEDFI also play an important role in providing financial support to this industry sector.

Along with these NABARD also came into existence for promoting agro-based industry like food processing industry to provide financial assistance. The BTAD government along with state government takes appropriate steps including an array of

concessions, financial aid and grant for attracting investment towards food processing sector and sustaining the growth of industries and competitive spirit.

Along with these DICCC Kokrajhar in support of various commercial bank come forward to support this industry sector. Hence, financial support is identified as one of the greatest supportive strength for the food processing industry sector (Sarma, G. and et al. 2017).

7.6 Overall Analysis of Prospective dimensions of Selected Industry Sector of Kokrajhar District

In addition to explanation and observation made on various factors of prospects of Food Processing Industry from demand as well as supply dimension, further, an attempt is taken to elicit the opinion from 90 numbers of the proprietor of selected industries to draw a complete picture so far the total prospect of these industries are concerned. In doing so, the feedback of respondent is compiled only on the nine factors as adopted in the discussion made on demand and supply factor in the previous discussion.

Various responses compiled from the 90 number of owners of selected Food Processing Industries are analyzed in order to determine the prospect of food processing industry regarding the relevance of various prospective factors. In doing so, the five-point rating scale is used which indicate no relevant, less relevant, somewhat relevant, relevant and very much relevant, with score 1, 2,3,4,5 respectively. After getting the feedback of the opinion of the selected respondent a weighted mean score is calculated for ascertained the relevant aspect of prospect. The weighted mean is derived from the feedback obtained from 90 numbers of respondents against 9 numbers of factors as illustrated in the following table(Sarma, G. and et al.,2017).

Table No. 7.9

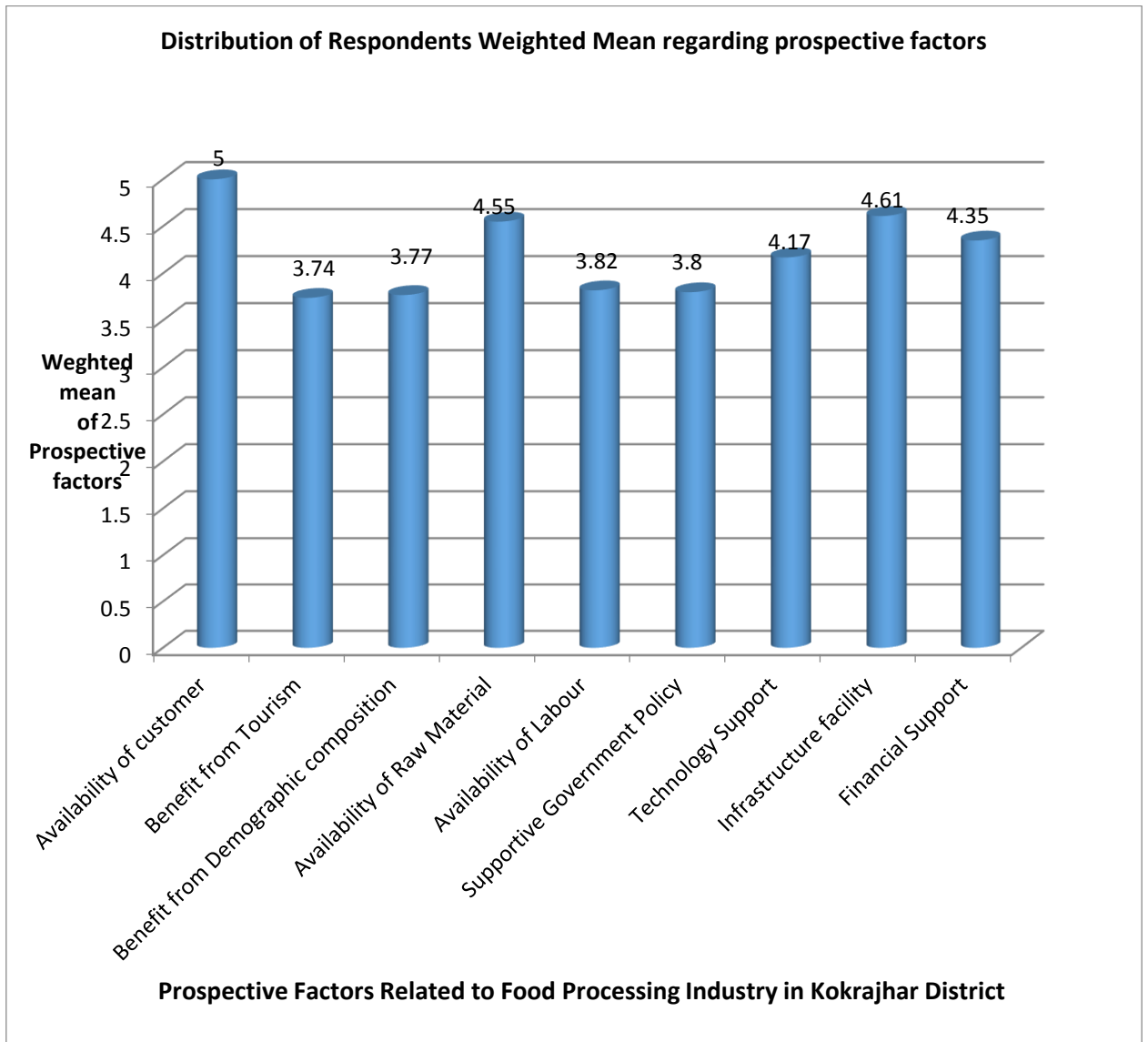
Opinions of proprietors of industry regarding the significance of prospective factors related to the food processing industry

| Sl No. | Factors of Prospective dimensions | No Relevant(Rank=1) | Less Relevant(Rank=2) | Some What Relevant (Rank=3) | Relevant(Rank=4) | Very Much Relevant(Rank=5) | Weighted Mean | Rank |
|--------|---------------------------------------|---------------------|-----------------------|-----------------------------|------------------|----------------------------|---------------|------|
| 1 | Availability of Customer | 0 | 0 | 0 | 0 | 90 | 5.00 | 1 |
| 2 | Benefit from Tourism Development | 06 | 09 | 19 | 24 | 32 | 3.74 | 9 |
| 3 | Benefit from Demographic position | 04 | 06 | 25 | 26 | 29 | 3.77 | 8 |
| 4 | Availability of Raw Material | 0 | 0 | 13 | 14 | 63 | 4.55 | 3 |
| 5 | Availability of Labour | 06 | 10 | 20 | 12 | 42 | 3.82 | 6 |
| 6 | Supportive Government Policy | 03 | 12 | 23 | 14 | 38 | 3.80 | 7 |
| 7 | Technology Support | 0 | 08 | 15 | 20 | 47 | 4.17 | 5 |
| 8 | Benefit from Infrastructural facility | 0 | 05 | 03 | 14 | 68 | 4.61 | 2 |
| 9 | Financial Support | 0 | 11 | 10 | 05 | 64 | 4.35 | 4 |

Source: Field survey

The following figure represents the weighted mean of rank given by the respondents regarding the various prospective factors of food processing industry under study.

Figure: 7.1



In the light of the table no. 7.9, it is observed that against the factor of availability of customer got the highest weight mean (5.00) is obtained from the selected 90 number of proprietors of the selected industry. It clearly reflects that the availability of customer plays one of the significant roles in the growth of Food Processing Industries. Hence on the basis of these fact it can be justified that there is a very high prospect of the food processing industries in Kokrajhar District so far as the available customer is a concern. Further, from the table no : 7.9, it is clear that benefit from infrastructure facility has been ranked second followed by availability of raw material, financial support,

technology support, availability of labour , supportive government policy, benefit from the demographic prospect, help in increasing employment opportunity, benefit from tourism development. Therefore it is concluded that several factors help in the growth of food processing industry in Kokrajhar district of Assam.

The proprietor view regarding the prospects of the selected food processing industries is presented in the following table.

Table No.7.10

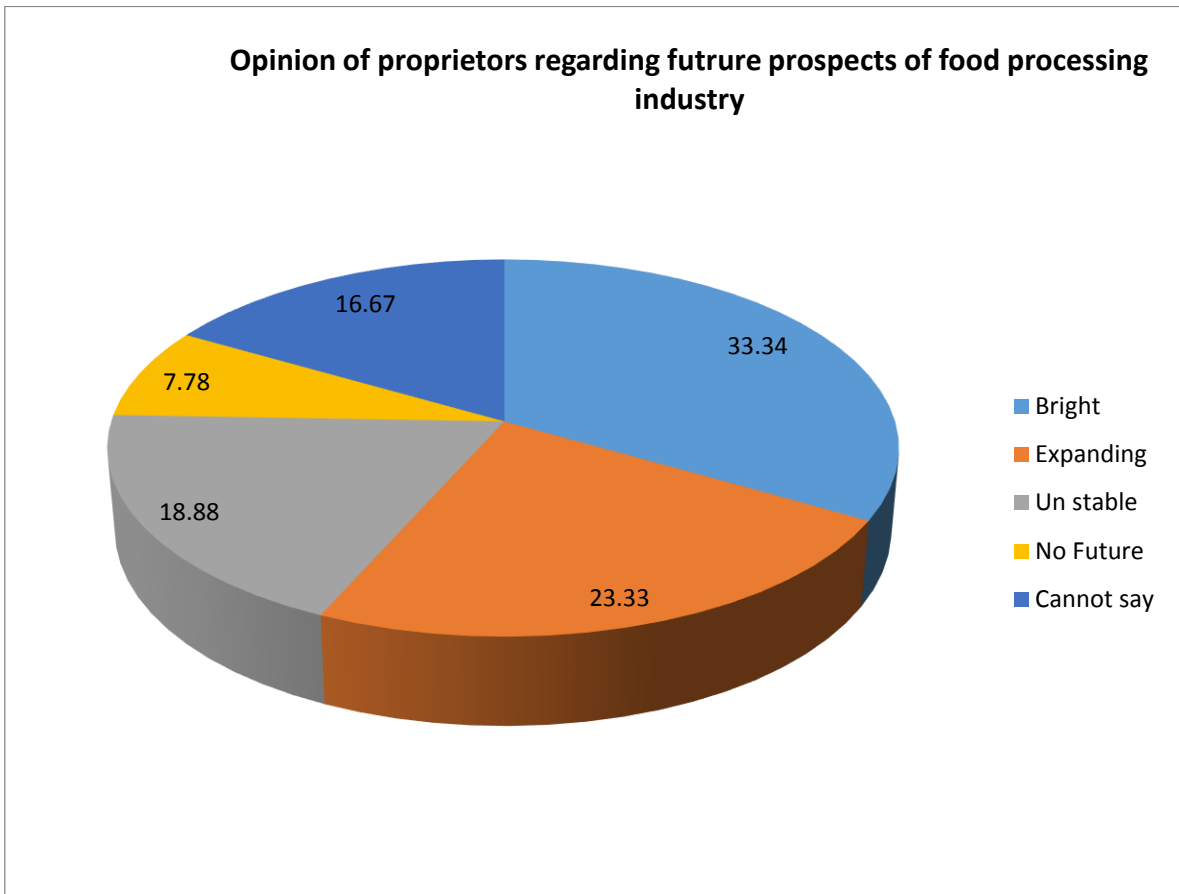
Opinions of proprietors regarding prospects of the food processing industry

| Sl No. | Category of industry and Opinion of Proprietor | Rice Mill | Oil Mill | Flour Mill | Bakery | Fruits & Vegetable processing industry | Total |
|--------|------------------------------------------------|----------------|----------------|----------------|----------------|----------------------------------------|----------------|
| 1 | Bright | 18 (33.96%) | 01 (16.67%) | 03 (25.00%) | 06 (50.00%) | 02 (28.57%) | 30 (33.34%) |
| 2 | Expanding | 07 (13.21%) | 01 (16.67%) | 07 (58.33%) | 04 (33.34%) | 02 (28.57%) | 21 (23.33%) |
| 3 | Unstable | 13 (24.53%) | 02 (33.33%) | 01 (8.33%) | 01 (8.33%) | 0 | 17 (18.89%) |
| 4 | No Future | 04 (7.55%) | 01 (16.67%) | 01 (8.33%) | 01 (8.33%) | 0 | 07 (7.78%) |
| 5 | Cannot Say | 11 (20.75%) | 01 (16.67%) | 0 | 0 | 03 (42.86%) | 15 (16.67%) |
| | Total | 53 (100%) | 06 (100%) | 12 (100%) | 12 (100%) | 07 (100%) | 90 (100%) |

Source: Compiled from field survey, personal interview and questionnaire

The following figure represents the opinion of selected respondents regarding the prospects of food processing industry in Kokrajhar District.

Figure: 7.2



In the light of the table no : 7.10, it is reflected that out of 90 industries the highest number of industries, i.e., 30 (33.33%) has given their opinion as bright so far as their future prospect is a concern. On the other hand, 07 (7.78%) which is the lowest percentage of industries has offered their opinion that they have no future prospect. In between this two range of opinion 21 (23.33%), 17 (18.88%) and 15 (16.67%) have given their opinion regarding their future prospect as expanding, unstable and cannot say respectively. Further, it is calculated that the total percentage of respondent against bright and expanding is 56.66%. On the other hand, the total percentage of respondent against unstable, no future and cannot say is 43.34 %. Hence, regarding the prospect of these industries, mixed feedback is obtained (Sarma ,G. and et.al ,2017).

7.7 Conclusion

On the basis of the discussion and analysed made throughout this chapter, the hypothesis No: 04, i.e., it is presumed that there is an ample prospect of developing food processing industries in Kokrajhar district is justified. The hypothesis is justified in support of the main facts and circumstances that have been identified throughout the chapter. Out of many such prospective facts and circumstances as identified in the chapter are the availability of customer, benefits from tourism development, benefit from the demographic composition, availability of raw material, supportive government policy, technological support, benefit from the infrastructural facility, financial support are the main. Further, in the context of the justification of the hypothesis, it is to be mentioned that out of 90 number of selected respondents 33.34 % of the opinion that the food processing industry sector has bright future, 23.33 % respondents opinion that this industry sector has been expanding. The total percentage of respondent against bright and expanding is 56.66%. After throughout study the both demand and supply side factor of prospect, it can be concluded that out of three demand factors, availability of customer as a factor of relevance of demand prospect score highest weighted mean which indicates the availability of customer plays a significant role for the growth of any kind of industry and it is already found that Kokrajhar District have the adequate customers. The observation of the supply side elicits the fact that out of 06 factors the obtaining of highest score benefit from infrastructure facility followed by availability of raw material indicates that these two are the most significant factor for the growth of selected industry and it is found that these two factors have enough opportunity in Kokrajhar District. Hence in the light of this final observation, it is to be put forward a conclusion that immediate a master plan is to be formulated strictly taking all of factors both demand and supply side by reconciliation their needs and availability for the selected industries. So that all factors can accordingly contribute at maximum level towards the overall development of the food processing industry at the proportion of their existing available capacity.

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