CHAPTER - 1

Introduction

1.1 Introduction

The perpetual pace of industrialization is seriously considered to be an effective wheel for achieving the progress of a country so far its overall economic as well as social development are concerned. The agriculture sector has its own importance and provides the basic necessaries of life, but it alone cannot take a country forward. Along with agricultural development, industrialization is also necessary. Being situated in the North Eastern Part of India the State of Assam enjoys ample potentiality of industrial development (Sarma, G. and Devi, M., 2016). In spite of being blessed with a high potential for development of resource-based and demand-based industries in the state, the rate of industrialization in Assam had not been satisfactory. Kokrajhar district of Assam is one of the important district of Bodoland Territorial Area District (BTAD), where the headquarter of BTAD is situated with full of huge natural and human resources, but this district has not industrially developed. Industries are generally classified into four categories such as Agro-based industry, Mineral – based industry, Forest-based industry and other industries. Food processing Industry is under the category of Agro-based industry. The industries which draw the raw material from agriculture are called agro-based industry (Sarma, G. and et. al., June, 2017).

The industry concerned with processing, preparing, distributing and serving of foods and beverages is called the food processing industry. Food processing involves any type of value addition to agricultural and horticultural produce and also includes processes such as grading, sorting and packaging which enhances the shelf life of food products. Food processing industry is now regarded as the sunrise sector of the Indian economy because of its great potentiality for growth and likely socio-economic impact specifically on income and employment generation (Sarma ,G. and et al., 2017). As per the Annual Survey of Industries (ASI) 2014-15, the total number of registered food processing unit in India is 38,603 and it has employed 17,73,355 people (Sarma , G. and Devi , M. , 2016)). The Government of India has given high priority to the Food Processing Industry sector because of their great linkage in the development of many

interrelated variables. Among a lot of significance of food processing industry generating employability , transforming resources from rural area to production field , upliftment of agricultural productivity , value addition to agricultural products, improve marketing network etc. are regarded as the main (Shelly, Ms. and Kaur , K. , 2015). As per the Ministry of food processing Industry (MOFPI), the industry scheduled in the following groups can be summed up to constitute of food processing industries.

Table No. **1.1**

Constituents of the food processing industry

Sl. No.	Description
1	Production , processing and preservation of meat , fish, fruits ,vegetables , oils and fats
2	Manufacturing of Dairy Products
3	Manufacturing of grain mill products, starches and starch products and prepared animal feeds.
4	Manufacture of other food products.
5	Manufacture of beverages

Source: Ministry of Food Processing Industries,2018 Government of India (www. mofpc.nic.in)

 Food processing industry is one of the key sectors which is the stronghold of the Indian economy because of its high share in employment and a major contribution to GDP.That is why, the government has accorded it a high priority, with a number of fiscal reliefs and incentives, to encourage commercialization and value addition to agricultural produce, for minimizing post-harvest wastage, generating employment and export growth (Tiwari S.V. and et al.,2015). India's food grain production has touched 252.56 MT in 2011-12 from a mere 51 MT in 1951-52.In the present scenario, a continuing problem in the country is storing the agricultural surplus produce and the percentage of wastage is very high (Rais, M. and et al.,2015). The food processing industry provides a solution to this problem. That is why; Central Government has made the efforts to accelerate the pace of development through the food processing industry. A number of incentives and package have been announced for the food processing industry. The separate Ministry for food processing industry has been established. In

India, Assam is the state where large varieties of food grains are produced. (Sarma , G .and Devi , M , 2016)). The following table revealed the various categories of food processing units which have established on the basis of locally available agricultural raw material.

Table No. **1.2**

Categories of Food Processing Industry and Required Raw Material

Sl. No.	Type of Units	Major Raw Materials Required
1	Pulping and Concentrate	Mango , Pineapple ,Litchi ,Mandarin, Ginger ,Banana , Tomato
2	Juicing	Mango, Pineapple ,Litchi ,Orange ,Banana ,Guava
3	Jam and Jelly	Mango ,Pineapple , Orange , Guava
4	Chips	Banana , Jackfruit , Potato
5	Rice Mill	Paddy
6	Vegetables	Khariff , Ravi Vegetables
7	Confectionary (Hard Boiled Candies)	Pulp , Concentrate , Extracts of Fruits
8	Snacks (Rice based etc.)	Rice
9	Flour mill	Wheat
10	Dairy Unit (e.g. ice cream)	Milk
11	Spice Processing Unit	Cardamon ,Turmeric,Coriander , Black Pepper ,Ginger
12	Extraction Unit	Ginger , Turmeric ,Ayurvedic Inputs
13	Dehydration Unit (Dry/Powder)	Mango , Pineapple , Orange , Tomato
14	Papaya	Papaya Flour
15	Confectionary Unit (Cakes , Biscuits)	Sugar , Additives
16	Vegetable Oil	Khariff , Rabi Vegetables
17	Packaged Drinking Water	Ground Water
18	Oleoresins	Ginger , Turmeric

Source: Advantage Assam, Government of Assam, 2018

There are significant roles to be played by the food processing industry in the socio-economic development of the District. Of course, this development is possible if it is supported by the availability of raw materials, labour, market demand etc. factors which

are urgently required for the food processing industry. It is observed in case of Kokrajhar District is that the availability of raw materials , labour , market demand etc. factor have been leading favourably in the development of food processing industries in the districts. Notwithstanding its favourable support, by the various factors, the position of food processing industries in the districts cannot be justified as satisfactory. Further, it is observed that there are a lot of factors behind this underdevelopment condition of the food processing industry of the Kokrajhar District. The devoid of attention to be given by the Government , lack of awareness among the general public , lack of entrepreneurial skill , financial support to be provided by financial institution etc. are also standing on the way of development of food processing industries in the District. All of this lacks create a gap in between food processing industries and socio-economic development of the Districts. Hence , these prevailing facts and circumstances warrant a careful research work which will certainly provide some policy guideline through observing the present scenario of the food processing industries by virtue of which the District will able to achieve socio-economic development through food processing Industries. It is gratifying to mention that in doing so, this research work has attempted in the formulation of some suitable policies for full utilisation of local unemployed youth, productive use of locally available raw materials and efficient use of indigenous technical Know-how of the Districts. Due to these reasons, this study aims at analyzing the growth rate, marketing techniques, comparative economic analysis, problem and prospect so far as food processing industry of the Kokrajhar District is concerned.

1.2 Research Problem

Agriculture is an important sector in the economy of Kokrajhar district of Assam, but the agro-based economy of the district has failed to improve the socio-economic situation of the district because of proper utilization agricultural product, value addition of agricultural product and innovation. The economy of Kokrajhar have observed the high production of fruits, rice, food grains, various horticultural products in the recent past but could not get market prices that are on par with markets in other district of the States. The Kokrajhar District in 2013-14 financial year number one in the production of Rape & Mustard(18170 tonnes) and Potato production (71431 tonnes), seven positions in the production of wheat(1969 tonne) and no eight positions in the

production of total rice (1969 tonne) among all the district of Assam (Sarma G and et al., 2015). The surplus produces often spoils and is wasted due to lack of transportation, insufficient well-equipped cold storage facilities and processing of farm produce, the absence of agro-processing industries, poor post-harvest technology. As per the economic survey of Assam ,2014-15 the marketable surplus of various agricultural products of the State in 2013-14 are 6 lakh MT of rice , 4.70 lakh MT of fruits , 0.75 lakh MT of spices and 8.60 lakh MT of vegetable respectively. The study revealed that simple value addition like cleaning, sorting and packaging could increase the income of farmers by 42.8% per kg. (Rais , M. and et al.,2014). Hence it is necessary to identify the food processing industry which has great scope to develop on the basis of locally available raw material in the region.

The present scenario of food processing Industries of Kokrajhar District reveals the fact that in spite of having ample prospects in terms of raw material, labour and market demand the growth rate of food processing industries are not satisfactory in the district. Consequently , the present underdeveloped condition of Food Processing Industries measurably fails to solve the unemployment problem , provide quality goods to the consumer , proper utilisation of agricultural raw material , utilisation of technical know-how , create modern marketing potentialities etc.(Sarma , G and et al., 2017). All of these problems emerged from the food processing industries make this industry sector failure to act as an effective and efficient tool for socio-economic development of the district.

 In a Nutshell, it is observed that the food processing industries of the Districts measurably fail to contribute towards the inclusive development of the Districts. Hence, all of these circumstances make it necessary to have a research work on the Food Processing Industries of the District.

1.3 Significance of the Study

In case of food processing industries, it is a matter to be justified that whether its development is supported by the prevailing environment or not. In this context , environment implies market and industrial condition where consumers demand , availability of raw materials , abundant of labour , infrastructure facility , financial and government support are associated in the market environment or not. On the other hand,

all of these factors of the environment can be classified into two categories. One is natural factors such as the availability of raw material, demography as a consumer demand as well as a source of labour supply (entrepreneur), tourism prospect etc. On the other hand, men made factors include government initiative, financial support, technical know-how, urbanisation, infrastructure etc. After throughout observation both of these categories of factors in relation to food processing industries of Kokrajhar District it is identified that in the development of food processing industries all the natural factors are found to be favourable , where man-made factors are not in a position of satisfactory position. That is why there is a need of careful research work on the topic referred to here so that the deficiency of man-made factor can be solved and reconciliation between both categories of these factors can be established in the greater interest of the overall development of the food processing industries in the Kokrajhar District. Moreover, it is worth mentioning the fact that in the favourable existence of natural factors it is not all difficult to develop food processing industry in Kokrajhar District. In spite of having, support of natural factors, the present development of food processing industries in Kokrajhar Districts is not satisfactory. Hence, the contribution of this industry sector towards the socio-economic development of the District is found not satisfactory. On the ground of this circumstance, the present study will concentrate balancing on both the natural and man-made factors for the betterment of the food processing industries in the Kokrajhar District.

The significant of the study on food processing industry in Kokrajhar district emerges from various points of view such as the study is important for supplying adequate as well as a quality food product for good physical and mental health of the people, providing a satisfactory opportunity for employment and for improving well organized agro-based industrialization system. The most important point in the Food Processing Industry is that it is agro-based and it has high employment potentiality with significantly lower investment than the large-scale industry. The multiplier effect of investment in the food processing industry is 2.5 times than in other industrial sector.(Bhattacharyya B., 2013) In spite of having a lot of significant stills, no satisfactory development of the food processing industry can take place in Kokrajhar. Considering all of the above fact and circumstances makes the study significant.

1.4 Objectives of the Study

The general objective of the study is to examine the role of Food Processing Industries in the overall socio-economic development of Kokrajhar district in Assam. In doing so, the researcher tries to identify the prospect of this sector as well as try to identify the various types of processing industry which have great scope to develop in the district. In order to achieve these general objectives the following five specific objectives have been taken under the study.

[1] To analyse the various trends of economic activities of food processing industries under study.

[2] To examine the marketing activities performed by the food processing industries under study.

[3] To analyse the comparative performance among the selected food processing industries.

[4] To examine the multifarious problems faced by the food processing industries under study.

[5] To analyse the future prospects of Food Processing Industries in Kokrajhar District.

1.5 Hypothesis of the Study

In order to examine the above specific objectives, the following hypothesis has been formulated and this hypothesis will be tested in the appropriate chapters.

[1] It is assumed that the rates of growth of food processing industries in Kokrajhar District are not satisfactory.

[2] It is presumed that the selected food processing industries are measurably failed to adopt the modern and effective marketing strategies in the changing environment.

[3] It is assumed that the Food Processing Industries of Kokrajhar District have been suffering multifarious problems.

[4] It is presumed that there is an ample future prospect of developing food processing industries in Kokrajhar District.

1.6 Research Methodology

The research methodology is described under the following points.

1.6.1 Types of Research

The proposed study is analytical in nature as well as the exploratory. The study is based on both primary and secondary data.

1.6.2 Source and Techniques of Collection of Primary Data

The primary data has been collected by the techniques of field survey, personal interview and questionnaire. In order to perform the field survey, it is found that there is 90 number of selected food processing industries which are classified into 5 number of the category. Moreover office of Gram Panchayat, DICC office, NGOs, Self-help group, KVIB, Bank, District agricultural office, Block offices, Food and Civil supply department etc. are the primary sources of field survey. The primary data has collected through field survey with the help of well structured questionnaire.

1.6.3 Size of Population

The food processing industry in Kokrajhar district consists of basically two categories, namely registered and unregistered. Further, it is to be mentioned that in case of fruits and vegetable processing industry a few self-help groups are involved in production and selling. Hence with a view to depicting a total scenario of food processing in Kokrajhar District all these three sectors are taken covering the Kokrajhar districts as shown in the following table.

Table No. **1.3**

Total Population of Selected Food Processing Units in Kokrajhar District

SL. No	Category	Number of Industry
1	Rice Mills	53
2	Oil Mills	6
3	Flour Mills	12
4	Bakery	12
5	Fruits and Vegetable Processing Industry	7
		Total = 90

Source: Compiled from DICC Office, Kokrajhar and Field survey

1.6.4 Size and design of sampling

The above table reveals that the population of food processing industry of five categories is differently distributed among the Kokrajhar district. In order to depict a complete picture through the present study, the entire 90 number of five categories of the food processing industry are taken under the study. Hence, the size of the sample is also fixed as 90, which is equal to the population. So, the census method is used for this study.

1.6.5 List of Selected Respondents

With a view to compiling the opinion of consumers, regarding their buying behaviour of selected food items, respondents are selected from the consumer community using convenient method taking three categories of educational background as a basis as shown in the following table.

Table No. **1.4**

Lists of Respondents

Sl. No	Category of Respondents	Number of Respondents
1	Highly Educated Consumer Respondents	100
2	Moderately Educated Consumer Respondents	150
3	Less Educated Consumer Respondents	200
Total		450

Source: Field survey

1.6.6 Source of Secondary Data

The necessary secondary information is collected from various research paper, journal, books, newspaper; annual report and publication of various government department, economic survey, various ministries of government and relevant website.

1.6.7 Analysis and Treatment of Data

The data collected from primary and secondary sources are rationalized, proposed and tabulated and thereafter data are analyzed to describe the objectives of the study. Regarding the statistical tools used in the study, it is to be mentioned that considering the different nature of the chapter different tools and methods are used in different chapters. In this connection different statistical tools like tabulations, percentage, graph, mean etc have been used for analysing the data of the chapter No: 3 entitled **Analytical Study on Various Trends of Food Processing Industries.** To estimate the CAGR log-linear regression model and linear regression model have been fitted and data have calculated through SPSS which is explained in the relevant chapter. Along with these graphs, maps and tables are drawn to highlight and illustrate the data**.** Accordingly, considering the nature of chapter No: 4 entitled **Marketing Analysis of Food Processing Industries** also various statistical techniques like tabulation, percentage, graphs are used to analyse the relevant data. In order to find out the implementation level of marketing mix tool of selected industries three levels of implementation

techniques are used which is described in the chapter. Further, the data are presented and analysed through tabulation, percentage and graphs. Further, 450 number of respondent consisting three level of education background have been selected from the consumer community as a respondent for compiling their feedbacks regarding the effect of marketing mix tools on their buying behaviours as well as analysed the buying behaviour of local based and outside based products and thereafter, analysed this feedbacks using the percentile methods to identifying the impact of various marketing mix tools on consumer buying behaviours. Different methods and tools used in chapter No: 5 entitled **Comparative Analysis of Food Processing Industries** are percentage methods, graphs, tables and Pearson correlation to analyse the relationship among the various selected variables of the selected industries under study. Further, the annual growth rate has calculated and the growth rate is represented through table and curve. In the case of Chapter No: 6 entitled **A Study on various Problematic Dimensions of Food Processing Industries** the various problematic dimensions of selected industries are analysed through using three-point scales. Further, collecting the opinion of respondent regarding the various problems using three-point scales, problems are represented through simple tabular analysis and lastly using the combined arithmetic mean and arithmetic mean weight age value of different categories of problems have been calculated to find out the highest weight age among the problems. Moreover, in the chapter No: 7 entitled **Prospective Outline of Food Processing Industries** relates to the fact of future prospect, various prospective dimensions are identified in this chapter and using five-point scale opinion of respondents regarding the significance of respective prospective factors are collected. Lastly using weighted mean formula, the opinion of respondents regarding the prospective factors are analysed to find out the highest weight age of the selected prospective factors. Tabulation and graphical presentations are used for better understanding of the results of all the chapters.

1.7 Profile of the Study Area

Kokrajhar, recognized as the gateway to the North-eastern region of India is a major district of Assam. The district of Kokrajhar nestled on the riverbank of Brahmaputra is bounded by Bhutan on the north and Dhubri district on the south. The Bongaigaon district lies on the eastern side whereas West Bengal borders the west of the Kokrajhar district. Kokrajhar is well accessible by both roadway and railway. This District falls under the Bodoland Territorial Council (BTC) which is a territorial privilege established according to the Memorandum of Settlement on February 10, 2003. The area under the BTC jurisdiction is called the Bodoland Territorial Area District (BTAD). The Kokrajhar district has comprised with three sub-divisions viz Gossaigaon, Kokrajhar and Parbatjora. Again each sub-division is divided into revenue circle and under revenue circles, there are Mouzas comprising few revenue villages. Kokrajhar with its headquarters at Kokrajhar possesses Nine Revenue circles with eleven Community Development Blocks comprising a total of 1068 villages in all Revenue circles. The district occupies two statutory towns and two census towns viz. Gossaigaon, Kokrajhar, Padmabil and Salakati . Kokrajhar district has an area of 3296.00 Sq. Km out of which 3279.68 k.m. are a rural area and 16.32 s.q. k. m. are an urban area. The total population of the district was 8,87,142 as per 2011 census. The literacy rate was 65.22 % of the total population as per 2011 census report (District Census Report, Kokrajhar , 2011).

1.8 Location and Limitation of the Study

The study is mainly concentrated in the Kokrajhar district of Assam only. Regarding the limitation of the study, it is to be mentioned that the study is restricted only on three dimensions of the food processing industries of Kokrajhar district. These are problems, marketing aspects and future prospects of five categories of the food processing industry, i.e., rice mills, oil mills, flour mills, bakery and fruits & vegetable processing industry. The study basically covers the 10 years from 2007-08 to 2016-17.

1.9 Scheme of the Study

The scheme of the study covers the following chapters

Chapter No 1: Introduction

Chapter 2: Review of Literature

Chapter 3: Analytical Study on Various Trends of Food Processing Industries

Chapter 4: Marketing Analysis of Food processing industries

Chapter 5: Comparative Analysis of Food Processing Industries

Chapter 6: A Study on Various Problematic Dimensions of Food Processing Industries

Chapter 7: Prospective Outline of Food Processing Industries

Chapter 8: Findings, Recommendations and Conclusion

REFERENCES

Bhattacharyya , Bishnu (October, 2013) , "Problems and Prospects of Fruits and Vegetable Processing Industry: A Study in Kamrup District of Assam", Asian Resonance, Volume –II ,Issue-IV ,pp. 38-44.

Government of India (2018), Ministry of Food Processing Industries, Annual Report 2016 -17, New Delhi -110049 (www.mofpi.nic.in)

Government of India (2011) , Directorate of Census Operations , Assam , Census of India 2011 , Assam , Series- 19 , Part XII – B , District Census Handbook , Kokrajhar

Government of Assam (2018), Report on Advantage Assam, Agricultural & Food Processing including Organic cultivation and Bamboo (www.advantageassam.com)

Rais, Mohammad , Acharya, Shatroopa and Vanloon, Gary W. (January – June 2014), "Food Processing Industry : Opportunities in North East Region of India," The NEHU Journal , Vol.12, No.1, pp.37-51.

Sarma, Gunajit and Devi, Mridula (2016) , " An Evaluative Study on the Prospect and Problem of Fruits and Vegetable Processing Industry in Kokrajhar District of Assam," Journal of Development Research , Vol. 9 , No. 1 , pp. 7-14.

Sarma, Gunajit and Devi, Mridula (2016) , "An Analytical Study on Status of Food Processing Industry in BTAD Area of Assam and its future outlook for inclusive growth of the Region," Indian Journal of Social Development , Vol. 16 , No.2 , pp.137-149.

Sarma, Gunajit , Debnath, Arabinda and Devi, Mridula (June 2017), "An Empirical Study on Insight of Some Major Problematic Dimension of a few Selected Food Processing Industries of Kokrajhar District of Assam," Asian Journal of Research in Business Economics and Management , Vol. 7 , No. 6 , , pp.104-116.

Sarma, Gunajit , Devi, Mridula and Debnath, Arabinda (2017) ,"Prospects of Food Processing Industry in Kokrajhar District of Assam : An Envisioning Study beyond its Present Position," International Journal of Tropical Agriculture , Vol.35 , No. 2 , pp.223-239.

Shelly, Ms. and Kaur, Kuldip (June 2015), "Impact of Food Processing Industry on Economic Growth , FDI and Exports of India," Pacific Business Review International , Vol. 7 , Issue 12 , pp. 63-72.

Tiwari, Satya Vardhan ,Praveer, Saket Ranjan ,Chandra, Ashok Kumar and Tamrakar, Raunak (2015),"Present Status of Food Processing Industry in Central India : A Study in Chhattisgarh," International Journal of Research and Development – A Management Review, Vol. 4 , Issue.-4, pp. 13-18.

CHAPTER - 2

Review of Literature

2.1 Introduction

The review of the literature provides the research gaps and theoretical insight. Review of literature is an attempt to review the research works which have been already done by the individual as well as committee at local, national and international level on the food processing industry sector. The main purpose of discussing the review of literature is to acquire some deep research knowledge on the concerned subject of the present study. To achieve this objective the discussion of the review of literature is concentrated covering local, district, state, national and international level. With a view to systematizing the discussion, necessary literature has been reviewed in chronological order taking fourteen years from 2004 to 2017.

2.2 Review of Literature

Dev, S.M. and Rao , N.C. (2004), in their state-level study entitled "Food Processing in Andhra Pradesh Opportunities and Challenges" has done a detailed analysis of the scope and opportunities of food processing industry sector. The study analyzed that the opportunities and challenges in the processing of rice, fruits and vegetables, oilseeds and livestock products of Andhra Pradesh. The study revealed that high production of raw material, cheap electricity and skilled human resource etc. are the basic requirement for the development of Food Processing Industry. The study also showed that the Ministry of Food Processing plays a crucial role to develop such type of industry. The study has recommended some suitable policy implication to develop such industry like proper research and training, large-scale publicity to promote processed food, developing technology for the tiny food processing units.

Kachru, R.P. **(2006),** made another study on "Agro Processing Industries in India – Growth, Status, and Prospects." This study revealed that there is a lot of benefits in Food Processing cum Agro Processing industry sector because it has reduced post-harvest losses and it has created lots of employment opportunity for directly and indirectly. This study also revealed that the demand for food processing industry

product is increasing day by day in India. But the study also pointed out that the food processing industry is facing competition from global players and face the crisis of skilled workforce to run this kind of industry.

Shehrawat, P. S. **(2006),** identified some of the challenges of agro-processing industries in his study. The study revealed that easy availability of capital is one of the biggest problems of this industry. To run this industry credit should be affordable, adequate, and in time. However, SIDBI has given guidelines for an easy procedural way of providing the credit facilities to entrepreneurs, but people participation is not encouraging. The identification of the mega market coupled with the attractive packaging of products also mainly affected the sustainability of entrepreneurial units, because attractive packaging helps in raising the price sale value of the finished products. Knowledge about mega-market is equally important because consumption of products has directly correlated with production of that product. Hence, Government and Non-Government institutes should provide the marketing assistance and information regarding the mega market where the entrepreneurs can sell their products.

Gupta, A.K. (2009), in their study on "Innovations for Reviving Small Scale Industries" shown that economic distress worldwide affects the small and medium scale enterprises (MSME). A large number of workers have been laid off because of depressed demand, Piled up inventory, pending retrievable and squeezed credit market. The study suggested that this sector can be reviving through application of innovation option such as (a) stimulating demand (b) upgrading technology and skills (c) promoting innovations for developing new products and services and (d) new partnerships among the entrepreneurs and also with the R&D institutions, grassroots innovation networks, and the technology students.

Ahmed, Azhar (2009), studies have shown that one of the major problems in developing the small and medium industries is marketing. The study revealed that agro-based products require good marketing practices to increase their sales. Hence, the paper highlighted the marketing practices among agro-based SMEs in Malaysia. The study was undertaken on 237 agro-based producers in Malaysia. The study showed that only 20 SMEs out of 237 are found to be successful due to their marketing ability and good performance. The study suggested that to generate more sales; companies could no

longer produce goods that are for the local market and the products should be available conveniently to the market such as at supermarkets and well known retail outlets. The companies also have to produce goods that are well packaged and with proper branding as well as proper promotional tools are needed to communicate the products to the market such as the internet and direct marketing. The study provides valuable inputs on marketing for the local agro-based SMEs.

Singh, S.P. and et al. (2012), made another study entitled "Food Processing Industry in India: Challenges and Opportunities." The study revealed that although India's agricultural production is very high but the growth of agricultural processing is very minimal. In India, only 10% of agricultural production is captured through the processing sector. India's share in export of processed food in world trade has remained at about 1.5%. This paper examines the trend and status of the food processing industry, identifies and discusses constraints which affect its growth. Though there are many promising dynamics which support the potential for growth of this industry, there are still some significant constraints which can slow down the growth prospects of the food processing industry in India. The significant obstacles for the growth of the Indian food processing industry are the absence of adequate infrastructure, particularly rural road connectivity, the inadequacy of information and marketing linkages, the crisis of supply of electricity and the lack of cold chain system, etc.

Majumdar, K. (2012), studies show that the food processing sector has been attracting substantial FDI and has revealed that Indian food processing sector is among the top 10 sectors of getting FDI equity in the country. In case of food processing industry sector 100 percent FDI is allowed in case of infrastructure development related to food processing industry sector such as food parks and cold chains. There are other emerging areas for investment of food processing industry sector such as expand mega food parks, infrastructure development, supply chain management, logistics, and cold chain infrastructure, fruits and vegetable processing sector, animal products, meat and dairy, fisheries and seafood cereals etc. Although India is one of the attractive destinations of FDI, especially for the food processing sector, but there are still some significant constraints towards the development of this sector.

Singh, M. (**2012),** studies the relevance of marketing mix of 4p's for competitive advantage. The marketing mix comprises four elements, i.e., product, price, place and promotion mix respectively. Firms should prepare targeted plan through these four elements of the marketing mix and the 4p's help the firm in formulating strategic decisions necessary for various components of the marketing mix for attaining competitive advantage in the market. The paper gives an overview of the past, present and future of the Marketing Mix of 4p's for competitive advantage. The study revealed that the Marketing manager should be an expert in deciding marketing mix strategy by 4p's as marketing mix because it has a vital role in attaining competitive advantage for the organization. The marketing manager should meet the demand from different markets and also match the competition in the market by delivering satisfaction to the customer. This can be done through 4 P's of the marketing mix as it helps in achieving the organizational goals of profit maximization by high sales volume and attaining higher market share.

Bhattacharyya, B.(2013), in his study on "Problems and Prospects of Fruits and Vegetables Processing Industry: A study in Kamrup District of Assam" pointed out that the availability of raw materials, infrastructure, government schemes, and policies are the prime influencing factors for the establishment of fruits and vegetable processing industry in the district. But the lack of finance, shortage of power, inadequate post-harvest technology & facility, poor infrastructure facilities constitutes a severe problem of the District which affects the growth of food processing units.

Dave, R. and Amin, A. (2013), carried out another study entitled "Indian Processed Food: Recent trends and future prospects." In their study, they show that India is fast emerging as a sourcing hub at processed food. India is are agro-based country and it has approximately 184 million hectares of arable land.India is a country among the world which has produced major portion of diversified agricultural as well as horticultural crops. The study revealed that India had produced annually 90 million tonnes of milk; 150 million tonnes of fruits and vegetables; 485 million livestock; 204 million tons of food grains; 6.3 million tons of fish; 489 million poultry and 45,200 million eggs. As a result, the Indian food processing industry has become an attractive destination for investors the world over. The study also finds out that the various scheme of Government and policy which are implemented to the growth of this sector. Further

effort should be made to channelize it and there are huge export potentials. This industry sector also helps to diversify and commercialize farming; enhance the income of farmers; create markets for export of agro-food as well as generate greater employment opportunities.

Mohommad, R. and et al. **(2013),** have done a significant study on the "Food Processing Industry in India: Science & Technology Capability, skills, and employment opportunities." The study analyzed that the Food processing industry is slowly and steadily becoming one of the major industries of the Indian economy. Due to this reason, the total plan outlay of Indian Government budget has increased from Rs 650 crore from the 10th Plan to Rs 15077 crore in 12[th]Plan. The food processing industry sector is growing, but it is yet to compete in the world market because India's share in world export is only 1.17%.In India, there is a huge difference between productivity and processing of items. This is happening because the labour force associated with this industry is highly unskilled with 80% of them having educational qualification below 10[th]standard. The effect of various government schemes and policies to develop the food processing sector has not been very encouraging. The government needs to strengthen its efforts through the implementation of technology, infrastructure support, and skill set to develop the food processing industry.

Rais, A. and et al. (2014), have researched the topic entitled "Food Processing Industry: Opportunities in NER of India." They have selected registered and un-organized food processing food processing industries of the seven states of the NE region where registered units of FPIs are found highest in Arunachal Pradesh and Meghalaya and the highest number of un-organized food processing enterprise are seen in Assam and lowest number is seen in Sikkim. Further, in the case of fruits and vegetable processing units, the researcher has identified Assam as the highest and Arunachal is the lowest number of unit. They have selected 09 commodities such as citrus, banana, pineapples, papaya, jack-fruit, ginger, potato, turmeric and chilies for estimating surplus quantities of eight states. The study also revealed that simple value addition like cleaning, sorting, and packaging could increase the income of farmers by 42.8 % per kg.

Singh, A.K. (2014), carried out a study on the development trends of the food processing sectors in India. The study has mainly focused on the present scenario, the role and growth trend of the food processing sector. The study stated that the food processing sector has the potential to change the socio-economic condition of rural India. Further, the study concluded that a strong and dynamic food processing sector could play a significant role in the diversification of agricultural activities, improving value addition opportunities and creating a surplus for export of agro-food products. Of course, along with policy for food processing infrastructure, the up gradation of technology and enforcement of quality standards, promoting investment in food processing sector are necessarily required for the up gradation, so far as the scenario of food processing sector of India is concerned.

Lala, N.S. (2014), carried out another study on "Globalization and its impact on indigenous food habits and culture of the Khasi community of the North East." In this study shown that Globalization has to create a multicultural global village where ideas and practices can be exchanged and appreciated between people of all nations across the globe. The globalization has brought significant changes in the food system around the world. The study has revealed that urbanization, increasing incomes, foreign direct investments, and market liberalization also change the food culture of the Khasi community. This factor has mainly affected in the high-income group population of Urban area. Due to this reason, many multinational fast food and supermarket chains have entered this business. That is why, the small local agents and traditional food markets including vendors, street food cannot compete with the improved standards, quality and safety of food at competitive prices and convenience which are what appeals to a potential consumer by the MNCs. These changes in the food system affect availability and access to food. In turn, this is bringing about a gradual shift in food culture.

Khan, F.M. and Ahmad, S. (2014), in their study on "Managerial issues for Green Marketing in Food Processing Industry of India," pointed that the food processing industry is growing with a rapid rate and also has a vast untapped potential to lead the economy to progress. This sector also can use green marketing in its domestic and global operations. Green marketing refers to an organization's effort at designing, distributing, pricing and promoting the final products that have not to harm the

consumer, production resources and the environment. Adoption of green marketing in this industry involves using green products, green processes, green packaging, green delivery, and green advertising. It includes making arrangements to satisfy the intermediaries in the supply chain, the end users, the regulating agencies and the society at large. The first and foremost requirement for this pursuit is to create awareness regarding the parameters and the benefits of green products among the different stakeholders including the consumers. Popularising the health and safety standard and their certification should work as a pull rather than a push strategy. The standards, the certifying agencies, and laboratories with testing facilities all are in need of up gradation. The extra cost involved in green pursuits may offer a win-win situation with a simultaneous reduction in material and energy wastages. The promotion and delivery strategies may also result in demand stimulation and brand equity. The green marketing as a whole may exert immense leverage to brand equity and corporate reputation. The study suggested that all the industrial sector need to use green marketing system to achieve sustainable development.

Saraswati (2014), in his study entitled "Export Potential of Food Processing Industry in India" pointed out that the food processing sector employs about 13 million persons directly and about 35 million people indirectly. The study also pointed out that India's agricultural base is quite strong, but at the same time wastage of agricultural produce is massive because only 1.6 % process food share is captured in the world by India. That is why, this paper has analyzed the export potentiality of food processing industries and the share of FPI's export in total exports of India. It has also analyzed the role of agricultural & processed food products Export Development Authority (APEDA) for the growth of food processing units.

Kaur, I. and Singh, S. **(2014),** has identified five major factors as a result of the interpretation of the consumption of processed cereal food products in Punjab. These factors are an external influence, more health awareness, increase quality consciousness, taste & nutrition and change in lifestyle.

Poddar, R. (2014), in their study on "Agro-based Industries for rural development – problems and prospects" stated that in the developed country up to 14 % of the total workforce is engaged in the agro-processing sector. But in the case of India, only 3 %

workforce engaged in this sector. Hence the study suggested that to build up New Bharat; Government gives much emphasis on these sectors to generate employment and to reduce the wastage of agricultural output.

Gautam, H.R. (2014), has done a study on "Employment opportunities in Food Processing Industry for rural areas." In this study revealed that India has the biggest consumption category of food products with spending nearly 21% of GDP and market size of Rs 9,050 billion. This industry sector employs 13 million people directly and 35 million people indirectly. This study showed that the massive scope of this industry in job creation. The study expressed that the requirement of human resource would be about 17.8 million in 2022 for the food processing sector.

Sharma, A. (2014), has done a study on "Agro-based industries and rural development". The study revealed that the agro-processing industry help in processing agricultural products such as crops, livestock, and fisheries and convert them to edible and other usable forms. These agro-based industries provide an excellent nexus in promoting integrated development of the agricultural industry and in transforming a stagnant rural economy into a dynamic economy. But yet the entry of private sector in a rural area in these sectors is not satisfactory.

Kiumarsi, S. (2014) ,has done a study on marketing strategies to improve the sales of bakery products of small-medium enterprises (SMEs) in Malaysia. The study revealed that the small bakery sectors are not able to compete with the branded bakery sector. The study recommended that to enhance the sale of this bakery sector needs to improve the packaging system, more value-add to the bakery products, more focus on promotion and appropriate advertising strategies. Along with, the study revealed that some special techniques of marketing like more coverage of selling points for bakery products, increased number of distribution centers and attractive incentives to the agents would improve the marketing of bakery products.

Reddy, C.L. K., and Kumari, S.R. (2014), reveals in their study that the position of agro-based industries in the development of India is widely recognized and needs to be more emphasis. They can provide vast employment opportunities at comparatively lower investment. The techniques of production adopted by the agro-based industries are simple, and the machinery and equipment required by them are also easily available.

The share of all agro-based industries in India account for 35.3 % of the total industrial units in India, 40.32 % share of total employment and 21.69% of the total value of industrial output, and 15.18 % of the net value added during the year 2010-11. The percentage of working capital, fixed capital and net income of agro-based industries to total industries is 21.26 %, 20.3%, and 13.96 % respectively in the year 2010-11.

Shukla, A. and et al. (2015), in their study on "Agro and Food Processing Industry in India: Status, Opportunities & Challenges" mention that agro and food processing industry has rapidly expanded organized industry with a bright role played in the socio-economic development of a country. This paper put an insight on the status and evolution of this industry in India, encompassing the government reforms, subsidiaries, incentives, technological development, R&D ,export potential ,constraints and competition etc. and lastly suggest the government to take an industry-oriented action plan to speed up the growth and advancement of the industry and people attached to it.

Negi, S.and Anand, N.(2015), has done a study on "Issues and Challenges in the supply chain of fruits and vegetable sector in India." The study revealed that fruits & vegetables had been a driving force in stimulating a healthy growth trend in Indian agriculture. Fruits and vegetable sector is perhaps the most profitable ventures among all the farming activities as it provides huge employment opportunities and scope to raise the income of the farming community. This sector has tremendous potential to push the overall agriculture growth and plays a significant role in the Indian economy by improving the income of rural people. India has a great demand for this industry sector because of the various factors like increasing urbanization, nuclear families, working women, and changing lifestyles are gearing up the Indian food supply chains for a better future. The study found that cold chain facilities , linkages and integration between the partners , taxation issue , infrastructure facilities , cost of packaging materials , technology and techniques ,farmers knowledge and awareness ,quality and safety standards ,supply chain inefficiency ,transportation facilities , demand and market information etc. are the factors which constitutes serious challenges for fruits and vegetable processing industry sector and are affecting the overall growth of these industry sector.

Shelly, Ms, and Kaur, K.(2015), has done studies on the "Impact of Food Processing Industry on Economic Growth, FDI and Exports of India." The study revealed that the Government of India had given high priority to Food processing industry sector because it has developed many interrelated sectors. This industry sector has generated employment opportunities in rural areas, enhance investment in the rural sector, promote agricultural production, proper use of rural resources, value added to the farm products, improve quality, efficient marketing, and combat rural-urban migration and promote industrialization in an agricultural economy. The availability of raw material, changing lifestyle and relaxation in government regulatory schemes and policies is the pushing factor of this sector. The paper also analyzes the contribution of FPI sector in the GDP of India. The food processing industry in India is of fundamental importance because it does the vital link between numbers of other variables such as the growth of agriculture, employment, investment, GDP, etc.

Bhattacharyya, B. and Goswami, N. **(2015),** in their study pointed out that in Assam most of the agricultural products go waste due to lack of processing and storage facilities and inadequate infrastructure facilities. There is a great potential for processing these products and interaction with food processing units in the North –Eastern region. The government should offer special measures to remove the various problems of food processing units. The various measures have been taken by APEDA to build external market linkage for food processing units in the North Eastern Region with major companies in food sectors like Hindustan liver, Dabur, ITC and other companies. APEDA is also setting up model organic farms for Joha rice and sugarcane in Assam, passion fruit in Manipur and Pineapple in Tripura.

Nagaraja, G. **(2015)**, has done a case study on "Problems of agro-processing industry in Chittoor district of Andhra Pradesh." This study finds out that this region has a great scope of processing agricultural products such as field crops, tree crops, livestock and fisheries and converting them to edible oils and other usable forms. The study revealed that this sector has various opportunities to improve the rural area through the transformation of agriculture creating forward and backward linkages with industry have been emerging as an important option to overcome the increasing challenges of creating employment opportunities for increasing labor force and sustaining the livelihood of households in rural areas. Agro-industries confined in both organized as

well as un-organized segment were facing various problems. The study has analyzed the problem of agro-processing units, i.e., problems of raw materials, financial, marketing and others etc.

Gupta, A. (2015), the study is concentrated only on the impact of marketing practices followed by agro-based units to attract the consumer. The study is concentrated at Varanasi only and sample are taken from the Varanasi, and their consumption pattern is analyzed. Agricultural consumers here refer to the consumers who consume agro-processed good such as confectionaries, flour, and other such goods. Agro-based units refer to the units engaged in processing the agricultural output for the consumers and produces agro-processed goods. The study has analyzed the impact of marketing practices followed by agro-based units on consumer consumption. The study has found that nearly 96 % of the Varanasi consumers are not fully satisfied with the marketing practices of such products. The reason is mainly for product quality, pricing, distributional and promotional strategies. That is why,the study suggested that the selected unit much concentrate on modern marketing practices to overcome the problems faced in their day to day marketing operations.

Nguyen, N. and et al. (2015), has done a study on the effect of marketing mix tool on purchasing decision of frozen food. The papers establish a significant relationship between marketing mix and buying decision of frozen food through multiple regression models.

Zekiri, J. and Hasani, V. V. (2015), studied the role and impact of packaging as an influencing factor on consumer buying behaviour where all packaging elements were considered a good means of marketing communication towards consumers because consumers value the elements that are embodied on the package.

Singh, R. (2015), has done a study on the "Status and prospects of Registered Food Processing Units in India: A Comparative Study." The study revealed that the growth rate of the food processing industry of all the States of India is not equal. Basically, in the North East Part of India, the growth rate of such units is not satisfactory.

Naqvi, M. H., and Pervez, A. (2015), has done a study on "Growth & Employment Trends of Food Processing Sector in India". This paper highlights the potentiality of the

food processing industry sector, growth trends, capability and employment opportunities. This study has pointed out that although India is one of the largest producers of the agricultural and allied goods and yet the food processing segment in India contributed only 1.49% to the GDP. The study revealed that the food processing industry had shown impressive growth in the last few years. Some of the factors that have been triggered the change are varying profile and tastes of the consumer, product innovation, increased spending on health and nutritional foods, the advent of branded food and organized retail, rising export opportunities, better preservation, and packaging techniques etc.

Haidi, M.F. and et al. (2016), have done a study on how to create brand equity and how to apply the marketing mix tool in a new industry to attract customers. Here the researched have done a case study on Rogheef Bakery of Indonesia. The study revealed that the selected bakery to attract the customer they apply some new techniques like cleanliness, delicious, healthy, comfortable, safe, trusted, and bring positiveness. The study suggests that the bakery should apply properly all the modern tools of the marketing mix to attract more customers.

Indumathi, N. and Dawood, A. K. **(2016),** in their study on "Impact of Marketing Mix on consumer Buying Behaviour in Organic product" identified five factors such as quality, brand, health safety, environmental safety, and the taste is the prime factor for taking the buying decision of the selected products. Further, it has identified that 91 % customer agrees about organic products in spite of their high price. It has a positive relationship with health safety and environmental safety factor along with the quality and brand.

Jamir , T. and et. al (2017), findings of research on agro-based industrial economy of Dimapur District of Nagaland was that out of 575 industrial units during 2015 about 144 units were agro-based where average annual turnover of all micro and small industrial units during 2015 was Rs 4.5 lakhs, whereas for medium and large industries in the district was Rs 10.05 lakhs. The study revealed that the status of the agro-based industry in Nagaland is in its infancy, but ample prospects are there to develop such kind of industry.

Balasubramanian, K. and Madhavan, S. (2017), in their study on "Sector Wise Analysis of MSME – Contribution to the growth of Indian Industry" analyzed the performance of MSME for the past 20 years with effect from 1994-95 to 2013-14. The study revealed that the highest growth was recorded in 2006-07 followed by 1996-97, while a negative growth has recorded in 2012-13. But the MSMEs contribution to Indian economy in the form of a number of working enterprise, employment, production and export which is a high rate of contribution given in the industry of food and beverages, followed by wearing apparel, Fabricated Metal Products.

2.3 Research Gap

The food processing industry plays an important role in the socio-economic development of the region. It is circumstantial evidence as obtained from the aforesaid discussion on the review of literature that most of the studies focused on role, prospects as well as problems of the food processing industry at the national level as well as state level. But very few studies have done at the micro level. But accordingly, till now, no research work has been conducted on the food processing industries of the Kokrajhar districts considering its prospects as well as problems. The devoid of research work on many relevant dimensions of food processing industries of Kokrajhar Districts is the main cause as why notwithstanding its immense prospects this sector still remaining in an underdeveloped condition. Thus, based on the above literature, the researcher has attempted to examine the prospects, problems and marketing aspects of food processing industry in Kokrajhar district of Assam covering the different dimensions of food processing industry in the micro level.

REFERENCES

Ahmad, Azhar (2009), "Marketing Practices Among Malaysian SMEs in Agro-Based Industry," Prosiding Perkem , Vol.4, Issue 2, pp. 145-150.

Bhattacharyya, Bishnu (2013), "Problems and Prospects of Fruits and Vegetable Processing Industry: A Study in Kamrup District of Assam," Asian Resonance, Volume – II, Issue-IV, pp.38-44.

Bhattacharyya, Bishnu and Goswami, Nandita (October -2015)," Prospect of Contract Farming and Agro Processing Industry in Assam," Remarking, Vol.2, Issue .5, pp.44-48.

Balasubramanian , K. and Madhavan, S. (September, 2017), "Sector Wise Analysis of MSME – Contribution To Growth of Indian Industry," International Journal of Management Studies, Vol. IV, Issue.1, pp. 84-91.

Dev, S. Mahendra and Rao, N. Chandrasekhara (June-2014) "Food Processing in Andhra Pradesh Opportunities and Challenges," Working paper no 57, Centre For Economic and Social Studies, Hyderabad-50016

Dave, Rina and Amin, Ankur (2013), " Indian Processed Food: Recent Trends and Future Prospects," International Journal of Research in Business Management, Vol 1, Issue 1,pp. 03-05.

Gupta, Anuj (November 2015), "Impact of Marketing Practice followed by Agro – Based Units on Consumer Consumption: with special Reference to Varanasi District, UP, India," International Research Journal of Social Sciences, Vol. 4, No. 11, pp. 30-36.

Gupta, Anil K (2009), "Innovations for Reviving Small Scale Industries," Working paper, IIM Ahmedabad , pp. 2-13.

Gautam, Harender Raj (May 2014), "Employment Opportunities in Food Processing Industry For Rural Areas," Kurukshetra, Vol.62, No. 07, pp. 3 - 5.

Haidi, Mohammad Falah and Wandebori, Harimukti (2016)," Determining Brand Equity and Marketing Mix in Bakery Store (Case Study: Rogheef Bakery)," Journal of Business and Management, Vol.5, No. 1, pp. 154-168.

Indumathi., N1 and Dawood, Ayub, Khan (October -2016), "Impact of Marketing Mix on Consumer Buying Behaviour In Organic Product," International Journal of Research in Finance and Marketing, Vol. 6, Issue 10, pp.43-54.

Jamir, Tiatemsu , Sahu, Aatish Kumar and Das, Sanjoy (2017), "Empirical Study on Agro-Based Industrial Economy of Dimapur District of Nagaland, India," International Journal of Advanced Research, Vol. 5, No. 11, pp. 1169 -1175.

Kiumarsi, S. K., Jayaraman, Isa, Salmi Mohd, and Varastegani , Asra (2014), "Marketing Strategies to improve the sales of bakery products of small-medium enterprise (SMEs) in Malaysia," International Food Research Journal, Vol. 21, No. 6, pp.2101-2107.

Kachru, R.P. (2006), Agro-Processing Industries in India— Growth, Status and Prospects---www.npkv.academia.edu/…Papers, Assistant Director-General (processing Engineering), Indian Council of Agricultural Research, New Delhi, PP.114-125.

Khan, F.M. and Ahmad, S. (2014) "Managerial issues for Green Marketing in Food Processing Industry of India," International Journal of Agriculture and Food Science Technology, Vol 5, No 3, pp. 125-134.

Kaur, Inderpreet and Singh, Sukdev (February, 2014), "Consumer Behavior of Purchase of Processed Cereal Food Products in Punjab," IOSR Journal of Business and Management, Vol. 16, No. 2, pp. 47-57.

Lala, Namrata Sewa (2014), "Globalization and its Impact on Indigenous Food Habits and Culture of the Khasi Community of the North East," International Journal of English, Language, Literature and Humanities, Vol 2, Issue 2 , pp. 252-260.

Majumdar, Kakali (2012), "Foreign Direct Investment in Indian Food Processing Industry," Asian Journal of Research in Business Economics and Management, Vol2, Issue 4,pp. 113-120

Negi, Saurav and Anand, Neeraj (2015), "Issues and challenges in the Supply Chain of Fruits & Vegetables Sector In India: A Review," International Journal of Managing Value and Supply Chain, Vol 6, No 2,pp. 47-62.

Nagaraja, G. (April 2015), "Analysis of Agro –Processing Industries Problems: A Case Study Chittoor District, Andhra Pradesh," International Research Journal of Marketing and Economics, Vol. 2, Issue.4,pp. 01-15.

Nguyen, The Ninh, Phan, Thi Thu Hoai and Vu, Phuong Anh (2015), "The Impact of Marketing Mix Elements of Food Buying Behavior: A Study of Supermarket Consumers in Vietnam," International Journal of Business and Management, Vol. 10, No. 10, pp. 206-215.

Naqvi, Mir Hasan and Pervez, Asif(September 2015), "A Study on Growth & Employment Trends of Food Processing Sector in India," International Journal of Techno –Management Research, Vol. 03, No. 02, pp. 01-11.

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

Rais, Mohammad, Acharya Shatroopa and Sharma Neeraj (2013), "Food Processing Industry in India: S&T Capability, Skills and Employment Opportunities," Journal of Food Processing &Technology, Vol.4, Issue.9.

Rais, Mohammad, Acharya, Shatroopa and Vanloon W. (January – June 2014), "Food Processing Industry: Opportunities in North East Region of India," The NEHU Journal, Vol.12, No.1, pp. 7-51.

Reddy, C. Lakshmi Kantha and Kumari, S. Rathna (January 2014), "Performance of Agro-Based Industries in India: A Critical Analysis," IOSR Journal of Economics and Finance, Vol 2, Issue 4, pp. 15-25.

Shehrawa, Pardeep S. (2006), "Agro Processing Industries –A Challenging Entrepreneurship For Rural Development," Journal of Asia Entrepreneurship and Sustainability, Vol.2, No.3.

Singh, Surendra P., Tegegne , Fisseha and Ekenem , Enefiok (2012), "The Food Processing Industry in India: Challenges and Opportunities," Journal of Food Distribution Research, Vol 43, Issue 1,pp. 1-7.

Singh, Meera (September – October 2012), "Marketing Mix of 4 P"s for Competitive Advantage," IOSR Journal of Business and Management, Vol.3, Issue 6, pp. 40-45.

Singh, Anoop Kumar (2014), "A Study on Development Trend of Food Processing Sector in India," Shodh Sanchayan , Vol 5, Issue 1, pp. 1-7.

Saraswati (2014), "Export Potential of Food Processing Industry in India," International Journal of Computing and Corporate Research, Volume 4, Issue 2.

Shukla, Ajay, Sharma Vandana and Bhinde Hetal (2015), "Agro and Food Processing Industry in India: Status, Opportunities & Challenges," International Journal of Social & Scientific Research, India, June 15, pp. 1-8.

Shelly, Ms. and Kaur, Kuldip (June 2015), "Impact of Food Processing Industry on Economic Growth, FDI and Exports of India," Pacific Business Review International, Vol. 7, Issue 12, pp. 63-72.

Sharma, Arpita (May 2014), "Agro Based Industries and Rural Development," Kurukshetra, Vol.62, No. 07, pp. 10 – 12.

 Singh, Rewa (2015), "Status and Prospects of Registered Food Processing Units in India: A Comparative Study," www. newmanpublication.com, Vol. 2, Issue. 7, pp.107 - 121.

Zekiri, Jusuf and Hasani, Vjollca Visoka (2015), "The Role and Impact of the Packaging Effect on Consumer Buying Behaviour, "ECOFORUM, Vol. 4, Special Issue 1, pp. 232-240.

CHAPTER - 3

Analytical Study on Various Trends of Food Processing Industries

3.1 Introduction

The food processing industry plays a vital role in socio-economic development. A developed food processing industry will reduce wastages, ensure value addition, generate additional employment opportunities as well as export earnings and thus lead to a better socio-economic condition of the region. Food Processing industries contribute significantly to economic and social development and act as a bridge between the agriculture and allied sector. That is why food processing industries treated as one of the important wheels in the socio-economic development of the region. It has revealed that more than 50 % of people of Kokrajhar District engaged in agricultural activities. Hence, the present study attempts as how these abundant agricultural raw materials have been fruitfully used through the food processing industry. So that thereby both the food processing industry sector, as well as the agricultural sector, is benefited. Moreover, the development of both the Food processing Industry and related agricultural activities are immensely important to lead the socio-economic development of the Kokrajhar District. In this regards, through the study of the growth of the Food Processing industry, many important dimension pertaining to this sector can be identified.

It is circumstantial evidence in case of Kokrajhar District is that the growth rate of the food processing industry is not at all satisfactory. In support of which, it is to be mentioned that in spite of having availability of raw materials and labour, it is seen that the growth of the food processing industry is not satisfactory in the district. The central problem of the study is that without satisfactory trend of growth, the food processing industry of the Kokrajhar district cannot be considered as a wheel of socio-economic development. Particularly, after the formation of BTAD in 2003, the increase in migrated population leads to increasing the demand of both durable and nondurable goods. Apart from this, the demand for products of the food processing industry under study has also been growing.

Notwithstanding, its growing demand these selected industries have measurably fail to capture the growing customer's needs and demands, where a major portion of demand is satisfied by the products of nationally and internationally reputed outside firms. Consequently, the local food processing industries are facing problems in selling their products due to their quality aspect of products, lack of modern marketing strategy, inefficient utilization of technology etc. Hence, it is urgently required to revive the food processing industry of Kokrajhar district from their various problems because of which their rate of growth is seen to be unsatisfactory.

3.2 Objective and methodology of the Chapter

The systematic study on the progress of the food processing industry is immensely important to depict the real picture of the industrial development of the District. Not-withstanding it's important still no careful study is done covering the importance of food processing industries of Kokrajhar District. The devoid of proper study on the progress of food processing industries in Kokrajhar Districts makes difficulties to take necessary decisions and to formulate effective policy and schemes for the development of these industries. Keeping in the purpose of these needs, the present chapter attempts to illustrate the position of the progress as well as the status of food processing industries in Kokrajhar districts. In order to analysis, the growth position 90 number of selected industry under five categories are taken into observation. Basically, six factors are considered for analysis the growth position of the selected industry sectors. These are number of the unit , initial investment , employment level , cost and net profit respectively covering the   10 years from 2007-08 to 2016-17.The data has collected through questionnaire from the DICC, Kokrajhar and field survey. After collecting the data TR , AR, TC , AC and net profit have calculated and the data are presented through the table and graph. Lastly, the Compound annual growth rate of unit and employment has calculated through using the linear regression model and net profit has calculated through log-linear regression model and tested through SPSS which is explained in the relevant part.

3.3: Overview of Indian Food Processing Industry

India is the world's second largest producer of food next to China and has the potential of being the biggest with the food and agricultural sector. The food processing industries are one of the largest industries in India, ranked fifth regarding production, consumption, export and expected growth (Singh, R. 2015). Food processing contributes about 10 percent of India's manufacturing sector GDP. In dollar terms, it is estimated to grow to USD 482 billion in 2020, from USD 258 billion in 2015, leveraged by consistently rising domestic and export market demand. The exports of this sector during Financial Year 2011-16 grew at a CAGR of 11.74 percent. The maximum products of the food processing industry are export to the Middle East and South East Asian countries (Advantage Assam report).

The following table shows the registered food processing units and employment of all over India as per annual survey of industries 2014-15.

Table No. **3.1**

State-wise number of Registered Food Processing Industry and employment level in India

Sl No.	State	Factories (no)	Share of Factories	Employment (Total Person Engaged)	Share of Employment
1	A & N Islands	6	0.02%	116	0.01%
2	Andhra Pradesh	5833	15.11 %	152848	8.62%
3	Arunachal Pradesh	28	0.07%	1375	0.08%
4	Assam	1317	3.41%	87970	4.96%
5	Bihar	838	2.17%	35881	2.02%
6	Chandigarh	19	0.05%	903	0.05%
7	Chhattisgarh	1141	2.96%	25427	1.43%
8	Dadra & Nagar Haveli	6	0.02%	295	0.02%
9	Damon & Diu	43	0.11 %	2820	0.16%
10	Delhi	165	0.43%	13735	0.77%
11	Goa	88	0.23%	7299	0.41%
12	Gujarat	2001	5.18%	97624	5.51%
13	Haryana	881	2.28%	49518	2.79%
14	Himachal Pradesh	166	0.43%	11919	0.67%
15	Jammu & Kashmir	162	0.42%	7501	0.42%
16	Jharkhand	219	0.57%	6470	0.36%
17	Karnataka	2084	5.40%	113143	6.38%
18	Kerala	1525	3.95%	153853	8.68%
19	Madhya Pradesh	816	2.11%	45977	2.59%
20	Maharashtra	3014	7.81%	239344	13.50%
21	Manipur	23	0.06%	536	0.03%
22	Meghalaya	19	0.05%	868	0.05%
23	Nagaland	20	0.05%	267	0.02%

24	Odisha	969	2.51%	27225	1.54%
25	Puducherry	65	0.17%	5023	0.28%
26	Punjab	2840	7.36%	106618	6.01%
27	Rajasthan	857	2.22%	39641	2.24%
28	Sikkim	18	0.05%	1670	0.09%
29	Tamilnadu	5149	13.34%	204648	11.54%
30	Telangana	3967	10.28%	60315	3.40%
31	Tripura	75	0.19%	1998	0.11%
32	Uttar Pradesh	2055	5.32%	158491	8.94%
33	Uttarakhand	386	1.00%	28381	1.60%
34	West Bengal	1808	4.68%	83656	4.72%
	Total	38603		1773355	

Source: Annual Survey of Industries, 2014-15 (available at www.mofpi.nic.in)

The table no : 3.1 , reflects that as per annual survey of Industries 2014-15, the total number of registered food processing units in India is 38,603 and employed 17,73,355 number of people. The number of registered factories in Assam during 2014-15 is 1,317 which accounts for only 3.46 % share of the total registered factories in the country, and it has employed 88449 people of 5.08 % of the country. But in case of number of food processing unit the top five positions have occupied by Andhra Pradesh , Tamilnadu , Telangana , Maharastra and Punjab respectively. It has been observed that from the table that Assam's share is quite minimal and the food processing sector needs to be developed to improve the socio-economic situation of the state.

The following table shows the growth trends of various categories of registered food processing units in India.

Table No **3.2**

Growth trends of various categories of registered food processing units in India

Sl. No.		2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15
1	Meat	77	90	85	115	146	140	148	170
2	Fruits and Vegetables	735	709	832	1052	1078	1110	1101	1133
3	Dairy Products	1096	1100	1112	1493	1653	1695	1753	1783
4	Grain Mill Products	12807	13464	13397	17792	18244	18131	18272	18953
5	Bakery Products	955	993	1056	1450	1399	1519	1498	1613
6	Cocca ,Choclate and Sugar confectonery	404	456	466	509	560	539	505	594
7	Noodles and Similar Products	73	61	51	83	75	129	105	91
8	Manufacture of Wines	64	79	69	74	77	78	71	74
9	Vegetable & animal oils and fats	2515	2429	2421	3307	3394	3312	3300	3240
10	Prepared meals & dishes	--	45	139	343	416	352	298	277
11	Sugar	778	733	744	895	906	859	791	763
12	Production of mineral water & other bottled water , soft drinks	887	896	834	1264	1401	1483	1520	1597

Source: Annual Survey of Industries, 2014 -15 (available at www.mofpi.nic.in))

In the light of the table no: 3.2, it has identified that the growth trends of some of the food processing industry sector are not satisfactory. But this table reflects that India has the scope to establish a wide variety of food processing industry.

3.4: Analysis of Various Trends of Rice Mills of Kokrajhar District

In case of almost all rural areas of India, paddy field occupies a major portion. Consequently, it uplifts the demand for rice mill. The demand for rice mill of Kokrajhar district also emerged from its highest production of rice made by rural people because maximum number of people in Kokrajhar district depends upon agriculture for their livelihood (Das, D., 2014). Among the five categories of selected industries, the rice mill is the oldest industry in Kokrajhar District, which is still playing a dominant role so far as the number of food processing industry is concerned. The following table specifies the above fact of rice mills in Kokrajhar District.

Table No 3.3

Various Economic Trends of Rice Mills of Kokrajhar District

Sl No	Year(as on 31st March)	Unit		Initial Investment		Employment		Revenue		Cost		Net Profit	
		Marginal units	Total units	Total	Average	Total	Average	TR	AR	TC	AC	Total	Average
1	2007-08	---	9	510000	56667	18	2	3720000	413333	1860000	206667	1860000	206667
2	2008-09	6	15	1050000	70000	32	2.13	8520000	568000	4560000	304000	3960000	264000
3	2009-10	10	25	1800000	72000	54	2.16	19800000	792000	10680000	427200	9120000	364800
4	2010-11	4	29	2250000	77586	64	2.21	23400000	806897	12240000	422069	11160000	384828
5	2011-12	6	35	2780000	79429	83	2.37	30000000	857143	16200000	462857	13800000	394286
6	2012-13	1	36	2930000	81389	86	2.38	31200000	866667	17040000	473333	14160000	393333
7	2013-14	2	38	3250000	85526	92	2.42	33000000	868421	20160000	530526	12840000	337895
8	2014-15	6	44	3950000	89773	108	2.45	37200000	845455	24600000	559091	12600000	286363
9	2015-16	6	50	4680000	93600	132	2.64	42000000	840000	29040000	580800	12960000	259200
10	2016-17	3	53	5130000	96792	138	2.60	44160000	833208	30960000	584151	13200000	249057

The following diagram has shown the growth trends of total rice mill and total employment level Year wise under the study period in Kokrajhar district.

Figure: **3.1**

Growth Trends of Total Rice Mills and Total Employment
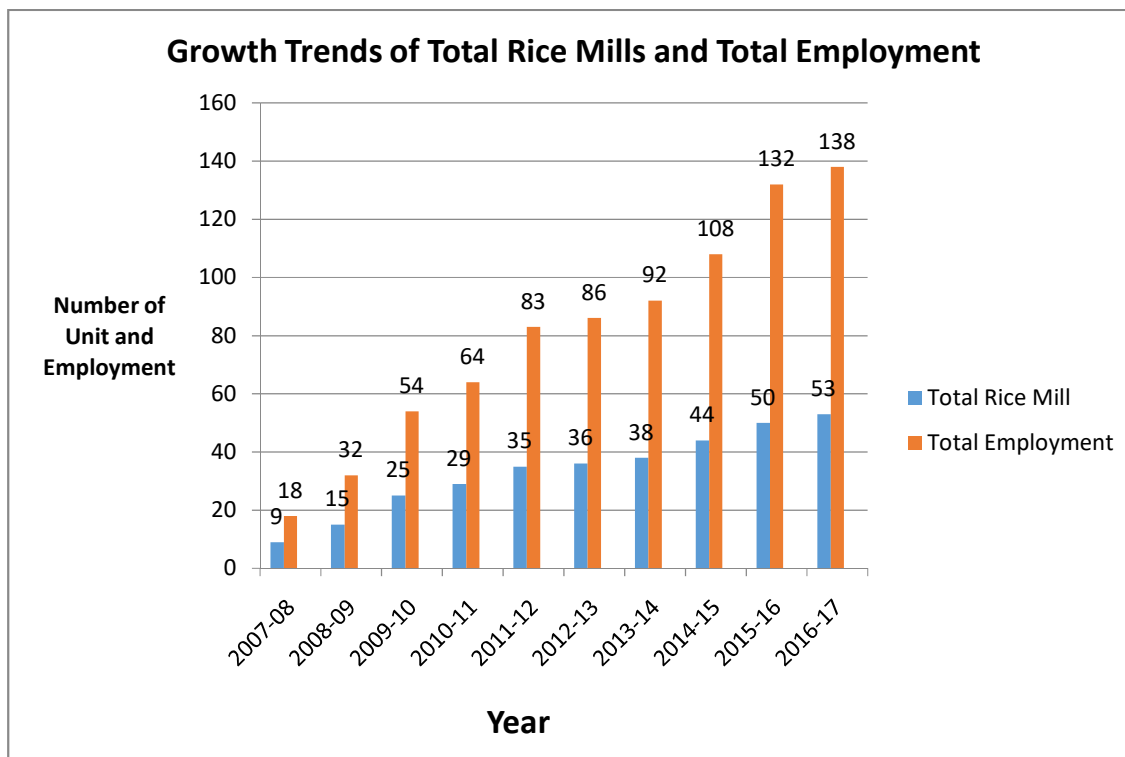
In the light of the table No 3.3, the following explanations are made regarding the growth trends of various factors of rice mills in case of Kokrajhar district.

1.No of unit: The number of unit of rice mill can be explained in two ways, such as number of rice mill established per year and the total number of rice mill in a cumulative basis. During the ten years under study, it is observed that the number of rice mill established in per year is very much fluctuating. In the year 2007-08, number of newly established rice mills was 09 and in the year 2008-09 newly established rice mill was 06 and again newly established rice mill increase to 10 in 2009-10. Further, it has reflected that the number of rice mill was decreased to 04 in 2010-11 and increase to 06 in 2011-12. In 2012-13 it was suddenly decreased to 01 and increase to 02 in 2013-14. Again it was increased to 06 in 2014-15 which was unchanged in 2015-16 and fall to 03 in 2016-17. Further, in case of a total number of unit of rice mills , it is found that

against the frequent fluctuation of the number of units established per year, total rice mill has gradually increased during the ten years under study. The total number of rice mill was 09 in 2007-08 which has increased to 53 in the year 2016-17.

2. Initial Investment: In case of total initial investment, it is to be mention that it is gradually increasing from Rs 5, 10,000 in 2007-08 to Rs 51, 30,000 in 2016-17. On the other hand, the average initial investment is also gradually increasing from Rs 56,667 in 2007-08 to Rs 96,792 in 2016-17. The total initial investment was increase at 10.06 times in 2016-17 over the year 2007-08. On the other hand, average investment increased 1.70 times in 2016-17 over the year 2007-08.

3. Employment: In the light of Table No 3.3, it has found that both the total and average employment is increasing gradually for the ten years under study. In this regards, it is to be mentioned that the total employment has 18 in 2007-08, which has increased to 138 after ten years in 2016-17. The increasing growth rate in 2016-17 is 7.66 times more than over the year of 2007-08. On the other hand, average employment was 2 in the year 2007-08 which has increased after ten years up to 2.60, i.e., in the year 2016-17.The growth rate of which is 1.3 times more in 2016-17 over the year 2007-08.

4 Revenue: From the observation of revenue aspects made from table No 3.3, it has identified that the TR has been increasing throughout the ten years under study, i.e., from Rs 37,20,000 in 2007-08 to Rs 4,41,60,000 in 2016-17. Hence the rate of growth of TR is recorded 11.87 times more during the ten years. In case of AR, it was started Rs 4,13,333 in 2006-07 and after ten years, i.e., in 2016-17 it was increased to Rs 8,33,208 which reflected the growth rate of 2.015 times more in the year 2016-17. The AR has been gradually increasing for the first 07 years, i.e., Rs 4, 13,333 in 2007-08 to Rs 8, 68,421 in 2013-14. For during the subsequent three years the AR was declined as Rs 8,45,455, Rs 8,40,000 and Rs 8,33,208 for the year 2014-15, 2015-16 and 2016-17 respectively.

5. Cost: After going throughout the observation of cost aspects as given the table No: 3.3, it is identified that the TC has been continuously increasing from Rs 18,60,000 in 2007-08 to Rs 3,09,60,000 in 2016-17. In case of AC provides the peculiar trend of

growth. Barring one the year 2010-11, the AC was also gradually increasing from Rs.2, 06,667 in 2007-08 to Rs 5, 84,151 in 2016-17 respectively.

6. Net Profit: From Table No: 3.3, in case of Net Profit it has identified that out of 10 years, total net profit was continuously increasing for the first 06 years from Rs 18, 60,000 in 2007-08 to Rs 1, 41, 60,000 in 2012-13.But suddenly total profit was decrease from Rs 1,41,60,000 in 2012-13 to Rs 1,28,40,000 in 2013-14.Again it was decrease to Rs 1,26,00,000 in 2014-15. Of course, the last two years total profit was increased from Rs 1, 26,00,000 in 2014-15 to Rs 1,29,60,000 in 2015-16 and from Rs 1, 29,60,000 in 2015-16 to Rs 1,32,00,000 in 2016-17. In the case of average profit, it has noticed that out of 10 years first five years it was continuously increasing from Rs 2, 06,667 in 2007-08 to Rs 3, 94,286 in 2011-12. During the last five years, average profit was continuously declining from Rs 3, 94,285 in 2011-12 to Rs 2, 49,057 in 2016-17. Here it is found that total profit has increased due to the rise in a number of the industry, but average profit falls because all the industries are not able to earn the equal profit because of entry of various national level branded rice mill companies in kokrajhar district.

3.5: Analysis of Various Trends of Oil Mills of Kokrajhar District

Uses of oils in various purposes of food items is the reason as for why its demand has been day by day increasing among both vegetarian as well as nonvegetarian consumers of the world. In case of Kokrajhar district also it is found that in spite of existing a sizeable number of state and national level oil products, many local based oil mills are also surviving in the district. In order to depict the growth trend of the oil mill in the Kokrajhar District, the following table is prepared where six factors related to various economic trends of this industry are reflected.
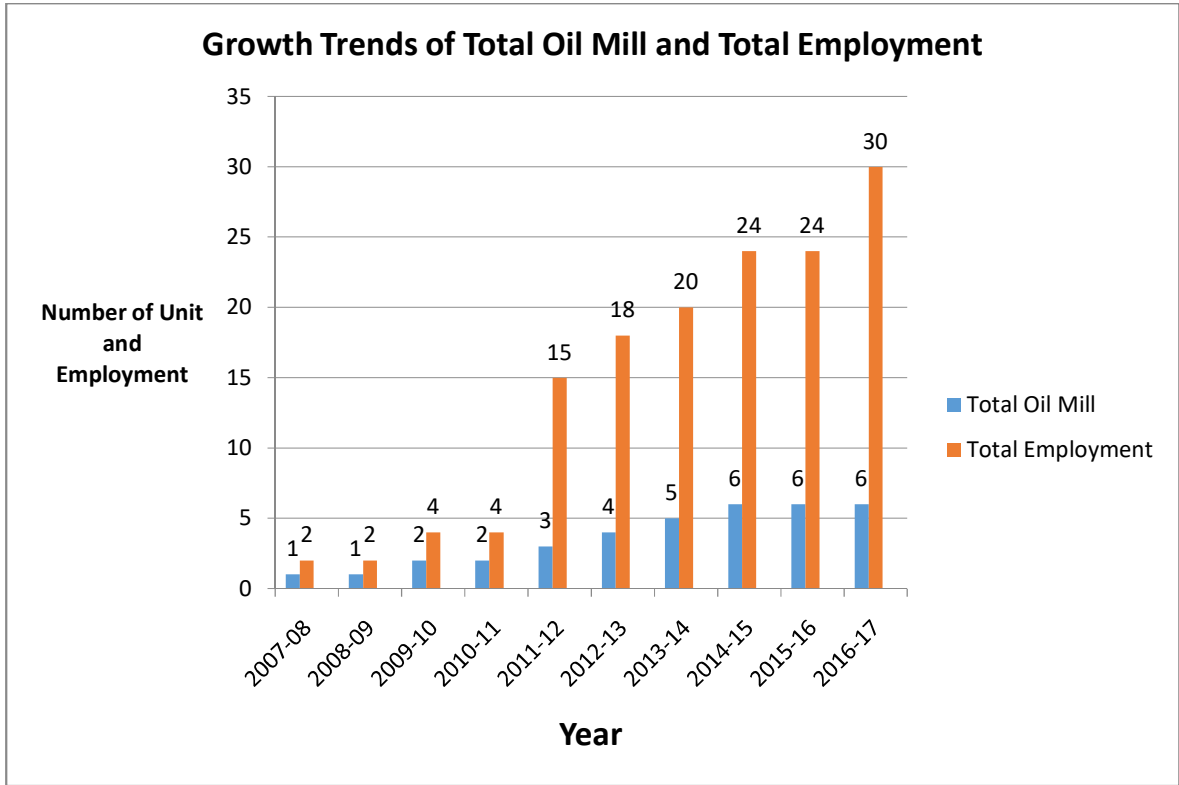
Table No: **3.4**

Various Economic Trends of Oil Mills of Kokrajhar District

Sl No	Year(as on 31st March)	Unit		Initial Investment		Employment		Revenue		Cost		Net Profit	
		Marginal units	Total units	Total	Average	Total	Average	TR	AR	TC	AC	Total	Average
1	2007-08	-----	1	150000	150000	2	2	300000	300000	160000	160000	140000	140000
2	2008-09	------	1	150000	150000	2	2	330000	330000	170000	170000	160000	160000
3	2009-10	1	2	320000	160000	4	2	680000	340000	430000	215000	250000	125000
4	2010-11	-----	2	320000	160000	4	2	720000	360000	420000	210000	300000	150000
5	2011-12	1	3	1320000	440000	15	5	1400000	466667	800000	266667	600000	200000
6	2012-13	1	4	1520000	380000	18	4.5	1700000	425000	880000	220000	820000	205000
7	2013-14	1	5	1750000	350000	20	4	2120000	424000	1050000	210000	1070000	214000
8	2014-15	1	6	2040000	340000	24	4	2350000	391667	1230000	205000	1120000	186667
9	2015-16	----	6	2040000	340000	24	4	2385000	397500	1250000	208333	1135000	189167
10	2016-17	----	6	2040000	340000	30	5	2460000	410000	1280000	213333	1180000	196667

Source: Compiled from the Field Survey, personal interview, Questionnaire and DICC Kokrajhar

The following diagram has shown the growth trends of oil mills and total employment level from 2007-08 to 2016-17 in Kokrajhar District.

Growth Trends of Total Oil Mill and Total Employment

.

On the basis of the table No 3.4, following points have been identified so far as growth trend of six dimensions of oil mills are concerned.

1. No of Unit: In the case of a number of the unit, it is seen that cumulatively the number of industries are gradually increasing from 01 in 2007-08 to 06 in 2016-17. Hence, throughout the ten years, the growth rate is not so high, but the future scope is bright in this industry because now people are moving towards buying the local cum organic product. So, local oil mill has a great scope in the near future in the district.

2. Initial Investment: The growth trends of initial investment in case of oil mill reflect two opposite trend. One is that the total initial investment is gradually increasing from Rs 1, 50,000 in 2007-08 to Rs 20, 40,000 in 2014-15, where average initial investment has also increased progressively from Rs 1, 50,000 in 2007-08 to Rs 3, 50,000 in 2013-14. Of course, for the last two years, the total initial investment of capital is seen to be constant, i.e., Rs 20,40,000 and similarly last three years average initial investment also

remain constant, i.e., Rs 3,40,000 respectively. It is because during the last two years there is no new oil mill has established in the district.

3.Employment: The growth trend of employment reveals the fact that the total employment is gradually increased from 2 in 2007-08 to 30 in 2016-17, where the average employment remains constant for four years from 2 in 2007-08 to 2 in 2010-11, whereas, it is suddenly increased from 2 in 2010-11 to 5 in 2011-12. Further, it is a decline from 5 in 2011-12 to 4.5 in 2012-13. In the years, i.e., 2013-14 to 2015-16 the average employment remain constant, i.e., 4 and it increase to 5 in the year 2016-17. During ten years from 2007-08 to 2016-17, the average total employment of per year is 3.

4. Revenue : The collection of TR has been gradually increasing from Rs 3,00,000 in the year 2007-08 to Rs 24,60,000 in the year 2016-17.In case of AR it is increase from Rs 3,00,000 in 2007-08 to Rs 4,66,667 in 2011-12 and then it fall Rs 4,25,000 in 2012-13 , Rs 4,24,000 in 2013-14 , Rs 3,91,667 in 2014-15 respectively and then it increase from Rs 3,97,500 in 2015-16 to Rs 4,10,000 in the year 2016-17 respectively.

5. Cost: After going through total and average cost for ten years it comes into light that total cost of production of oil mill is gradually increasing throughout the ten years under study. It was Rs.1, 60,000 for the year 2007-08 to Rs 12, 80,000 in the year 2016-17. As like total cost Average cost does not increase gradually. It was from Rs 1, 60,000 in 2007-08 to Rs 1, 70,000 in 2008-09 and Rs 2, 15,000 in the year 2009-10. Further, it was decreased to Rs 2,10,000 in the year 2010-11and again it increases to Rs 2,66,667 in the year 2011-12.Again it was decrease to Rs 2,20,000 in 2012-13 ,Rs 2,10,000 in 2013-14 and Rs 2,05,000 in 2014-15 respectively. After that, it has increased to Rs 2, 08,333 and Rs 2, 13,333 for the year 2015-16 and 2016-17 respectively. Hence, the trend of Average Cost is ups and down frequently.

6. Net Profit: The total net profit was gradually increasing from the year 2007-08 from Rs 1, 40,000 to Rs 11, 80, 00 in the year 2016-17. In the case of average profit, it has seen that for the seven years it was gradually increased from Rs 1, 40,000 in 2007-08 to Rs 2, 14,000 in 2013-14. It is a point to be noted that suddenly the average profit decreased from Rs 2, 14,000 in 2013-14 to Rs 1, 86,667 in the year 2014-15 and again it was increased to Rs 1, 89,167 in 2015-16 and Rs 1, 96,667 in 2016-17 respectively.

3.6 Analysis of Various Trends of Flour Mills of Kokrajhar District

The increasing rate of consumption as well as use as an input of bakery items, the demand for flour has been rapidly expanding throughout the world. This phenomenon leads in accelerating the demand of flour mills in Kokrajhar District also. That is why; the study of growth trend is of great analytical importance for a flour mill. Keeping this purpose into consideration the growth trend of flour mill is reflected in the following table covering the ten years from 2007-08 to 2016-17.

Table No 3.5

Various Economic Trends of Flour Mills of Kokrajhar District

Sl No	Year (as on 31st March)	Unit		Initial Investment		Employment		Revenue		Cost		Net Profit	
		Marginal Unit	Total units	Total	Average	Total	Average	TR	AR	TC	AC	Total	Average
1	2007-08	----	3	1200000	400000	10	3.33	1080000	360000	540000	180000	540000	180000
2	2008-09	2	5	3500000	700000	25	5	1920000	384000	1150000	230000	770000	154000
3	2009-10	2	7	5700000	814286	39	5.57	2650000	378571	1450000	207142	1200000	171429
4	2010-11	2	9	7400000	822222	50	5.55	3900000	433333	2000000	222222	1900000	211111
5	2011-12	2	11	7800000	709091	58	5.27	4700000	427273	2500000	227272	2200000	200000
6	2012-13	---	11	7800000	709091	58	5.27	4950000	450000	2550000	231818	2400000	218181
7	2013-14	1	12	8350000	695833	64	5.33	5650000	470833	2700000	225000	2950000	245833
8	2014-15	---	12	8350000	695833	67	5.58	5950000	495833	2780000	231667	3170000	264167
9	2015-16	---	12	8350000	695833	72	6	6400000	533333	3050000	254167	3350000	279167
10	2016-17	---	12	8350000	695833	74	6.16	6630000	552500	3100000	258333	3530000	294167

Source: Compiled from field Survey, personal interview, Questionnaire, and DICC, Kokrajhar

The following diagram showed the growth trends of total flour mills and total employment level with effect from 2006-07 to 2016-17 in Kokrajhar district.

Figure : **3.3**

Growth Trend of Total Flour Mill and Total Employment
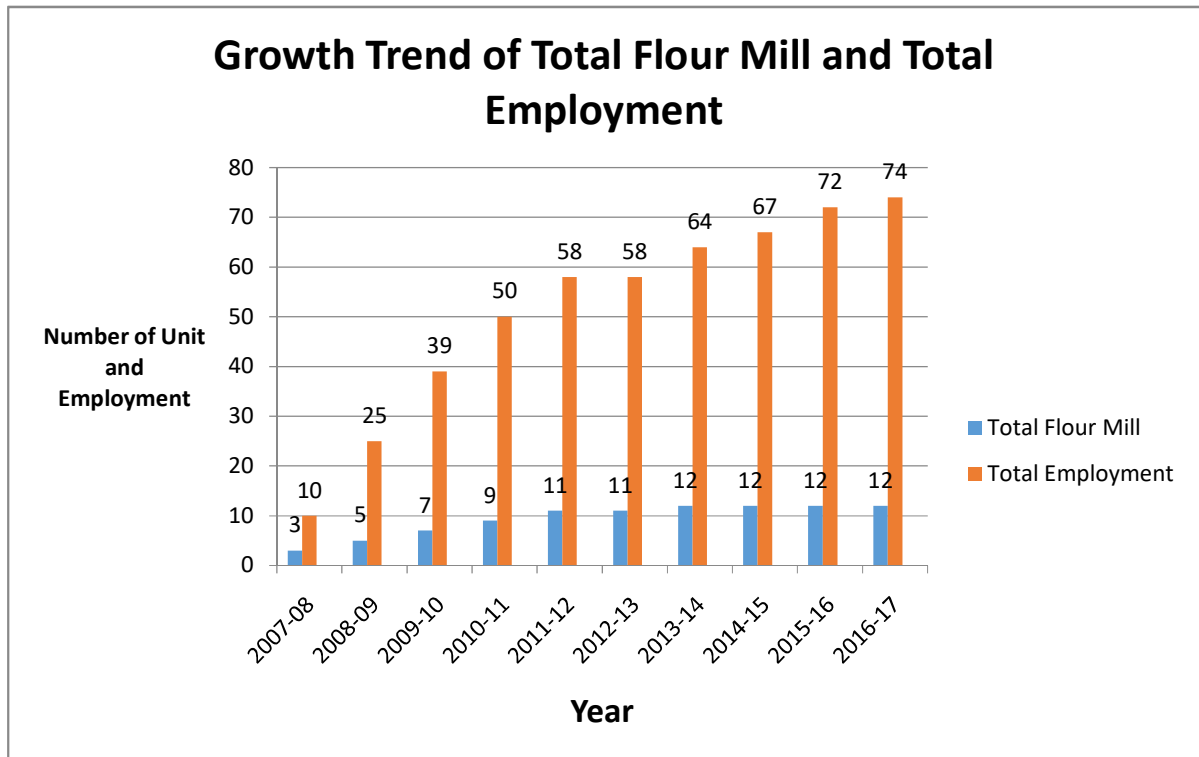
In the light of the table no 3.5, the following explanations are made related to various trends of flour mills of Kokrajhar district under the study period.

1. Number of Units: It is revealed from the table no. 3.5, that the growth trend of number of flour mill in Kokrajhar District in the study period is not encouraging, which is restricted in between 2 to 3 from the year 2007-08 to 2011-12. From the year 2012-13 to the year 2016-17 even no flour mill has established in the Kokrajhar district barring 01 flour mill in the year 2013-14. The total number of flour mill increased from 03 in 2007-08 to 12 in 2016-17.

2. Initial Investment: As compared to growth of number of flour mill its growth of initial investment of capital is found higher. From table No 3.5, it is noted that the growth of capital investment gradually increases throughout the ten years right from Rs 12, 00,000 in the year 2007-08 up to Rs 83, 50,000 in the year 2016-17. In between these two years, the growth of the initial investment is Rs 35,00,000 in 2008-09, Rs. 57,00,000 in 2009-10 , Rs 74,00,000 in 2010-11 , Rs 78,00,000 in 2011-12 and 2012-13, Rs 83,50,000 in the year 2013-14 , 2014-15 ,2015-16 and 2016-17 respectively. Against the gradually increasing growth of total initial investment, the average initial investment is found to be ups and down. The average initial investment was Rs 4,00,000 for the year 2007-08, and it has increased to Rs 7,00,000 in the year 2008-09, Rs 8,14,285 in the year 2009-10 and Rs 8,22,222 for the year 2010-11 respectively. Further, it again declined to Rs 7, 09,091 for the year 2011-12 and 2012-13 respectively. Further , it has declined to Rs 6, 95,833 for the year 2013-14, 2014-15, 2015-16 and 2016-17 respectively.

3. Employment: In the case of employment both the growth trend of total and average employment has been gradually increasing. The total number of employees has increased from 10 to 74 for ten years from 2007-08 to 2016-17. On the other hand, the average growth of employment is also increased from 3.33 to 6.16 for ten years from 2007-08 to 2016-17. Here it is found that average employment of per industry are encouraging because all the flour mill has used modern technology and they try to capture the market in the state as well as national level.

4. Revenue: The collection of TR has been gradually increased from Rs 10, 80,000 in the year 2007-08 to Rs 66, 30,000 in the year 2016-17. Of course against which the average revenue has not increased gradually. It has increased from Rs 3, 60,000 in 2007-08 to Rs 3, 84,000 in the year 2008-09, which again decrease to Rs 3, 78,571 in the year 2009-10. After that, it has increased to Rs 4, 33,333 in the year 2010-11. Further, it has decreased to Rs 4,27,273 in the year 2011-12, After that, it has observed that the Average Revenue has increased gradually from Rs 4,50.000 at 2012-13 to Rs 5,52,500 at the year 2016-17.

5. Cost: From the observation of the cost it can be highlighted that the total cost was increased gradually from Rs 5, 40,000 in 2007-08 to Rs 31, 00,000 in the year 2016-17.

Against the gradual increase in total cost, the average cost frequently fluctuated during the study period. Average cost was increased from Rs 1, 80,000 in 2007-08 to Rs 2, 30,000 at 2008-09. Again it has increased from Rs 2, 07,142 at the year 2009-10 to Rs 2, 31,818 in the year 2012-13 gradually. Further, it has decreased to from Rs 2, 31,818 at 2012-13 to Rs 2, 25,000 at 2013-14. In the last three years, i.e. , 2014-15, 2015-16, 2016-17 the Average Cost has increased gradually from Rs 2,31,667 ,Rs 2,54,167 and Rs 2,58,333 for the year 2014-15, 2015-16 and 2016-17 respectively.

6. Net Profit: As like total cost the total net profit has gradually increased during the ten years under study from Rs 5, 40,000 in 2007-08 to Rs 35, 30,000 in 2016-17. But the average net profit has gradually increased only during the last six years, i.e., from Rs 2, 00,000 in 2011-12 to Rs 2, 94,167 at 2016-17. On the other hand , during the first four years the average profit was fluctuated , i.e. ,Rs 1,80,000 ,Rs 1,54,000, Rs 1,71,429 and Rs 2,11,111 for the year 2007-08, 2008-09 , 2009-10 and 2010-11 respectively.

3.7 Analysis of Various Trends of Fruits & Vegetable Processing Industries of Kokrajhar District

Kokrajhar district of Assam is the agriculture-based region. Among the sub-sectors of Indian Food processing industry, fruits & vegetable processing has greater potentiality in this region. Vegetable such as potato, tomato, cabbage, cauliflower etc. and fruits like banana, mango, orange etc. have been reported to be around 20 % of the total production of the State. On the basis of these products, the region has a great potentiality to set up lots of industry like Juice, Chips, pickle industry, biscuit industry, Juice or beverage industry, Jelly industry etc. (Sarma, G. and Devi, M. 2016) That is why the fruits & vegetable processing industry as one of the most important industries in Kokrajhar District is needed to be taken under the study of growth trend. In the study are in case of fruits & vegetable processing industry sector include spice mill, pickle industry, puffed industry and processed food making industry. Keeping in purpose the above circumstance the following table is prepared to analyses the various trends of fruits & vegetable processing industry covering the ten years from 2007-08 to 2016-17.
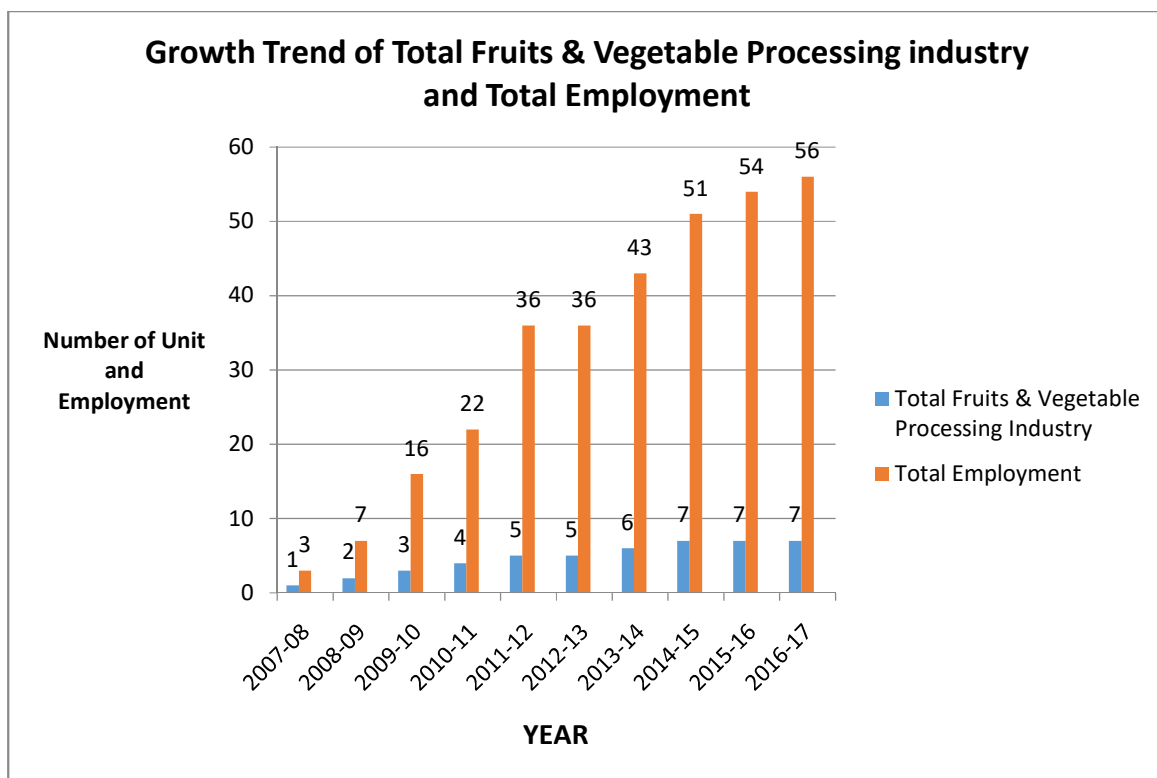
Table No: **3.6**

Various Economic Trends of Fruits & Vegetable Processing Industries of Kokrajhar District

S l N o	Year(as on 31st March)	Units		Initial Investment		Employment		Revenue		Cost		Net Profit	
		Marginal units	Total units	Total	Average	Total	Average	TR	AR	TC	AC	Total	Average
1	2007-08	-----	1	100000	100000	3	3	360000	360000	200000	200000	160000	160000
2	2008-09	1	2	400000	200000	7	3.5	900000	450000	500000	250000	400000	200000
3	2009-10	1	3	800000	266667	16	5.3	1500000	500000	850000	283333	650000	216667
4	2010-11	1	4	1600000	400000	22	5.5	2300000	575000	1200000	300000	1100000	275000
5	2011-12	1	5	1710000	342000	36	7.2	2660000	532000	1300000	260000	1360000	272000
6	2012-13	---	5	1710000	342000	36	7.2	2720000	544000	1340000	268000	1380000	276000
7	2013-14	1	6	1830000	305000	43	7.17	3015000	502500	1450000	241667	1565000	260833
8	2014-15	1	7	1950000	278571	51	7.29	3340000	477143	1470000	210000	1870000	267143
9	2015-16	---	7	1950000	278571	54	7.71	3500000	500000	1490000	212857	2010000	287143
10	2016-17	----	7	1950000	278571	56	8	3650000	521429	1520000	217143	2130000	304286

Source: Compiled from field survey, personal interview, questionnaire and DICC, Kokrajhar

The following diagram has shown the growth trends and employment trends of fruits & vegetable processing industry sectors under the study period in Kokrajhar district.

Figure **3.4**

Taking the table No 3.6, as a basis following explanation is made on the growth trends of Fruits & vegetable processing industries of Kokrajhar District.

1.No of Unit: Barring three years, i.e., 2012-13, 2015-16 and 2016-17 only one industry per year has established during the ten years from 2007-08 to 2016-17. It has revealed from the table that the number of industries is gradually increasing from 01 in 2007-08 to 07 in 2016-17.

2. Initial Investment: The observation of initial investment trends in Fruits & vegetable processing industry reveals that against frequent fluctuation of average initial investment; the total initial investment has been gradually increasing for ten years under study. The total initial investment for the year 2007-08 was Rs 1,00,000 against one industry, which was increased up to Rs 19,50,000 against seven industry after ten years

in the year 2016-17. On the other hand, Average Initial Investment has increase for the first four years, i.e., Rs 1, 00,000 in the year 2007-08 to Rs 4, 00,000 in the year 2010-11. After that, it has decreased up to Rs 3, 42,000 in the year 2011-12 and 2012-13. Then it has increased to Rs 3, 05,000 in the year 2013-14 and after that again fall to Rs 2,78,571 for the year 2014-15, 2015-16 and 2016-17 respectively.

3. Employment: It has identified from Table no 3.6 that both the number of totals and average employment has been gradually increasing throughout the ten years under study. The total employment has increased from 03 in the year 2007-08 to the number 56 in the year 2016-17. Likewise, the average employee has been increasing gradually from 3 in the year 2007-08 to 8 in the year 2016-17 respectively during the study period.

4. Revenue: During the ten years under study the TR has been gradually increasing from Rs 3, 60,000 in 2007-08 to Rs 36, 50,000 in 2016-17. Hence, it has calculated that the total revenue has raised more than ten times in the last year, i.e., 2016-17 over the first year, i.e., 2007-08. Of course, AR has also been increased gradually barring in the year 2011-12 and 2012-13 as in this year it is suddenly decreased from Rs 5, 75,000 in 2010-11 to Rs 5,32,000 and from Rs 5,44,000 in 2012-13 to Rs 5, 02,500 in 2013-14. Otherwise, AR was increased from Rs 36,000 in 2007-08 to Rs 521,429 in 2016-17.

5. Cost: It is seen from table No 3.8, that the total cost has been gradually increasing. It has recorded that Total Cost has increased from Rs 2, 00,000 in 2007-08 to Rs 15, 20,000 in the year 2016-17. On the other hand, against the continuous increasing of TC, the AC fluctuates within ten years. For the first time, AC is gradually increasing for four years from Rs 2, 00,000 in 2007-08 to Rs 3, 00,000 in 2010-11. For the second time, AC has decreased in the year 2011-12 from Rs 3, 00,000 to Rs 2, 60,000. For the third time, AC has increased in the 2012-13 from Rs 2, 60,000 to Rs 2, 68,000. For the fourth time it is decreasing for 02 years , i.e. , Rs 2,68,000 in 2012-13 to Rs 2,41,667 in 2013-14 and from Rs 241667 in 2013-14 to Rs 2,10,000 for the year 2014-15 respectively. For the fifth and last time AC is increased from Rs 2,10,000 in 2014-15 to Rs 2,12,857 in 2015-16 and Rs 2,17,143 in 2016-17 respectively.

5. Net Profit: After throughout observation of both total net profit and average net profit of fruits & vegetable processing industry for ten years, it has found that against

the gradually increasing of total net profit, the average net profit fluctuates during the ten years. The total net profit has increased from Rs 1, 60,000 in 2007-08 to Rs 21, 30,000 in 2016-17. The average net profit has increased from Rs 1, 60,000 in 2007-08 to Rs 3, 04,286 in 2016-17.

3.8 Analysis of Various Trends of Bakery of Kokrajhar District

The nature of regular consumption of bakery items enhances its volume of total consumption among the entire customers of all parts of the world. Consequently, this sort of affairs of the bakery items creates ample potentialities for selling a huge amount of bakery items and parallelly leads to increases its market share (Kiumarsi, S. and et al., 2014). Due to increasing the various categories of the population the demand of bakery industries has also been gradually increasing in Kokrajhar District regarding quantity and quality. As a prominent sector of the food processing industry, the study of the growth trend of bakery industries is needed to be studied in the light of its significant factors. The following table revealed the growth position of bakery in the Kokrajhar district of Assam.

Table No. 3.7

**Various Economic Trends of Bakery Industries of Kokrajhar District**

Sl No	Year (as on 31st March)	Unit		Initial Investment		Employment		Revenue		Cost		Net Profit	
		Marginal units	Total units	Total	Average	Total	Average	Total	Average	Total	Average	Total	Average
1	2007-08	-----	3	2000000	666667	11	3.67	3600000	1200000	2520000	840000	1080000	360000
2	2008-09	2	5	3100000	620000	20	4	5760000	1152000	3945000	789000	1815000	363000
3	2009-10	1	6	3700000	616667	25	4.17	6484500	1080750	4305000	717500	2179500	363250
4	2010-11	1	7	4350000	621429	33	4.71	7200000	1028571	4655000	665000	2545000	363571
5	2011-12	----	7	4350000	621429	33	4.71	7350000	1050000	4730000	675714	2620000	374286
6	2012-13	1	8	4750000	593750	42	5.25	8150000	1018750	5090000	636250	3060000	382500
7	2013-14	1	9	5150000	572222	49	5.44	9127500	1014167	5475000	608333	3652500	405833
8	2014-15	1	10	5500000	550000	66	6.6	10420000	1042000	5860000	586000	4560000	456000
9	2015-16	2	12	6250000	520833	76	6.33	12190000	1015833	6710000	559167	5480000	456667
10	2016-17	---	12	6250000	520833	84	7	12570000	1047500	6974200	581183	5595800	466317

Source: Compiled from field survey, personal interview, questionnaire and DICC Kokrajhar

The following diagram has shown the growth trends of total unit and total employment level of bakery industries in Kokrajhar district during the study period.

Figure: 3.5
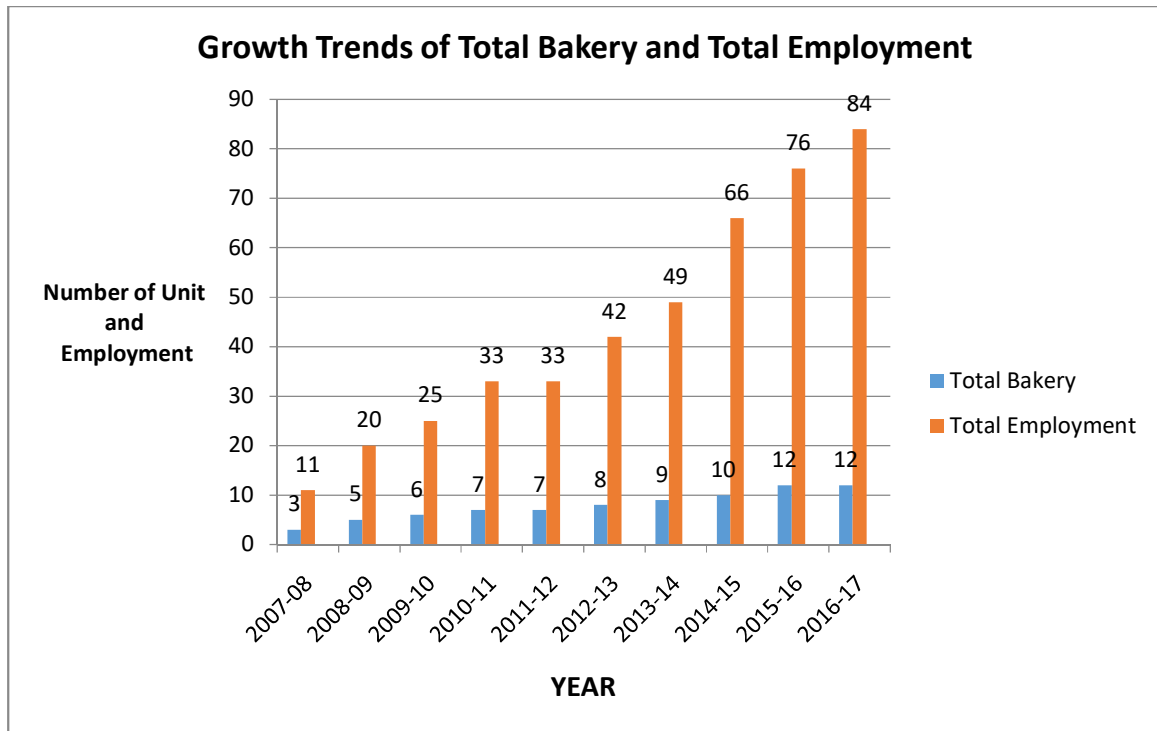
In the light of the table No: 3.9, the following explanation comes into existence related to bakery industry of Kokrajhar district.

1. No of Unit: The growth rates of the bakery industry during the study period are not the satisfactory level. The total number of the bakery was increased from 3 in 2007-08 to 12 in 2016-17. In spite of gradually increasing the number of total bakery industries, the per year growth gives a poor picture. In the two years, i.e., 2011-12, and 2016-17 no bakery industry was established in the Kokrajhar district. It has found during the field survey that the bakery is coming in the district with the diversified way and they try to compete with other substitute national as well as state-level competitors.

2.Initial Investment: In case of initial investment of bakery industry it is detected that against the gradual increase of total initial investment from Rs 20,00,000 in 2007-08 to Rs 62,50,000 in 2016-17 and average initial investment has been decreasing from Rs 6,66,667 in 2007-08 to Rs 5,20,833 in 2016-17.

3. Employment: The growth trend of employment in the bakery industry of Kokrajhar District has been gradually increasing both regarding total and average employment during the ten years under study. The number of total employees has risen from 11 in 2007-08 to 84 in 2016-17, the rate of growth of which has recorded 7.64 times. The average employment was 3.67 in 2007-08 which was increase 1.90 time in 2016-17, i.e., up to 7.

4. Revenue: After observation of the total revenue it is seen that it has raised from Rs 36, 00,000 in 2007-08 to Rs 1, 25, 70,000 in 2016-17. The AR has also increased from Rs 12, 00,000 in 2007-08 to Rs 10, 47,500 in the year 2016-17.

5. Cost: Under the period of study the total cost has incurred at Rs 25, 20,000 in 2007-08, which has increased after ten years up to Rs 69, 74,200, the growth rate of which has calculated 277. On the other hand, the average cost is Rs 8, 40,000 in the year 2007-08 and increase up to Rs 5, 81,183 in 2016-17, which indicate the growth rate of 0.69 during the ten years under study.

6.Net Profit: Under the study period 03 industries earned the total net profit of Rs 10,80,000 in the starting period, i.e., 2007-08 which was gradually increasing up to Rs 55,95,800 in the year 2016-17. On the other hand, the average profit has calculated in the year 2007-08 at Rs 3, 60,000 which was gradually increasing and after ten years it was Rs. 4, 66,317 in the year 2016-17.

3.9 Compound Annual Growth Rates (CAGR) of Unit, Employment and Net Profit of the Five Categories of Industries under Study in Kokrajhar District

For better understanding of the economic significance and the growth status of the five categories of industries under study, the CAGR of the unit, employment and net profit have been estimated. For estimating the Compound Annual Growth Rates of unit and employment the following linear regression models have been fitted for calculation.

$$Y = \beta_0 + \beta_1 t + U$$

Where,

Y is the value of the variable under consideration.

β_0 is the constant term.

β_1 is the coefficient to be estimated.

U is the error term.

Ordinary least square technique is used to determine the value of the respective coefficients. The compound growth rate (r) has been calculated as follows.

$$r = (e^{\beta 1} - 1)*100$$

Where,

$e^{\beta 1}$ is the exponential value of the regression coefficient β_1

Further to estimate the CAGR of net profit of selected industry under study the following semi log-linear regression models have been fitted for calculation.

$$\ln Y = \beta_0 + \beta_1 t + U$$

Where,

$\ln Y$ is the logarithmic value of the variable under consideration.

β_0 is the constant term.

β_1 is the coefficient to be estimated.

U is the error term.

Ordinary least square technique is used to determine the value of the respective coefficients. The compound growth rate (r) has been calculated as follows.

$$r = (e^{\beta_1} - 1) * 100$$

Where,

e^{β_1} is the exponential value of the regression coefficient β_1

3.9.1 Compound Annual Growth rate of Rice Mill

The following table shows the estimated values of the Compound Annual Growth Rates of rice mills in unit, employment and net profit under the study period.

Table No. **3.8**

Estimated Compound Annual Growth Rates (CAGR) of the unit, employment and the net profit of Rice Mills in Kokrajhar district during 2007-08 to 2016-17

Variables	Compound Annual Growth Rate	R^2 Value
Unit	-51.5**	.295
Employment	-76.4*	.100
Net Profit	17.0***	.578

Source: Self-estimates based on survey data

Note: *** refers significant at 1 percent level, ** refers significant at 5 percent level and * refers significant at 10 percent level.

It is revealed from the table that during the study period 2007 -08 to 2016-17 , in case of rice mill compound annual growth rate of the unit has -51.5 % , employment has -76.4 % and net profit has 17.0 % respectively. It is found that the growth rate of unit and employment is negative and growth rates of net profit is positive .It is found that growth rate of unit is 5 percent, employment is 10 percent and net profit is highly significant at 1 percent level. It is also noted that the R^2 value of the unit has .295 , employment has . 100 and net profit has .578 respectively.

3.9.2 Compound Annual Growth rate of oil Mills

The following table shows the estimated values of the Compound Annual Growth Rates of oil mills in unit, employment and net profit under the study period.

Table No. 3.9

Estimated Compound Annual Growth Rates (CAGR) of the unit, employment and net profit of Oil Mills in Kokrajhar district during 2007-08 to 2016-17

Variables	Compound Annual Growth Rate	R^2 Value
Unit	-3.6	.045
Employment	26.7	.056
Net Profit	27.0***	.915

Source: Self-estimates based on survey data

Note: *** refers significantly at 1 percent level, ** refers significant at 5 percent level and * refers significant at 10 percent level.

It is revealed from the table that during the study period 2007 -08 to 2016-17 , in case of oil mill compound annual growth rate of the unit has -3.6 % , employment has 26.7 % and net profit has 27.0 % respectively. It is noted that the growth rate of unit is negative and employment is positive, but both the variables are not significant. It is important to note that growth rates of net profit of oil mills are found to be positive and it is highly significant at 1 percent level. It is also noted that the R^2 value of the unit has .045 , employment has .056 and net profit has .915 respectively.

3.9.3 Compound Annual Growth rate of Flour Mills

The following table shows the estimated values of the Compound Annual Growth Rates of flour mills in unit, employment and net profit under the study period.

Table No. **3.10**

Estimated Compound Annual Growth Rates (CAGR) of the unit, employment and net profit of Flour Mills in Kokrajhar district during 2007-08 to 2016-17

Variables	Compound Annual Growth Rate	R^2 Value
Unit	-33.9***	.819
Employment	-133.3***	.631
Net Profit	20.3***	.882

Source: Self-estimates based on survey data

Note: *** refers significant at 1 percent level, ** refers significant at 5 percent level and * refers significant at 10 percent level.

It is revealed from the table that during the study period 2007 -08 to 2016-17 , in case of flour mill compound annual growth rate of the unit has -33.9 % , employment has -133.3 % and net profit has 20.3 % respectively. It is noted that the growth rate unit and employment is negative and the net profit is found to be positive. It is important to note that growth rates of unit, employment and net profit are found to be highly significant at 1 percent level. It is also noted that the R^2 value of the unit has .819 , employment has .631 and net profit has .882 respectively.

3.9.4 Compound Annual Growth rate of Fruits & Vegetable Processing Industry

The following table shows the estimated values of the Compound Annual Growth Rates of fruits & vegetable processing industries in unit, employment and net profit under the study period.

Table No. 3.11

Estimated Compound Annual Growth Rates (CAGR) of the unit, employment and net profit of Fruits & vegetable Processing Industry in Kokrajhar district during 2007-08 to 2016-17

Variables	Compound Annual Growth Rate	R^2 Value
Unit	-10.3**	.417
Employment	- 19.4	.021
Net Profit	24.8***	.814

Source: Self-estimates based on survey data

Note: *** refers significant at 1 percent level, ** refers significant at 5 percent level and * refers significant at 10 percent level.

It is revealed from the table that during the study period 2007 -08 to 2016-17 , in case of fruits & vegetable processing industry compound annual growth rate of the unit has -10.3 % , employment has - 19.4 % and net profit has 24.8 % respectively. It is noted that the growth rate of unit and employment has found to be negative. It is found that the growth rate of net profit has positive and it is found to be highly significant at 1 percent level. It is to note that growth rates of the unit are 5 percent significant level, but the growth rate of employment is not significant. It is also noted that the R^2 value of the unit is . 417 , employment is .021 and net profit is .814 respectively .

3.9.5 Compound Annual Growth rate of Bakery

The following table shows the estimated values of the Compound Annual Growth Rates of bakery in unit, employment and net profit under the study period.

Table No. **3.12**

Estimated Compound Annual Growth Rates (CAGR) of the unit, employment and net profit of Bakery in Kokrajhar district during 2007-08 to 2016-17

Variables	Compound Annual Growth Rate	R^2 Value
Unit	-15.8*	. 270
Employment	- 27.9	. 038
Net Profit	16.6***	.952

Source: Self-estimates based on survey data

Note: *** refers significant at 1 percent level, ** refers significant at 5 percent level and * refers significant at 10 percent level.

It is revealed from the table that during the study period 2007 -08 to 2016-17 , in case of bakery compound annual growth rate of initial investment has -15.8 % , employment has -27.9 % and net profit has 16.6 % respectively. It is noted that the growth rate of net profit is found to be positive , but the growth rate of unit and employment are found to be negative. It is pointed out that the growth rate of unit is 10 percent significant level, net profit is 1 percent significant level, but employment is not significant. It is also noted that the R^2 value of the unit has. 270 , employment has .038, and net profit has .952 respectively .

3.10 Conclusion

In the light of the above discussion and analysis, it has found that the growth rates of unit and employment of the selected industries are not satisfactory. It is found that CAGR of unit of all categories of industries are found to be negative. During the 10 years under the study period, only 53 numbers of rice mills, 6 numbers of oil mill, 12 numbers of flour mill, 12 numbers of bakery and only 7 numbers of fruits & vegetable processing industries have been established in the district. Hence the hypothesis no: 1,

i.e., it is assumed that the rates of growth of food processing industries in Kokrajhar district are not satisfactory is accepted. The study revealed that although the growth rate of the unit of the selected industries is not satisfactory, but these industries have scope to expand their business because the CAGR of profit of all the selected industry under study is found to be positive at 1 percent significant level.

REFERENCES

Banarjee, Amalessh Chandra and Roy, Sourabh Singh (2010), "Problems and Prospects of Bodoland," Mittal Publications, New-Delhi -110063

Das, Dinesh (2014) ,"Prospects and Problems of Agro-based Industries in Assam," N.L. Publications, Guwahati-781001

Government of India (2018), Ministry of Food Processing Industries , Annual Report 2016 - 17, New Delhi -110049 (www.mofpi.nic.in)

Government of Assam (2018), Report on Advantage Assam, Agricultural & Food Processing including Organic cultivation and Bamboo (www.advantageassam.com)

Government of Assam (2018) , *Directorate of Economics and Statistics ,* Economic Survey Assam 2017-18, Guwahati -28

Kiumarsi, S., Jayaraman, K., Isa, Salmi Mohd and Varastegani (2014), "Marketing Strategies to Improve the Sales of bakery products of Small –medium enterprise (SMEs) in Malaysia," International Food Research Journal , 21 (6), pp.2101-2107.

Singh, R.(July 2015) ,"Status and Prospects of Registered Food Processing Units in India: A Comparative Study," New Man International Journal of Multidisciplinary Studies, Vol.2, Issue. 7, pp.107-121.

Sarma, Gunajit and Devi, Mridula (March 2016), "An Evaluative Study on the Prospects and Problems of Fruits and Vegetable Processing Industry in Kokrajhar District of Assam," Journal of Development Research, Volume: 9, Issue: 2, Pp.07-14.

CHAPTER - 4

Marketing Analysis of Food Processing Industries

4.1 Introduction

Marketing is the activities of a company associated with buying and selling a product or service. Marketing as a business function deals with the movement of products and services from the producer to the user (Kotler, P., 2009). Marketing is a management process through which goods and services reach to the consumer. An organisation should carefully plan its marketing activities in order to achieve the maximum profit and to sustain their business. Therefore the efficient performance of marketing activities in the food processing industry is immensely important for providing consumers with satisfied service. Keeping in view this fact the present chapter aims at discussing various important dimensions of marketing activities of food processing industry of Kokrajhar district. With a view to covering entire marketing dimension of the food processing industry sector, their marketing activities are examined through the concept of four P's of marketing mix which covers product, price, place and promotion mix respectively. In order to achieve the optimum combination of available marketing ingredients, the application of efficient marketing mix is very much important. The efficient marketing mix system can help in acquiring the organisational goal. Generally; the basic marketing mix is the merger of four inputs, which are the core of the marketing systems, i.e., (I) Product mix (ii) Price mix (iii) Place mix (IV) Promotion mix.

4.2 Objective and Methodology of the Chapter

The objective of the chapter is to analysing the marketing activities of the selected 90 food processing industries of Kokrajhar District, considering the marketing mix as a tool. Firstly this chapter attempts to carry-out an empirical study on the implementation level of 4 p's of marketing mix tool of the selected 90 numbers of five categories of food processing Industries in Kokrajhar district. In doing so, 4 P's of the marketing mix such as product mix, price mix, place mix and promotion mix are separately explained to examine as for how the combination of these elements lead to accomplishing the marketing goal of these industries. In order to analyse the implementation level of

marketing mix tool of the selected industries three levels of implementation techniques are used to analyse the data such as highly implemented (HI), Moderately Implemented (MI) and Not Implemented (NI) level respectively and after that this data is presented and analyzed through statistical tools like tabulations, percentage and graphs to find out the implementation level of 4 p's of marketing mix tool of the selected industry. Secondly, the chapter analysed the effect of marketing mix tool on the buying behaviour of the consumer community on different elements of marketing mix tools. In order to examine the impact of the marketing mix on consumers buying behaviours, 450 numbers of respondents from the consumer community of the study area consisting of three categories of educational background are selected under study. The educational background of respondents is categorised as Highly Educated (HI) having minimum graduation, Moderately Educated (MI) having minimum matriculation and Less Educated (LE) having below HSLC level of education. Further, the opinion collected from the respondents are presented through tabulation and percentage wise to find out the highest preference of respondents regarding the selected marketing mix tool. Lastly, the chapter attempts to examine the buying behaviour of this selected 450 number of respondents regarding the purchase of local based as well as outside based selected food items in the study area to highlight the scope of local based products market in the study area.

4.3 Marketing Mix and Implementation level of the Selected Food Processing Industry

The concept of the marketing mix is considered as an analytical tool for evaluating the performance of the marketing activity of the selected food processing industries. Keeping in purpose the significance of marketing mix, this chapter attempts to carry-out an empirical study on 90 numbers of five categories of food processing Industries of Kokrajhar District under study. In order to motivate the consumers, the selected Food Processing Industries of Kokrajhar District, it is immensely important to implement the 4 p's of marketing mix within its given marketing environment. It is because in spite of having ample demand for various products of the Food Processing Industries of Kokrajhar District; still these industries measurably fail to provide their product in a

systematic way to the consumers. These industries are not at all aware of the importance of the implementation of the modern marketing mix tool of marketing. Considering these facts, this part of the chapter mainly concentrate at what level the selected industry use 4 p's of marketing mix tool to attract the consumers.

4.3.1 Product Mix and Food Processing Industry

 A product is nothing but a bundle of the attribute. A group of attributes is jointly fulfilling a need is known as a product. Product mix consists of various decisions relating to the product. The product is the basic element of the marketing mix because all other elements are required only when there is a product (Kotler, P., 2009). A marketer can satisfy the needs and wants of consumers by product. The various elements of product mix are technology, quality, packaging, product diversification, labeling etc.

1. Technology: Use of technology in industries is justified if it can develop user-friendly new products along with necessary product diversification. In case of food processing industries, the use of technology in production process plays a vital role in enhancing diversification, quality and attractive design of the product.

2. Quality: Among a lot of positioning tools, of a marketer, product quality plays a vital role in enhancing the marketing performance of the concerned product. Generally, quality acts in satisfying customers' needs by closely linking their values (Kotler, P.2009). Hence, the relevance of maintaining product quality of food processing industries under study is immensely important because to satisfy consumer needs, to survive in the competitive market scenario so far as emerge from the national and international level of food products and to increase the market share.

3. Packaging: Packaging is used for raising the value of the product. The importance of packaging for food products emerges from many dimensions. One is to maintaining quality and second is to make convenience for transportation and the third is to confess customers positive attitude and perception towards the product. The above importance is the reason as for why the Food Processing Industries of Kokrajhar District is required to develop their packaging policy and strategy and exercise the same efficiently and effectively in practical affairs

4. Product Diversification: A well design product diversification policy and its effective implementation can always claim to satisfy multifarious customers of different taste, fashion and desires. During the field survey, it has minutely observed that the selected Food processing Industries through concentrate on diversification, yet it is not meet the varieties, demand and desires of the growing consumers as increasing day by day in the Kokrajhar District. Such kind of circumstances of selected food processing industries indicates to adopt strong diversification policy by these selected industries based on growing consumers' diversified demands regarding quantity and quality.

5. Labelling: The labeling on a package means to give guidance and accurate information of the product to customers. Generally , labelling covers the following information such as (a) Brand name (b) Name and address of producer /distributor (c) Weight (d) Direction for proper use of the product (e) Precautions regarding safety and special care to avoid danger (f) Nutritional guideline (g) Date of packaging and date of expiry (h) MRP etc. The packaging is necessary to protect consumers against unfair trade practices adopted in these branches and Food Safety and Standard Authority of India (FSSAI) have strict guideline regarding the labeling of the food product.

4.3.2 Product Mix and Implementation level of selected food processing Industry

With a view to analysing insight the product mix, in this part various elements of product mix so far as implementation level of selected industries under study is examine taking three levels of implementation such as Highly implemented (HI), Moderately Implemented (MI) and Not Implemented (NI) level. In this regards those industries are entitled to the category of highly implemented (HI) level which is used the selected tools of product mix in their production process more than 50% and moderately implemented (MI) means that industry which is used less than 50 % of the selected product mix tool in their production process. In the category of not implemented (NI) means those industries which are still not using this selected product mix tool in their industry. The following table is prepared including all of the above aspects for highlighting the implementation level of product mix tool of the selected food processing industry.
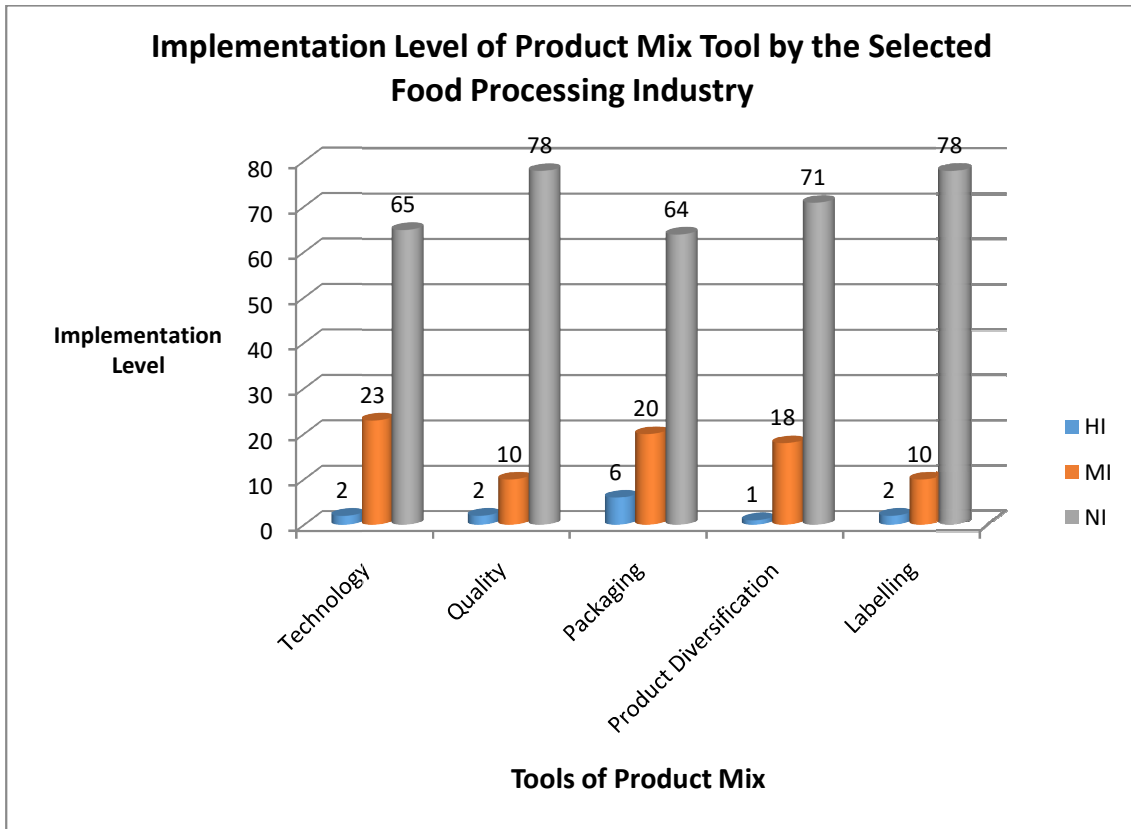
Table No: 4.1

Implementation levels of Product Mix Tools by the selected food processing Industry

SL NO	Category of Industry and elements of product Mix	Rice Mill			Oil Mill			Bakery			Flour Mill			Fruits and Vegetable processing industry			Total			Percentage of Total		
		HI	MI	NI	HI	MI	NI	HI	MI	NI	HI	MI	NI	HI	MI	NI	HI	MI	NI	HI	MI	NI
1	Technology	0	12	41	1	0	5	0	5	7	1	3	8	0	3	4	2	23	65	2.22	25.56	72.22
2	Quality	0	3	50	0	1	5	1	2	9	1	2	9	0	2	5	2	10	78	2.22	11.11	86.67
3	Packaging	0	10	43	1	0	5	0	5	7	1	2	9	4	3	0	6	20	64	6.67	22.22	71.11
4	Product Diversification	0	10	43	0	1	5	0	3	9	1	2	9	0	2	5	1	18	71	1.11	20.00	78.89
5	Labelling	0	0	53	1	0	5	0	5	7	1	2	9	0	3	4	2	10	78	2.22	11.11	86.67

Source: Compiled from Field Survey, Personal interview and Questionnaire

Figure: 4.1

Implementation Level of Product Mix Tool by the Selected Food Processing Industry

On the basis of Table No: 4.1, the implementation levels of five elements of product mix tool of selected industries are explained below.

1. Technology: In case of implementation level of technology no rice mill, fruits & vegetable processing industry and bakery come under the level of highly implementation. One industry each from flour mill and oil mill are categorized under highly implemented level. Under the moderately implemented level 12 rice mill, 03 flour mill, 05 bakery and 03 fruits & vegetable processing industries are found. In case of Not Implemented level 41 rice mill, 05 oil mill, 08 flour mill, 07 bakery and 04 fruits & vegetable processing industry are identified. It is to be mentioned that against the elements of technology the total percentage of all categories of industries 2.22 %

are under highly Implemented, 25.56% are under moderately implemented and 72.22 % are under not implementation level respectively.

2. Quality: So far as the quality aspect is a concern, the table no : 4.1 , reflects that 03 categories of industry out of 05 categories of industries, no one is under the category of high implementation. These are rice mill, bakery and fruits & vegetable processing industry, whereas only 01 out of 06 oil mill and 1 flour mill out of 12 are found in the category of high implementation. On the other hand, three rice mill out of 53, 2 flour mill out of 12, 2 bakery out of 12, 1 oil mill out of 6 and 02 fruits & vegetable processing industry out of 07 come under the moderately implementation category. Under the category of NI 50 rice mill out of 53, 05 oil mills out of 06, 09 flour mill out of 12 and 09 bakery out of 12, 05 fruits & vegetable processing industry out of 07 are under the category of NI. At a glance it is revealed from the table that 86.67% of total industries are under the category of NI level, 11.11 % are moderately implementation level and only 2.22 % are highly implementation level.

3. Packaging: After going throughout the observation of the table no. 4.1 , the following points are highlighted so far as the packaging aspect is related. The 02 categories of industries out of 05 categories of industries are not found under the category of HI; these are rice mill and bakery. The 01 oil mill, 01 flour mill and 04 fruits and vegetable processing industries come under the category of HI level. The 10 number of rice mill out of 53, 5 number of bakery out of 12, 3 numbers of fruits & vegetable processing industry out of 7 and 2 number of flour mill out of 12 are categorised under MI level and no oil mill is found in this category. In the case of the NI category, the majority of industries are found. These are 43 rice mill out of 53, 5 oil mills out of 6, 9 flour mills out of 12, 7 bakery out of 12 and no one is found in Fruits & vegetable processing industry in NI level. The total percentage of all categories of industries in case of packaging 6.67 % come under HI level, 22.22 % come under MI level and 71.11 % come under NI level respectively.

4. Product Diversification: In the light of observation made on the table no : 4.1, pertaining to product diversification of the selected industry, it is detected that four

categories of industries out of 05 do not exist in the category of HI level. These are rice mill, oil mill, bakery and fruits & vegetable processing industry. Only 01 out of 12 flour mill are able to hold this category. Under the category of MI, it is identified that 10 out of 53 rice mill, 01 oil mill out of 06, 02 flour mill out of 07, 03 bakery out of 12, 02 fruits & vegetable processing industry out of 07 are only in this category. Lastly, observation is made on Non-Implementation where the majority of industries are identified. These are 43 rice mill out of 53, 05 oil mill out of 06, 09 flour mill out of 12, 09 bakery out of 12, 05 fruits & vegetable processing industry out of 07. At a glance 1.11% of total industry comes under HI level, 20.00% are moderately MI level, and 78.89 % are NI level.

5. Labeling: In case of labeling all selected 53 rice mills are not still in a position to implement the labeling in their products. On the other hand, in the level of HI only one oil mill out of 06 and one flour mill out of 12 come, where, no bakery and fruits & vegetable processing industry can occupy in the level of HI. In the observation of MI level, it is seen that 02 flour mill out of 12, 05 bakery out of 12 and 03 fruits & vegetable processing industry out of 07 come under this category, where no oil mill and rice mill is seen in this category. In the NI level, 05 oil mill out of 06, 09 flour mill out of 12, 07 bakery out of 12 and 02 fruits & vegetable processing industry out of 07 along with entire 53 rice mills are fall in this category. The total percentage of as a whole all the selected five categories of food processing industries 2.22 % fall under the category of HI level, 11.11 % are MI level, and 86.67 % are under NI level respectively.

4.3.3: Analysis of reason for less implementation of modern Product Mix tool of Selected Industry

The selected industry has paid less attention to the implementation of various tools of product mix in their industry. Hence due to lack of implementation of various elements of product mix tool the selected industries stands on the way of showing their better marketing performance. Thus, in order to elicit the reason for the poor level of

implementation of product mix tool following question are put to the selected 90 number of proprietors of the selected industry which are shown in the following table.
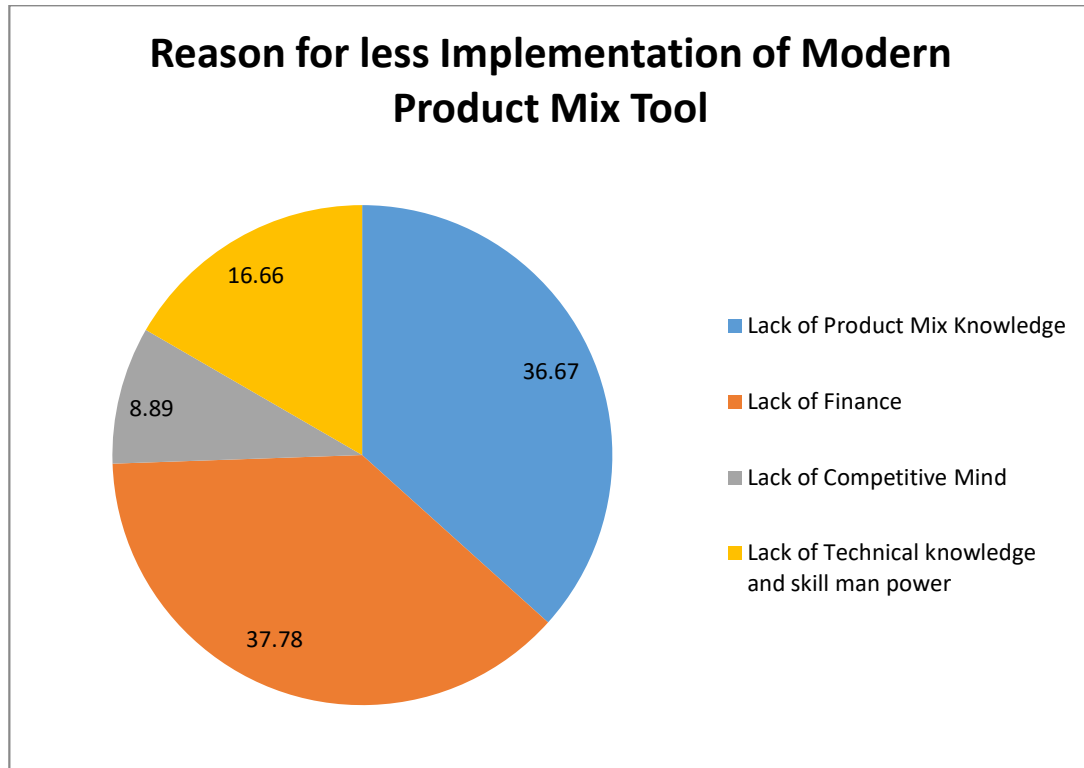
Table No 4.2

Reason for less implementation of Modern Product mix tool of selected industry

Reason for less implementation of modern product mix tool	Rice Mill	Oil Mill	Flour Mill	Bakery	Fruits & Vegetable Processing industry	Total	Percentage
Lack of Product Mix Knowledge	25	2	3	--	3	33	36.67
Lack of finance	13	4	4	10	3	34	37.78
Lack of Competitive Mind	6	0	2	--	--	8	8.89
Lack of Technical Knowledge & Skilled man-power	9	0	3	2	1	15	16.66
Total Respondent (Proprietor of Industry)	53	6	12	12	7	90	100

Source: Compiled from the questionnaire, Field Survey and personal Interview.

Reason for less Implementation of Modern Product Mix Tool

In the light of the feedback obtained from the Table No: 4.2, it is seen that lack of finance is the dominant factor for less implementation of product mix tool because 37.78 % (34) opined that they have to face the crisis of fund. The 36.67 % (33) opined that lack of product mix knowledge, 16.66 % (15) opined that lack of technical knowledge & skilled manpower and 8.89 % (08) opined that lack of competitive mind is the basic reason for less implementation of product mix tool in their industry.

4.3.4: Price Mix and Food Processing Industry

Price is the amount of money charged for a product. Price is the only element in the marketing mix that produces revenue; all other elements represent costs (Das, D., 2016) .Price is the monetary value which the consumer has to pay to procure the product. Price mix is the value of the product determined by the producers. Price can be defined as the economic value of a product normally expressed in forms of money. So price refers to the value that is put for a product. The various elements of price mix are skimming pricing, psychological pricing, penetration pricing, cost-plus pricing, Terms of credit, Discounts, Non-price competition etc.

1. Skimming Pricing: It means pricing the product relatively high in comparison to the similar commodities and then gradually reducing the price. The strategy of skimming allows the firm to recover its cost rapidly by maximizing its sales revenue. Generally, the skimming pricing technique is considered more beneficial for products which have attractive features and the prospective customers have relatively price inelastic demand (Gupta, G.S., 2016).

2. Penetration Pricing: Penetration pricing is a pricing technique where the firm sells their new products at a low price in the beginning in order to attract the attention of consumers.Once the product image and credibility is established, the seller slowly starts jacking up the price to reap good profits in future (Gupta, G.S., 2016). This type of pricing is applicable in case of the product has a long life cycle, it has a mass market, entry into the market is easier and demand is elastic. This type of pricing technique is good to capture the new market and expand the business.

3. Psychological Pricing: Psychological pricing is used when the marketer wants the consumer to respond on an emotional, rather than rational basis. The retailers do the psychological pricing by using price tag like 49, 99, 499, 999 etc.

4. Cost plus Pricing: Cost-plus pricing is the process of cost-based pricing whereby adding all cost associated with the offering. It is being based on the seller's per unit cost of the product plus an additional margin of profit. Generally, this method is considered

as the best pricing techniques as well as this is also the traditional method of pricing techniques.

5. Terms of Credit: The terms of credit implies certain criteria subject to fulfillment of which the business agree to offer the facility of credit to their customer.

6. Discount: Discount is a system of reduction of a part of price from the amount of basis price from the amount of basic price of the goods or service. In the prevailing system of business transaction, various techniques of discounts as exercised by the modern business houses and producers are festival sales, exchange offer, quantity discount, off-season sale, closing down sales etc.

7. Non-price competition: In the present marketing environment, the modern industry should be given more emphasis on non-price competition techniques to expand their business . The NPC techniques are branding, attractive packaging, service after the sale, liberal credit, free home delivery, money back guarantee, sales promotion, attractive advertising, personal salesmanship, buy back provision etc.

4.3.5 Price Mix and Implementation level of Selected Food Processing Industry

The importance of price strategy is emerged not only for recovering the cost of production but also for earning a profit as well as for the overall development of a business. That is why; the pricing method should be deliberately designed deciding the various dimension of the business. The following table is prepared to reflect as for how different industries under study adopted different pricing methods and at what level these methods have been exercised in their practical implementation are analysed through three levels, i.e., highly implemented (HI), moderately implemented (MI) and not implemented (NI) level. Highly implemented level means more than 50% of the product is sold through this selected tool, moderately implemented means less than 50% product is sold through this pricing tools and not implementation level means still this pricing tool is not adopted by the selected industry.
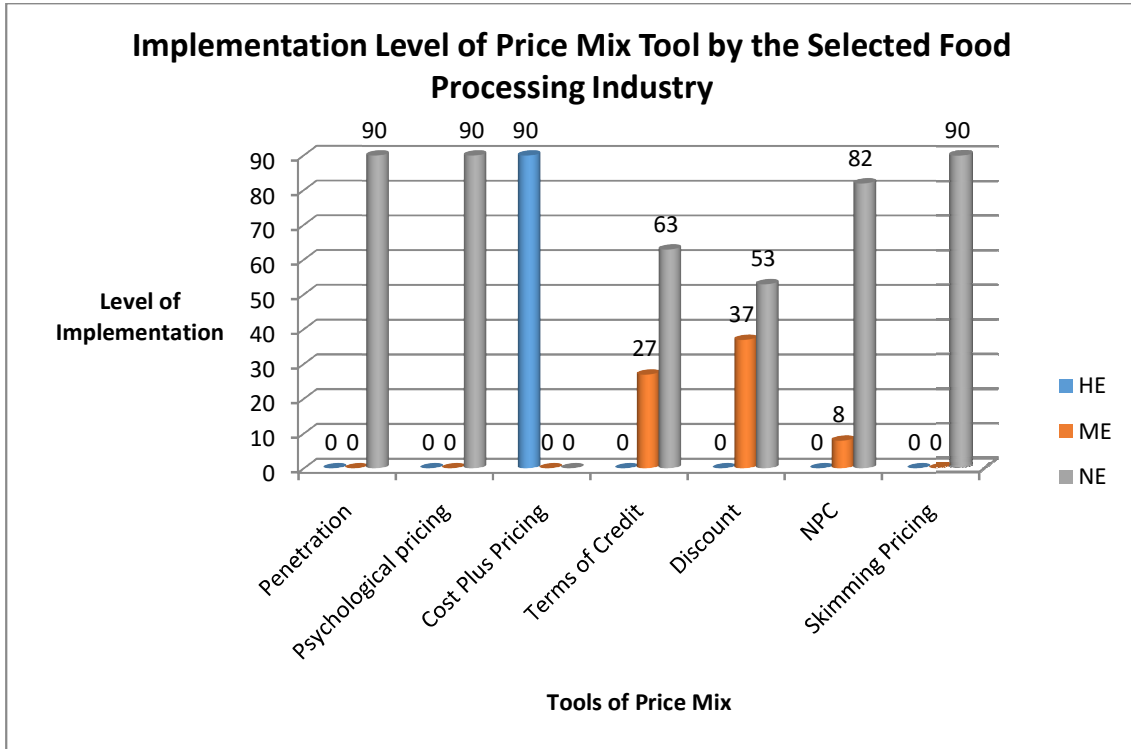
Table No. 4.3

Implementation levels of price mix tools by the selected food processing industry

SL NO	Category of Industry and elements of price Mix	Rice Mill			Oil Mill			Bakery			Flour Mill			Fruits and Vegetable processing industry			Total			Percentage of Total		
		HI	MI	NI	HI	MI	NI	HI	MI	NI	HI	MI	NI	HI	MI	NI	HI	MI	NI	HI	MI	NI
1	Penetration pricing	0	0	53	0	0	6	0	0	12	0	0	12	0	0	7	0	0	90	0	0	100
2	Psychological Pricing	0	0	53	0	0	6	0	0	12	0	0	12	0	0	7	0	0	90	0	0	100
3	Cost Plus Pricing	53	0	0	6	0	0	12	0	0	12	0	0	7	0	0	90	0	0	100	0	0
4	Terms of Credit	0	15	38	0	2	4	0	4	8	0	4	8	0	2	5	0	27	63	0	30.00	70.00
5	Discount	0	25	28	0	2	4	0	5	7	0	2	10	0	3	4	0	37	53	0	41.11	58.89
6	Non Price Competition	0	4	49	0	0	6	0	4	8	0	0	12	0	0	7	0	8	82	0	8.89	91.11
7	Skimmig Pricing	0	0	53	0	0	6	0	0	12	0	0	12	0	0	7	0	0	90	0	0	100

Source: Compiled from the Field Survey, Personal Interview and questionnaire

Implementation Level of Price Mix Tool by the Selected Food Processing Industry

In the light of Table No: 4.3, below an explanation is carried out to describe at what level the selected 90 industries under five categories are implementing different methods of pricing tools.

1. Penetration, Psychological and Skimming pricing: In the modern competitive world, it is a fact that industry without adopting modern pricing methods based on competitive advantage never can survive. The same kind of things is happening in case of selected industries of Kokrajhar District of the selected industry. It is because that notwithstanding the importance of modern pricing tool none of the selected industry implement any competitive base pricing methods such as penetration, skimming and psychological pricing which is proved from the table no; 4.3.

2. Cost plus Pricing: It is detected from the table no 4.3 that all the five categories of industry hold the position of HI level in case of cost-plus pricing. The entire 53 number of rice mill, 06 numbers of oil mill, 12 number of the bakery, 12 numbers of flour mill and 07 numbers of fruits & vegetable processing industry comes under HI level in case of implementation of cost-plus pricing tool as a pricing method.

3. Terms of Credit: The observation of the terms of credit in the table no. 4.3 , revealed that not a single industry could occupy the level of HI of the discount technique of pricing. Whereas, in the level of MI level 15 rice mill out of 53, 02 oil mill out of 06, 04 bakeries out of 12, 04 flour mill out of 12 and 02 fruits & vegetable processing industry out of 07 are found to be held. Against which in the category of NI level majority number of industries are falling. Such as 38 rice mill out of 53, 04 oil mill out of 06, 08 bakery out of 12, 08 flour mill out of 12 and 05 fruits & vegetable processing industry out of 07 respectively. The total percentage of all category of selected industry 30.00 % falls in MI level, and 70.00% are fall in NI level.

4. Discount: In case of the Discount method of pricing not a single industry is seen in the level of HI. In case of MI of the discount method of pricing 25 rice mill out of 53, 02 oil mill out of 06, 02 flour mill out of 12, 05 bakery out of 12 and 03 fruits & vegetable processing industry out of 07 come. In case of NI 28 rice mill out of 53, 04 oil mill out of 06, 07 bakery out of 12, 10 flour mill out of 12 and 04 fruits & vegetable processing industry out of 07 are found to exist. It is revealed from the table no 4.3, that 46.67 % of industry comes under MI level and 53.33 % of industry falls under NI level.

5. Non-Price Competition: In the case of non-price competition as a pricing tool it is found that none of the selected industry comes under HI level. The 04 rice mill out of 53, 04 bakery out of 12 come under MI level. The majority number of selected industries comes under NI level, i.e., 49 rice mill out of 53, 06 oil mill out of 06, 04 bakeries out of 12, 12 flour mill out of 12 and 07 fruits & vegetable processing industry out of 07 respectively. As a whole 4.44 % of industries are fall in MI level and 95.66 % are fall in NI level in case of non-price competition technique of pricing.

4.3.6: Analysis of reason for less implementation of modern price mix tool of selected Industry

After observing the selected industry that due to lack of implementation of modern price mix tool they are not able to compete with other substitute national level industry. That is why, in order to find out the reason for less using of modern price mix tool, an attempt is being taken to obtain the views of selected respondent through putting the following questions which are shown in the following table.
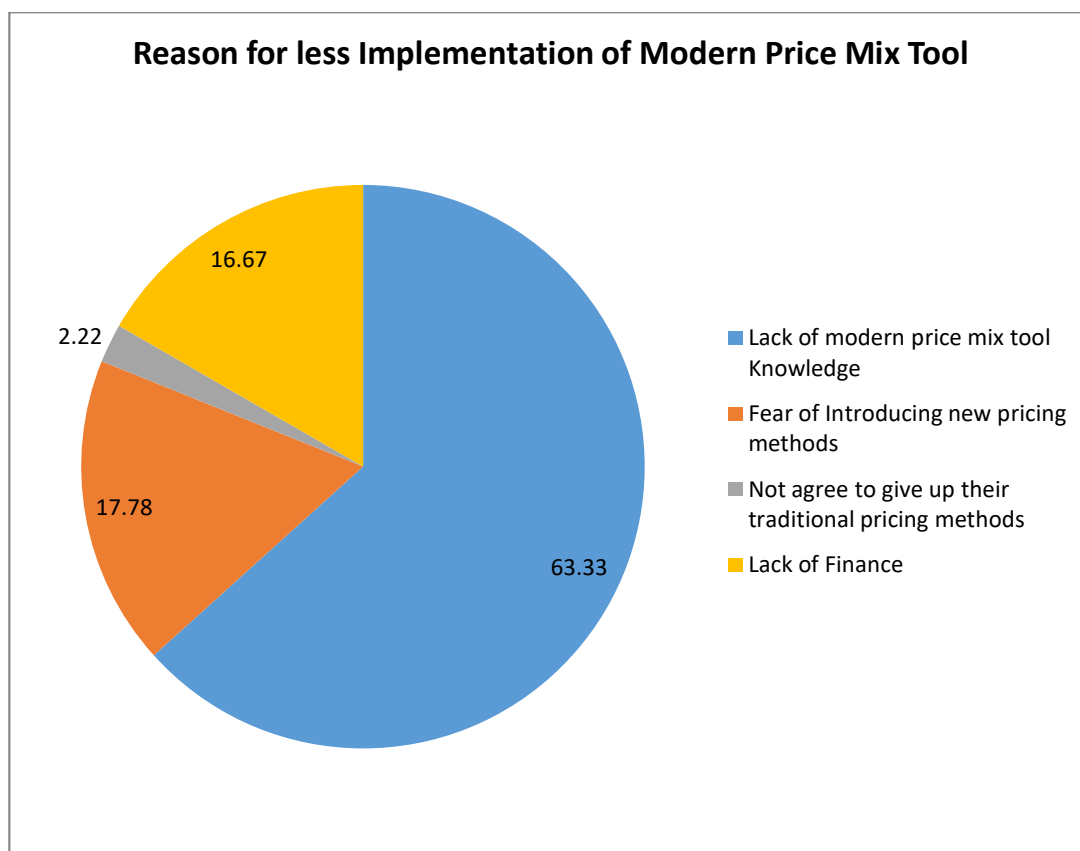
Table No. **4.4**

Reason for less implementation of modern price mix tool of Selected Industry

Reason for lack of implementation of modern Price mix tool	Rice Mill	Oil Mill	Flour Mill	Bakery	Fruits & Vegetable Processing industry	Total	Percentage
Lack of modern Price Mix tool Knowledge	39	3	6	5	4	57	63.33
Fear of Introducing new pricing methods	7	1	4	4	-	16	17.78
Not agree to give up their traditional pricing methods	-	-	-	2	-	2	2.22
Lack of Finance	7	2	2	1	3	15	16.67
Total Respondent (Proprietor of Industry)	53	6	12	12	7	90	100

Source: Compiled from field survey, personal interview and questionnaire.

Figure: 4.4

Reason for less Implementation of Modern Price Mix Tool

 In the light of the Table No: 4.4, it is found that 63.33 % (57) owners are not using modern price mix tool due to lack of modern price mix tool knowledge, 17.78 % (16) owners are not using modern price mix tool because of fear of introducing modern price mix tool and 2.22% (2) of owners are opined that they are not using modern price mix tool because they do not agree to give up their traditional pricing methods. The 16.67 % (15) opined that due to the lack of finance they are not able to use the modern price mix tool in their industry.

4.3.7: Place Mix and Food Processing Industry

Place mix is related to the distribution of the product. This element of the marketing mix is also called the channel of distribution. The marketing goal of any industry can be achieved only if the products reach in the hand of consumer conveniently. The place mix tools are dealing with making the products available the customer effectively. This means the right product can be made available to the right consumers, in the right way, at the right time and at the right place, and in the right form. The basic elements of place mix are wholesaler, retailer, multichannel, internet, and direct sale.

1. Retail: Retail is a system of selling of a sizeable number of goods in small quantity to a large number of targeted customer.A retailer in the last line in the chain of distribution (Debnath, Arabinda, 2018). The products and services are promoted and merchandised by the retailers.

2. Wholesale: It deals with transferring of goods from manufacturers to retailers at certain remuneration or commission. Wholesales often cut down the price of a product in comparison to retail traders. Hence the customers are generally satisfied to buy the product from them.

3. Direct Sale: Direct sale in any marketing is undertaken without a distributor or intermediary. Direct selling used in the wider sense where all ways of selling are covered where direct contact between seller and buyer happens. It is the best means of oral and face to face communication and presentation with the prospect to make sales. This activity can be done through the door to door sale through various tools.

4. Internet: The attainment of ample opportunities of "open market system" is highly justified as it is beneficial for the selected food processing industries of the Kokrajhar District. In this regards the internet is considered as the most effective tool of expediting the promotional activities of the selected industries. The main benefit of the Internet sale is that through this medium products reach a wide population with lower price as because set up costs are comparatively less in this tool. That is why; the e-commerce concept is expanding very rapidly in the present marketing environment.

5. Multichannel: Multichannel refers to different kinds of marketing tools used equally by the industry at a time. To succeed in the competitive marketing environment

multichannel is very much important and it is suggested to all the selected industry to adopt multichannel.

4.3.8: Place Mix and Implementation level of Selected Industry

The following table is prepared to cover the implementation level of various elements of place mix by the selected industry under study. Therefore , each element is rank into three categories, where highly implemented (HI) rank is given to those industries which can implement the concern aspects more than 50 %, the moderately implemented(MI) rank is provided where less than 50% is implemented and not implemented(NI) rank is given where the industries are far away from implementing this place mix tool.
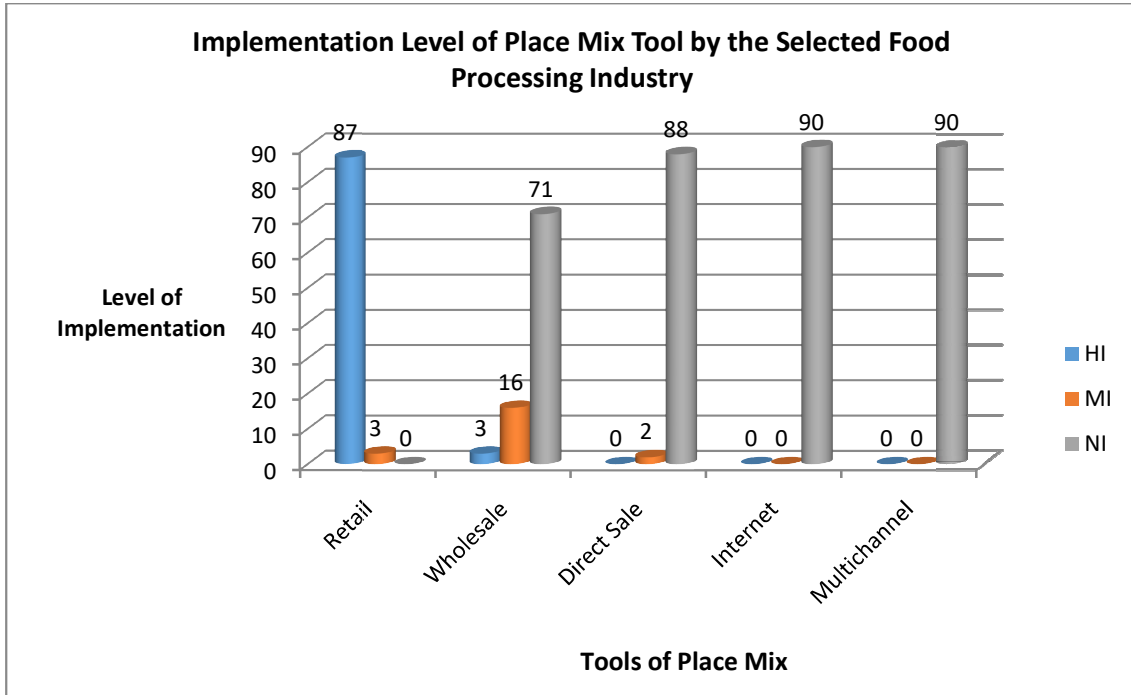
Table No: 4.5

Implementation levels of place mix tools by the selected food processing industry

S L N O	Category of Industry and elements of place Mix	Rice Mill			Oil Mill			Bakery			Flour Mill			Fruits and Vegetable processing industry			Total			Percentage of Total		
		HI	MI	NI	HI	MI	NI	HI	MI	NI	HI	MI	NI	HI	MI	NI	HI	MI	NI	HI	MI	NI
1	Retail	53	0	0	6	0	0	12	0	0	11	1	0	5	2	0	87	3	0	96.67	3.33	0
2	Wholesale	0	8	45	0	1	5	0	3	9	0	2	10	2	3	2	3	16	71	3.33	17.78	78.89
3	Direct Sale	0	0	53	0	0	6	0	0	12	0	0	12	0	2	5	0	2	88	0	2.22	97.78
4	Internet	0	0	53	0	0	12	0	0	12	0	0	12	0	0	7	0	0	90	0	0	100
5	Multichannel	0	0	53	0	0	6	0	0	12	0	0	12	0	0	7	0	0	90	0	0	100

Source: Compiled from field Survey, Personal interview and questionnaire

Figure: **4.5**

In the light of Table No: 4.5, the implementation levels of place mix tool of the selected industries are explained below.

1. Retail: It is revealed from the table no; 4.5, that in the case of retail technique the highest number of industries come under the HI level. The entire 53 number of rice mill, 06 number of oil mill, 12 number of the bakery are fallen under the category of HI level. But in case of flour mill, 11 out of 12 and 05 fruits & vegetable processing industry out of 07 falls in HI level. In case of MI rank 01 flour mill out of 12 and 02 fruits & vegetable processing industry out of 07 are categorised, where no rice mill, oil mill and bakery are found in this rank.

2. Wholesale: wholesale as a channel of distribution is adopted only by 01 flour mill out of 12 and 02 fruits & vegetable processing industry out of 07 at HI rank, where no rice mill, oil mill and bakery adopt the wholesale selling methods at this level. In case of MI level 08 rice mill out of 53, 01 oil mill out of 06, 03 bakery out of 12, 01 flour

mill out of 12 and 02 fruits &vegetable processing industry out of 07 are found. Lastly, it is detected that 45 rice mill out of 53, 05 oil mill out of 06, 09 bakeries out of 12, 10 flour mill out of 12 and 02 fruits & vegetable processing industry out of 07 are under the category of NI level.

3. Internet: It is a lamentable matter that the selected 90 industry out of 05 categories yet to realise the advantage of internet selling as a convenient mode of distribution of their goods and services. In the modern scenario of the marketing world, it is a serious drawback that due to totally neglect of internet as a channel of distribution retain this selected industry far from gaining potential customers from the globalised market.

4. Direct Sale: From the table no : 4.5 , it can be understood that except   02 fruits & vegetable processing industry all industrial units under study comes under the level of NI level.

5. Multichannel: It is reflected from the table that entire 90 industry under study is fall in the category of NI implementation level in case of using multichannel as a tool of the distribution channel. All the selected industry use only the traditional method of the distribution channel for selling their product.

4.3.9: Analysis of reason for less implementation of modern Place Mix tool of Selected Industry

 It is identified that the selected industry under study is lack of adopting a new channel of distribution. In order to identify the reason for less adopting these new tools of place mix, a question is put to the selected respondent which are shown in the table no 4.6.

Table No: 4.6

Reason for less Implementation of modern place mix tool of the selected food processing industry

Reason for less implementation of modern place mix tool	Rice Mill	Oil Mill	Flour Mill	Bakery	Fruits & vegetable Processing industry	Total	Percentage
Lack of proper knowledge of modern place mix tool and requisite technical experience	35	4	3	2	3	47	52.22
Lack of Finance	10	2	6	10	4	32	35.56
Lack of Competitive Mind	3	-	-	-	-	3	3.33
They are satisfied with the existing channel with their permanent local customers	5	-	3	-	-	8	8.89
Total (Proprietor of Industry)	53	6	12	12	7	90	100

Source: Compiled from the Field Survey, Personal Interview and questionnaire.

Figure: 4.6

Reason for less Implementation of Modern Place Mix Tool

3.33   8.89

52.22

35.56

■ Lack of Proper Knowledge of modern place mix tool and requisite technical experience

■ Lack of Finance

■ Lack of Competitive Mind
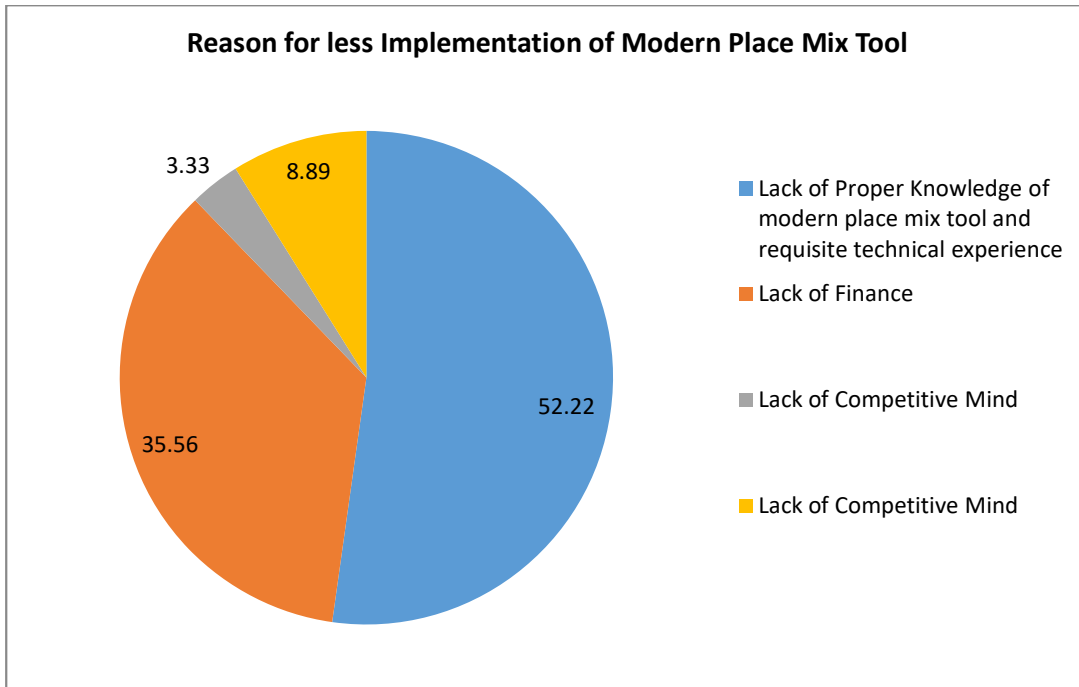
■ Lack of Competitive Mind

Table 4.6 shows the reason for less implementation level of place mix tool by the selected industry. It is revealed from the table that 52.22 % (47) of proprietors are not using the modern place mix tool because of lack of proper knowledge of modern place mix tool and requisite technical experience, 35.56 % (32) of proprietors are not using modern place mix tool due to lack of finance and 8.89 % (8) of proprietor said that they are satisfied with the traditional channel of distribution. Further, 3.33% (3) of the proprietor is not using modern place mix tool due to lack of competitive mind and that is why they are not interested in implement modern place mix tool.

4.3.10: Promotion Mix and Food Processing Industry

Promotion mix deals with those activities directed to increase sales volume. It is also known as market communication. In today's marketing practices, market promotion has much vital role. Promotion mix involves all those efforts directed to increases sales of

the product on a continuous basis. It includes providing information to customers, inspiring them to buy and offering incentives. The various tools of promotional mix are advertising, special offer, direct mailing, free gift and signboard.

1. Advertising: Advertising is an important way of communication; hence it is used to create awareness and transmits information in order to gain customers from the target market. As a value delivering process advertising always attempts to build up the value of goods in the eye of customers attracting their concentration towards the products of the manufacturer through the value communication system. (Kotler, P. and Armstorng , G, 2009).Hence the importance of advertisement in case of food processing industries of Kokrajhar District is to contribute to building up their brand recognition. So that by virtue of advertising strategy these food processing industries can successfully create their marketing opportunities for selling their goods and can enjoy marketing advantage for returning their investment with a normal profit for the long term.

2. Special Offer: It is the right time for the selected food processing industries of Kokrajhar District to go ahead by adopting some motivational strategy for consumers as like nationally and internationally reputed food products. In this regards, there is an ample opportunity to be captured through offering special offer. Special offer not only successfully draw the customers attraction influencing them to purchase the goods but also provide some economic profits from them.

3. Direct mailing: Direct mailing is very highly focused upon targeting consumers based upon a database. As with all types of marketing, the potential consumer is targeted based upon a series of attributes. Different agencies work to design highly focused communication in the form of emails. The mail is marked to the potential customers and responses are cautiously monitored.

4. Free gift: The free gift should be offered with the product because consumers look for additional benefits along with the buying product. The modern marketing approach is considered as customer synetric. So the selected food processing industries of Kokrajhar District should pay serious concentration in formulating their promotional strategy so that by no means the promotional tool free gift will be excluded. In the prevailing competitive marketing scenario, it is observed that the well organized as well as the appropriate implementation of free gift as a promotional tool will certainly give a

direction to the selected food processing industry to recognize their customers' value. In return of which the selected industries will able to create a customer value-based marketing environment, where both the industry and customers will be benefited. Hence this part of the study will attempt to examine as for how the selected food processing industry should exercise free gift as a tool of promotion for recognizing customers' value.

5. Signboard: In case of food processing industries of Kokrajhar District signboard is immensely important not only for identification of the Industry but also for conveying the information of their Kinds of product that ready for selling to their customers. These dual roles played by signboard acts as direct communication so far as the potential customers of the selected food processing industries are concern.

4.3.11: Promotion Mix and Implementation level of Selected Industry

The implementation of the promotion mix tool is immensely important for the expansion of business activity of the selected industry. Keeping in the purpose of this importance of promotion mix, its implementation level of various elements are explained in the following table taken into consideration of three level of implementation i.e. highly implemented, moderately implemented and not implemented level for 90 numbers of selected industries under study. In doing so, those industries have categorised under the level of HI which at least able to implement 50% of the concern factor and those industries are entitled to the level of MI which can implement the concern factor less than 50 %. On the other hand, industry belongs to the level of NI which measurably fails to implement the promotion mix tool at all.
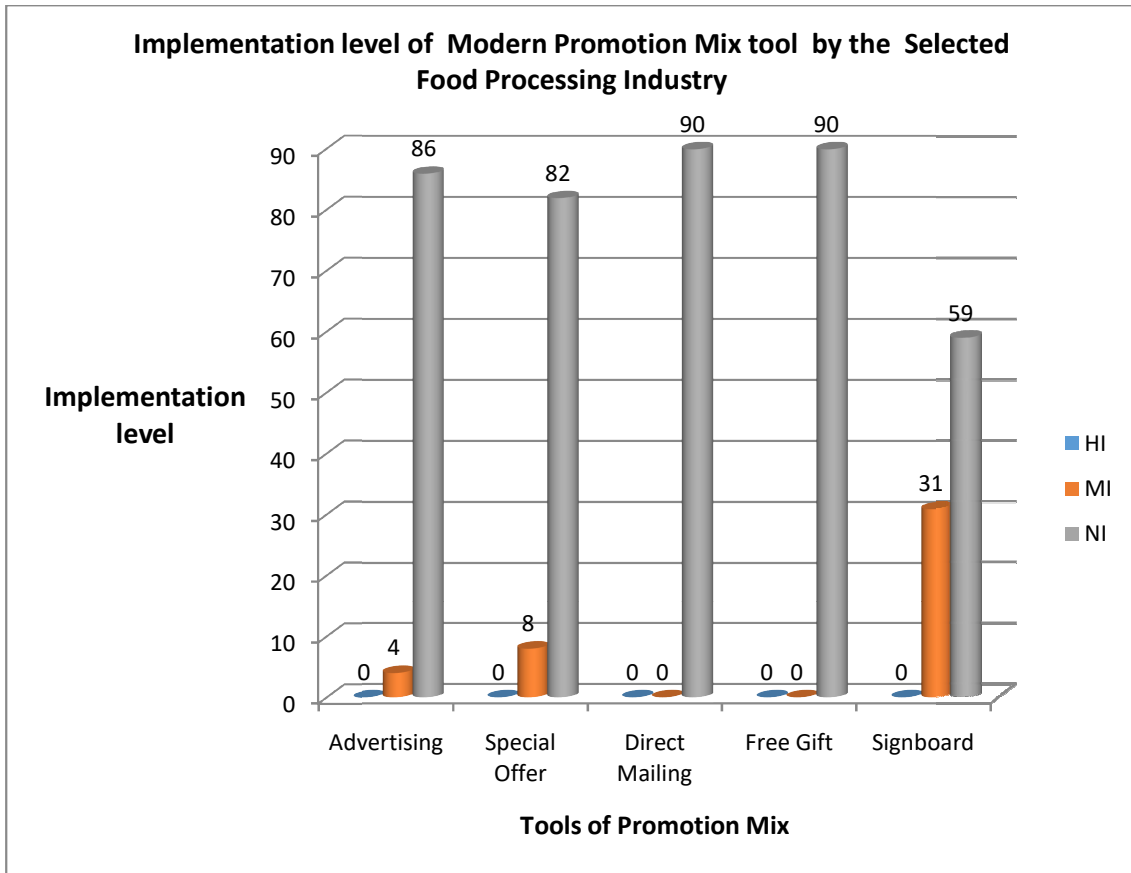
Implementation levels of promotion mix tools by the selected Food Processing Industry

SL No.	Category of Industry and elements of promotion Mix Tool	Rice Mill			Oil Mill			Bakery			Flour Mill			Fruits and Vegetable processing industry			Total			Percentage of Total		
		HI	MI	NI	HI	MI	NI	HI	MI	NI	HI	MI	NI	HI	MI	NI	HI	MI	NI	HI	MI	NI
1	Advertising	0	0	53	0	1	5	0	2	10	0	1	11	0	0	7	0	4	86	0	4.44	95.56
2	Special Offer	0	0	53	0	1	5	0	3	9	0	2	10	0	2	5	0	8	82	0	8.89	91.11
3	Direct Mailing	0	0	53	0	0	6	0	0	12	0	0	12	0	0	7	0	0	90	0	0	100
4	Free Gift	0	0	53	0	0	6	0	0	12	0	0	12	0	0	7	0	0	90	0	0	100
5	Signboard	0	13	40	0	3	3	0	12	0	0	3	9	0	0	7	0	31	59	0	34.44	65.56

Source: Compiled from field survey, personal interview and questionnaire

Figure: 4.7

Implementation level of Modern Promotion Mix tool by the Selected Food Processing Industry

In the light of Table No: 4.7, the following points are identified regarding the implementation level of the promotion mix tool of the selected industry.

1. Advertisement: After going throughout the table no 4.7, it can be easily identified that no industry out of 90 is able to keep their existence in the category of HI. Further, it is reflected that only one oil mill out of 06, 02 bakeries out of 12 and one flour mill out of 12 are under the level of MI and no rice mill and fruits & vegetable processing industry are under this category. Again observation provides that majority industries come under the category of NI level. These are 53 rice mill out of 53, 05 oil mill out of 06, 10 bakery out of 12, 11 flour mill out of 12 and 07 fruits & vegetable processing industry out of 07.

95

2. Direct Mailing and Free gift: From the above table no: 4.7, it is identified that the industries under study are neither fall in the category of HI level nor MI level. Hence, falling all the 90 industries in the category of NI clearly prove that these industries of Kokrajhar District are not totally in the position to capture the advantage of two modern promotional tools such as direct mailing and a free gift. During the period of the field survey and personal interview also it has clearly elicited the fact that these proprietors of the industries are not as educated as to implement this modern marketing promotional tool.

3. Special Offer: In a competitive marketing atmosphere as prevailing in the present day the provision of special offer serve as an effective tool of motivating potential customers. Notwithstanding its immense importance, no serious attention is paid by the selected industries which have reflected in the table no 4.7. In the level of HI as well as MI level no one industry is found to be held. That is why the entire number of selected industries under 05 categories come under the level of NI level which proves that these industries totally far from the benefit of the special offer.

4. Signboard: As a cost-effective tool of promotional mix, the signboard can play a significant role in expanding the business for the selected industries. But accordingly, no such weight is given by these industries on signboard which is revealed in the table no 4.7 ,because no one industry out of 05 categories comes under the HI level of using signboard, where a few percentages of industrial units are found in the level of MI. These are 13 rice mill out of 53, 03 oil mill out of 06, 12 bakery out of 12, 03 flour mill out of 12 and no fruits & vegetable industry is found in this level. Thirdly, in case of NI level 40 rice mills out of 53, 03 oil mill out of 06, 09 flour mill out of 12, and entirely 07 fruits & vegetable processing industry are seen and no bakery is in this level.

4.3.12: Analysis of reason for less implementation of modern promotion mix tool

In the light of Table No: 4.7, it is clear that the implementation level of elements of promotion mix is very minimal of the selected industry. Hence, in searching the reason

of lack of implementation of promotional mix following question has been put to 90 numbers of selected industries which have shown in the following table.
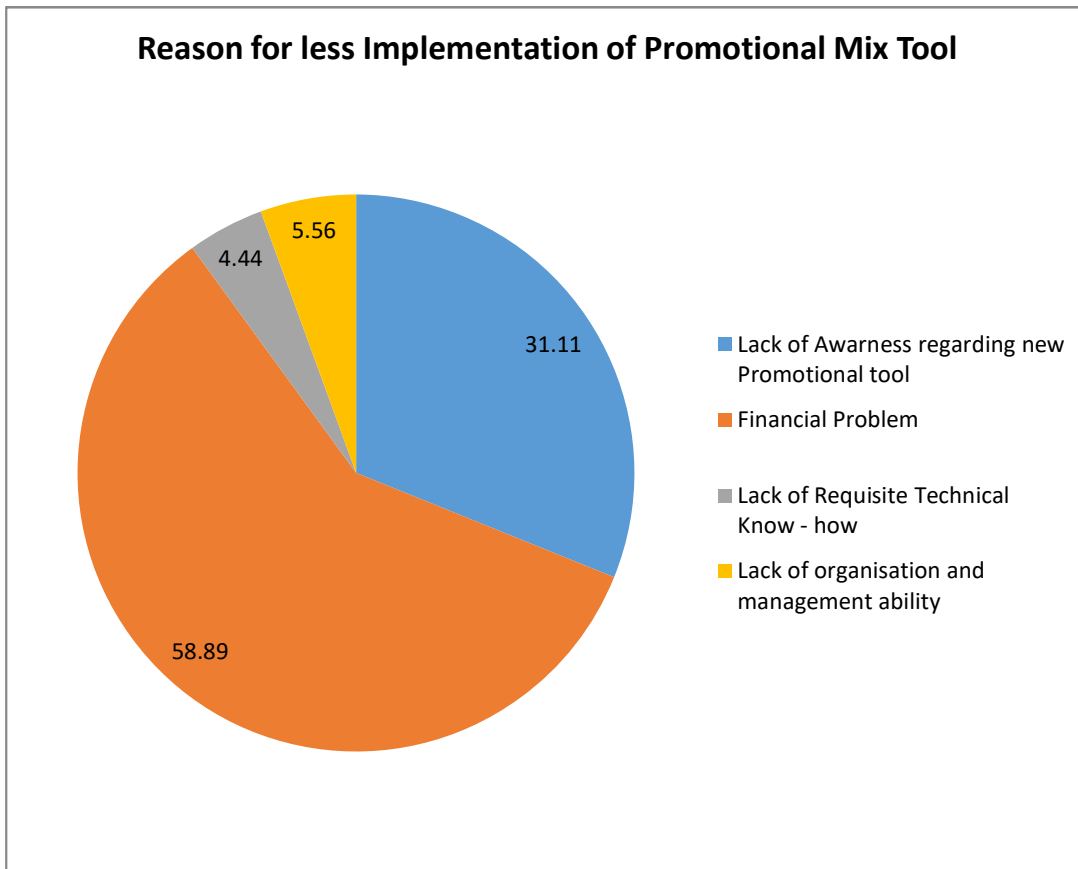
Table No. **4.8**

Reason for less implementation of promotion mix tool of selected industry

Reason for less implementation of modern promotion mix tool	Rice Mill	Oil Mill	Flour Mill	Bakery	Fruits & Vegetable Processing industry	Total	Percentage
Lack of Awareness' regarding new promotional tool	20	2	3	2	1	28	31.11
Financial problem	26	4	7	10	6	53	58.89
Lack of required technical Know-how	4	--	--	--	--	4	4.44
Lack of organisation and management ability	3	-	2	--	--	5	5.56
Total (Proprietor of Industry)	53	6	12	12	7	90	100

Source: Compiled from field survey, personal interview and questionnaire

Reason for less Implementation of Promotional Mix Tool

In support of field survey (depicted in the table no 4.8) along with the feedback obtained from the selected respondent, it is circumstantial evidence that there is less awareness among the selected industries regarding the importance of promotional mix tool. Further, from the questionnaire analysis the reason of not adopting modern promotional mix is elicited where majority respondents, i.e., 63.33 % (57) opined that finance is a big problem for implementation of the promotional tool. The 31.11 % (28) opined that lack of promotional mix knowledge and 5.56 % (05) opined that lack of organisation and management ability is the reason for less implementation of modern promotion mix tool. Moreover, 4.44% (4) opined that lack of required technical knowhow is the reason for less implementation of modern promotion mix

tool and that is why they are not interested to implement the modern promotional mix tool.

4.4 Analysis of Impact of Marketing Mix tool on Consumers Buying Behaviour Regarding Selected Food Items in Kokrajhar District.

This part of the chapter mainly focused on the buying awareness of the consumer community belongs to entire Kokrajhar District so far as their preference given on selected elements of Marketing Mix. In doing so, the total 450 number of respondents consisting three levels of education background as selected are taken for questionnaire analysis. Here the study of 450 number of consumers buying awareness is conducted reflecting buying behaviour as they show in taking their purchasing decision of selected five food items namely rice, bakery, flour, oil and fruits & vegetable processing items in the prevailing marketing scenario of Kokrajhar District. It has observed that the 450 consumers show different levels of buying behaviour differently in four elements of the marketing mix. Further, it has observed that in each element of the marketing mix their buying behaviour is to be different among different levels of educated respondents. That is why their feedback obtained against asking concerned questionnaire are shown in the following table take two aspects. One is three level of education, i.e., Highly Educated (HE) having minimum graduation, Moderately Educated (ME) having minimum matriculation and less educated (LE), having below HSLC level of education. Another is five factors of each element of the marketing mix, i.e., product mix, price mix, place mix and promotion mix are described separately for each selected five number of food processing items. In order to bring their various feedbacks in a common ranking scale, these are expressed in percentage wise four elements of Marketing Mix are described separately for each selected five food processing items.

4.4.1 Effect of Product Mix tool on Consumer Buying Behaviour of Selected Food Items of Kokrajhar District

The product mix has an unaccountable number of influencing capacity in shaping the consumers buying behaviour. Product mix itself is a combination of these basic elements which directly help in building the goodwill of the brand. Hence, the study of the influence of product mix tool in the consumer buying behaviour is immensely important. Keeping this importance into consideration here an analytical study is conducted by taking feed-backs of 450 numbers of consumer respondents consisting of three levels of educational background. The feed-backs of respondents are compiled as pertaining to five basic elements of product mix.

4.4.1.1 Consumers buying awareness towards five elements of product Mix in Rice

In order to examine the level of buying awareness among the 450 respondent of rice regarding their feedbacks pertaining to 05 elements of product mix are shown in the following table in relation to their level of education.

Table No: **4.9**

Preference -wise number of respondents regarding their buying behaviour of rice in case of product mix tool

Category of respondents and product mix tool	Quality		Packaging		Branding		Labelling		Variety		Total No of respondents
	No	%	No	%	No	%	No	%	No	%	
HE	40	40.00	25	25.00	05	5.00	11	11.00	19	19.00	100
ME	69	46.00	21	14.00	04	2.67	07	4.66	49	32.67	150
LE	41	20.5	16	8.00	02	1.00	13	6.5	128	64.00	200
Total	150	33.33	62	13.78	11	2.44	31	6.89	196	43.56	450

Source: Field Survey

Upon observation of the table no: 4.9, following points of explanation have been made on five elements of product mix of rice regarding the buying behaviour of selected respondents.

Quality: In the case of quality 150 (33.33%) respondents out of 450 give their preference on the quality aspect of rice. In relation to the level of education, it is further observed that out of 100 highly educated 40 (40.00%) respondent preferred quality, out of 150 moderately educated respondent 69 (46.00 %) preferred quality and out of 200 less educated respondent 41 (20.5 %) preferred quality at the time of purchase of rice.

Packaging: The observation on packaging as one of the factors of product mix reveals that 62 (13.78%) respondent out of 450 considered as their criteria for making a purchasing decision. Further, it is observed that out of 100 Highly Educated respondents 25 (25%), prefer packaging as their condition of purchasing. Whereas, 21 (14 %) moderately educated respondent out of 150 emphasis packaging as a condition for purchasing. The remaining 16 (8%) less educated respondent out of 200 emphasis packaging as their condition of purchasing criteria.

Branding: Out of 450 respondent only 11(2.44%) use branding as their criteria for purchasing decision. On the other hand, from the level of educated respondents' point of view, it is seen that only 5(5.00%) highly educated out of 100 prefer branding in time of taking their purchasing decision. Moreover, 4 (2.67%) moderately educated respondent out of 150 prefer branding to take purchasing decision and 2(1.00%) less educated respondent out of 200 is found to consider branding as their criteria.

Labelling: In case of labelling only 31(6.89%) out of 450 use labelling as a matter of deciding their purchasing proposal. On the other hand, the impact of level of education on labelling reveals that out of 100 highly educated respondents only 11(11.00%) adopt labelling as a matter of consideration for purchasing decision. Out of 150 moderately educated again, 07(4.66 %) respondent take labelling as a basis of their purchasing decision. In case of less educated from total 200 less educated 13(6.5%) used labelling as criteria for deciding purchasing decision.

Variety: A significant number of the respondent, i.e., 196(43.56%) out of 450 like to propose to purchase their goods emphasizing more on the availability of varieties of

rice. In case of the impact of level of education on variety is found that 19 (19.00%) out of 100 highly educated as well as 49 (32.67%) out of 150 moderately educated respondent choose variety as a basis for their purchasing decision. On the other hand, the majority of less educated people, i.e., 128(64.00%) out of 200 give preference on the range of varieties before taking their purchasing decision.

4.4.1.2 Consumer Buying Awareness towards five elements of Product Mix in case of Oil items

Keeping in purpose to depict the feedback of 450 respondents regarding buying awareness of five elements of product mix about oil items, the following table is prepared.

Table No: **4.10**

Preference -wise number of respondents regarding their buying behaviour of oil in case of product mix tool

Category of respondents and product mix tool	Quality		Packaging		Branding		Labelling		Variety		Total No of respondent
	No	%	No	%	No	%	No	%	No	%	
HE	12	12.00	75	75.00	8	8.00	3	3.00	02	2.00	100
ME	20	13.33	102	68.00	5	3.33	10	6.67	13	8.67	150
LE	11	5.5	135	67.5	15	7.5	09	4.5	30	15.00	200
Total	43	9.56	312	69.33	28	6.22	22	4.89	45	10.00	450

Source: Field Survey

The following points of explanation have been drawn from the observation of the table no 4.10.

Quality: Analysis of the quality aspects of the above table shows that only 43 (9.56%) out of 450 total number of respondents use quality as a criteria for their purchasing decision of various oil items. Further, it is reflected from the above table that out of 100 highly educated respondent only 12 (12.00%) preferred quality as a criteria for taking their purchasing decision. Likewise, out of 150 moderately educated respondents, only

20 (13.33%) advocate and use quality as their basis of purchasing decisions. This way out of 200 less educated respondents only 11 (5.5%) support quality as an important factor to be considered for purchasing their oil items.

Packaging: Packaging as an influencing factor of purchasing decision is of that out of 450, 312 (69.33%) respondent use it (packaging) as a basis for taking their ultimate purchasing decision. From the level of education point of the angle, it is seen that out of 100 highly educated respondent 75 (75%) respondents prefer to use packaging as an important aspect of making a purchasing decision. Likewise out of 150 moderately educated respondent 102 (68%) like to use packaging as a basis of their purchasing decision, whereas, from 200 less-educated respondents 135 (67.5%) support packaging as a factor, to be considered in taking their purchasing decision.

Branding: Considering branding as a factor influencing buying decision among 450 number of the respondent it is found that only 28 (6.22%) use it as a criteria for purchasing decision. Further, observation on respondents having various level of education it is reflected in the above table that out 100 highly educated respondents only 8 (8%) use branding as a factor of influencing their purchasing proposal. Out of 150 moderately educated respondent, only 05 (3.33%) considered branding as a criteria to be used for finalising their purchasing decision. In the case of 200 less educated respondents, it is shown in the above table that only 15 (7.5%) prefer branding as a factor to be taken for their purchasing proposal.

Labelling: Taking labelling as a factor of buying behaviour among 450 respondents, it is identified that only 22 (4.89%) respondents use it (labelling) as a basis for finalizing their purchasing decision. The analysis made on 100 highly educated respondents reveals that only 03 (3%) use labelling as a criteria to be considered for taking their purchasing decision. Out of 150 moderately educated respondents only 10 (6.67), is of the opinion that the labelling acts as an influencing factor on their purchasing decision. Out of 200 less educated respondents, 09 (4.5%) respondents finalize their purchasing proposal emphasizing on labelling.

Variety: It is reflected from the above table that out of 450 respondent only 45 (10 %) use variety as a criteria before purchasing oil items. On the other hand from education perspective, it is found that out of 100 Highly Educated respondent only 02 (2%) pays

interest on using variety as a criterion for taking their purchasing decision. In case of Moderately Educated respondent out of 150, 13 (8.67%) prefer variety as a basis for their purchasing decision and out of 200 less-educated respondents 30 (15 %) use variety as a criterion of their purchasing decision.

4.4.1.3. Consumer Buying Awareness of Product mix in case of Fruits & Vegetable processing items

The following table attempted to present the various feedbacks obtained from 450 respondents which are reflecting the buying behaviour of this respondents as consumers.

Table No: **4.11**

Preference -wise number of respondents regarding their buying behaviour of fruits & vegetable processing items in case of product mix tool

Category of respondents and product mix tool	Quality		Packaging		Branding		Labelling		Variety		Total No of respondent
	No	%	No	%	No	%	No	%	No	%	
HE	8	8.00	62	62.00	6	6.00	11	11.00	13	13.00	100
ME	10	6.67	89	59.33	7	4.67	15	10.00	29	19.33	150
LE	20	10.00	110	55.00	4	2.00	18	9.00	48	24.00	200
Total	38	8.44	261	58.00	17	3.78	44	9.78	90	20.00	450

Source: Field Survey

Upon observation of the table no: 4.11, following points of explanation have been provided so far as buying behaviour of 450 respondents is concerned.

Quality: From the above table it is revealed that only 38(8.44%) respondents out of 450 support to use quality as a criterion for making purchasing decisions of purchase various fruits & vegetable processing items. Among three levels of the educated respondent, it is seen that out of 100 Highly Educated respondent only 8 (8%) consider quality as a factor for taking their purchasing decision. On the other hand, out of 150 Moderately Educated respondent, only 10 (6.67%) emphasize quality in their purchasing decision,

whereas, out of 200 less educated respondent, quality is used by only 20 (10%) respondent as criteria for purchasing decision.

Packaging: Packaging as a factor of purchasing behaviour has the highest impact as because out of 450 respondent 261 (58 %) prefer to use packaging before taking their purchasing decisions of any fruits & vegetable processing items. Further, from the observation of education perspective, it is seen that out of 100 Highly Educated respondent 62 (62%) use packaging as a criterion for purchasing decision against 89 (59.33%) out of 150 Moderately educated respondents. In the case of 200 less educated respondents 110 (55.00%) use packaging as criteria for their purchasing decision.

Branding: Observation of the above table shows that there is a very little influence of branding as a factor of purchasing decision among 450 respondents in case of fruits & vegetable processing items. It is because out of 450 respondent only 17 (3.78%) consider branding as a factor to be taken for their purchasing decision. From the education point of angle it is seen that out of 100 highly educated respondent only 06 (6.00%) use branding as a criteria for their purchasing decision , whereas , in case of moderately educated 07 (4.67%) out of 450 and in case of less educated respondent 4 (2.00%) out of 200 use branding as criteria for their purchasing decision.

Labelling: The above table proves that the labelling is the third highest influencing factor in purchasing decision of 450 respondents in respect of various fruits & vegetable processing items. It is because of the reason that out of 450 respondent 44 (9.78%) use labelling as a decision making criteria for purchasing their necessary fruits & vegetable processing items. From an education perspective, it is seen that out of 100 highly educated respondents only 11 (11%) consider labelling as a matter of their purchasing decision. Out of 150 Moderately Educated 15 (10%) prefer labelling as a matter of purchasing decisions. In case of the less educated respondent, 18 (9%) out of 200 prefer labelling in their purchasing decision.

Variety: The observation of the above table says that variety is playing in the second highest position as an influencing factor on the buying behaviour of 450 respondents. Hence, out of 450 respondents 90 (20%) emphasis much more on variety before purchasing their necessary items. Taking education level into consideration, it has calculated that out of 100 highly educated respondent 13 (13%) use variety as a factor

of their purchasing decision. Out of 150 moderately educated respondents, 29 (19.33%) prefer variety as a criterion for their purchasing decision. On the other hand, 48 (24.00%) less educated respondent out of 200, variety is the factor to be considered for taking their purchasing decision.

4.4.1.4 Consumer buying awareness of product mix in case of Flour

With a view to presenting various feedbacks obtained from 450 numbers of respondents, the following table has prepared. These feedbacks represent the buying behaviour based on five different elements of product mix related to various flour items.

Table No: **4.12**

Preference -wise number of respondents regarding their buying behaviour of flour in case of product mix tool

Category of respondents and product mix tool	Quality		Packaging		Branding		Labelling		Variety		Total No of respondent
	No	%	No	%	No	%	No	%	No	%	
HE	8	8.00	75	75.00	5	5.00	07	7.00	5	5.00	100
ME	16	10.67	102	68.00	9	6.00	08	5.33	15	10.00	150
LE	29	14.5	104	52.00	2	1.00	19	9.5	46	23.00	200
Total	53	11.78	281	62.44	16	3.55	34	7.56	66	14.67	450

Source: Field Survey

After going throughout the table no: 4.12, the following points of explanation are made below.

Quality: It is revealed from the above table that out of 450 respondent 53 (11.78%) preferred quality as a criteria for taking their purchasing decision in case of flour items. Among five-factor of product mix by securing 53(11.78 %) respondents, the quality stands in the third position. Putting level of education as an influencing factor of buying behaviour it is depicted from the above table that out of 100 highly educated respondent

only 8 (8%) takes their purchasing proposal based upon quality aspects of their necessary flour items. In case of moderately educated 150 respondents, it is seen that only 16 (10.67) consider quality as a factor of their purchasing decision of various flour items, whereas, out of 200 less educated respondent 29 (14.5%) support quality as their criteria.

Packaging: It is a noticeable fact from the above table that by securing response of 281 (62.44 %) respondents out of 450, the packaging as a factor of influencing buying behaviour stands in the first position among the five-factor of product mix as shown in the above table. Considering the education perspective, it is observed that out of 100 highly educated respondent 75 (75%), use packaging as a criterion for purchasing decisions. Out of 150 moderately educated, 102 (68%) respondents use packaging as a criteria for purchasing decision against 104 (52%) less educated respondents out of 200 respondents.

Branding: The above table shows that branding has lowest influencing power in case of purchasing decision of various flour items among five selected factor of product mix. It is evident from the fact that out of 450 respondent only 16 (3.55%) support branding as a factor to be used for taking purchasing decision. Further, different level of education has different influencing power. Because out of 100 Highly educated respondents 05 (5%) like to use branding as their criteria for purchasing decision. On the other hand, out of 150 moderately educated respondents, 09 (6%) use branding as their basis of purchasing decision. In case of the less educated respondent, 02 (1%) prefer branding in case of their purchasing decision.

Labelling: Out of the above table, it is reflected that next to branding labelling has the lowest impact on purchasing decision of 450 respondents regarding the purchase of flour items. Because out of 450 only 34 (7.57%) use labelling as a criteria for purchasing decision. The impact of level of education shows that out of 150 moderately educated respondent 8 (5.33%) preferred to use labelling as a criterion for taking their purchasing decision. Likewise 19 (9.5%) out of 200 less educated use labelling as a criterion for their purchasing decision of flour items.

Variety: The above table proves very clearly that next to packaging variety has the second highest impact on purchasing decision of 450 respondents in purchasing their

flour items. As because it is reflected from the above table that out of 450 respondents 66 (14.67%) emphasise much more on varieties of flour items so far as their purchasing decision of these items are concerned. From the level of education perspective, it is seen that out of 100 highly educated only 5 (5.00%) use variety against 15 (10.00%) out of 150 moderately educated respondents during their time of taking purchasing decisions. On the other hand, 200 less educated respondents 46 (23%) consider variety to be used for purchasing decision of their necessary flour items.

4.4.1.5 Consumer buying awareness of product mix in case of Bakery items

Through the following table, an attempt is being taken to present various feed-backs obtained from 450 respondents. The feed backs are related to buying behaviour of 450 respondents towards five different factors of product mix from three levels of education perspective of various bakery items.

Table No: **4.13**

Preference -wise number of respondents regarding their buying behaviour of bakery in case of product mix tool

Category of respondents and product mix tool	Quality		Packaging		Branding		Labelling		Variety		Total No of respondent
	No	%	No	%	No	%	No	%	No	%	
HE	9	9.00	31	31.00	18	18.00	4	4.00	38	38.00	100
ME	14	9.33	54	36.00	22	14.67	7	4.67	53	35.33	150
LE	17	8.5	72	36.00	4	2.00	14	7.00	93	46.5	200
Total	40	8.89	157	34.89	44	9.78	25	5.55	184	40.89	450

Source: Field Survey

As a result of observation of the table no: 4.13, the following points of explanation are obtained.

Quality: So far as a quality factor is concerned it is proved from the above table that quality stands in the fourth position as an influencing factor of buying behaviour among five elements of product mix. In support of which it is to be mentioned that out of 450 only 40 (8.89 %) respondents consider quality to be used as their basis of purchasing decision. Taking education level into consideration it is clearly reflected from the above table that 9 (9.00 %) respondents support quality as their criteria of purchasing decision out 100 highly educated respondents, 14 (9.33%) moderately educated respondents out of 150 and 17 (8.5%) less educated respondents out of 200 respondents respectively.

Packaging: Packaging as an influencing factor of buying behaviour has a second highest impact among five-factor of product mix. It is because of that out of 450 respondent 157 (34.89%) use packaging as criteria while they purchase. From education level point of view, it is reflected from the above table that out of 100 highly educated respondents only 31(31.00%) advocate packaging to be a basis of their purchasing decision, where out of 150 moderately educated respondents only 54 (36 %) use packaging as their purchasing criteria. On the other hand, 200 less educated respondent 72 (36 %) support packaging as their criteria for taking purchasing decision.

Branding: As a part of influencing factor branding has the third highest impact on the purchasing behaviour of 450 respondents. Because out of 450 respondents 44 (9.78%) are of the opinion that branding should be their purchasing criteria. Impact of education level is elicited from the above table that out of 100 Highly educated respondents 18 (18.00%) wants to use branding as their purchasing criteria , whereas out of 150 moderately educated respondents 22 (14.67%) use branding as their basis of purchasing decision. On the other hand, out of 200 less educated respondents, only 04 (2%) wants to use branding as their purchasing criteria in case of bakery items.

Labelling: Labelling is proving to be lowest influencing factors so far as buying behaviour of 450 respondents is concerned because it is seen that out of 450 only 25 (5.55 %) respondents support labelling as their criteria of purchasing proposal. In the case of highly educated respondents, 4(4%) out of 100 and moderately educated respondents 7(4.67%) out of 150 prefer labelling in case of their purchasing decision on

bakery products. On the other hand, out of 200 less educated respondents, 14 (7%) use labelling as their basis of purchasing proposal.

Variety: From the above table variety is considered to be the highest impact factor as because out of 450 respondents 184 (40.89%) support variety as their criteria whenever they purchase their necessary items of the bakery. Impact of various levels of education reveals that out of 100 highly educated respondents 38 (38%) use variety for taking their purchasing decision. On the other hand, out of 150 moderately educated 53 (35.33%) respondents and out of 200 less educated respondents, 93 (46.5%) use variety for their purchasing decision of bakery items.

4.4.2 Place Mix and Consumer Buying Awareness in Case of Selected Food Items in Kokrajhar District

Place mix plays a vital role in providing product and service in the hand of the ultimate customer at the right time at their maximum satisfaction. Among a lot of distribution channels, only 05 channels are selected considering their highest use as prevailing among five selected items in the Kokrajhar District. It is observed that different respondents under study prefer different channel of distribution for different food items when they take purchasing decision. Further, it is seen that different respondents belong to different levels of educational background have a different preference in choosing the channel of distribution. Considering all of the above facts and circumstances, here an attempt is being taken to carry out an analytical study on 450 selected respondents regarding the influence of different channel of distribution on taking their purchasing decision.

4.4.2.1   Consumer Buying Awareness of Place Mix in case of Rice

The following table is prepared with the purpose to present the feedback of 450 respondents pertaining to their preference given on different channels for rice .

Table No: 4.14

Preference -wise number of respondents regarding their buying behaviour of rice in case of place mix tool

Category of respondents and place mix tool	Retail Store		Wholesale		Direct Sale		Internet		Multichannel		Total No of respondent
	No	%	No	%	No	%	No	%	No	%	
HE	28	28.00	24	24.00	6	6.00	3	3.00	39	39.00	100
ME	23	15.33	35	23.33	07	4.67	1	0.67	84	56.00	150
LE	29	14.5	51	25.5	32	16.00	0	0	88	44.00	200
Total	80	17.78	110	24.44	45	10.00	4	0.89	211	46.89	450

Source: Field Survey

In the light of the table no: 4.14, the following points are identified regarding the effect of place mix tool on rice of the selected respondents.

Retail: It is reflected from the above table that the retail store as a channel of distribution has the lowest impact. Because out of 450 respondent only 80 (17.78 %) support to use retail store in buying their necessary rice. From the educational level point of view, it is seen that out of 100 highly educated respondents 28 (28%) prefer to use retail store against 23 (15.33%) out of 150 moderately educated respondents. In the case of less educated respondents, it is found that out of 200 respondents only 29 (14.5%) use retail store in purchasing their rice.

Wholesaling: Wholesaling as a channel of distribution of rice has second highest impact among 450 respondents as because out of 450, 110 (24.44%) respondents agree to use wholesale as their channel of purchasing rice. Taking education as an influencing factor, it is observed that out of 100 highly educated respondents, 24 (24%) use wholesale as their channel of purchase against 35 (23.33%) moderately educated respondents out of 150 respondents. On the other hand, out of 200 less educated respondents only 51 (25.5%) support to use wholesale as their channel of purchasing rice.

Direct Sale: The support of 45 respondents out of 450 reflects that the direct channel has the lowest impact on using this channel. Further, from education prospective it is observed that out of 100 highly educated respondents only 06 (6%) respondents use direct channel against 07 (4.67%) out of 150 moderately educated respondents. On the other hand, 32 (16%) less educated respondents out of 200 use direct channel for purchase their rice.

Internet: It is reflected from the above table that devoid of response towards the internet as a channel of purchasing rice among 450 respondents implies that this channel has been ceased its existence as a mode of place mix.

Multichannel: It is proved from the above table that multichannel occupies the highest position among five channels as described above. As because against multichannel out of 450 respondents 211 (46.89%) support to use it as their channel of purchasing necessary rice items. Taking education as an influencing factor, it is seen that out of 100 highly educated respondents 39 (39%) agree to use multichannel as their channel of purchasing rice items, whereas, out of 150 moderately educated respondents 84 (56%) support multichannel. On the other hand, out of 200 less educated respondents, only 88 (44%) use multichannel for purchasing their rice items.

4.4.2.2Consumer buying awareness of place mix in case of Oil items

Different feedbacks obtained from 450 respondents are presented in the following table covering five different channel of distribution as prevailing in case of oil items taking three categories of different level of education.

Table No. 4.15

Preference -wise number of respondents regarding their buying behaviour of oil in case of place mix tool

Category of respondents and place mix tool	Retail Store		Wholesale		Direct Sale		Internet		Multichannel		Total No of respondent
	No	%	No	%	No	%	No	%	No	%	
HE	80	80.00	9	9.00	4	4.00	4	4.00	3	3.00	100
ME	96	64.00	35	23.33	08	5.34	2	1.33	9	6.00	150
LE	118	59.00	36	18.00	09	4.5	0	0	37	18.5	200
Total	294	65.33	80	17.78	21	4.67	6	1.33	49	10.89	450

Source: Field Survey

In the observation of the table no: 4.15, the following points are identified regarding the effect of place mix tool on the buying behaviour of oil items of selected respondents.

Retail Store: It is worth mentioning that by securing the support of 294 (65.33%) respondents out of 450, the retail store occupies the highest position among five different channels of distribution for various oil items. Further, from the level of education point of the angle, it is observed that out of 100 highly educated respondents 80 (80%) use the retail store for purchasing their necessary oil items against 96 (64%) moderately educated respondents out of 150. On the other hand, out of 200 less educated respondents, 118 (59%) prefer to use the retail store as their channel of purchasing necessary oil items.

Wholesale: It has reflected from the above table that next to retail store wholesale as a channel of distribution occupies the highest position in support of 80 (17.78%) respondents out of 450. Considering the level of education as criteria, further, it is seen that out of 100 highly educated respondents only 9 (9%) agree to adopt wholesale against 35 (23.33%) moderately educated respondents out of 150. On the other hand, out of 200 less educated respondents, 36 (18%) prefer wholesale as their channel of purchasing various oil items.

Direct Sale: The above table reveals that direct sale is in the fourth position so far as the preference of 450 numbers of respondents is concerned. Because out of 450 respondents only 21 (4.67%) use the direct channel as their channel of purchasing oil items. From the education level point of view, it has observed that out of 100 highly educated respondents only 4 (4%) use the direct channel as their purchasing channel of oil items against 8 (5.34%) out of 150 moderately educated respondents. In case of less educated respondents, it has found in the above table that out of 200 only 9 (4.5%) are agree to use the direct channel as their channel of purchasing oil items.

Internet: out of the above table it is easily reflected that the use of the internet as a channel of distribution has the lowest use among 450 respondents in support of which it is to be mentioned that out of 450 respondents only 6 (1.33%) agree to use the internet as a channel of distribution for purchasing their necessary oil items. Influence of level of education shows that out of 100 highly educated respondents only 4 (4%) use internet against 2(1.33%) out of 150 moderately educated respondents. On the other hand, no one less educated respondents out of 200 use the internet as their channel of distribution for purchasing oil items.

Multichannel: It is an evident fact from the above table that in support of 49 (10.89%) respondents out of 450 multichannel stands in the third position among five channels of distribution. Influence of education says that out of 100 only 3 (3%) highly educated respondents use multichannel against 9 (6%) out of 150 moderately educated respondents. On the other hand, out of 200 less educated respondents, 37 (8.5%) prefer multichannel for purchasing their necessary oil items.

4.4.2.3 Consumer Buying awareness of Place mix in case of Fruits & Vegetable processing items

The following table is an attempt of presenting the feed-backs of 450 respondents about their different preference has given against five different channel of distribution that they use for purchasing their various necessary fruits & vegetable processing items.

Table No: 4.16

Preference -wise number of respondents regarding their buying behaviour of fruits & vegetable processing items in case of place mix tool

Category of respondents and place mix tool	Retail Store		Wholesale		Direct Sale		Internet		Multichannel		Total No of respondent
	No	%	No	%	No	%	No	%	No	%	
HE	63	63.00	11	11.00	5	5.00	7	7.00	14	14.00	100
ME	81	54.00	16	10.67	4	2.66	9	6.00	40	26.67	150
LE	126	63.00	32	16.00	6	3.00	0	0	36	18.00	200
Total	270	60.00	59	13.11	15	3.33	16	3.56	90	20.00	450

Source: Field Survey

In the light of the table no: 4.16, the following points are highlighted regarding the buying behaviour of fruits & vegetable processing items in case of place mix tool.

Retail Store: The above table says that retail store as a channel of distribution occupies the first position among five channels of distribution. It is because of the reason that out of 450 respondents 270 (60%) prefers to use the retail store for purchasing their necessary fruits & vegetable processing items. From education prospective, the above table clarifies that out of 100 highly educated respondents 63 (63%) use the retail store for purchasing their fruits & vegetable processing items against 81(54%) moderately educated respondents out of 150. On the other hand, out of 200 less educated respondents, only 126 (63%) use the retail store as their channel of purchasing fruits & vegetable processing items.

Wholesale: The above table reveals that by obtaining the responds of 59 (13.11%) out of 450 respondents the wholesale as a channel of distribution stands on the third position among five different channels of distribution for purchasing their fruits & vegetable processing items. Considering education as an influencing factor of the channel of distribution, it is reflected from the above table that by securing responds of 11 (11%) respondents out of 100, the highly educated category of respondents is in the

lowest position. On the other hand, against 16 (10.67%) moderately educated respondents out of 150, 32 (16%) less educated respondents out of 200 preferred to use wholesale as their channel of distribution for purchasing necessary fruits & vegetable processing items.

Direct Sale: Among five channel of distribution as given in the table no; 4.16, the direct channel is used by the lowest number of respondents, i.e., only 15 (3.33%) out of 450 total respondents. The distribution of three categories of educated respondents regarding preference of direct sale as a channel of distribution is that only 5 (5%) highly educated, 4 (2.66%) moderately educated and 6 (3%) less educated number of respondents agree to use direct sale for purchasing their necessary fruits & vegetable processing items .

 Internet: Apart from the five channels of distribution as given in the above table internet is preferred only by 16 (3.56%) number of respondents out of total 450 respondents. From an education point of view, it is seen that only 7 (7%) highly educated and 9(6%) moderately educated respondents preferred to use the internet, whereas, no less educated respondents out of 200 is found to use the internet as their channel for purchasing fruits & vegetable processing items.

Multichannel: By securing respond of 90 (20%) respondents out of 450 multichannel stands in the second highest position so far as the preference of 450 respondents is concerned. Taking education level into consideration it is seen that 14 (14%) highly educated out of 100, 40 (26.67%) moderately educated out of 150 and 36 (18%) less educated out of 200 respondents use multichannel.

4.4.2.4Consumer buying awareness of place mix in case of bakery items

 The following table is prepared to present the feedbacks of 450 respondents which have been collected to reflect their various preference of channel of distribution for purchasing their bakery items.

Table No. 4.17

Preference -wise number of respondents regarding their buying behaviour of bakery items in case of place mix tool

Category of respondents and place mix tool	Retail Store		Wholesale		Direct Sale		Internet		Multichannel		Total No of respondent
	No	%	No	%	No	%	No	%	No	%	
HE	82	82.00	1	1.00	9	9.00	2	2.00	6	6.00	100
ME	121	80.67	4	2.66	13	8.67	3	2.00	9	6.00	150
LE	156	78.00	7	3.5	16	8.00	0	0	21	10.5	200
Total	359	79.78	12	2.67	38	8.44	5	1.11	36	8.00	450

Source: Field Survey

In the observation of the table no: 4.17, the following points are detected regarding the impact of place mix tool on bakery products of selected respondents.

Retail: It has observed from the above table that in support of 359 (79.78%) respondents out of 450 retail store stands in the first position among five different channels of distribution. From education perspective, it is seen that out of 100 highly educated respondents 82 (82%) Preferred retail store against 121 (80.67%) moderately educated respondents out of 150. On the other hand, out of 200 less educated respondents, only 156 (78%) use the retail store to purchase their various bakery items.

Wholesale: On the part of wholesale as one of the channels of purchasing bakery items it is reflected from the above table that only 12 (2.67%) respondents out of 450 use it (wholesale) for purchasing their bakery items. From education level point of view seen that 1 (1%) highly educated respondents out of 100 use wholesale as their channel for purchasing bakery items. On the other hand against 4 (2.66%) moderately educated respondents out of 150, 7(3.5%) less educated respondents out of 200 use wholesale for purchasing their bakery items.

Direct Sale: Direct sale as a channel used by the 38(8.44%) respondents out of 450 for purchasing their bakery items. From an education point of view, it is observed that out 100 highly educated respondents only 9 (9%) use the direct channel for purchasing bakery items against 13(8.67%) moderately educated respondents out of 150. Whereas,

out of 200 less educated respondents 16 (8%) use direct sale for purchasing their bakery items.

Internet: The above table says that the internet has no impact at all among 200 less educated respondents. Even in the case of highly educated and moderately educated respondents only 2 (2%) and 3(2%) respectively preferred to use the internet for purchasing their bakery items.

Multichannel: From the above table it is observed that 36 (8%) respondents out of 450 use multichannel for purchasing their necessary bakery items. Further, taking a level of education into consideration, it is cleared that 6 (6%) highly educated respondents only use multichannel out of 100 against 9 (6%) moderately educated respondents out of 150 for purchasing their bakery items. On the other hand, out of 200 less educated respondents, 21 (10.5%) preferred to use multichannel of purchasing bakery items.

4.4.2.5 Consumer buying awareness of place mix in case of Flour

With the purpose of presenting the feedbacks obtained from450 respondents regarding their preference of selecting a channel of distribution for purchasing flour items, the following table is prepared.

Table No: 4.18

Preference -wise number of respondents regarding their buying behaviour of flour items in case of place mix tool

Category of respondents and place mix tool	Retail Store		Wholesale		Direct Sale		Internet		Multichannel		Total No of respondent
	No	%	No	%	No	%	No	%	No	%	
HE	74	74.00	9	9.00	3	3.00	1	1.00	13	13.00	100
ME	99	66.00	27	18.00	4	2.67	2	1.33	18	12.00	150
LE	139	69.5	31	15.5	11	5.5	0	0	19	9.5	200
Total	312	69.33	67	14.89	18	4.00	3	0.67	50	11.11	450

Source: Field Survey

In the light of the table no: 4.18, the following points are identified regarding the buying behaviour of flour items in case of place mix tool.

Retail: Retail as one of the channels of distribution secures the first position in support of 312 (69.33%) responds out of 450 so far as purchasing of various flour items are concerned. From education prospective it is seen that out of 100 highly educated respondents 74(74%) preferred retail store against 99(66%) moderately educated out of 150 respondents. On the other hand, out of 200 less educated respondents, only 139(69.5%) use the retail store for purchasing their necessary flour items.

Wholesale: Wholesale as a channel of distribution obtain the support of 67(14.89%) respondents out of 450 and thereby, stands by the second position among five channels. From an education point of view, it is seen that out of 100 highly educated respondents only 9 (9%) use wholesale as their channel of purchasing various flour items, against 27(18%) out of 150 moderately educated respondents. On the other hand, out of 200 less educated respondents, 31(15.5%) use wholesale for purchasing their necessary items.

Direct Sale: Direct sale as a channel of purchasing flour items gets the support of 18 (4%) respondents only out of 450. On the other hand, taking education level into consideration, it is observed that out of 100 highly educated respondents only 3(3%) purchase their necessary flour items through direct sale modes against 4 (2.67%) out of 150 moderately educated respondents. Out of 200 less educated respondents, 11(5.5%) use the direct channel for purchasing their flour items.

Internet: Internet as a channel of purchasing flour items has the lowest impact among five channel of distribution as because only 3 (0.67%) respondents out of 450 support to use the internet for purchasing their flour items. Considering the level of education as criteria, it is reflected from the above table that against 1 (1%) highly educated respondents out of 100 and 2 (1.33%) moderately educated respondents out of 150, no one respondents out of 200 less educated respondents use internet for purchasing their flour items.

Multichannel: By securing the support of 50 (11.11%) respondents out of 450 multichannel stands in the third position so far as purchasing of flour items is concerned. The impact of education as reflected in the above table is that out of 100 highly educated only 13(13%) against 18 (12%) moderately educated respondents out of

150 support multichannel for purchasing their flour items, whereas 19(9.5%) less educated respondents to use out of 200.

4.4.3 Consumer buying awareness in case of Price Mix tool of selected Food items in Kokrajhar District

Considering the price as a powerful factor in the purchasing behaviour of the consumer has a significant aspect to be discussed from the education perspective also. Hence with the purpose of highlighting the influence of the level of education the feedbacks of 450 respondents have been compiled consisting three levels of education regarding their preference of selecting various five tools of price mix about purchasing selected various food items under study.

4.4.3.1 Consumer buying awareness of Price Mix in case of Rice

The following table is an attempt to present the feedback of 450 respondents regarding their preference given on various five tools of price mix so far as purchasing of various rice items are concerned.

Table No: 4.19

Preference -wise number of respondents regarding their buying behaviour of rice in case of price mix tool

Category of respondents and price mix tool	MRP		Discount		Credit		Non Price Competition		Psychological pricing		Total No of respondent
	No	%	No	%	No	%	No	%	No	%	
HE	36	36.00	39	39.00	11	11.00	14	14.00	0	0	100
ME	68	45.33	42	28.00	24	16.00	16	10.67	0	0	150
LE	70	35.00	67	33.5	31	15.5	32	16.00	0	0	200
Total	174	38.67	148	32.89	66	14.67	62	13.77	0	0	450

Source: Field Survey

In the light of the table no: 4.19, the following points are identified regarding the buying behaviour of price mix on rice of selected respondents.

MRP: As reflected from the above table MRP as one of the tools among five different tools of price mix is used by 174 (38.67%) respondents out of 450 and thereby, it stands on the first position. From education perspective, it is observed that where 36(36%) out of 100 highly educated respondents support MRP as their tool for purchasing various rice items, the only 68 (45.33%) moderately educated respondents out of 150 support the same. On the other hand, 70 (35%) less educated respondents out of 200 avail MRP as a tool for purchasing rice items.

Discount: In support of response of 148(32.89%) respondents out of 450 discount stands as a second highest price tool as availed by them for purchasing rice items. The table reveals the impact on education towards discounting as a pricing factor that 39 (39%) highly educated respondents out of 100 preferred to avail discount against 42 (28%) out of 150 moderately educated and likewise 67 (33.5%) respondent out of 200 less educated respondents.

Credit: The above table says that only 66 (14.67%) respondents out of 450 agree to avail credit for purchasing their necessary rice items. Impact of education is that 11 (11%) out of 100 highly educated preferred credit facilities against 24 (16%) out of 150 moderately educated as well as 31(15.5%) out of 200 less educated respondents during purchasing their necessary items.

Non-Price Competition: In support of 62(13.77%) respondents out of 450 non-price competition is in the fourth position among five different pricing tools. Considering education as an influencing factor, it is revealed that whereas 14(14%) highly educated respondents preferred non-price competition, 16 (10.67%) moderately educated out of 150 and 32(16%) less educated out of 200 respondents avail on non-price competition for purchasing their rice items.

Psychological Pricing: In the light of the table no: 4.19, it is revealed that psychological pricing as a pricing tool has no impact at all among 450 respondents in purchasing their necessary rice items.

4.4.3.2 Consumer buying awareness of price mix in case of Oil items

The following table presents the 450 respondents consisting three different levels of education for reflecting their various feedbacks given to five different pricing tools that they avail for purchasing necessary oil items.

Table No: 4.20

Preference -wise number of respondents regarding their buying behaviour of oil in case of price mix tool

Category of respondents and price mix tool	MRP		Discount		Credit		Non Price Competition		Psychological pricing		Total No of respondent
	No	%	No	%	No	%	No	%	No	%	
HE	78	78.00	15	15.00	1	1.00	6	6.00	0	0	100
ME	119	79.33	19	12.67	4	2.67	8	5.33	0	0	150
LE	141	70.5	38	19.00	19	9.5	2	1.00	0	0	200
Total	338	75.11	72	16.00	24	5.33	16	3.56	0	0	450

Source: Field Survey

In the observation of the table no: 4.20, the following points are identified regarding buying behaviour of oil in case of price mix tools of selected respondents.

MRP: The above table reflects that by obtaining the support of 338 (75.11%) respondents out of 450 MRP secures the highest position as a pricing tool avail by respondents for purchasing their necessary oil items. From education perspective, it is seen that 78 (78%) highly educated respondents out of 100 prefer MRP against 119 (79.33%) moderately educated out of 150 and 141(70.5%) less educated respondents out of 200.

Discount: Discount as a pricing tool is preferred by 72 (16%) respondents out of 450. Among three categories of educated respondents 15(15%) highly educated, 19 (12.67%) moderately educated and 38(19%) less educated respondents avail the discount in purchasing their necessary oil items.

Credit: The above table says that only 24(5.33%) respondents out of 450 avail credit facilities whenever they purchase necessary oil items. From education level of angle against 1(1%) highly educated respondent out of 100, 4(2.67%) moderately educated out of 150 as well as 19(9.5%) less educated respondents to agree to avail credit facilities for purchasing their oil items.

NPC: NPC as a pricing tool is used only by 16 (3.56%) respondents out of 450. From education prospective 6(6%) highly educated, 8(5.33%) moderately educated and 2(1%) less educated respondents used non-price for purchasing oil items.

Psychological pricing: It is reflected from the above table that not a single respondent out of 450 use it for purchasing their necessary oil items.

4.4.3.3 Consumer buying awareness of price mix in case of Fruits & Vegetable processing items

Through the following table preference of pricing tools of 450 respondents consisting three categories of education level have been distributed so far as purchasing their necessary fruits & vegetable processing items are concerned.

Table No: 4.21

Preference -wise number of respondents regarding their buying behaviour of fruits & vegetable processing items in case of price mix tool

.

Category of respondents and price mix tool	MRP		Discount		Credit		Non Price Competition		Psychological pricing		Total No of respondent
	No	%	No	%	No	%	No	%	No	%	
HE	74	74.00	21	21.00	2	2.00	3	3.00	0	0	100
ME	89	59.33	42	28.00	12	8.00	7	4.67	0	0	150
LE	138	69.00	29	14.5	27	13.5	6	3.00	0	0	200
Total	301	66.89	92	20.44	41	9.11	16	3.56	0	0	450

Source: Field Survey

As per the observation of the table no: 4.21. the following points are identified regarding the buying behaviour of fruits & vegetable processing items in case of price mix tools.

MRP: So far as MRP as a pricing strategy is concerned, it is reflected from the above table that it occupies the highest position in support of 301(66.89%) respondents out of 450. From the education prospective, MRP is supported by 74 (74%) highly educated respondents out of total 100 against 89(59.33%) moderately educated out of total 150. On the other hand, 138(69%) number of less-educated respondents out of 200 prefer MRP for purchasing their necessary fruits & vegetable processing items.

Discount: It has revealed from the above table that by the support of 92 (20.44%) respondents out of 450 discounts is in the second highest position as a pricing strategy in case of purchasing fruits & vegetable processing items. From education point of angle it is seen that 21(21%) highly educated respondents out of 100 , 42 (28%) moderately educated respondents out of 150 and 29 (14.5%) less educated respondents out of 200 prefer to avail the discount as a pricing in purchasing their necessary fruits & vegetable processing items.

Credit: As a pricing strategy having the support of 41(9.11%) respondents out of 450 credits is in the third position so far as purchasing of fruits & vegetable processing items are concerned. Taking education level into consideration it is found that 2 (2%) highly educated respondents out of 100, 12(8%) moderately educated respondents out of 150 and 27(13.%) less educated respondents out of 200 are interested in avail credit facilities as pricing tools for purchasing their necessary fruits & vegetable processing items.

NPC: Among five pricing tools as shown in the above table NPC is in the fourth position, which is supported by 16(3.56%) respondents out of 450. Level of education as a influencing factor of selecting pricing tools, it is evident from the above table that 3 (3%) of highly educated respondents out of 100 , 7(4.67%) moderately educated respondents out of 150 and 6(3%) less educated respondent exercise NPC as one of their option of pricing tool for purchasing necessary fruits & vegetable processing items.

Psychological Pricing: It has revealed from the above table that there is no existence of exercising psychological pricing among the 450 respondents. Because no one respondents out of 450 use psychological pricing in purchasing their necessary fruits & vegetable processing items.

4.4.3.4 Consumer buying awareness of price mix in case of Bakery products:

The following table is prepared to take the feedbacks of 450 respondents consisting three different level of education which highlights their multifarious level of preference towards different pricing tools that they avail for purchasing various bakery items.

Table No: 4.22

Preference -wise number of respondents regarding their buying behaviour of bakery items in case of price mix tool

Category of respondents and price mix tool	MRP		Discount		Credit		Non Price Competition		Psychological pricing		Total No of respondent
	No	%	No	%	No	%	No	%	No	%	
HE	61	61.00	14	14.00	3	3.00	22	22.00	0	0	100
ME	89	59.33	22	14.67	10	6.67	29	19.33	0	0	150
LE	129	64.5	26	13.00	20	10.00	25	12.5	0	0	200
Total	279	62.00	62	13.78	33	7.33	76	16.89	0	0	450

Source: Field Survey

Upon the observation of the table no: 4.22, the following points are detected regarding the buying behaviour of bakery products in case of price mix tool.

MRP: It is revealed from the above table that out of 450 respondents 279 (62%) avail MRP as a pricing tool in case of purchasing their necessary bakery items and thereby MRP stands on the highest position among five pricing tools. From education perspective it is further reflected from the above table that 61(61%) highly educated out of 100, 89(59.33%) moderately educated out of 150 and 129(64.5%) less educated out

of 200 respondents prefer to avail MRP as a pricing tool for purchasing their bakery items.

Discount: As a pricing tool discount is supported by 62(13.78%) respondents out of 450 and it is in the second position. From an education point of the angle it is observed that against 14(14%) highly educated out of 100 and 22(14.67%) moderately educated out of 150 respondents, 26(13%) less educated out of 200 prefer discount as their pricing tool for purchase necessary bakery items.

Credit: It has revealed from the above table that 33(7.33%) out of 450 respondents avail credit as their pricing tool to purchasing their necessary bakery items. Taking education level into consideration, it is seen that 3(3%) out of 100 highly educated, 10 (6.67%) out of 150 moderately educated and 20(10%) out of 200 less educated respondents prefer to avail to credit as their pricing tool.

NPC: As reflected from the above table that 76(16.89%) out of 450 support NPC as a pricing tool for purchasing their bakery items. The influence of education in this regard is that 22(22%) highly educated out of 100, 29(19.33%) moderately educated out of 150 and 25(12.5%) less educated out of 200 respondents want to exercise NPC in purchasing their necessary bakery items.

Psychological Pricing: Total devoid of the attraction of 450 respondents towards psychological pricing reflects the fact that it as a pricing tool has no influence at all among them in relation to purchasing necessary bakery items.

4.4.3.5 Consumer buying awareness of price mix in case of Flour items

Through the following table, an attempt is being taken to reflect the feedback obtained from 450 respondents given towards various five pricing tools as they prefer to exercise for purchasing their necessary flour items.

Table No: 4.23

Preference -wise number of respondents regarding their buying behaviour of flour items in case of price mix tool

Category of respondents and price mix tool	MRP		Discount		Credit		Non Price Competition		Psychological pricing		Total No of respondent
	No	%	No	%	No	%	No	%	No	%	
HE	76	76.00	11	11.00	10	10.00	3	3.00	0	0	100
ME	104	69.33	23	15.34	12	8.00	11	7.33	0	0	150
LE	145	72.5	27	13.5	21	10.5	7	3.5	0	0	200
Total	325	72.22	61	13.56	43	9.56	21	4.66	0	0	450

Source: Field Survey

In the light of the table no: 4.23, the following points are identified regarding the buying behaviour of flour items in case of price mix tool.

MRP: The above table says that in support of 325 (72.22%) respondents out of 450, MRP as one of the pricing tools is in the first position. The influence of the education among 450 respondents is that 76 (76%) highly educated out of 100, 104(69.33%) moderately educated out of 150 and 145(72.5%) less educated out of 200 respondents prefer MRP as a Pricing tool for purchase their necessary flour items.

Discount: Discount as a pricing tool is in the second position among five selected pricing tools, where 61(13.56%) out of 450 respondents support to avail it (discount) for purchase their flour items. Education as a factor of pricing tool influence 11(11%) highly educated out of 100, 23(15.34%) moderately educated out of 150 and 27(13.5%) less educated out of 200 by discount in purchase their flour items.

Credit: The above table reveals that 43(9.56%) respondents out of 450 use credit as their pricing tools for purchase flour items. The influence of education revealed that 10

(10%) highly educated out of 100, 12 (8%) moderately educated out of 150 and 21 (10.5%) less educated out of 200 respondents avail credit facilities for purchase flour items.

NPC: By the support of 21(4.66%) respondents out of 450 NPC is in the fourth position among five different pricing tools as shown in the above table. Taking education as an influencing factor it is further elicited from the above table that 3 (3%) highly educated out of 100, 11(7.33%) moderately educated out of 150 and 7 (3.5%) less educated out of 200 avail NPC in purchase their necessary flour items.

Psychological Pricing: Total devoid of support of 450 respondents towards psychological pricing as shown in the above table is circumstantial evidence that there is no awareness of among 450 respondents regarding these pricing tools.

4.4.4 Consumer buying behaviour regarding promotion mix of selected food items in Kokrajhar District

Various promotional tools can provide to be very useful for motivating as well as pursuance targeted customer's to purchase any products. It is not the exception in case of selected food processing industries of Kokrajhar District also. But it is observed that various customers of these food items are motivated differently by different promotional tools. So, it is a due task to be performed by the producer of the food items of Kokrajhar District to identify the most appropriate promotional tools so that by exercising these tools they can motivate their customers at the highest level. This sort of circumstances mentioned above warrants careful research on various promotional tools exercises by the selected five food processing items of Kokrajhar District. Accordingly, the questionnaire has conducted to amongst 450 respondents consisting different three levels of education on most prevailing 05 promotional tools among the five selected food items under study.

4.4.4.1 Consumer buying awareness of promotion mix of rice items

Keeping in purpose to present the various feedbacks obtained from 450 numbers of respondents consisting of three different levels of education the following table is prepared. These feed-backs mainly reflect as for how different three categories of

educated respondents are motivated by different promotional tools at a different level during the purchase of their necessary rice items. The following table is an attempt to present the feedbacks as obtained from the 450 respondents regarding the fact as referred to above.

Table No: 4.24

Preference -wise number of respondents regarding their buying behaviour of rice items in case of promotion mix tool

Category of respondents and promotion mix tool	Advertising		Special Offer		Direct Mailing		Free Gift		Signboard		Total No of respondent
	No	%	No	%	No	%	No	%	No	%	
HE	9	9.00	02	2.00	0	0	0	0	89	89.00	100
ME	12	8.00	7	4.67	0	0	0	0	131	87.33	150
LE	13	6.5	9	4.5	0	0	0	0	178	89.00	200
Total	34	7.56	18	4.00	0	0	0	0	398	88.44	450

Source: Field Survey

In the light of the table no: 4.24, the following points are detected regarding the buying behaviour of rice items in case of promotion mix tool of selected respondents.

Advertising: Advertising as a promotional tool is in the second position in support of 34 (7.56%) respondents out of total 450 respondents. From education prospective the above table reflect that 9 (9%) highly educated out of 100, 12(8%) moderately educated out of 150 and 13(6.5%) less educated out of 200 have been motivated by the advertising as one of the promotional tools.

Special Offer: Out of 450 respondents only 18(4%) are motivated by the special offer. Further, the level of motivation among the three categories of educated respondents is that 2(2%) highly educated out of 100, 7(4.67%) moderately educated out of 150 and 9(4.5%) less educated out of 200 are motivated by the special offer when they purchase various necessary items of rice.

129

Direct Mailing: It has displayed from the above table that out of 450 not a single respondent in the district under study is motivated by the direct mailing. Hence thereby, it is proved that direct mailing as a promotional tool has no influence at all in the community of 450 respondents as a customer.

Free Gift: Like direct mailing another promotional tool namely free gift also is not in a position to motivate single respondents among 450.

Sign Board: It is gratifying to mention that in support of 398 (88.44%) respondents out of 450 signboards as a promotional tool stands in the highest motivating factor among five different promotional tools as mentioned in the above table. Taking the level of education as a factor it is seen that 89 (89%) highly educated out of 100, 131 (87.33%) moderately educated out of 150 and 178 (89%) less educated out of 200 respondents are motivated by the signboard in purchase their necessary rice items.

4.4.4.2 Consumer buying awareness of promotion mix regarding Oil items

The following table provides the feedbacks of 450 respondents consisting of three categories of education level regarding the various promotional tools as they are motivated to purchase necessary oil items.

Table No: 4.25

Preference -wise number of respondents regarding their buying behaviour of oil items in case of promotion mix tool

Category of respondents and promotion mix tool	Advertising		Special Offer		Direct Mailing		Free Gift		Signboard		Total No of respondent
	No	%	No	%	No	%	No	%	No	%	
HE	11	11.00	7	7.00	0	0	0	0	82	82.00	100
ME	16	10.66	4	2.67	0	0	0	0	130	86.67	150
LE	17	8.5	3	1.5	0	0	0	0	180	90.00	200
Total	44	9.78	14	3.11	0	0	0	0	392	87.11	450

Source: Field Survey

In the observation of the table no: 4.25, the following points are identified regarding buying behaviour oil items in case of promotion mix tool of selected respondents.

Advertising: The above table revealed that only 44 (9.78%) respondents out of 450 are motivated by the advertising as a promotional tool in case of purchasing their necessary oil items. From education perspective it is further reflected from the above table that 11(11%) highly educated respondents out of 100, 16(10.66%) moderately educated respondents out of 150, as well as 17 (8.5%) less educated respondents out of 200, are motivated by the advertisement as a promotional tool.

Special Offer: By securing the support of 14(3.11%) number of respondents out of 450 special offers is in the third position among five different promotional tools as described in the above table. The motivational level of special offer among three categories of educated respondents is that only 7(7%) highly educated out of 100, 4 (2.67%) moderately educated out of 150 and 3 (1.5%) less educated out of 200 has influenced by this promotional tool (special offer).

Direct Mailing: In the light of the table no: 4.25, it is revealed that no one respondent out of 450 has motivated by the direct mailing for purchasing oil.

Free Gift: In the observation of the table no: 4.25, it is clear that free gift has no impact towards buying behaviour of selected respondents in the case of oil.

Signboard: From the above table it is revealed that 392(87.11%) respondents are motivated out of 450 by the signboard and thereby signboard stands in the topmost position among five different promotional tools. Taking education level as motivational factors of promotional tools it is seen that 82 (82%) highly educated out of 100, 130 (86.67%) moderately educated out of 150 and 180 (90%) less educated out of 200 respondents are motivated by signboard in purchasing their necessary oil items.

4.4.4.3 Consumer buying awareness of promotion mix in case of Bakery items

The following table is an attempt to provide the distribution of various feedbacks as obtained from 450 respondents and thereby it is shown that they have been motivated by the five different promotional tools in purchasing their necessary bakery items.

Table No: 4.26

Preference -wise number of respondents regarding their buying behaviour of bakery items in case of promotion mix tool

Category of respondents and promotion mix tool	Advertising		Special Offer		Direct Mailing		Free Gift		Signboard		Total No of respondent
	No	%	No	%	No	%	No	%	No	%	
HE	11	11.00	7	7.00	0	0	0	0	82	82.00	100
ME	17	11.33	13	8.67	0	0	0	0	120	80.00	150
LE	9	4.5	4	2.00	0	0	0	0	187	93.5	200
Total	37	8.22	24	5.33	0	0	0	0	389	86.45	450

Source: Field Survey

In the light of the table no: 4.26, the following points are observed regarding buying behaviour of selected respondents regarding bakery items in case of promotion mix tool.

Advertising: The analysis of the above table provides that out of 450 total respondents only 37 (8.22%) are motivated by the advertising as a promotional tool in purchasing their necessary bakery items. Education as a factor of motivating the selected respondents towards the advertisement is that 11(11%) highly educated out of 100, 17 (11.33%) moderately educated out of 150 and 9(4.5%) less educated out of 200 support advertisement as their promotional tools.

Special Offer: By special offer, 24(5.33%) respondents are motivated out of 450. From the education point of angle different motivated respondents in the special offer are 7 (7%) highly educated out of 100, 13 (8.67%) moderately educated out of 150 and 4 (2%) less educated out of 200 in case of bakery items.

Direct Mailing: In the light of the table no: 4.26, it is clear that none of the respondents is motivated by direct mailing for the purchase of bakery products.

Free Gift: In the light of the table no : 4.26, it is revealed that none of the selected respondents followed the free gift technique for the purchase of bakery products.

Signboard: Explanation of the above table shows that in support of 389 (86.45%) respondents out of 450 signboards as a promotional tool stand in the first position so far as its motivating level is concerned. From education perspective also it is reflected that 82 (82%) highly educated out of 100 and 120 (80%) moderately educated out of 150 and 187(93.5%) less educated out of 200 are motivated by the signboard to purchase their necessary bakery items.

4.4.4.4 Consumer buying awareness of promotion mix regarding Fruits & vegetable processing Items

Through the table given below a step is taken to represent the distribution of multifarious feedbacks obtained from the 450 respondents consisting of three categories of education level pertaining to their motivating issues towards the five selected promotional tools.

Table No: **4.27**

Preference -wise number of respondents regarding their buying behaviour of fruits & vegetable processing items in case of promotion mix tool

Category of respondents and promotion mix tool	Advertising		Special Offer		Direct Mailing		Free Gift		Signboard		Total No of respondent
	No	%	No	%	No	%	No	%	No	%	
HE	28	28.00	11	11.00	0	0	3	3.00	58	58.00	100
ME	23	15.33	09	6.00	0	0	1	0.67	117	78.00	150
LE	16	8.00	03	1.5	0	0	0	0	181	90.5	200
Total	67	14.89	23	5.11	0	0	4	0.89	356	79.11	450

Source: Field Survey

In the light of the table no: 4.27, the following explanations are made regarding buying behaviour of fruits & vegetable processing items in case of promotion mix tool of selected respondents.

Advertising: Advertising as a promotional tool is supported by 67(14.89%) respondent out of 450 and thereby it stands in the second position among five different promotional tools as shown in the above table. Motivation among different level of educated respondents is that 28 (28%) highly educated out of 100, 23(15.33%) moderately educated out of 150 and 16(8%) less educated out of 200 are mostly motivated by the advertisement as a promotional tool.

Special Offer: Among five promotional tools as depicted in the above table special offer can motivate 23(5.11%) respondents out of 450. Further, it is observed that special offer motivates 11(11%) highly educated respondents out of 100, 9(6%) moderately educated respondents out of 150 and 3(1.5%) less educated respondents out of 200 in time of purchase their necessary fruits & vegetable processing items.

Direct Mailing: Direct mailing as a promotional tool does not motivate even a single respondent out of among 450 respondents.

Free Gift: In the light of the table no: 4.27, it is revealed that none of the respondents is motivated by the free gift for purchase of fruits & vegetable processing items.

Sign Board: Out of 450 respondents 356 (79.11%) have been motivated by the signboard as a promotional tool. Among three categories of educated respondents it is elicited from the above table that 58(58%) highly educated out of 100, 117(78%) moderately educated out of 150 and 181(90.5%) less educated out of 200 are motivated by the signboard as a promotional tool in purchase their necessary fruits & vegetable processing items.

4.4.4.5 Consumer buying awareness of promotion mix in case of Flour items

The following table is prepared to rake the feedbacks of 450 respondents consisting three categories of education level, which reflect as for how these respondents have been motivated differently by different five promotional tools during the time of purchasing their necessary flour items.

Table No: **4.28**

Preference -wise number of respondents regarding their buying behaviour of flour items in case of promotion mix tool

Category of respondents and promotion mix tool	Advertising		Special Offer		Direct Mailing		Free Gift		Signboard		Total No of respondent
	No	%	No	%	No	%	No	%	No	%	
HE	7	7.00	4	4.00	0	0	0	0	89	89.00	100
ME	4	2.67	5	3.33	0	0	0	0	141	94.00	150
LE	7	3.5	6	3.00	0	0	0	0	187	93.5	200
Total	18	4.00	15	3.33	0	0	0	0	417	92.67	450

Source: Field Survey

In the light of the table no: 4.28, the following explanations are made regarding the buying behaviour of flour items in case of promotion mix tool of selected respondents.

Advertisement: Advertisement as a promotional tool has motivated 18 (4%) number of respondents out of total 450.The motivating level of advertisement among the three categories of educated respondents are concerned 7 (7%) highly educated respondents out of 100, 4(2.67%) moderately educated respondents out of 150 and 7(3.5%) less educated respondents out of 200 as found during the time of purchase their necessary flour items.

Special Offer: Among 450 respondents 15(3.33%) are motivated by the special offer in purchasing their necessary flour items. From education prospective 4 (4%) highly educated out of 100, 5(3.33%) moderately educated out of 150 and only 6(3%) less educated out of 200 are motivated by the special offer as a promotional tool in case of purchase flour items.

Direct Mailing: As depicted from the table 4.28, no one out of 450 is motivated by the direct mailing and thereby the entity of direct mailing has been ceased as a promotional tool in case of purchase flour items.

Free Gift: Free gift also cannot motivate a single respondent out of 450 and thereby it loses its existence as promotional tools among 450 respondents in case of purchase flour items.

Signboard: By motivating 417(92.67%) numbers of respondents out of 450 signboards is in the topmost motivating promotional tools in case of purchase flour items. From an education point of angle also 89(89%) highly educated out of 100, 141(94%) moderately educated out of 150 and 187(93.5%) less educated out of 200 respondents are motivated by the signboard in time of purchasing their necessary flour items.

4.5 Analysis of Preference of Consumers Buying Behaviour Regarding Local Based and Outside Based Selected Food Items in Kokrajhar District

In the market of kokrajhar Districts both the locally manufacturing food items and outside manufacturing food items are available. The existence of outside products makes local producer more competitive and bring more challenging. Hence, to capture the market share the selected five producers under study have to maintain the quality of their products along with an effective network of distribution in the greater interest of their survival. That is the reason as for why here an attempt is being taken to conduct an analytical study at what level the existing consumers prefer the selected local based food products as compared to the products of an outsider. Locally made products refer the products manufactured at Kokrajhar by the selected 90 number of industries. Outside made products refers to products manufactured outside Kokrajhar include all locally manufactured products in different places of Assam except Kokrajhar, state level, National level and MNCs products, which are sold in the Kokrajhar District market. The following table depicts the distribution of consumers' preference in between local products and outside products of selected respondents.

***Preference wise distribution of consumers' preference on locally made and outside
made selected products***

Product	Distribution of Consumer				Total Consumers
	Number of consumers prefers a locally made product	%	Number of consumers prefers outside made the product	%	
Rice	389	86.44	61	13.56	450
oil	152	33.78	298	66.22	450
Flour	97	21.56	353	78.44	450
Bakery	289	64.22	161	35.78	450
Fruits & Vegetable Processing Product	271	60.22	179	39.78	450

Source: Compiled from the Field Survey and Personal Interview

The following figure reflects the distribution of consumer's preference of local based as well as outside based products.

Figure **4.9**
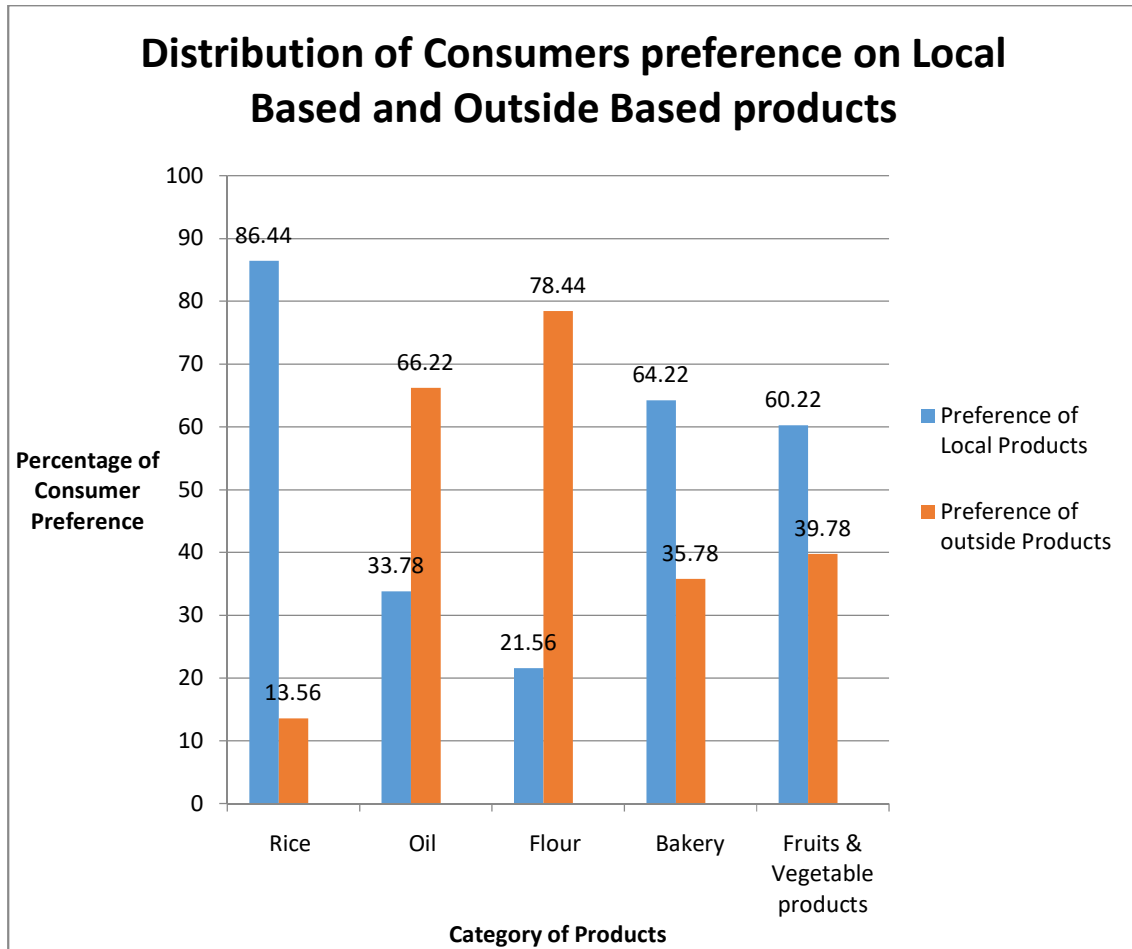
As a result of analysis of the table no: 4.29, it revealed the fact that among 450 selected consumers out of five selected food items, three locally manufactured food items are preferred by the consumer of 450 at above the percentage of 50 %. These are rice (86.44%), bakery (64.22%) and fruits & vegetable processing items (60.22%), whereas out of five food items, two food items manufactured outside are preferred by the selected consumer of 450 at above 50%. These are oil (66.22%) and flour (78.44 %). The analysis of the above table can be made from two points of view. One is from a number of items point of view and another from a total percentage point of view. From the number of items point of view out of 05 items, only 03 locally made items are highly preferred by the selected consumer against 02 of outside made products. But from a total percentage point of view, it is calculated that against 53.25% of preference

of locally made products and 46.75 % of outside made products are preferred by the selected 450 consumers.

Behind of consuming local rice by the majority consumers (86.44%), it is identified that most of the consumers' have been consuming traditionally the local rice which is their habitual practice and it plays a dominant role in the consumption of local rice. Further, they have faith in the quality of local rice which they can purchase at a lower price than that of the price of the rice coming from outside. In case of consumption of bakery by the majority consumers, various factors have been influencing the local consumers', out of which especially the rural consumers had no idea and experienced about bakery supplied by outside producer, lower price of local bakery items along with its varieties accustom with the local producer etc. are the main. In case of fruits & vegetable processing items, majority consumers prefer the locally produced fruits & vegetable items because of their lower price as compared to the outside product. On the other hand, out of five food processing items, two items such as oil and flour are consumed by the majority of consumers who are produced by the reputed state, national and international level producers. Some prominent producers' of these items that motivated the majority consumers of Kokrajhar district are Kisan brand, Patanjali, Kaschi-Ghani, Bongaigaon Rolling mill products, Gokul brand etc. The reason for happening so is that the majority of consumers have utmost faith on packaging items of these goods which are highly maintained by the outside producers.

4.6: Conclusion

On the basis of the throughout discussion made in the chapter the hypothesis No: 2, i.e., it is presumed that the selected food processing industries are measurably failed to adopt the modern and effective marketing strategies in the changing environment is tested and it stands highly justified. In support of this justification, it is to be mentioned that as we assume, it is found that in case of product mix 72. 22% of technology, 86.67 % of quality, 71.11% of packaging, 78.89 % of product diversification, 86.67% of labeling comes under the category of Non-Implementation. Likewise in case of price mix 100% of penetration, 100% of psychological pricing, 70 % of terms of credit, 58.89% of discount, 91.11% of the non-price competition, 100 % skimming pricing are under the category of non implementation. In the case of place mix also 78.89 % of

wholesale, 97.78 % of the direct sale, 100 % of the internet, 100% of multichannel is under the category of non implementation level. Further, the fact of promotion mix revealed that 95.56 % of advertising, 94.44 % of publicity, 91.11% of special offer, 100 % of direct mailing, 100 % free gift, 65.56% of signboard comes under non implementation level. In case of any industry planning as well as the development of another aspect such as production, finance and human resource management exclusively depends on decision and target taken by the marketing department. On the basis of commitment of selling made by the marketing department, the production department has to produce their goods and finance department is to provide finance and accordingly human resource department is to arrange its activities. By adopting such kind of managerial arrangement the selected food processing industries can enhance their production in the sense of quantity and quality for capturing state level and national level market. In doing so, some industries should start their production combine with other as partnership basis. In the greater interest of utilizing available entrepreneurial skill associated with the youth of the district and to utilize available raw material in a productive way the selected food processing industries should be reformed especially in part of marketing. In this context, this kind of reform also helps in the revival of those selected food processing industries which are day by day going to the path of sick. Further, it is observed this kind of initiative of reform of the selected food processing industries is urgently required for the over-all socio-economic development of Kokrajhar District. In a simple word to achieve the success of the food processing industry sector of Kokrajhar district, it's all activities should be strictly marketing oriented.

REFERENCES

Das, Dinesh (2016), " Emerging Challenge in Indian Agriculture The Looking Forward" Excel India Publishers, New Delhi- 110063

Debnath, Arabinda (2018), "Industrial Management and Entrepreneurship" Kalyani Publishers, New Delhi- 110039

Gupta, G.S. (2016), "Managerial Economics," Mc Graw Hill, New Delhi - 110063

Kotler, P. And Armstrong , G.(2009), "Principles of Marketing," Pearson, New Delhi - 110017

Namakumari, Ramaswamy (2015), "Marketing Management," Mc.Graw Hill, New Delhi -110063

Saxena, Ranjan (2016), "Marketing Management," Mc Graw Hill, New Delhi- 110063

CHAPTER - 5

Comparative Analysis of Food Processing Industries

5.1 Introduction

There are a sizeable number of roles to be played by the food processing industries in the development of socio-economic development along with the inclusive growth of the region. But it is observed that in the case of Kokrajhar District of Assam all categories of industries are not performing their activities equally towards achieving this socio-economic objective. So far as the contribution of food processing industries of Kokrajhar district towards the socio-economic development is concerned, it is to be mention that the overall contribution of this sector has been playing a significant role. The share of contribution of the food processing industry is reflected from a comparative analysis done on various dimensions. This sort of analysis also indicates certain prospects as associated with the food processing industry. That is the reason as why the comparative study of the food processing industries of the Kokrajhar District is to be carefully conducted so that some hidden fact can be elicited. The findings of this analysis can be fruitfully used for formulating various plans and schemes by the Government, bank and financial institution for the further development of the food processing industries of the district.

5.2: Objective and Methodology of the Chapter

Notwithstanding the availability of some common facilities, all Food Processing Industries of Kokrajhar District are not equally developed. On the other hand, it is immensely important to develop all the food processing industries in equal balance way so that thereby, they can maximize their contribution towards the socio-economic development of the Districts. It is observed that 90 industries under 05 categories are performing their activities at different levels. Taking this fact into concern there is a need for carrying out careful research work on a comparative study among these industries. Through these studies, some internal factors are identified which are responsible for their different performance. By knowing such kind of factors an appropriate step can be adopted for the upliftment of those industries which are comparatively showing poor performance. Further, this study is significant because of

the fact that it can highlight those factors by virtue of which some industries able to showing their good performance. It is observed that 90 industries under 05 sectors are performing their activities at different levels. That is why the basic objective of the chapter is to analyze the comparative performance among the selected industries. To analyse the relationship among investment and employment as well as investment and profit Pearson correlation techniques has used. Further, the annual growth rate has calculated by using the following formula

$$AGR = \frac{V_{present} - V_{past}}{V_{past}} \times 100$$

Where,

AGR = Annual Growth Rate in Percentage

$V_{present}$ = Present Value

V_{past} = Past Value

5.3 Comparative Analysis of year wise Growth of units of five categories of Food Processing Industries under Study

The selected industry under study period has not grown equally. Some of the categories of industries growth are unsatisfactory level. The following table shows the year-wise as well as category wise growth position of selected food processing industries under the study period in Kokrajhar District.

Table No : 5.1

Comparative Analysis of year wise Growth of Units of selected five categories of Industries

Year (as on 31st March)	Rice Mills (in Units)	Oil Mills (in Units)	Fruits & Vegetable Processing industry (in Units)	Bakery (in Units)	Flour Mills (in Units)	Total (in Units)
2007-08	9 (16.98%)	1 (16.67%)	1 (14.29%)	3 (25.00%)	3 (25.00%)	17 (18.89%)
2008-09	6 (11.32%)	--------	1 (14.29%)	2 (16.67%)	2 (16.67%)	11 (12.22%)
2009-10	10 (18.87%)	1 (16.67%)	1 (14.29%)	1 (8.33%)	2 (16.67%)	15 (16.67%)
2010-11	4 (7.55%)	--------	1 (14.29%)	1 (8.33%)	2 (16.67%)	8 (8.89%)
2011-12	6 (11.32%)	1 (16.67%)	1 (14.29%)	----	2 (16.67%)	10 (11.11%)
2012-13	1 (1.89%)	1 (16.67%)	----	1 (8.33%)	----	3 (3.33%)
2013-14	2 (3.77%)	1 (16.67%)	1 (14.29%)	1 (8.33%)	1 (8.32%)	6 (6.67%)
2014-15	6 (11.32%)	1 (16.67%)	1 (14.29%)	1 (8.33%)	----	9 (10.00%)
2015-16	6 (11.32%)	------	---	2 (16.67%)	-----	8 (8.89%)
2016-17	3 (5.66%)	-------	-----	----	------	3 (3.33%)
Total	53 (100%)	6 (100%)	7 (100%)	12 (100%)	12 (100%)	90 (100%)

Source : Field Survey

The following figure represents the percentage wise overall growth trends of selected five categories of industries during the year 2007-08 to 2016-17.

Percentage wise growth of units of five categories of food processing industry during the study period
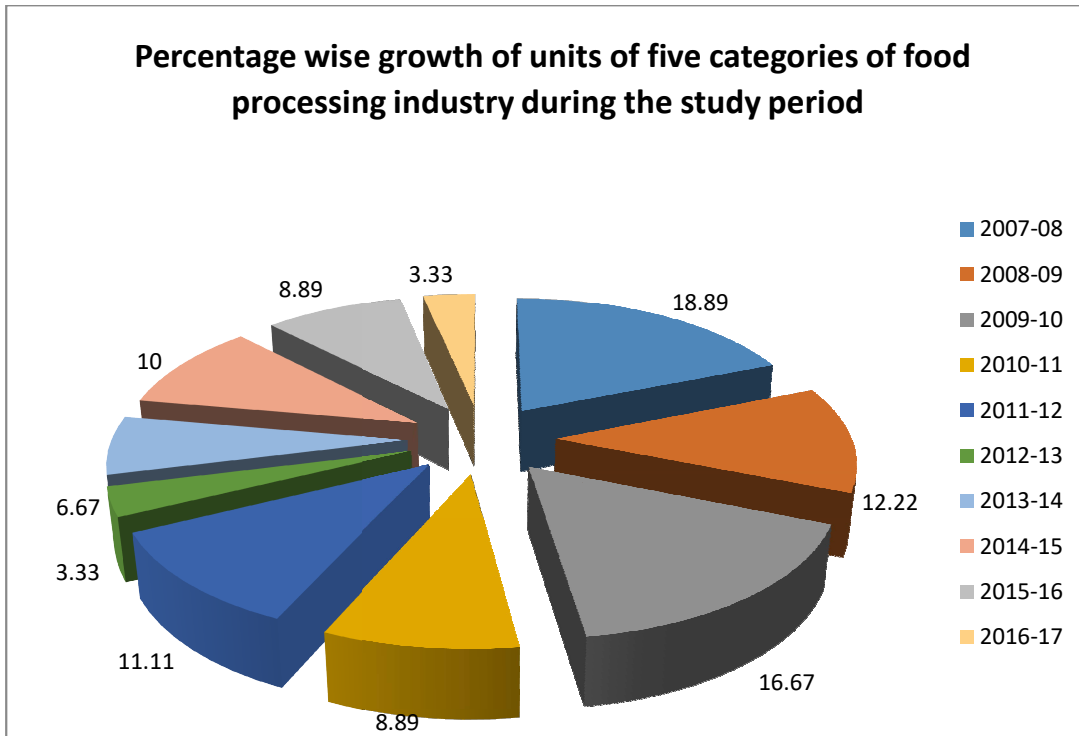
From the table No 5.1, it is revealed that in the year 2007-08, 16.98 % of rice mills have established and which is the highest percentage of growth rate during the 10 years, i.e. ,from 2007-08 to 2016-17 and 5.66% of rice mill has established in the year 2016-17 which is the lowest percentage of growth rate of rice mill during the study period. In case of oil mill, it is found that out of 10 years, there is no growth rate of industry in the four years, i.e., in 2008-09, 2010-11, 2015-16 and 2016-17 respectively and remaining six years the same percentage of industry are grown up, i.e.,16.67 % in every six years. Further, it is found that in case of bakery highest percentage of growth rate has found in the year 2007-08, i.e., 25.00 % and there is none of the single industry has established in the year 2012-13, 2015-16 and 2016-17 respectively. In case of fruits & vegetable processing industry, it is found that out of 10 years, the same percentage of growth rate has found in the year 2007-08, 2008-09, 2014-15, i.e., 14.29%. and there is no growth rate found during the remaining three years, i.e., 2012-13, 2015-16 and 2016-17 respectively. In case of the growth rate of flour mill during the study period, it is found that highest percentage of the industry is established in the year 2007-08, i.e., 25.00%

and lowest percentage are established in the year 2013-14, i.e.8.33. Further, in case of the growth rate of a total number of selected food processing industry as a whole, it is found that highest percentage of the industry has established in the year 2007-08, i.e., 18.89 % and lowest percentage of the industry has established in the year 2015-16, i.e., 3.33 %.

5.4: Comparative Analysis of year wise Growth of Employment level of selected five categories of Food Processing Industries under Study

Generally, agro-based industries are labour intensive industry. In case of a place like Kokrajhar, the source of employment of many people is the agro-based industry sector. Hence , to analyse the employment position of the selected industry under study is also significant to analyse the socio-economic impact of this industry in Kokrajhar district.The following table shows the distribution of employment level of selected food processing industries in year wise as well as category wise under the study period.

Table No: **5.2**

Comparative Analysis of year wise Employment position of selected five categories of Industries

Year (as on 31st March)	Rice Mills (No of Employees)	Oil Mills (No of Employees)	Fruits & Vegetable Processing industry (No of Employees)	Bakery (No of Employees)	Flour Mills (No of Employees)	Total (No of Employees)
2007-08	18 (13.04%)	2 (6.67%)	3 (5.36%)	11 (13.09%)	10 (13.51%)	44 (11.52%)
2008-09	14 (10.15%)	-----	4 (7.14%)	9 (10.71%)	15 (20.27%)	42 (10.99%)
2009-10	22 (15.94%)	2 (6.67%)	9 (16.07%)	5 (5.95%)	14 (18.91%)	52 (13.61%)
2010-11	10 (7.25%)	----	6 (10.71%)	8 (9.52%)	11 (14.86%)	35 (9.16%)
2011-12	19 (13.77%)	11 (36.67%)	14 (25.00%)	-----	8 (9.52%)	52 (13.61%)
2012-13	3 (2.17%)	3 (10.00%)	-----	9 (10.71%)	-----	15 (3.94%)
2013-14	6 (4.35%)	2 (6.67%)	7 (12.5%)	7 (8.33%)	6 (8.11%)	28 (7.33%)
2014-15	16 (11.59%)	4 (13.33%)	8 (14.28%)	17 (20.23%)	3 (4.00%)	48 (12.57%)
2015-16	24 (17.39%)	----	3 (5.36%)	10 (11.90%)	5 (6.76%)	42 (10.99%)
2016-17	6 (4.35%)	6 (20.00%)	2 (3.57%)	8 (9.52%)	2 (2.70%)	24 (6.28%)
Total	138 (100%)	30 (100%)	56 (100%)	84 (100%)	74 (100%)	382 (100%)

Source: Field Survey

The following figure represents the year wise employment level of selected industries under the study period.
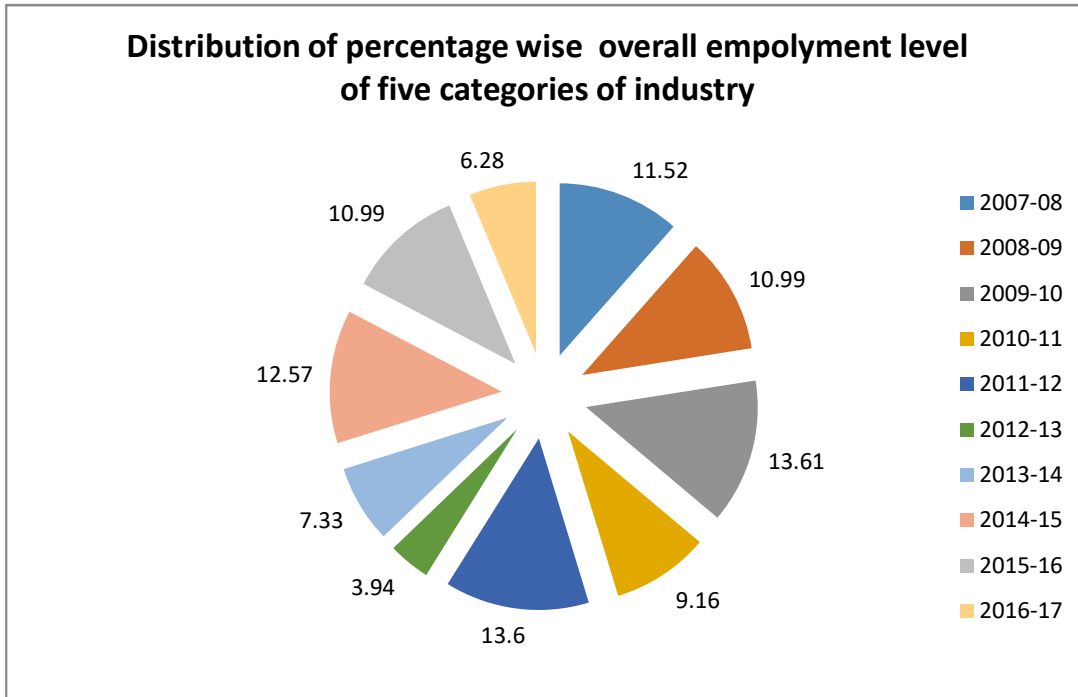
Distribution of percentage wise overall empolyment level of five categories of industry

6.28   11.52

10.99

10.99

13.61

12.57

7.33

3.94   9.16

13.6

Legend:
- 2007-08
- 2008-09
- 2009-10
- 2010-11
- 2011-12
- 2012-13
- 2013-14
- 2014-15
- 2015-16
- 2016-17

In case of employment level of selected five categories of food processing industries in Kokrajhar District under study, it is found that the highest percentage of employment is provided by the rice mill in the year 2015-16 , i.e.,17.39% , oil mill in the year 2011-12 , i.e. ,36.67 % , fruits & vegetable processing industry in the year 2014-15 , i.e., 34.45 % , flour mill in the year 2008-09 , i.e. 20.27% and bakery in the year 2009-10 , i.e.,   34.56 % respectively. Accordingly, the lowest percentage of employment is provided by the rice mill in the year 2009-10-11, i.e., 2.22%, oil mill in the year 2007-08 , 2009-10 and 2013-14 , i.e.,6.67 % and fruits & vegetable processing industry in the year 2016-17 , i.e., 3.57 % , bakery in the year 2009-10 ,i.e., 5.95 % and flour mill in the year 2016-17 , i.e. , 2.70 % respectively. Further , in case of cumulatively total number of employees of five categories of industries, it is revealed that highest percentage of employment is provided in the year 2009-10 and 2011-12 ,i.e., 13.61 %

and lowest rate of total employment are provided in the year 2012-13 , i.e., 3.94 % respectively.

In the case of industry wise, if analyses have made then, it is found that rice mill has provided the highest number of employees during the study period, i.e., 138. The second highest employment has provided by the bakery, i.e., 84 during the study period. The third highest number of employment has provided by the flour mill, i.e., 74 and fourth highest employment has provided by the fruits & vegetable processing industry, i.e., 56 during the study period. The lowest number of employment has provided by the oil mill, i.e., 30 during the study period.

5.5: Comparative analysis of Annual Growth Rate of Units of the Five Categories of selected Industries under study

The following table represents the annual growth rate of the five categories of selected industries under the study period.
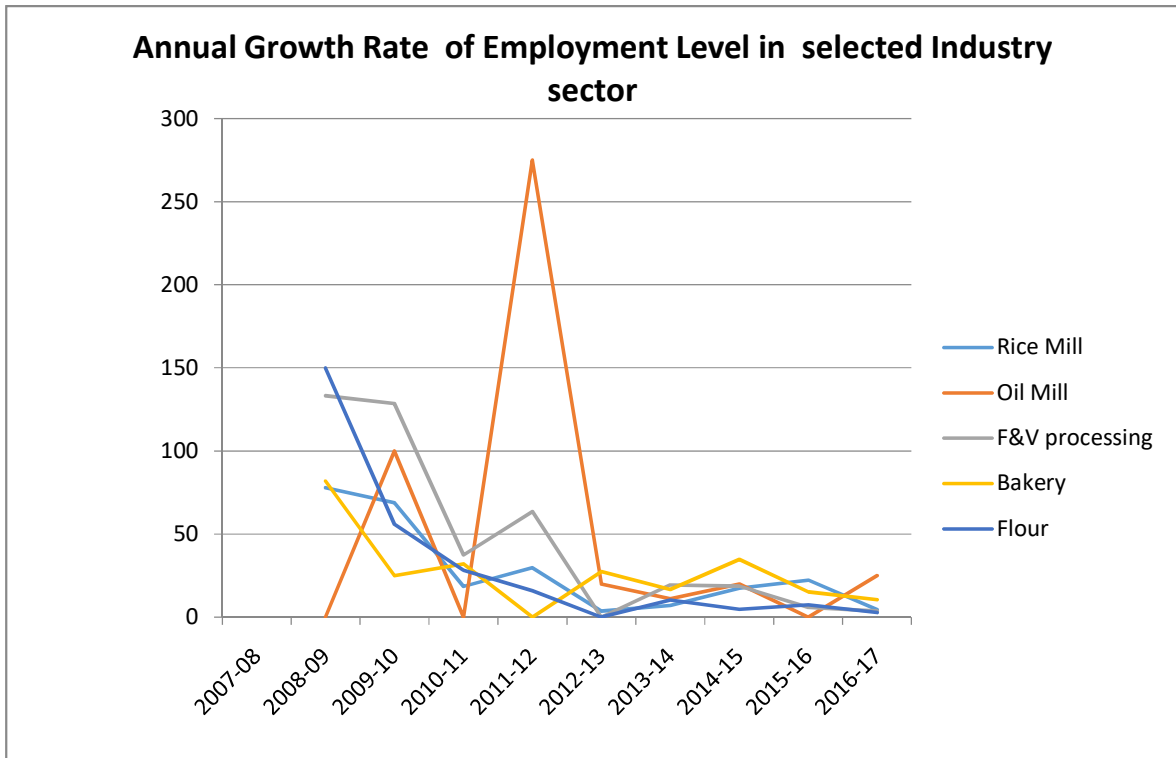
Table No: **5.3**

Comparative analysis of Annual Growth Rate (AGR) of the number of unit of Five

Categories of Selected Food Processing Industries

Year (as on 31st March)	Rice Mills (in Units)		Oil Mills (in Units)		Fruits & Vegetable Processing Industry (in Units)		Bakery (in Units)		Flour Mills (in Units)		Total (in Units)	
	No	AGR (in %)	NO	AGR (in%)	No	AGR (in%)	No	AGR (in %)	No	AGR (in%)	No	AGR (in%)
2007-08	9	----	1	-----	1	----	3	----	3	----	17	---
2008-09	15	66.67	1	0	2	100	5	66.67	5	66.67	28	64.71
2009-10	25	66.67	2	100	3	50.00	6	20.00	7	40.00	43	53.57
2010-11	29	16.00	2	0	4	33.33	7	16.67	9	28.57	51	18.60
2011 -12	35	20.69	3	50.00	5	25.00	7	0	11	22.22	61	19.60
2012 -13	36	2.86	4	33.33	5	0	8	14.29	11	0	64	4.92
2013 –14	38	5.56	5	25.00	6	20.00	9	12.5	12	9.09	70	9.38
2014 -15	44	15.79	6	20.00	7	16.67	10	11.11	12	0	79	12.86
2015 -16	50	13.64	6	0	7	0	12	20.00	12	0	87	10.12
2016 -17	53	6.00	6	0	7	0	12	0	12	0	90	3.45

Source: Field Survey

Figure No : **5.3**

Annual Growth Rate Curve of units in Various Industry
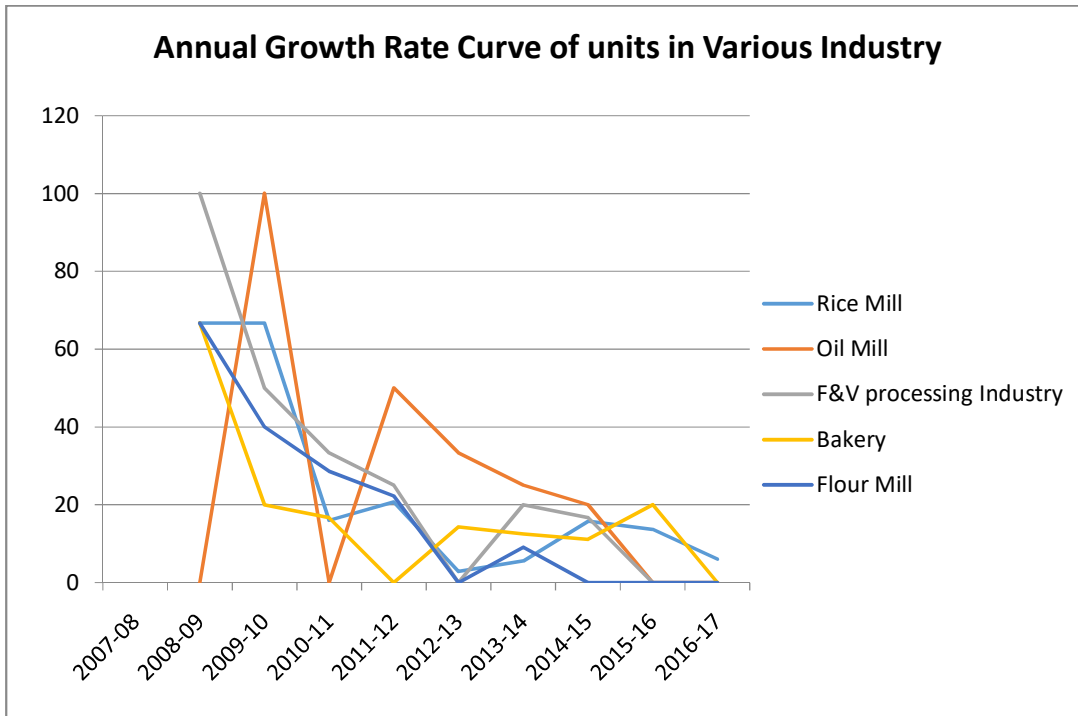
In the light of the table no 5.3, it is found that all the selected industries under study period growth rate are minimal. In the case of rice mill highest annual growth rate is found in the year 2008-09 and 2009-10, i.e., 66.67 %. The lowest growth rate is identified in the year 2012-13, 2.86 %. But in the case of the oil mill, the highest growth rate is found in the year 2009-10, 100%. But in the year 2008-09, 2010-11, 2015-16 and 2016-17 there is no growth rate of oil mills are found. In case of fruits & vegetable processing industry highest growth rate is found in the year 2008-09, i.e., 100%. Further, it is identified that in the year 2012-13, 2015-16 and 2016-17 there is no growth rate are found in this category of industry. The highest growth rates of the bakery are identified in the year 2008-09, i.e., 66.67%. But in the year 2011 -12 and 2016-17 no growth rate are identified in the bakery. Moreover, in case of flour mill highest growth rate are identified in the year 2008-09, i.e., 66.67%. But in the year 2012-13, 2014-15, 2015-16 and 2016-17 no growth rate are identified in case of flour mill. As a whole, all five categories of industries highest growth rate is found 64.71% in the year 2008-09 and the lowest growth rate is found 3.45 % in the year 2016-17.

5.6 : Comparative analysis of Annual Growth Rate (AGR) of employment level of five categories of Selected Industries

The following table shows the annual growth rate of employment level of the five categories of selected industries under the study period.

Table No: **5.4**

Comparative analysis of Annual Growth Rate (AGR) of Employment Level of selected Food Processing Industries

Year (as on 31st March)	Rice Mills (Employees)		Oil Mills (Employees)		Fruits & Vegetable Processing Industry (Employees)		Bakery (Employees)		Flour Mills (Employees)		Total (Employees)	
	No	AGR (in%)	NO	AGR (in%)	No	AGR (in%)	No	AGR (in%)	No	AGR (in%)	No	AGR (in%)
2007-08	18	---	2	----	3	----	11	---	10	---	44	---
2008-09	32	77.78	2	0	7	133.33	20	81.81	25	150.00	86	95.45
2009-10	54	68.75	4	100	16	128.57	25	25.00	39	56.00	138	60.47
2010-11	64	18.52	4	0	22	37.5	33	32.00	50	28.21	173	25.36
2011 -12	83	29.69	15	275	36	63.64	33	0	58	16.00	225	30.06
2012 -13	86	3.61	18	20.00	36	0	42	27.27	58	0	240	6.67
2013 –14	92	6.98	20	11.11	43	19.44	49	16.67	64	10.34	268	11.67
2014 -15	108	17.39	24	20.00	51	18.60	66	34.69	67	4.69	316	17.91
2015 -16	132	22.22	24	0	54	5.88	76	15.15	72	7.46	358	13.29
2016 -17	138	4.55	30	25.00	56	3.70	84	10.53	74	2.78	382	6.70

Source: Field Survey

Figure: 5.4

Annual Growth Rate of Employment Level in selected Industry sector

It is observed from the table no 5.4 , that the employment level of all five categories of industries is not so significant. In the case of rice highest growth rate are identified 2008-09 (77.78%) and the lowest growth rate of employment level is found in the year 2012-13 (3.61%). Further, the highest rate of annual growth rate of employment level in case of oil mill is found in the year 2009-10 (100%) and in the year 2008-09, 2010-11 and 2015-16 the growth rate are found to be nil. The highest AGR of employment of fruits & vegetable industry is found in the year 2008-09 (133.33%) and 0 % growth rate is identified in the year 2012-13. In the case of bakery highest AGR of employment level is found in the year 2008-09 (81.81%) and 0% growth rate is found in the year 2012-13. Further, flour mill highest growth rate is found in the year 2008-09 (150%) and o% growth rate is identified in the year 2012-13.The cumulatively all five categories of industries highest AGR are identified in the year 2008-09 9, i.e. , 95.45% and the lowest growth rate are found 2012-13 , i.e. , 6.67%.

5.7: Correlation Analysis of selected industries between total initial Investment & total employment and total Initial Investment & total net profit during the study period

In any industry, it is desired to have a positive relationship between investment and profit as well as between investment and employment. Keeping this purpose into consideration the following table depicts the relationship between net profit and employment with an initial investment as prevailing in the selected five industries under study.

Table No. 5.5

Correlation between total initial Investment & total employment and total initial Investment & net profit in Various Category of Food Processing Industries during the study period

Variables		Employment	Net profit
Total Initial Investment	Category of Industry	-----------------	--------------
	Rice Mill	0.99822	0.81092
	Oil Mill	0.98545	0.98594
	Fruits & Vegetable processing industry	0.94615	0.96361
	Bakery	0.96071	0.98429
	Flour Mill	0.9736	0.88838

Source: Self-estimates based on survey data

After going through the table no 5.5, it is reflected that the relationship in between total initial investment and total net profit as well as total initial investment and total employment are found to be different in the different industry which is explained below.

(a)Initial Investment and Employment

In the case of the relationship between initial investment and employment, it is found that the rice mill has the most favourable relationship because it scores the highest correlation value, i.e., 0.99822. This reflects that in the case of rice mill level of initial

investment and employment are highly correlated among the selected food processing industries. The second most favourable relationship is found in case of oil mill because its correlation value is 0.98544. The third highest positive correlation value is found in case of flour mill because it scores the value 0.9736. The fourth position is in case of the bakery, i.e., 0.96071 and in the fifth position in case of the correlation value between initial investment and employment is found in case of fruits & vegetable processing industry, i.e., 0.9465. From the above table, it is reflected that among the five selected industry rice mill is highly correlated and fruits & vegetable processing industry have the lowest correlation between initial investment and employment. But it is found that all the selected industries under study are highly correlated because all the industries correlation value are higher than 0.95. That is why this industry is considered as labour intensive because as much as investment rise employment also rise proportionately. Hence, these industries are identified as one of the major sources of employment provider with lower investment in the industrially backward region like Kokrajhar district.

(b) Initial Investment and Net Profit

In support of the above table, the following points are highlighted so far as investment and net profit relationship of 05 selected industries are concerned. In the case of oil mill and bakery have the highest favourable relationship in between initial investment and net profit is found which is 0.98594 and 0.98429 respectively. The value of relationship in between initial investment and net profit is found to be lowest in rice mill which is 0.81092. The second highest value of relationship in between initial investment and net profit is obtained by fruits & vegetable processing industry which is 0.96361. The third highest correlation value is found in case of flour mill, i.e.,0.88838. The study revealed that the profit earning capacity regarding oil mill, bakery, and fruits & vegetable processing industries are found to be satisfactory than that of the rice mill and flour mill concerning initial investment.

5.8: Gender Wise Comparative Analysis of Selected Industry Sectors

In the present scenario of economic activities, women empowerment is seriously considered as an essential part of economic development. Taking this fact into consideration here an attempt is being made to conduct a study of gender wise

comparison of the selected industries under study which is depicted in the following table.

Table No. **5.6**

Gender wise Comparative Analysis of Selected Industry sector

Category of Industry and Gender	Rice Mill	Oil Mill	Flour Mill	Bakery	Fruits & Vegetable Processing Industry	Total	Percentage
Male	48 (90.57%)	6 (100%)	10 (83.33%)	12 (100%)	3 (42.86%)	79	87.78 %
Female	5 (9.43%)	----	2 (16.67%)	---	4 (57.14%)	11	12.22 %
Total	53	6	12	12	7	90	100

Source: Field Survey

After going throughout the table no: 5.6, it is cleared that involvement of 12.22% of women in the five categories of selected industries owner indicates the poor level of women empowerment in the food processing industry sector of Kokrajhar District. Further, it is reflected from the table No: 5.6 that against the involvement of 57.14% of women in fruits & vegetable processing industry, only 9.43% and 16.67% of women are engaged in the rice mill and flour mill respectively. On the other hand, women as the proprietor have yet to be involved in the oil mill and bakery. The maximum number of the industry is run by the male proprietor. But in case of fruits & vegetable processing industry sector women participation (57.14%) are found higher than the male population (42.86%).

5.9 Comparative Analysis of Educational Qualification of proprietors of the selected food processing industries of Kokrajhar District

The education is becoming the primary need of human qualification. It can create the professional career of an individual. In the present world, the professional and skill-based knowledge is essential to run the industry. Education qualification of owners, as well as employees, is necessary for the overall development of the industry. The data

related to the educational qualification of the proprietor of selected food processing industries of Kokrajhar District are presented in the following table.

Table No. **5.7**

Comparative analysis of Educational Qualification of the Proprietors of the Selected Food Processing Industry sector

Education qualification of proprietor and Category of Industry	Rice Mill (proprietor)		Oil Mill (Proprietor)		Flour Mill (proprietor)		Bakery (Proprietor)		Fruits & vegetable Processing industry (Proprietor)		Total No of Proprietor (Industry)	
	No	%	No	%	No	%	No	%	No	%	No	%
Below HSLC	12	22.64	0	0	0	0	2	16.67	2	28.57	16	17.78
HSLC	21	39.62	2	33.33	04	33.33	3	25.00	1	14.28	31	34.44
HS	06	11.32	3	50.00	03	25.00	2	16.67	1	14.28	15	16.67
Graduate	14	26.42	1	16.67	05	41.67	5	41.67	3	42.85	28	31.11
Post Graduate	0	0	0	0	0	0	0	0	0	0	0	0
Other Technical Qualification	0	0	0	0	0	0	0	0	0	0	0	0
Total	53	100	6	100	12	100	12	100	7	100	90	100

Source: Compiled from field Survey and questionnaire

The following figure represents the educational qualification of the proprietors of the selected industries under study.

Figure: 5.5
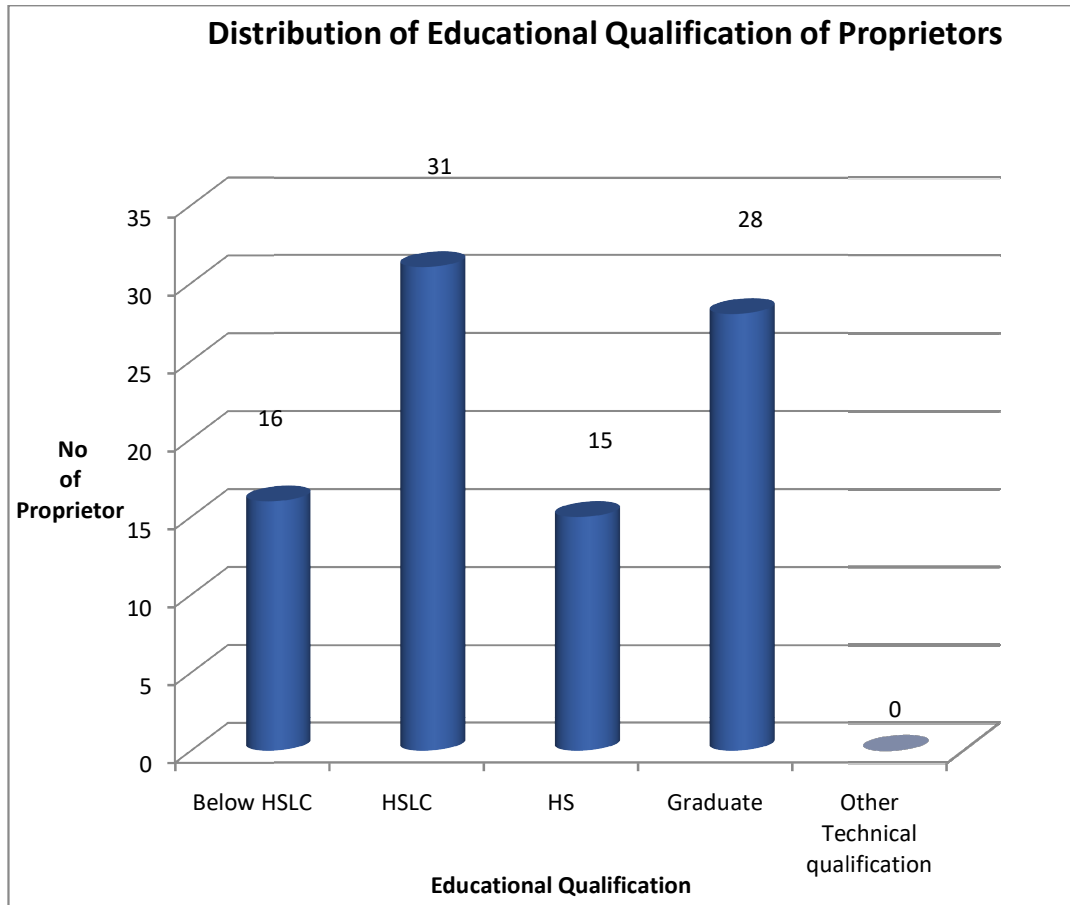
In the light of the table no 5.7, it is found that in case of rice mill 22.64 %, oil mill 0 %, flour mill 0 %, bakery 16.67 %, and fruits & vegetable processing industry 28.57% proprietors' education qualification are of Below HSLC level. In the category of HSLC passed it is found that 39.62 % of rice mill, 33.33 % of oil mill, 33.33 % of flour mill, 25.00 % of bakery and 14.28 % proprietor are in this level of education. Accordingly, 11.32 % of rice mill, 50.00% of oil mill, 25.00 % of flour mill, 16.67% of bakery and 14.28% of fruits & vegetable processing industries proprietor are HS passed. Further, it is found that 26.42% of rice mill, 16.67% of oil mill, 41.67% of flour mill, 41.67 % of bakery and 42.85 % of fruits & vegetable processing industries proprietor are graduate. In the case of postgraduate and other technical qualification category, none of the proprietors have been found. The study revealed that even less educated people also run the food processing industry sector because it is found that 22.64 % of rice mill, 16.67 % of bakery and 28.57 % of fruits & vegetable processing industry are run by the below

HSLC level educated proprietor. The study also reflected that only 31.11 % of the proprietors are graduate among all the selected food processing industry and 68.89 % are found to be undergraduate. The highest percentage of graduated youth is attracted by the fruits & vegetable processing industry because in these industries 42.85 proprietors are graduated. The second highest graduated youth are attracted by the bakery and flour mill because in case of bakery 41.67 % and flour mill also 41.67 % proprietors are graduate.

5.10 Comparative Analysis of Source of Fund

The availability of capital is the basic criteria to start the industry. That is why to see the generation of finance of selected five categories of industry under study, here an attempt is being taken to analyze the source of finance of this industry. The following table reflects the various source of finance of the selected industry.

Table No: **5.8**

Comparative Analysis of Source of Fund

Source of Fund	Rice Mill	Oil Mill	Flour Mill	Bakery	Fruits & Vegetable Processing Industry	Total	Percentage
Own Fund	31 (58.49%)	3 (50%)	7 (58.34%)	10 (83.34%)	3 (42.85%)	54	60 %
Loan From Commercial Bank	11 (20.75%)	3 (50%)	4 (33.33%)	1 (8.33%)	2 (28.57%)	21	23.33%
Society Loan	3 (5.67%)	--	--	--	1 (14.29%)	4	4.45%
Private Source (Friends /Relative)	8 (15.09%)	--	1 (8.33%)	1 (8.33%)	1 (14.29%)	11	12.22%
Others	--	---	--	--	--	--	--
Total	53	6	12	12	7	90	100%

Source: Field Survey

It is identified from the table No 5.8, that maximum numbers of Industry, i.e., 60 % arrange the fund from their own capital. The only 23.33 % of owner collect fund from the commercial bank, 4.45 % taken society loan and 12.22% has taken loan from friends or relatives. The study revealed that the majority of units run their industry through their

own source of fund, i.e., 60 %. Further, it is reflected that the role of commercial bank for providing financial assistance is not satisfactory in the district.

5.11 Conclusion

In this chapter comparative analysis of various dimension of selected food processing industries are done. For doing so, the growth trend of all categories of selected industries are analyses year wise along with the employment level of all the categories of selected industries are also analyzed.The education qualification of various categories industries proprietors is also discussed. The chapter also highlighted that the maximum number of selected industry is run by the male proprietor. The female participation as a proprietor in these industry sectors is not satisfactory. Moreover, the chapter analyses the source of capital of this industry. It is revealed from the study that maximum number of selected industry generate their own source of fund to run the industry. The role of commercial bank for providing financial assistance to selected industry is not satisfactory. Further, the annual average growth rate of employment and industry are also analyses during the study period. At the end to use the Pearson correlation formula try to analyses the relationship among total initial investment, total employment and net profit of the selected industry under study. The study revealed that the growth rate of all the categories of industries is not satisfactory. But it is found that during field survey the selected industry has considerable scope to develop in the selected area with diversified way. But for these, the support of government is very much essential along with the proprietors should also come forward with new marketing techniques along with new business attitude to capture the kokrajhar district along with the national level market.

REFERENCES

Debnath, Arabinda and Sarma, Gunajit (July –December, 2017), "A priority Based Comparative Economic Analysis Among A Few Selected Food Processing Industry of Kokrajhar District of Assam," *AGU International Journal of Research in Social Sciences & Humanities*, Vol.5, pp- 246.

Sarma , Gunajit (2018), " A Comparative Analysis of various economic variables among the Selected five food processing industries of Kokrajhar District in Assam," Pramana Research Journal, Vol. 8 , No. 11 , Pp. 319-330.

CHAPTER - 6

A Study on various Problematic Dimensions of Food Processing Industries

6.1 Introduction

The multi-dimensional problems as suffered by the food processing industries of Kokrajhar district are the root cause, as for why notwithstanding their ample potentialities, still no satisfactory development is taken place. After going through the observation made during the field survey, multi-dimensional problems of food processing industries have been identified into many categories. Further, it has observed that these multifarious problems create different kinds of problems and consequently these problems adversely affect the overall development of the industries under study. The lack of industrial environment is the reason, as for why the existing food processing industries of the district are remained not only underdeveloped but also measurably fail to attract the outside investors as well as new entrepreneurs towards the field of food processing industries of the district. In the current competitive marketing scenario emerged from the globalized environment, it is seen that day by day many new products produced by national as well as international producers are entering in the market of Kokrajhar district. All of these above facts and circumstances warrant a careful research work on problematic dimensions of food processing industries of Kokrajhar district. This sort of research work will certainly contribute in framing survival and revival policy for these industries and also helps in formulating competitive marketing strategies to sell their goods in the same satisfaction of the national and multinational products. That is why this chapter aims at identifying the major problems which stand on the way of the overall development of the selected industries of the district under study.

6.2 Objective of the Chapter

The general objective of the Study is to identify some major problems of the selected industries which stand on the way of their development. To achieve these objectives mainly the study aims at examining different major problems. Unless and until identify the causes of the various problems of the selected food processing industries of Kokrajhar District, it is very difficult to adopt any remedial measures. On the other hand, without removing these problems, no industry can successfully survive in the competitive market. That is why; the basic objective of this chapter is to examine the multifarious problems faced by the selected food processing industries under study.

6.3 Methodology of the Chapter

This chapter attempts to discuss those problems of the food processing industries of Kokrajhar district, which stand on the way of developing these industries. In doing so the different problems faced by the selected food processing industries of Kokrajhar Districts are identified and the problems are categorized into various dimensions. In this chapter, an attempt has been taken to analyzed the overall existing problems which have badly affected these industries .In order to collect the feedbacks of 90 number of proprietors of the industry regarding their opinions towards the various problems, priority wise problems have been categorized. In order to analyze the problems in a systematic way, all categories of problems are distributed rank wise. The rank 1 means lowest priority, rank 2 means moderate priority and rank 3 means the highest priority of the problems respectively.

The opinion obtained from the 90 number of respondents regarding the priority of problems are presented and analyzed through combined arithmetic mean and arithmetic mean by using the following formula to find out the weightage of the problems.

$$(\text{Combined Mean})\bar{x} = \frac{n_1\bar{x}_1 + n_2\bar{x}_2 + \cdots\cdots + n_k\bar{x}_k}{n_1 + n_2 + \cdots\cdots n_k} \text{ and } (\text{Average})\bar{x} = \frac{Sum\ of\ all\ the\ observations}{Total\ number\ of\ Observations}$$

Where $\bar{x}_1, \bar{x}_2, \ldots\ldots\ldots\bar{x}_k$ be the means of 1st, 2nd, ..., kth series or class with $n_1, n_2, \ldots\ldots n_k$ Observations.

6.4 Analysis of Various Problems of Food Processing Industries under Study

The various problems as suffered by the selected industries of Kokrajhar district are discussed below.

6.4.1 Infrastructure Problems

The infrastructural facility like road, rail, air, power, telecommunication, banking etc. is vital for the development of any kind of industry. Hence, to observe the prevailing condition of the infrastructural facility of the Kokrajhar District a careful observation is done because infrastructure implies those facilities which are basic to all industries. In case of selected 90 number of food processing industries of five categories in Kokrajhar District, mainly five factors of infrastructural facilities are taken into observation. These are transportation, power, warehouse, banking and insurance. With a view to eliciting the view of selected 90 number of food processing industries a question was put against each factor and their opinion was accepted in different ranks. The respond obtains from the proprietors of the industries are given in the following table.

Table No. 6.1

Priority wise distribution of opinion of respondents on infrastructure problems

Sl no of Elements of Problems	Infrastructure Problems	Rank : 1 (Lowest priority)	Rank :2 (Moderate Priority)	Rank:3 (Highest Priority)	Combined Mean
1	Transportation Facilities	33	18	39	31.05
2	Power Supply	15	34	41	31.74
3	Warehouse Availability	12	36	42	31.93
4	Banking Support	25	27	38	31.12
5	Insurance Coverage	39	20	31	29.90

Source: Compiled from field survey and questionnaires

N.B: Averages of (Rank 1= 24.8, Rank 2 = 27, Rank 3 = 38.2)

The following figure represents infrastructure related problems faced by the selected industry under study.

Figure: 6.1
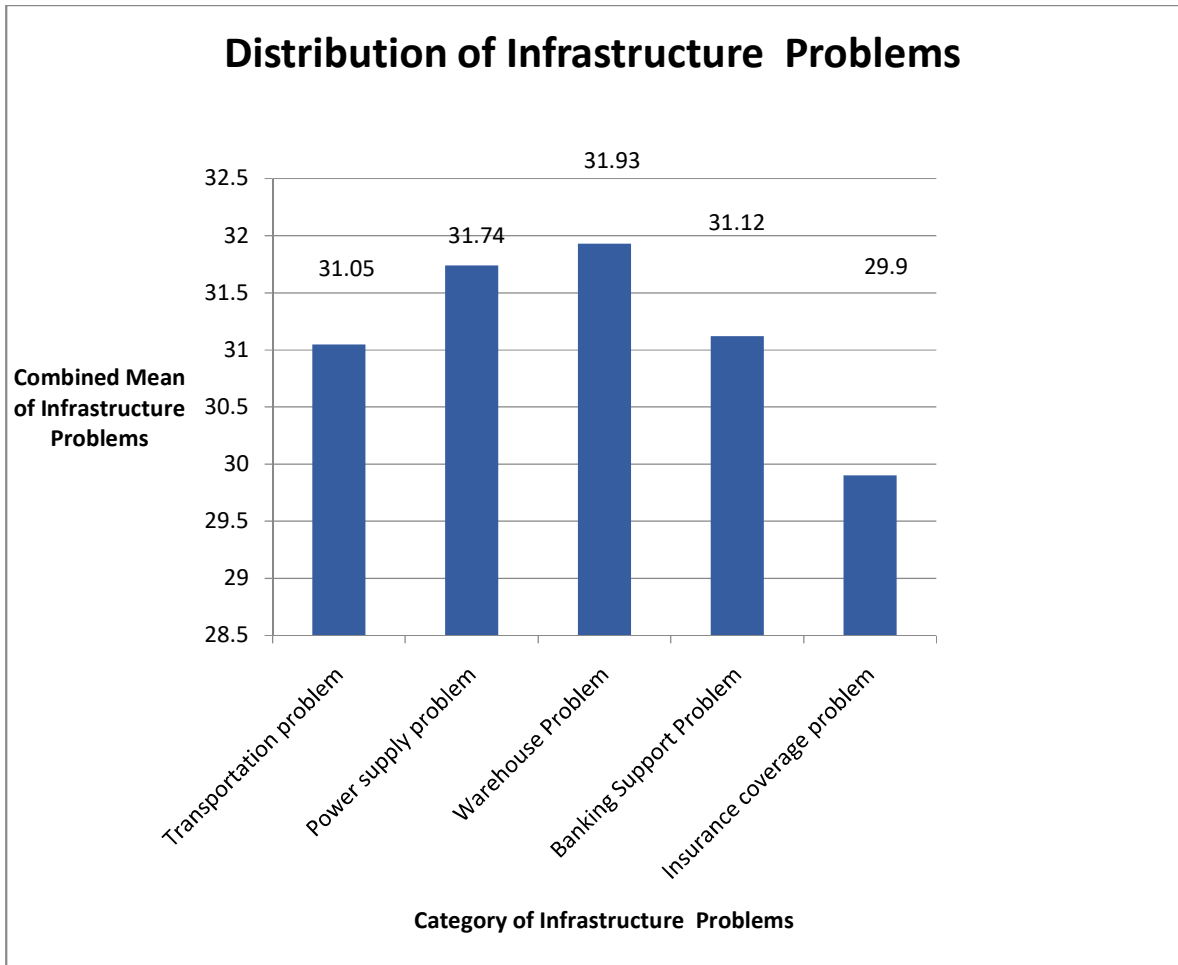
In the light of the table no: 6.1, it is detected that as compared to other problems insurance coverage problem is found to be less because it gets the lowest combined mean, i.e., 29.90 of infrastructures problems. On the other hand, the highest problem is found in case of warehouse availability as because it carries highest combined mean, i.e., 31.93 of infrastructures problems. In between these two problems other problems such as transportation facilities, power supply, and banking support have been taken

place by acquiring the combined mean as 31.05, 31.74 and 31.12 respectively of infrastructures problems.

6.4.2 Human Resource Skill Problems

Human resource skill is considered an important factor for accelerating industrial development so far as the food processing industry is concerned. These are conceptual skill which includes basic concept and idea regarding the business activities and organization and management process as well as various activities performed by the respective industries. The second dimension is the technical skill which covers the skill of production technology, handling machines and equipment, computer & It etc. The last dimension communication skills include all kind of communication efficiency, intra and interpersonal relationship along with awareness and business attitude. Considering these three dimensions of HR skill the following table has prepared for the selected 90 industries of five categories under study.

Table No. **6.2**

Priority wise distribution of opinion of respondents on Human Resource Skill problems

| Sl number of elements of problems	Human Resource Problems	Rank :1 (Lowest Priority)	Rank :2 (Moderate Priority)	Rank:3 (Highest Priority)	Combined Mean
1	Conceptual Skill	5	25	60	41.74
2	Technical Skill	5	33	47	36.62
3	Communication Skill	15	35	40	35.22

Source: Compiled from field survey and questionnaires.

N.B: Averages of (Rank 1= 8.33, Rank 2 =31, Rank 3 = 49)

The following figure represents human resource skill related problems faced by the selected industry under study.

Distribution of Human Resource Skill Problems
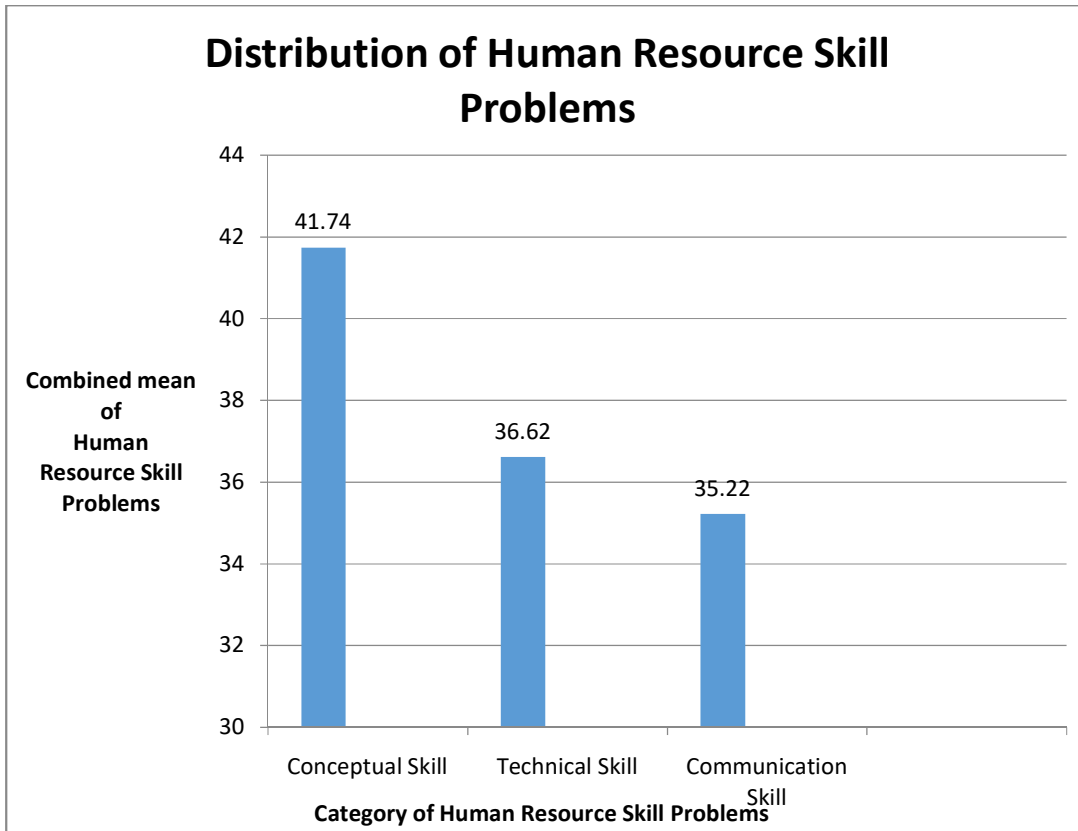
In the light of the table no: 6.2, it is detected that conceptual skill among these industries is the highest problem than that of the communication and technical skills problems. The highest combined mean of conceptual skills, i.e., 41.74 of human resource Problems revealed that the selected industries have lack of knowledge regarding innovative business idea and creativity. On the other hand, communication skills are found to be lowest combined mean, i.e., 35.22 of human resource Problems as compared to other two skills which signify that communication efficiency and intra & interpersonal relationship are good as compared to conceptual and technical skills.

6.4.3 Financial Problems

A careful study on the financial activity of the selected food processing industries is urgently needed. It is because without the efficient and effective use of money these industries never can accomplish their desired goal. Hence in this part, an attempt is

being taken to observe the overall position of the financial activity. In doing so, three criteria related to financial activities are selected. These are the availability of source of finance, efficient utilization of fund and delayed payment.

The availability of source of finance implies whether the selected industries can get their necessary finance from different sources which may be bank, investments, financial institutions, own fund, the fund from relatives, friend circle and others. The second criteria are the efficient utilization of fund or poor knowledge of financial management indicates whether the selected industries can use the fund efficiently through designing properly financial plan, policy, and control mechanism along with the systematic allocation of fund and credit policy. The third criteria delayed for payment or credit sale means the capacity of recovering the selling price. Considering these three criteria a questionnaire analysis has been conducted to elicit the views of 90 number of the respondent, which is depicted in the following tables.

Table No. **6.3**

*Priority wise distribution of opinion of respondents on financial problems*

Sl number of elements of Problems	Financial Problems	Rank:1 (Lowest Priority)	Rank:2 (Moderate Priority)	Rank:3 (Highest Priority)	Combined Mean
1	Availability of source of Finance	13	32	45	36.30
2	Efficient Utilisation of Finance or knowledge of financial management	15	35	40	34.87
3	Delayed for payment/ credit sale	10	20	60	40.07

Source: Compiled from field survey and questionnaires.

N.B: Averages of (Rank 1= 12.66, Rank 2 = 29, Rank 3 =48)

The following figure represents financial problems faced by the selected industry under study.

Figure: 6.3
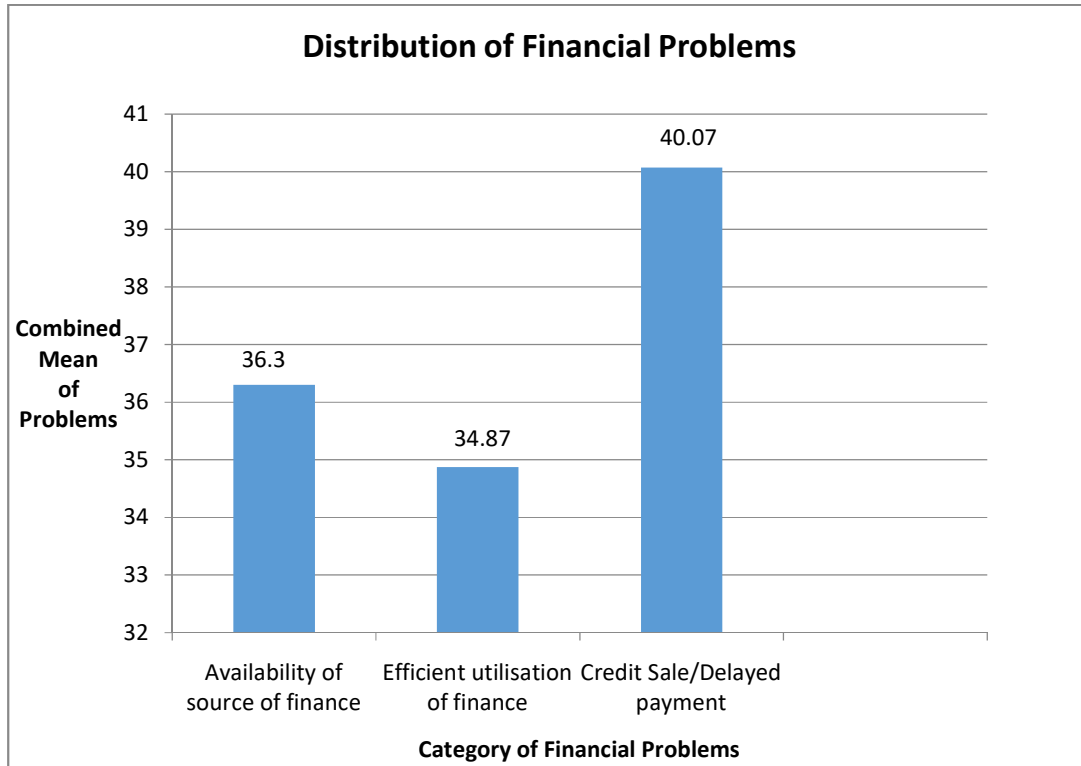
From the observation of the table no: 6.3, it is reflected that these industries obtained highest combined mean, i.e., 40.07 of financial problems in case of profit earning capacity which show that these industries are not capable of enhancing their earning capacity. On the other hand, as compared to the source of finance and profit earning capacity these industries are found to be good in case of efficient utilization of finance as because it carries lowest combined mean, i.e., 34.87 of financial problems.

6.4.4 Production Problems

 The production activities cover all activities which are emerged from the time of using raw materials up to the time of achieving the final product. All of these activities are examined under the three categories. These are sources of raw materials, the efficiency of the production process and outdated machinery. In this regards, it is to be mention

that the source of raw material includes the availability of a source of raw materials, the quality of raw materials, the price of raw material, etc. On the other hand, the efficiency of production has analyzed considering quality control, cost control, use of labour, machines and raw materials etc. The old machinery indicated use old machinery or lack of sophisticated tools. Thereby, these points have emphasis whether these selected industries can apply this latest technology with a view to compete with the national level products. Below a table is prepared by questionnaire analysis of 90 number of the respondent to elicit their opinion regarding the position of these industries so far as the above three criteria of their production activity are concern.

Table No. **6.4**

Priority wise distribution of opinion of respondents on production problems

Sl number of elements of problems	Production Problems	Rank:1 (Lowest Priority)	Rank:2 (Moderate Priority)	Rank:3 (Highest Priority)	Combined Mean
1	Raw Material	35	30	25	30.37
2	Poor Knowledge of business management	25	30	35	31.85
3	Outdated machinery	5	30	55	34.81

Source: Compiled from field survey and questionnaires.

N.B: Averages of (Rank 1= 25, Rank 2 = 30, Rank 3 =38.33).

The following figure represents production problems faced by the selected industry under study.

Figure: 6.4
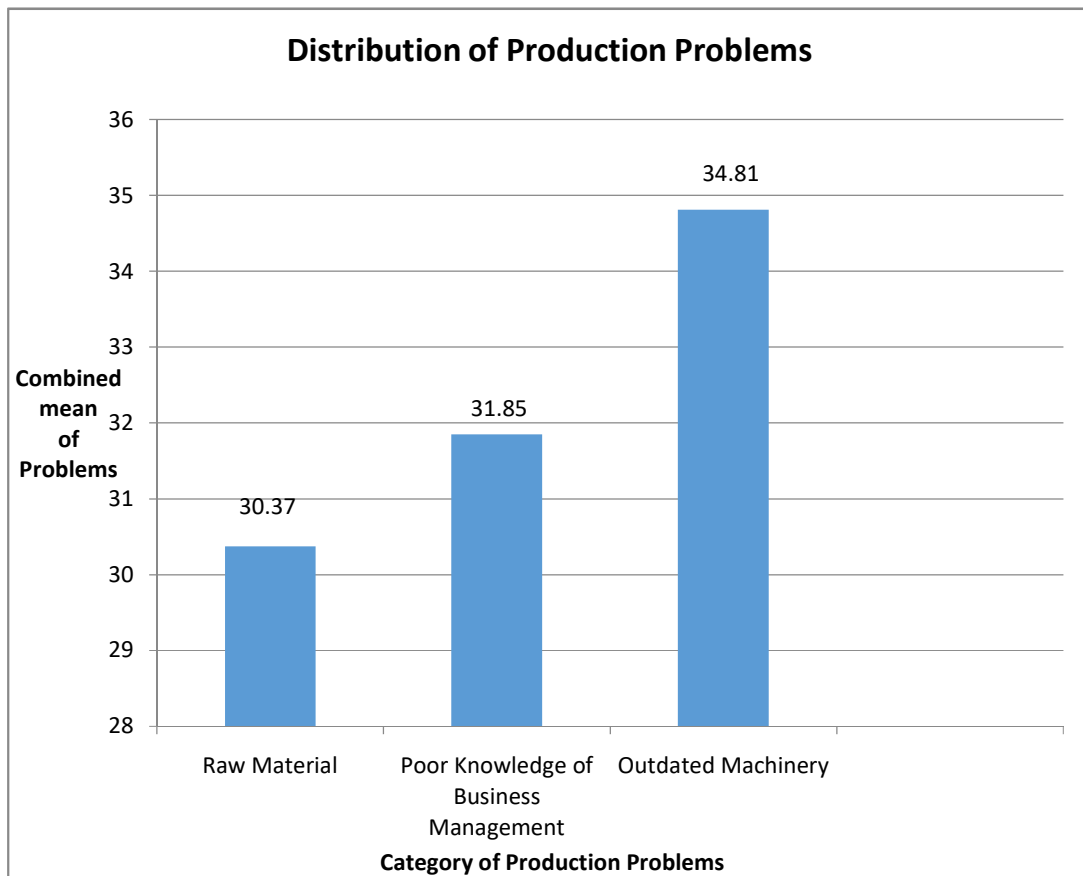
In the observation of the table no: 6.4, it is clear that in case of raw material these industries obtain lowest combined mean, i.e., 30.37 of production problems as compared to remaining two factors. Thereby, it can be proved that these industries can be able to go into some extent of capturing sources of raw materials, maintaining the quality of raw materials and transportation of raw materials. In the case of the third element, i.e., outdated machinery, these industries acquire highest combined mean, i.e., 34.81 of production problems. It has proved that these industries are not still developed

in case of using new and innovative modern machines, equipment's or technology in the production process.

6.4.5 Marketing Problems

Basically, marketing involves buying and selling activities. In order to achieve the optimum combination of available marketing ingredients, the application of efficient marketing mix is urgently required. Further, an effective marketing mix can help in the accomplishment of the organizational goal. Generally; the basic marketing mix is the merger of four inputs, which are the core of the marketing systems, i.e., (I) Product mix (ii) Price mix (iii) Place mix (IV) Promotion mix. With a view depicting a complete picture of marketing activities of the selected industries, a discussion is made with the proprietors of the selected industry taking four P's of the marketing mix as a marketing tool. Accordingly, a questionnaire analysis is conducted among 90 number of the selected respondent to elicit their views, attitude, and experience towards the four elements of the marketing mix as given in the table no : 6.5. Product mix includes basically technology, quality, packaging, branding, convenience, product line, design, labeling etc .and price mix includes strategic pricing, skimming pricing, penetration pricing, psychological pricing, cost-plus pricing, terms of credit, discounts, nonprice competition etc. On the other hand, place mix considered retail, wholesaler, direct sales, peer to peer, internet, multichannel aspects. Likewise, promotion mix covers advertising, publicity, special offers, user trial, endorsement, direct mailing, gift, joint venture and posters factors. Taking all of these factors the feedback of the respondent is represented in the following table.

Table No. 6.5

### Priority wise distribution of opinion of respondents on Marketing problems

Sl number of elements of Problems	Marketing Problems	Rank:1 (Lowest Priority)	Rank:2 (Moderate Priority)	Rank:3 (Highest Priority)	Combined Mean
1	Product Mix Related Problems	9	32	49	42.07
2	Price Mix Related problems	4	11	75	53.77
3	Place Mix related problems	6	26	58	46.38
4	Promotion Mix related problems	3	26	61	48.22

Source: Compiled from field survey and questionnaires.

N.B: Averages of (Rank 1= 5.5, Rank 2 = 23.75, Rank 3 = 60.75)

The following figure represents marketing problems faced by the selected industry under study.

Figure: 6.5
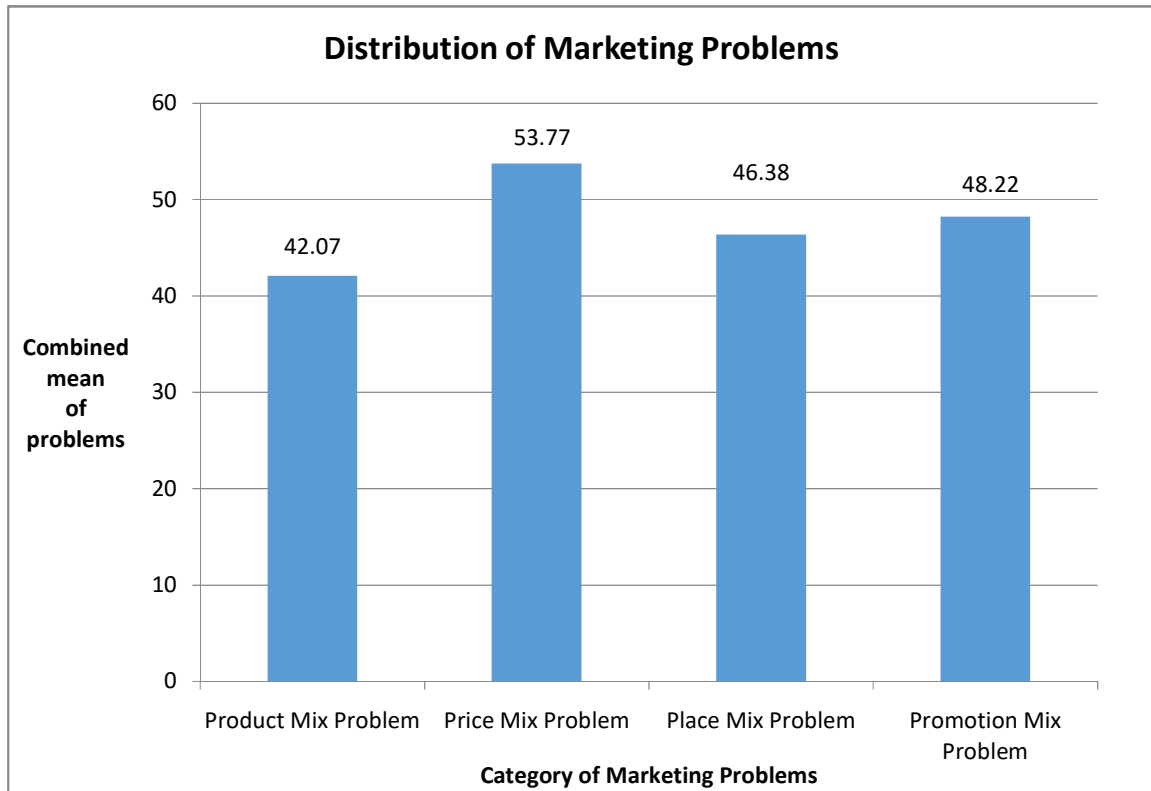
In the light of the table no: 6.5, it is observed that by obtaining lowest combined mean, i.e., 42.07 in marketing problems against product mix reflects that these industries have occupied a good position in case of marketing their product variety, design, quality, branding etc. as compared to remaining 4 P's of marketing mix. On the other hand, obtaining highest combined mean, i.e. 53.77 in marketing problems against price mix it is proved that these industries have to pay more attention to adopt efficient and effective pricing policies and strategies to attract the customer in the present market.

6.4.6 Technological Problems

Technology is a fundamental element to run any industry in the competitive environment. The technological problem is one of the major problems in the selected industry of Kokrajhar district. The following table is prepared to analyze the various problematic dimensions of technological issues of the selected industries under study.

Table No. 6.6

*Priority wise distribution of opinion of respondents on Technological problems*

Sl number elements of Problems	Technological Problems	Rank:1 (Lowest Priority)	Rank:2 (Moderate Priority)	Rank:3 (Highest Priority)	Combined Mean
1	Lack of use of Technology	17	19	54	41.52
2	Lack of Technological skill for employees	11	30	49	40.24
3	Knowledge of modern technology	08	18	64	46.79
4	High cost of technological equipment/machinery	04	19	67	48.53

Source: Compiled from field survey and questionnaires.

N.B: Averages of (Rank 1= 10, Rank 2 = 21.5, Rank 3 =58.5)

The following figure represents technological problems faced by the selected industry under study.

Figure: 6.6

Distribution of Technological Problems
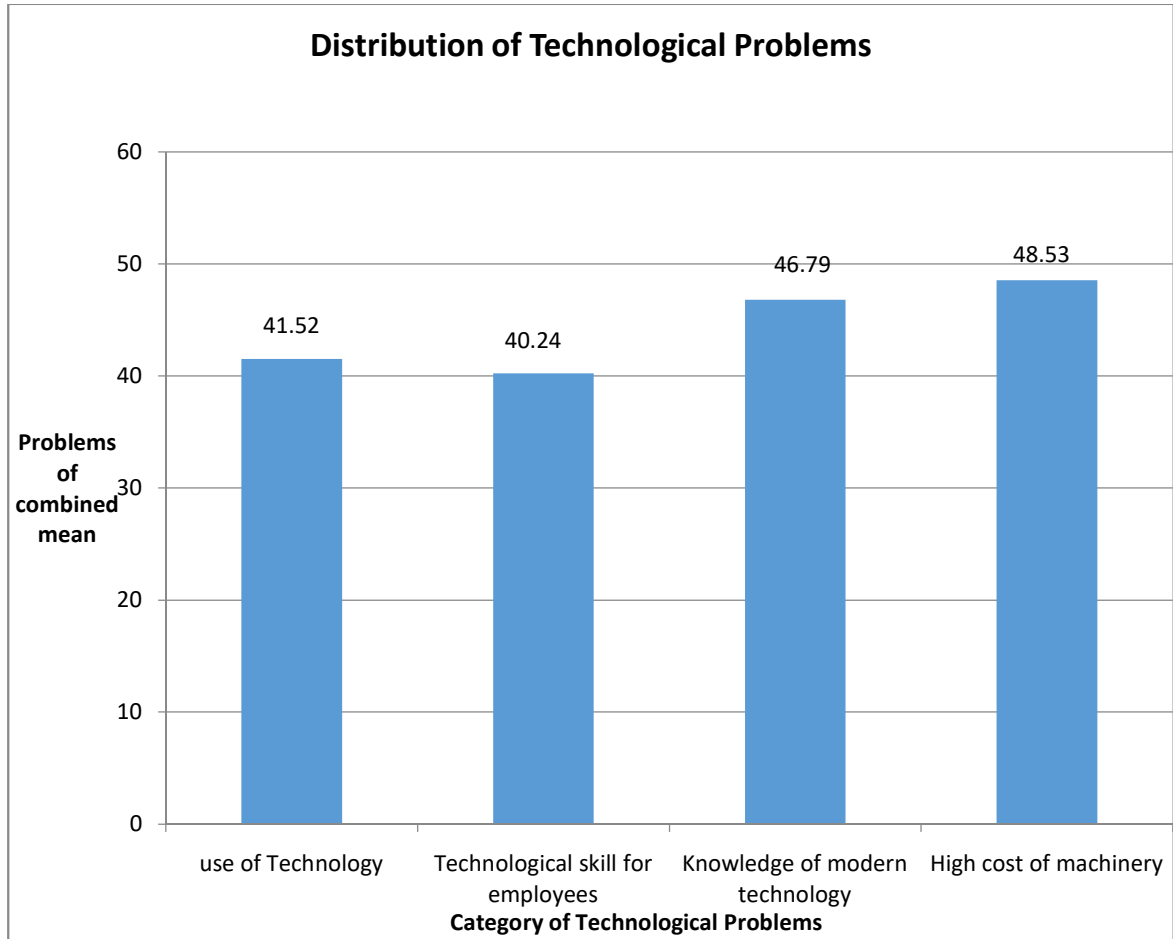
In the light of the table no: 6.6, it can prove that among technological problems, high cost of technological equipment is found to be major problems because it carries the highest combine mean, i.e., 48.53, whereas, lack of technological skill among employees is found to be fewer problems because it carries the lowest combine mean, i.e., 40.24 among all the categories of technological problems.

6.4.7 Government Support Related Problems

To run the business the government support is very much important. But in the field survey, it is detected that many of the respondents face the problems of government support in various dimensions. Hence a good governance system is very much essential for the industrialization of the region. To analyze the effect of

government support related problems opinions are collected from the 90 number of proprietors of the selected industry which is represented in the following table.

Table No. 6.7

Priority wise distribution of opinion of respondents on Government Support Related problems

Sl number elements of Problems	Government Support related Problems	Rank:1 (Lowest Priority)	Rank:2 (Moderate Priority)	Rank:3 (Highest Priority)	Combined Mean
1	Anomalies in sanction of loan/subsidy/incentives	11	20	59	39.51
2	Poor knowledge of government support scheme	16	13	61	40.22
3	Non-co-operative attitude of Government employee	24	25	41	33.61
4	Lack of co-ordination among different government department	31	21	38	11.67

Source: Compiled from field survey and questionnaires.

N.B: Averages of (Rank 1= 20.5, Rank 2 = 19.75, Rank 3 =49.75)

The following figure represents government support related problems faced by the selected industry under study.

Figure: 6.7

Distribution of Government Support related Problems
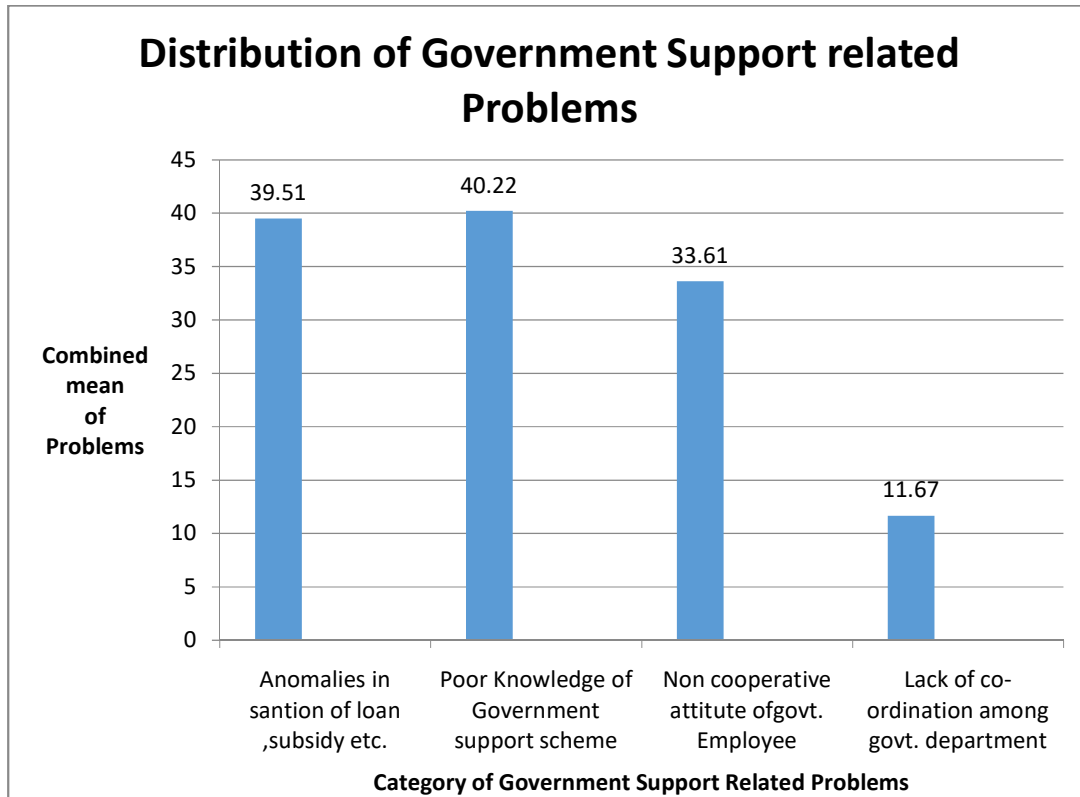
The table no: 6.7, represents the distribution of government support related problems faced by the selected industry. Out of the various categories of problems, it is found that poor knowledge of government support scheme is the main problems among all the categories of Government support related problems because it carries the highest combine mean, i.e., 40.22.On the other hand, lack of coordination among different government department is found to be the lowest problems under this category because it carries the lowest combine mean, i.e., 11.67.

6.4.8 Other Problems

After throughout the observation into various problems of the selected industries it is seen that in addition to existing seven problems as explain above, there are some other problems also are from the industries have been suffering a lot of problems. So, under

the category of other problem basically, four problems are taken to be studied which are natural calamity, frequent bandh, lack of research &development and competition with multinational as well as national companies.

Table No. 6.8

Priority wise distribution of opinion of respondents on other problems

Sl number elements of other problems	Other Problems	Rank :1 (Lowest Priority)	Rank :2 (Moderate Priority)	Rank :3 (Highest Priority)	Combined Mean
1	Natural Calamity	38	23	29	29.08
2	Frequent Bandh	03	21	66	43.43
3	Research and Development	14	24	52	33.72
4	Competition with reputed company/ MNCs	09	23	58	40.44

Source: Compiled from field survey and questionnaires.

N.B: Averages of (Rank 1= 16, Rank 2 = 22.75, Rank 3 = 51.25)

The following figure represents other problems faced by the selected industry under study.

Figure: 6.8
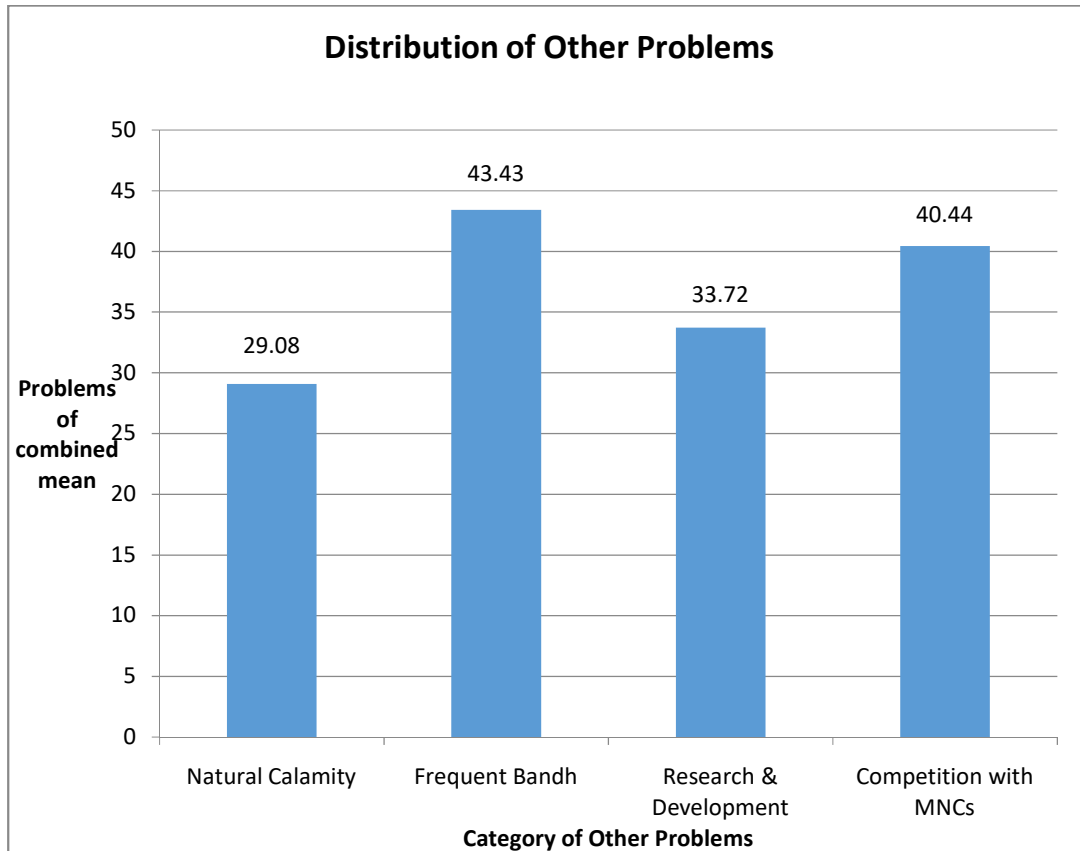
In light of the table no: 6.8, it can be proved that amongst the three problems under the category of other problems, the effect of frequent bandh emerged highest troubles as because it carried highest combined mean, i.e., 43.43, whereas, the effect of natural calamities is less as it is bearing lowest combined mean, i.e., 29.08 than that of the remaining three problems.

6.5 Overall Analysis of Problematic Dimensions of Selected Industries of Kokrajhar District

In this part of the chapter, taking the average weight of all elements of the above problems (Table no: 6.1 to 6.8) in a single average is calculated for every problem. So

that all problems can be justified in the light of single average weight as depicted in the table no. 6.9.

Table No. **6. 9**

Average weight of all categories of problems

Categories of Problems and weighted mean of problems element-wise	Element :1	Element : 2	Element :3	Element : 4	Element : 5	Average Weight of Problems
Infrastructure problems	31.05	31.74	31.93	31.12	29.90	31.15
Human Resource skill problems	41.74	36.62	35.22	-	-	37.86
Financial problems	36.30	34.87	40.07	-	-	37.08
Production problems	30.37	31.85	43.81	-	-	32.34
Marketing problem	42.07	53.77	46.38	48.22	-	47.61
Technological Problems	41.52	40.24	46.79	48.53	-	44.27
Government Initiative Problems	39.51	40.22	33.61	11.67	-	31.25
Other Problems	29.08	43.43	33.72	40.44	-	36.67

Source: Compiled from Table no: 6. 1 to Table no: 6. 8

Figure: 6. 9

Distribution of Average Weight of all Problems
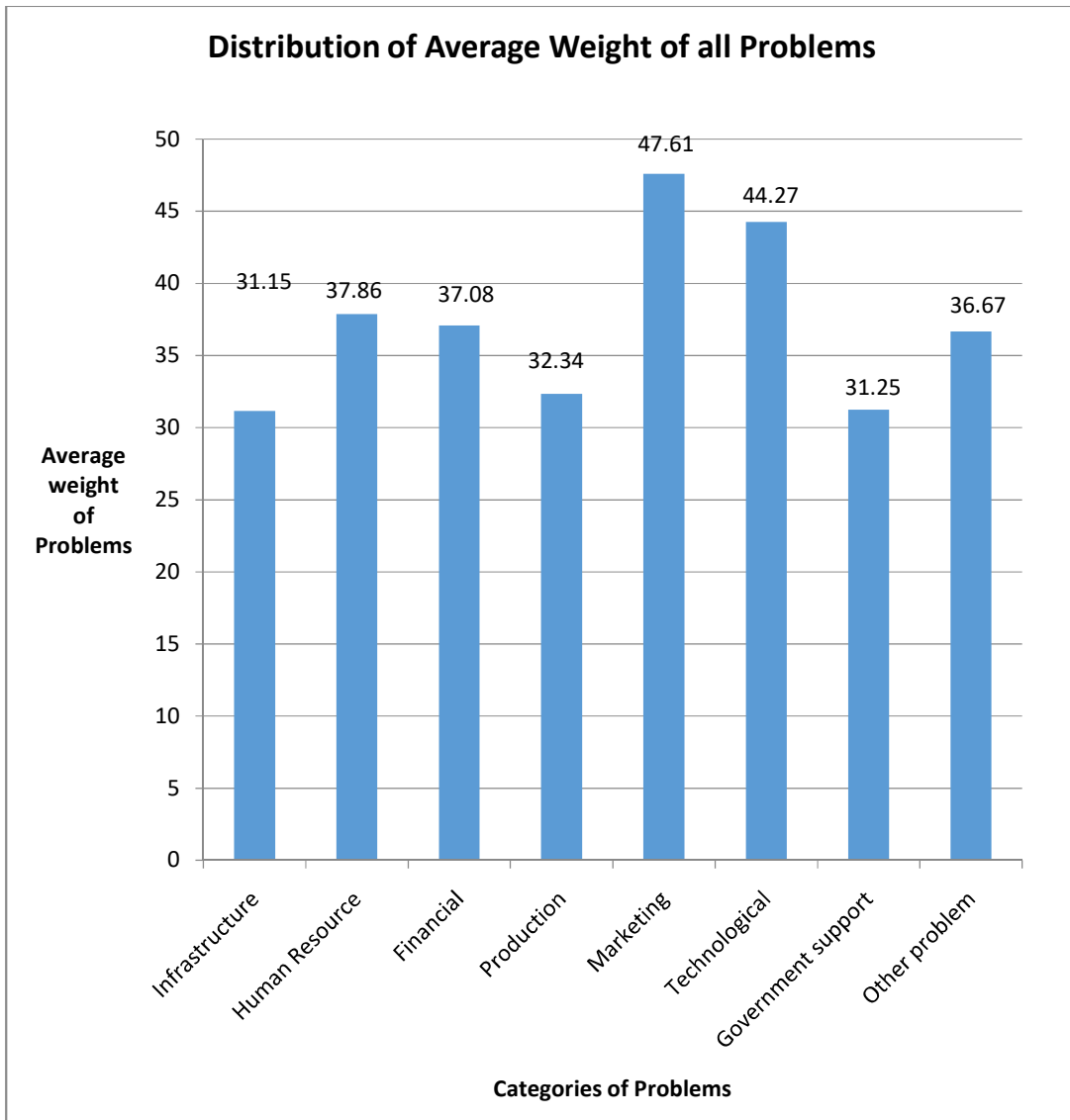
In the light of the table no; 6.9, it is reflected that there is the highest problem in the categories of marketing problem as compared to other problems as because it carries highest average value, i.e., 47.61. On the other hand, the infrastructure problem is found to be the lowest as compared to other problems as because it carries the lowest average value, i.e., 31.15.

6.6 Conclusion

On the basis of the analysis made throughout this chapter the hypothesis No: 03, i.e., it is assumed that the food processing industries of Kokrajhar district have been suffering multifarious problems is justified. Against advocating this test of justified hypothesis it is to be stated that average weight of various problems such as 31.15 of infrastructure problems, 37.86 of human resource problems, 37.08 of financial problems, 32.34 of production problems, 47.61 of marketing problems, 44.27 of technological problems, 31.25 of government support problems, 36.67 of other problems reflect that the selected industries are facing various problems. Business is a part of society. The Food Processing Industries under study are also not the exception. Hence, as a part of society, these industries have to change their all necessary policies and practices according to the changing environment of the society. In doing so along with the current customer taste, demand, fashion and design the selected industries should give special emphasis on changing policies of their business like national and internationally competitive business firm. Further, in order to capture the various benefits of government schemes, the owner and employers of these industries should be well educated and trained up. By adopting these kinds of steps, these industries can provide a lot of contribution for the overall socio-economic development of this society especially in providing quality goods, enhancing employability, increase per capita income as well as industrialization and entrepreneurial development which ultimately contribute towards the achieving inclusive growth of the region.

REFERENCES

Gupta, S. C. (1998), "Fundamentals of Statistics," Himalaya Publishing House, Mumbai – 400004

 Gupta, S. P. (1999), "Statistical Methods," Sultan Chand & Sons, New Delhi -32

 Sarma, Gunajit, Debnath, Arabinda and Devi, Mridula (June 2017)"An Empirical Study on   Insight of Some Major Problematic Dimension of a few Selected Food Processing Industries of Kokrajhar District of Assam," Asian Journal of Research in Business Economics and Management, Vol. 7, No. 6, pp.104-116.

Thakuria, Kamal (June 2016), "Problems and Prospects of Agro Based Small Scale Industries: An Analysis of Barpeta District in Assam," Chinaky – A Research Journal on Humanities and Social Science, Vol. 5, No. 3, pp.39-50.

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.

$$(\text{Weighted Mean})\bar{x} = \frac{n_1 w_1 + n_2 w_2 + \cdots + n_k w_k}{n_1 + n_2 + \ldots n_k}$$

Where $w_1, w_2, \ldots \ldots w_k$ be the ranks or weight of $1^{st}, 2^{nd}, \ldots, kth$ series with $n_1, n_2, \ldots n_k$ 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)	12th 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.

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

Sl 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 firm 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	(*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. (*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. (*iii*) The startup portal has a facility of booking system that will enable start-ups to book infrastructure anywhere in Assam. (*iv*) Providing funding support through fiscal and non fiscal incentives that encourage youth to take up entrepreneurship as a career.
2	Mega Food Park Scheme	(*i*) Link agricultural output with food processing unit (*ii*) Help food processing unit to maximize value addition of agricultural output. (*iii*) Minimize agricultural Wastage (*iv*) Set up collection centre , primary processing centre,central processing centre and cold storage house
3	Make in India	(*i*) 100% FDI is permitted in this sector. (*ii*) Financial support to this sector. (*iii*) Various financial benefit like subsidy , income tax rebate ,incentives , rebate from excise duty and customs duty etc.
4	National Mission on Food Processing (NMFP)	(*i*) Providing incentive and subsidy to food processing industry. (*ii*) Help for research & development of the food processing industry.

		(*iii*) Technological cum financial support to food processing industry
5	Pradhan Mantri KaushalVikasYojana (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

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 DICC 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).
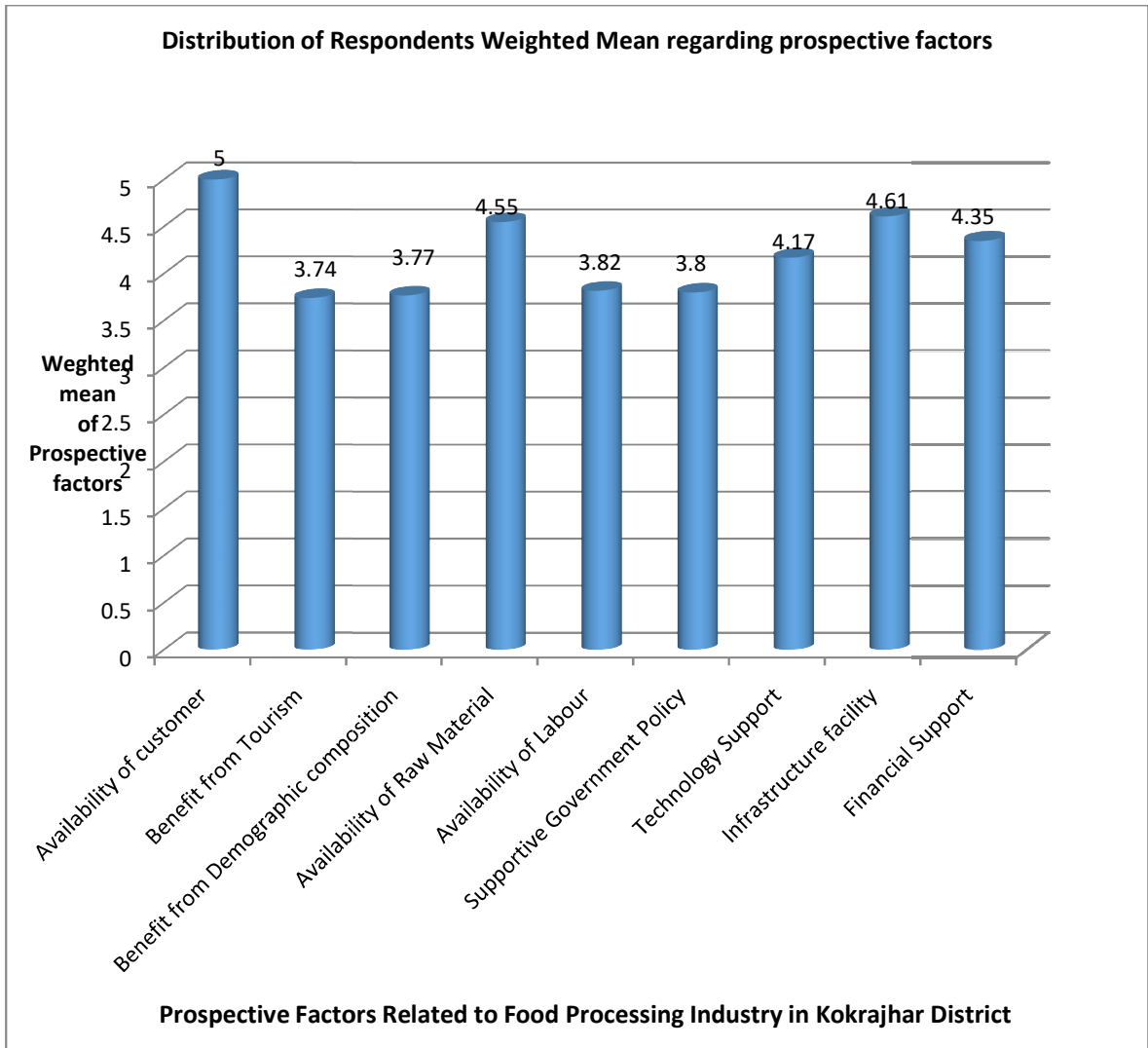
Table No. 7.9

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.

Distribution of Respondents Weighted Mean regarding prospective factors

(Chart axis title: Weghted mean of Prospective factors)

Values shown on bars: 5, 3.74, 3.77, 4.55, 3.82, 3.8, 4.17, 4.61, 4.35

Categories: Availability of customer, Benefit from Tourism, Benefit from Demographic composition, Availability of Raw Material, Availability of Labour, Supportive Government Policy, Technology Support, Infrastructure facility, Financial Support

Prospective Factors Related to Food Processing Industry in Kokrajhar District

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

Opinion of proprietors regarding futrure prospects of food processing industry
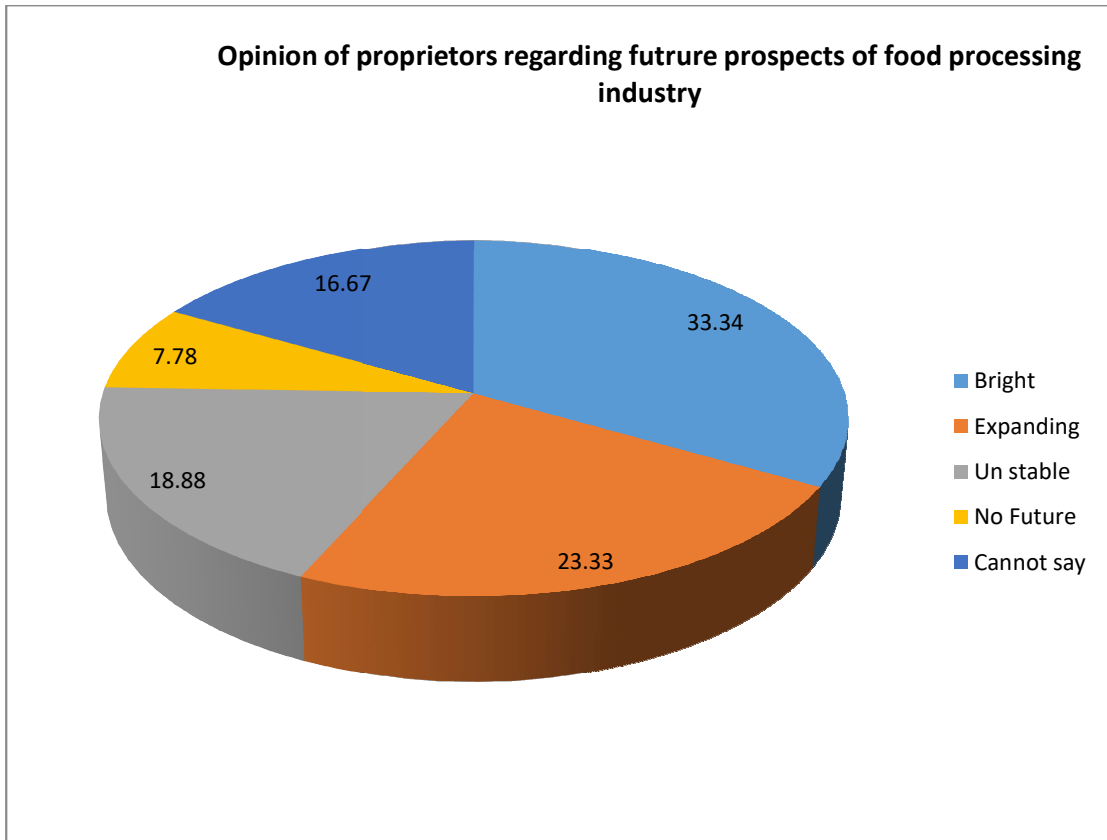
In the light of the table no : 7.10, it is reflected that out of 90 industries the highest number of industries, i.e., 30 (33.33%) has given their opinion as bright so far as their future prospect is a concern. On the other hand, 07 (7.78%) which is the lowest percentage of industries has offered their 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.

REFERENCES

Gupta, S. P. (1999), "Statistical Methods," Sultan Chand & Sons, New Delhi -32

Gupta, S. C. (1998), "Fundamentals of Statistics," Himalaya Publishing House, Mumbai - 400004

Government of Assam (2017), Directorate of Economics and Statistics, Statistical Hand Book of Assam 2016, , Guwahati -28

Government of Assam (2015), Directorate of Economics and Statistics, Assam , State/District Wise Area, Production, Price and Value of the Major Crops in Assam from 2003-04 to 2014-15, Guwahati -28

Government of Assam (2014), Directorate of Economics and Statistics, Assam , Area, Production, Price and Value of Some Horticulture Crops in Assam from 2003-04 to 2012-13, Guwahati -28

 Government of Assam (2016), Directorate of Economics and Statistics, Assam , Estimates of Area, Production and Average Yield of Principal Crops in Assam, 2007-08 to 2013-14, Guwahati -28

Government of Assam (2017), Industries & Commerce, Commission rate of Industries & Commerce, Assam Startup Policy Draft 2017, Policy Draft Created by Startup India/Invest India *(National Investment Promotion and Facilitation Agency)(www.industriescom.assam.gov.in/ Assam startup policy 2017)*

Government of India (2018) , Ministry of Food Processing Industries , Annual Report 2016 - 17, New Delhi -110049 (www.mofpi.nic.in)

Government of India (2011) , Directorate of Census Operations, Assam, Census of India 2011, Assam, Series- 19, Part XII – B, District Census Handbook, Kokrajhar, 2011**.** Government of Assam, Director Cum CHD Office, Tourism, Kokrajhar, BTC, Hand Book on Bodoland Tourism, Kokrajhar .(www.bodolandtourism.org)

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

Sarma, Gunajit, Devi, Mridula and Debnath, Arabinda (2017)"Prospects of Food Processing Industry in Kokrajhar District of Assam: An Envisioning Study beyond its Present Position", International Journal of Tropical Agriculture, Vol.35, No. 2, pp.223-239.

Tiwari, Satya Vardhan, Paveer , Saket Ranjan, Chandra, Ashok Kumar and Tamrakar (2015), "Present status of Food Processing Industry in Central India: A study in Chhattisgarh", International Journal of Research and Development – A Management Review, Vol.-4, Issue – 4, pp.13-18.

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

CHAPTER - 8

Findings, Recommendations and Conclusion

This chapter is an attempt to place various findings that have been identified throughout the study. Further, the chapter intends to put forward some recommendations with a view to developing the overall performance of the food processing industries by removing the prevailing problems and drawbacks. With a view to systematizing the discussion of the chapter, both the findings and recommendations have been analyzed chapter wise. Lastly, this chapter gives the overall conclusions of the study.

The major findings, recommendations and conclusions are given below on the basis of the analysis made in the previous chapter.

8.1: Findings of the Study

8.1.1 Findings Related to Analytical Study on Various Trends of Food Processing Industries

The findings related to an analytical study on Various Trends of Food Processing Industries are described below.

1. In case of growth trends of rice mill in Kokrajhar district, it is found that the rice mill has increased from 09 in 2007-08 to 53 in the year 2016-17. During this period rice mills have employed 138 number of people. During this period net profit of the rice mill has increased from Rs 18,60,000 in 2007-08 to Rs 1,32,00,000 in 2016-17. But the average net profits are frequently up and down during the study period. The CAGR of unit is -51.5 % , employment is -76. 4 % and net profit is 17.0 % found respectively during the study period.

2. The growth rate of oil mill during the study period is found to be very minimal in the Kokrajhar District. The oil mill increase from 1 in 2007-08 to 6 only in the year 2016-17. This industry has employed only 30 numbers of people. In the case of total net profit, it has increased frequently during the 10 years from Rs 1,40,000 in 2007-08 to Rs 11,80,000 in 2016-17, but average net profit is frequently up and down during the 10 years. The CAGR of unit is -3.6 % ,

employment is 26.7 % and net profit is 27 % found respectively during the study period.

3. In case of flour mill, it is found that it has increased from 03 in 2007-08 to 12 in the year 2016-17. The industry has employed 74 numbers of people during the study period. In case of total net profit it has increased from Rs 5,40,000 in 2007-08 to Rs 35,30,000 in 2016-17 and average net profit has also increase from Rs 1,80,000 in 2007-08 to Rs 2,94,167 in 2016-17. The CAGR of unit is -33.9 %, employment is -133.3 % and net profit is 20.3 % found respectively during the study period.

4. In case of fruits & vegetable processing industry, it is found that it has increased from 01 in 2007-08 to 07 in 2016-17. This industry has employed 56 numbers of people. The total net profit of this industry has increased from Rs 1,60,000 in 2007-08 to Rs 21,30,000 in 2016-17.Similarly average net profit also increase from Rs 1,60,000 in 2007-08 to Rs 3,04,286 in 2016-17. The CAGR of unit is -10.3 %, employment is -19.4 % and net profit is 24.8 % found respectively during the study period.

5. In the case of the bakery industry, it is identified that it has increased from 03 in 2007-08 to 12 in 2016-17. The bakery has employed 84 numbers of people during the study period. The total net profit of bakery has increased from Rs 10, 80,000 in 2007-08 to Rs 55. 95,800 in 2016-17 and average net profit also increase from Rs 3, 60,000 in 2007-08 to Rs 4,66,317 in 2016-17. The CAGR of unit is -15.8 %, employment is -27.9 % and net profit is 16.6 % found respectively during the study period.

8.1.2: Findings Related to Marketing Analysis of Food Processing Industries

The findings related to marketing analysis of selected industries have been identified into three angles, first is the implementation level of marketing mix tool by the selected industry, and the second is the effect of marketing mix tool on consumer buying

behaviour related to various food items and third is buying behaviour of consumers related to local based as well as outside based food products. The findings related to marketing analysis are described below.

8.1.2.1 Findings on Implementation level of Marketing Mix tool by the Selected Industry

(A) Findings Related to Product Mix Tool

(I)Technology: Throughout the 90 industry under 05 categories the application of technology is seen to be very poor as because only one oil mill, as well as one flour mill, is come under the category of highly implementation level out of 90 number of selected industry under study. In the case of technology, 72.22 % of selected industries are found to be non implementation level. It has found during the field survey and personal interview that lack of finance, lack of awareness and skill of labour, etc. are the cause of non implementation of technology at a satisfactory level by the selected industry.

(ii) Quality: In case of quality factor it is identified that 86.67 % of selected industries are found to be non maintenance of quality, 11.11 % industry is moderately conscious about quality and only 2.22% of industries are highly conscious about quality factor. Only one bakery out of 12 and one flour mill out of 12 comes under highly implementation level of quality.

(iii) Packaging: The noticeable findings in case of packaging is that against 01 flour mill out of 12, 04 fruits & vegetable processing industries out of 07 and 01 oil mill out of 06 are in the category of highly implementation level, no rice mill and no bakery are found in this categories. In the case of entire selected industries, it is found that 71.11 % of industries are non implementation level, 22.22 % are moderately implementation level, and 6.67 % are highly implementation level of packaging. All rice mills, bakery and maximum number of oil mill as well as flour mill under the study have been continuing their business through traditional mode of selling without adopting any packaging policies and strategy.

(iv) Product Diversification: Against 01 flour mill in the position of highly implementation level no rice mill, oil mill, Fruits & vegetable processing industry, and bakery can stand in the category of HI so far as product diversification is concerned. The 78.89 % of industry comes non implementation level, 20.00 % of the industry is moderately implementation level and 1.11% of industry comes under highly implementation level of product diversification. Moreover, the existence of maximum industry in the category of NI indicates that these industries are not in a satisfactory level of product diversification.

(V) Labeling: In case of labeling majority industries are found to be ignored its important as because 86.67% industry comes under non implementation level and 11.11 % comes under moderately implementation level. The only 2.22% of industry comes under highly implementation level.

(B) Findings Related to Price Mix tool

(I) Penetration, Psychological and Skimming Pricing: All the selected industries under study come under non implementation level regarding penetration, psychological pricing and skimming pricing.

(ii) Cost-plus pricing: The entire 90 number of selected industries under study have been adopting cost-plus pricing method as of highly implementation level.

(iii) Terms of Credit: The maximum number of selected industries under study comes under NI level. The 70.00% industry comes under NI level and 30.00% comes under MI level.

(iv) Discount: No one among 90 industries follows discount pricing strategy occupying at HI level. The 41.11 % comes under moderately implementation level and 58.89% comes under non implementation level.

(v) Non-Price Competition: The industries under study yet to realize the needs of Nonprice competition strategy as a motivating tool especially for the modern customer. The maximum percentage of industry comes under non implementation level, i.e., 91.11%.

(C) Findings Related to Place mix tool

(i) Retail: In the case of selected industry maximum number of industries comes under HI level of retailing, i.e., 96.67 % and 3.33 % comes under MI level. In order to achieve the successful retailing business, the concern businessmen should have developed all necessary skills and efficiency of salesmanship. But it is found in case of a selected industry under study that due to lack of satisfactory efficiency they cannot show successful performance in their retailing.

(ii) Wholesale: Wholesale business not only increases the earning of profit for the business but also helps in the overall development of marketing activities of an area. But owing to lack of adequate finance, experience on wholesaling trade the selected industry neither are benefited by themselves by the wholesaling nor they can contribute to the market by creating a number of retailers. The maximum number of selected industry under study comes under NI level of wholesaling, i.e., 78.89 %. The 17.78 % of industry comes under MI level, and only 3.33% comes under HI level.

(iii) Internet: The selected industries are yet to realize the benefits of internet selling. It is identified that lack of education, lack of technical know-how, lack of IT infrastructure stands on the way of implementing internet selling among the selected industry. That is why all the selected industry under study comes under NI level of internet.

(iv) Direct sale: In case of direct selling out of 90 units of 05 categories of industries under study, i.e., 97.78 % are fall in the level of NI level, whereas, only 2.22 % comes under MI level. None of the selected industry under study comes HI level.

(v) Multichannel: So far as multichannel is a concerned as one of the important elements of place mix it is seen that entire selected industries under study are under the level of NI level category.

(D) Findings related to the Promotion Mix tool

(i) Advertisement: In case of advertisement out of 90 industries 86 are falling in the level of NI, where only 04 are at the level of MI, and no one is found at the level of HI. Out of this scenario, it is proved that 95.56 % of industries under study are do not pay any serious attention to the aspects of advertising. Consequently, this ignorance leads to losing their market share as because having no awareness among potential customers to be provided by due advertisement policy and strategy with the selected industry.

(ii) Special Offer: So far as the special offer is concerned, the lamentable matter is that still no industry highly adopt special offer as a promotion mix tool. The 91.11% of industry under study comes under NI level and only 8.89 % comes under MI level. The devoid of special offer make this selected industries failure in motivating customers.

(iii) Direct Mailing: The devoid of Direct mailing idea as an emerging tool of promotion mix keeps the industries under study far from the latest world of promotional strategy.Consequently , it is observed that by adopting this Direct mailing strategy different MNCs gradually increasing their customers and thereby, this industry under study have to loss their potential existing customers.

(iv) Free Gift: In case of selected industry under study found that all categories of the industry come under NI level.

(v) Signboard: In case of signboard it is found that 34.44 % of industry comes under MI level and 65.56 % comes under NI level. It is identified that this is only the promotional tool which is used by some of the industry moderately to attract the customers.

8.1.2.2 Findings Related to Consumer Buying Behaviour Related to Various Food Items

Keeping in purpose to make the findings systematic about consumer buying behaviour related to selected food items, its findings are given industry wise. Under each industry, findings are put forward elements wise of the marketing mix.

(1) Findings on Rice

Among five elements of product mix of rice item, it is identified that variety is the most influencing factor on consumer behavior. As because out of 450 respondents 196 (43.56%) respondents taken their decision of purchasing rice items emphasizing on varieties of rice. In relation to education, it is identified that the highest percentage of less educated respondents takes their decision of purchasing rice items considering the variety elements of rice products. But highly educated and moderately educated respondents the highest number of respondents has preferred quality aspects in purchasing rice.

Among five elements of place mix multichannel is used by the majority of respondents, i.e., 211 (46.89%) out of 450. From an education perspective, it is observed that the highest percentage of highly educated respondents prefer multichannel to purchase their rice. Similarly, the highest percentage of moderately educated as well as less educated also prefer multichannel in purchasing of rice.

Analysis of the price mix reveals that MRP is mostly used price mix tool, i.e., 174 (38.67%) respondents out of 450.On the other hand, the highest percentage of moderately educated and less educated respondents also avail MRP as their pricing tools for purchase rice. But in the case of the highly educated respondent, the highest percentage has preferred discount techniques in purchasing rice.

It is observed from the promotion mix of rice items that among five promotional tools 398 (88.44%) respondents out of 450 respondents are motivated by the signboard as promotional tools. Further, it is observed that a large percentage of highly educated , moderately educated and less educated respondents are also motivated by the signboard.

(2) Findings on Oil

The observation of oil items reveals the purchasing behaviours that out of 450 respondents 312 (69.33%) respondents which is the highest number prefer packaging in time of purchasing their necessary oil items. From education perspective also it is identified that packaging is used by the all three categories of respondents which are 75.00 % highly educated, 68 % moderately educated and 67.5 % less educated respondents.

It has been identified as a result of analyzing the place mix of oil items regarding consumer behaviour of purchasing decision that among 05 different place mix tools retail store is used by the highest number of respondent which is 294 (65.33%) out of 450. Further, from an education point of view, it is identified that the retail store is used by the three categories of educated respondents at the highest level. These are 80 % highly educated, 64 % moderately educated and 59% less educated respondents.

The findings identified from the observation of the 450 respondents behavior on price mix is that a large number of respondents, i.e., 338 (75.11%) out of 450 avails MRP as a pricing tool for purchasing their necessary oil items. Putting education level, it is further identified that MRP is also used by three categories of educated respondents. These are 78 % highly educated, 79.33 % moderately educated and 70.5 % less educated respondents.

Analysis of five different promotion mix tools, the signboard is considered the most highly motivating promotional tools among 450 respondents as because it is seen that 392 out of 450 respondent use signboard whenever they attempt to purchase their necessary oil items. From education point of the angle, it is seen that majority percentage of all three categories of educated respondents also use signboard mostly than that of the advertisement, special offer, direct mailing and free gift for purchasing their oil items.

(3) Findings on Bakery

It has come into light after throughout observation of five different product mix tools about purchasing decisions of 450 respondents in purchasing various bakery item that variety has largely used the tool of product mix, which is 184 (40.89%) out of 450. The findings after observing the three categories of different educated respondents also reveal that the highest percentage of highly educated and less educated respondents also use variety as a basis of their purchasing decision of bakery items. These are 38% highly educated and 46.5 % less educated respondents. But in the case of moderately educated highest percentage of respondents, i.e., 36% have preferred packaging in purchasing of bakery items

The study on five different place mix tools among 450 respondent, the retail store has been identified having most using place mix tools so far as their purchasing decision of bakery items is concerned, which is 359 out of 450 respondents. It is further identified that as compare to wholesale, direct sales, internet and multichannel are the major percentages of three level of educated respondents, i.e., use 82 % highly educated, 80.67 % moderately educated and 78 % less educated respondents use the retail store for purchasing their bakery items.

The important findings that have been identified from the analysis of five price mix tool are that MRP is adopted by the majority respondents, i.e., 279 (62%) out of 450 respondents. In the case of findings regarding the level of education on pricing strategy are that MRP is also highly supported by all three categories of educated respondents. These are 61% highly educated, 59.33% moderately educated and 64 % less educated respondents.

It has been identified from the analysis of the five promotional tools among 450 respondents is that majority respondents are motivated by the signboard as a promotional tool during the purchase of their necessary bakery items, which is 389 (86.45%) out of 450. On the part level of education point, it has been identified that majority percentage of all three categories of educated respondents are also motivated mostly by the signboard, which is 82% highly educated, 80% moderately educated and 93.5% less educated respondents.

(4) Findings on Fruits & vegetable processing items

Throughout the observation of the feedback obtained from 450 respondents, it has been identified that highest number of respondents, i.e., 261(58%) out of 450 prefer to use packaging as the basis of taking their purchasing decision in case of fruits & vegetable processing items. Findings after observation of three categories of educated respondents it is reflected that the majority number of three categories of educated respondents also supports the packaging as their criteria for purchasing fruits & vegetable processing items. These are 62% highly educated, 59.33% moderately educated and 55% less educated respondents.

As a result of observation of the feedback of 450 respondents, it has been identified that majority of them avail retail store highly as a channel of distribution rather than wholesale, direct sale, internet and multichannel for purchasing fruits & vegetable processing items, which is 270 (60%) out of 450. Impact of education among three categories of different educated respondents reveals that all of the three categories of educated respondents also prefer to use the retail store as their channel of purchase necessary fruits & vegetable processing items. These are 63% highly educated, 54% moderately educated and 63% less educated respondents of each group.

After observing the preference of 450 respondents regarding the selection of their pricing tools, it is found that MRP is the mostly using price mix tool of purchasing fruits & vegetable processing items, among them which is 301 (66.89%) out of 450. From an education perspective also it is seen that the majority of three categories of educated respondents also prefer to use mostly the MRP as their pricing tool. These are 74% highly educated, 59.33% moderately educated and 69% less educated respondents.

Analysis of the 450 respondents reflects the fact that highest number of respondents have been motivated by the signboard in purchase their necessary fruits & vegetable processing items, which is 356(79.11%) out of 450 respondents. From the education point of angle also it has been identified that the highest number of all three categories of educated respondents are motivated by the signboard. These are 58% highly educated, 78% moderately educated and 90.5% less educated respondents.

(5)Findings on Flour

As a result of observation of five different product mix tools about the purchasing decision of 450 respondents so far as the purchase of their various flour items is concerned it is seen that packaging is the mostly using product mix tools by 281 respondents out of the total 450 respondents. From the education perspective also it is found that a majority of three different categories of educated respondents also used packaging as their basis of taking their purchasing decision of flour items. These are 75% highly educated, 68% moderately educated and 52% less educated respondents from each category.

Observation of the place mix reveals the fact that among five different channel of distribution retail store is used by the highest number of respondents, which is 312(69.33%) out of 450. From the education perspective, it is observed that majority respondent of three categories is also used retail store at the highest level which is recorded as 74% highly educated, 66% moderately educated and 69.5% less educated from each group of respondents.

The findings to be highlighted on the part of the observation of 450 respondent regarding their preference of price mix tools is that among five different pricing tools MRP is the one that is used by the majority respondents, i.e., 325(72.22%) out of 450 respondents. Putting education as an influencing factor in this regards it is found that MRP is also used by the majority number of three different categories of respondents. These are 76% highly educated, 69.33% moderately educated and 72.5% less educated respondents from each group.

Findings from the analysis of 450 respondents regarding their preference of promotional tools in purchasing flour items is that majority number of respondents, i.e., 417(92.67%) out of 450 are motivated by the signboard towards their purchase necessary flour items. Finding considering education factor is that all three categories of different educated respondents also largely motivated by the signboard in case of purchase their necessary flour items. These are 89% highly educated, 94% moderately educated and 93.5% less educated respondents of each group.

8.1.2.3 Findings Related to buying behaviour of Preference of Consumers regarding local based and outside based products

The findings related effect to buying behaviour of respondents regarding local based and outside based products, it is found that 86.44 % of respondents prefer locally based rice, 64.22% prefer local bakery products, 60.22 % prefer local fruits & vegetable processing items, 33.78 % prefer local oil and 21.56 % prefer local flour. In case of outside based products, it is found that 13.56 % consumer prefers outside rice, 66.22% prefer outside oil, 78.44% prefer outside flour, 35.78% prefer outside bakery products and 39.78 % prefer outside fruits & vegetable processing items. The study exposed that in the case of rice, bakery and fruits & vegetable processing items the highest number of

consumer prefer local-based products. In the case of oil and flour items, the highest number of consumer prefer outside based products.

8.1.3: Findings Related to Comparative Analysis of Food Processing Industries

1. In the case of per year growth trend of selected industry under study, it is found that during the study period the growth rate of all categories of industries is not satisfactory in each selected year. The highest percentage of selected industries are set up in the year 2007-08, i.e.,18.89 % and the lowest percentage are set up in the year 2016-17, i.e., 3.33%.

2. In case of employment level of selected industries it is found that highest number of employment is provided by the rice mill, i.e., 138 and lowest percentage of employment are provided by the oil mill, i.e., 30 during the study period.

3. In the case of education level, it is identified that only 31.11 % proprietors are graduate and remaining 68.89% proprietors are undergraduate. In the case of postgraduate and technical qualification, none of the proprietors are identified. Among all the categories of selected industries, it has identified that the highest number of graduate youth are attracted by the fruits & vegetable processing industry, i.e., 42.85%.

4. In case of correlation between employment and initial investment, it is found that the rice mill is highly correlated among all the categories of selected industry. The correlation value of the rice mill is 0.99822. Further, in case of correlation between initial investment and gross profit, it is found that oil mill and bakery industry are highly correlated. The correlation value of oil mill is 0.98594 and bakery is 0.98429.

5. In the case of the selected food processing industry, it is found that 87.78 % of the proprietors are male and 12.22% proprietors are female. The study revealed

that female participation as a proprietor in the selected industry sector is not satisfactory.

6. In the case of the source of fund, it is found that 60 % of the industries arrange the capital from their own source. The only 23.33 % of selected industry taken loan from the commercial bank. The study revealed that the role of commercial bank for providing financial support in the Kokrajhar district is not satisfactory.

8.1.4: Findings Related to Problematic Dimensions of Food Processing Industries

This part aims at identifying some major findings related to various problematic dimensions of selected industries under study identified in chapter no: 6.

1. In support of the feedback obtained from 90 number of the respondent under study, it is found that yet the selected industries of Kokrajhar District have to be facilitated by the some of the basic infrastructural facilities like insurance coverage, warehouse facility etc. It is observed from the field survey that the selected industry which is situated in the rural area are still facing lots of problem regarding the infrastructural facility.

2. Lack of necessary human resource skills among the persons (both proprietors and employees) in the selected industries has an adverse effect in the production process of these industries. Lack of awareness towards the improvement of Human resource skills is the main reason for happening lacking Human Resource skill among the selected industry.

3. All industries under study have to generate their finance from their own source. They are still far from enjoying and acquiring the benefit of government schemes and other banking provision of loans and advances. Because of having no strong education background and training most of them feel hesitation and after all their personal background does not permit to involve themselves in performing necessary financial formalities to be dealt with a bank, financial institutions and government department.

4. The entire industries under studies have been adopting a traditional method of producing their goods since their inception. That is the main reason as identified from their personal interview that they are not at all in a position to change their production

technology by adopting new and advanced machines and equipment as like other reputed competitors which of their conservative mentality leads to loss their recognition of their product quality in prevailing market scenario. Presently they have to survive by holding an average position in the market as neither can they adopt new technology nor they can improve their traditional methods.

5. In the wave of rapidly changing marketing situation these industries measurably fail to invent their necessary dynamic marketing strategies to capture growing customers demand. In marketing mix analysis, it is found that the selected industries under study are not able to show satisfactory performance in the implementation level of marketing mix tool. Consequently, due to these reasons, the selected industry under study has loss their marketing share.

6. The selected industry under study has to face the problems regarding the use of technology in their business operation. It is found that the high cost of technological equipment is the major problems among all the technological problems.

7. Other major problems are identified regarding the selected industries under study is that government support related problems. Here it is found that the various anomalies in sanction of loan, subsidy, incentives, etc. and lack of knowledge of government support scheme are the major problems among all the government support related problems.

8. In case of other problems of four categories, it is identified that the effect of frequent bandh is found to be the highest than the effect of natural calamities, lack of research and development and compete with MNCs. So, frequent bandh becomes a serious cause of emerging various problems of these industries because frequent bandh is the mother of all problems as discussed throughout the chapter.

8.1.5: Findings Related to Prospective Outline of Food Processing Industries

The findings related to food processing industries have been identified separately from the demand side and supply side which are explained below.

(A) Findings on demand side

1. The various factor such as increase of PCI, improve the standard of living, change in consumption habit, social change, cultural change etc have to change the consumption habit of the people. Due to this reason demand for various products of the food processing industry are increasing in Kokrajhar district also.

2. The importance of Kokrajhar District as a tourism place has been gradually increasing after the formation of BTAD in 2003. The various natural spot, old temples, forest area cultural festival etc. are becoming an attractive destination for different potential tourist. Consequently, it provides the market potentiality of various products of food processing industries.

3. The demographic point of view of Kokrajhar District, it is found that the number of various categories of people in the total demographic composition of Kokrajhar District has been gradually increasing which include both national and international sphere.

(B) Findings on Supply side

1. It is found that the kokrajhar District has occupied a topmost position in the production of various fruits and horticultural crops in Assam which directly leads to increase the supply of raw material so far as required as input for the food processing industry. This is identified as one of the prospective dimensions of the selected food processing industry sector.

2. It is detected from the chapter along with the table No: 7.7 and 7.8 that Ministry of Food Processing Industry has implemented a various programme of food processing Industries of entire India and accordingly framing and implementing various schemes behind which there are a number incentives for promoting the food processing industry sector. This kind of facilities not only provides financial support but also leads to enhancement of human resource skill through training and research & development. Presently, the startup policy launched by the government of India is identified as of the positive factor for setting up of such type of industry.

3. In the light of various steps and initiatives adopted by different Institution, government Ministry, etc. it can be said that there is an adequate supply of technological support scheme which helps in up gradation of technology and technical skill for the entrepreneurs which are very much essential for run the food processing industry successfully.

4. So far as a various factor of infrastructural facilities of Kokrajhar District is concern it is seen that majority of these factors are in the path of progress especially since the formation of BTAD in 2003. Particularly power facility is improved since the establishment of NTPC at Salakathi, improved transportation system, etc. are noticeable factor lead in the up gradation of an infrastructure facility. Further, it is seen that the food processing sector of the Kokrajhar District is either directly or indirectly benefited more or less by these activities of up gradation of Infrastructural facilities.

5. It is identified that many financial schemes are launched by the Central as well as State Government for the Food Processing Industry sector. But during the observation of the level of awareness among the proprietor of the selected food processing industries, it has revealed that the proprietor has nominal knowledge about various attractive financial schemes as introduced by the central government.

8.2 Recommendations

In order to the overall development of the food processing industry sector, the following recommendations are put forward under different dimensions. These are recommendations against findings of marketing analysis, problematic dimensions and prospective outline of food processing industries in Kokrajhar District of Assam.

8.2.1 Recommendations on Marketing Aspects

(A) Recommendations on Product Mix:

I. Technology: With a view to sustaining the position of the selected industries like national and international competitors, it is urgently required to implement all possible modern technology for the purpose of not only improving the quality of products but also for product diversification of their goods through attractive and purposive packaging and labelling to increase the market share in the selected district along with state as well as national level.

II. Quality: It is suggested that the food processing industry sector give much more importance on the quality aspect. Because these days people are very much conscious about quality factor. So it is suggested that the food processing industry sector gone through as per FSSAI guideline for quality factor.

III. Packaging: It is the correct time to realize by these industries that packaging is immensely important not only for providing physical protection of the product but also essential for safety, transformation, quality maintenance, etc. Considering this kind of importance of packaging, it is suggested to these industries to adopt packaging policy and technology immediately.

IV. Product Diversification: Considering the continuous entry of multifarious class of customers, it is suggested to the selected industries that they should immediately adopt product diversification policy and should carefully implement this policy with a view to satisfying the diversified needs of customers available in kokrajhar district.

V. Labeling: Today RTI act is one of the prominent dimensions of consumer right. Keeping in purpose this RTI act it is suggested to execute properly the labeling of the products for the selected industries under study as soon as possible to expand their business.

(B) Recommendations on Price Mix:

I. Penetration Pricing: As a new pricing tool up to some extent the selected industry sector try to implement the penetration pricing techniques for selling their output in the market.

II. Psychological Pricing: To motivate the consumer psychologically psychological pricing is utmost important. So it suggested the selected industry sector to implement these pricing techniques to motivate the consumer to purchase their products.

III. Skimming Pricing: As a new pricing tool sometimes to maximize their profit the selected industry sector try to implement a skimming pricing tool to purchase their products.

IV. Cost Plus Pricing: The selected industry sector try to fix their cost-plus pricing techniques in such a way that which is not more than the other substitute national level companies.

V. Terms of Credit: The selected industry sector needs to design scientific way credit techniques pricing tool to attract more consumers.

VI.Discount: For effective implementation of discount pricing strategy the selected industries are suggested to continuously monitoring the marketing demand trend especially on the occasion of the festival, bulk amount of purchasing, seasonal variation, etc.Further, it is suggested that this industry should adopt the Discount pricing strategy as a motivating tool towards customers.

VII. Non-Price Competition: Considering the need of the modern class of customers the industries under study should adopt NPC strategy in the line of their business activity. Further, it is to be suggested that by adopting this NPC strategy this industry can earn more profit also as because it leads to increase their sale of products also.

(C) Recommendations on Place Mix:

I. Retail: Being a part of society every selected industry should concentrate their efforts on the satisfaction of their customers. That is why it is suggested to enhance the level of service in the selected business towards their customer satisfaction through strong retail strategy. To implement this strategy effectively the selected industries should undertake to acquire all necessary qualities of the salesmanship, which certainly includes attractive advertisement, courteous behaviour with customers, paying serious attention for removing their problems, provide service for their utmost satisfaction and all necessary

steps to build up utmost faithful perception among the potential customer towards their business service.

II. Wholesale: In the greater interest of strengthening a well-organized marketing atmosphere, apart from retail trade, the selected industry should involve in the whole selling business. In doing so the government and bank & financial institution provide necessary finance for whole selling trade to the selected industry.

III. Internet: It is the right time for the selected industries to step ahead parallely with the other substitute national level industries. In support of this logical fact, this industry is suggested to acquire the necessary knowledge and experience for the immediate implementation of internet selling as a novelty method of selling among the potential customers. By virtue of internet selling, this business can enhance their market share by creating new customers within and outside of the District Kokrajhar.

IV. Direct Sale: It is suggested that up to some extent the selected industry sector need to apply direct sale techniques to attract more consumers.

V. Multichannel: Considering the growing consumers of multifarious categories, it is suggested to the industries to adopt urgently multichannel as a place mix tool. By virtue of multichannel place mix these industries not only able to sell their entire volume of product but also able to motivate the various kinds of customers.

(D) Recommendations on Promotion Mix

I. Advertisement: Along with the quality production, the selected industries are required to adopt the necessary steps for formulating advertisement planning and accordingly implement this advertisement planning at the right time in the right way. It is suggested to the selected industry formulate and implement such kind of appropriate advertisement so that they can enhance the awareness among their potential customers regarding the quality features of their products. This kind of step will definitely help these industries in accelerating their production and selling of goods. Further, it is suggested to design the advertisement programme in such a way so that the majority potential customer can able to capture essence the message of the advertisement.

II. Special Offer: In the line of existing competitive business, the selected industries should execute the special offer as an effective tool with the purpose of enduring impact in the image of customer mind.

III. Direct Mailing: It is suggested to selected industry under study to use the direct mailing as an effective promotional strategy for expanding their business. In doing so, these industries should adopt various schemes of state government and central government available for enhancing entrepreneurial skills.

IV. Free Gift: The selected industry sector try to apply free gift techniques sometimes to attract more consumers in their industry to purchase the product.

V. Signboard: Signboard is considered as the basic tools of the promotion mix. So it is suggested to all the industries to at least use the signboard to expand their business. Because in the field survey it is found that 65.56% industry is still not using the signboard.

8.2 .2: Recommendations on Problematic Dimensions of Food Processing Industry

The following policies have been suggested to be implemented immediately to solve the prevailing problems of selected food processing industries of Kokrajhar District.

1. Infrastructural facilities such as electricity, roads, banks & financial institutions for the supply of finance, warehousing, insurance facility etc. are the basic elements of infrastructural development. That is why it is suggested to the government to take necessary steps for providing a better infrastructural facility which is very much important to run the industry. Hence it is suggested to improve all dimensions of infrastructure facilities to bring the industrial environment of the District (Sarma , G.,et al, 2017).

2. It is suggested to constitute a strong trade Association by the selected industries of Kokrajhar District and, thereby, further, this association is suggested to contact with government and other different agencies for organizing training for the employees of these industries. This training programme should be designed especially to improve the Human Resource skills among the employees of the selected industries. Hence, it is

suggested to the government of Assam to provide adequate training facilities to this industries through the DICC.In doing so, the management of functioning of DICC, Kokrajhar should be reform so that DICC can efficiently and effectively implement the programme of training offered to them (Sarma , G. et .al. 2017).

3. With a view to strengthening the financial position of these industries, it is suggested to increase the level of awareness along with the educational background among owners and employees of these industries towards the various schemes for getting financial assistance from the state and central government.

4. These industries are suggested to adopt all necessary marketing policy for their overall development which basically includes effective advertising strategy, formulating marketing mix strategy so that consumer can recognize their products as like the national and international level of competitive product.

5. Without the implementation of technology nowadays no business can sustain. Hence, it is suggested to all the industries to implement the technology anyhow to expand their business.

6. To bring industrialization and motivated the youth to became entrepreneur the government administrative system should need to be revived. Because still now different kinds of anomalies are found in a various government department for sanctioning loan, subsidy, the registration process of industry, license NOC certificate etc. That is why it is suggested that all this process should come under the e-governance system that everything can be accessed through the online system.

7. With a view to removing the effect of other problems, it is suggested to form a strong public opinion against frequent bandh. Further, it is seen to pay keen interest and attention to the various research and development activities on various aspects of food processing industries by the initiative of government policies. Likewise, it is the right time to adopt various remedial measures to minimize the effect of natural calamity.

8. To materialize the prospect of food processing industries in Kokrajhar District a strong step should be taken by the government for enhancing awareness among the potential youth for which government is suggested to conduct awareness campaign, publicity, conduct exhibition, expo etc. Further, the government is to pay serious

attention in the successful implementation of some attractive schemes about food processing industry behind which there should have a great opportunity for employability (Sarma , G. et al. , 2017).

10. It is urgently required to identify the industries which are going on in the path of sickness. In doing so, the government should also identify the causes of being sickness of these industries and accordingly step should be taken to remove this cause with through well-structured reform policy. So that within a short period the industry should be revived.

8.2.3: Recommendations on Prospective Dimensions of Food Processing Industries:

In the greater interest of resolving various drawbacks as observe throughout the prospective chapter, the following recommendations have been put forward to the development of this industry sector.

(A) Recommendation on demand side

1. It is the right time for the selected food processing industry to diversify their product properly with maintaining quality as like quality of national and multinational products keeping in various needs of growing customers demand in view (Sarma , G. et. al. , 2017).
2. It is suggested selected food processing industry to design and implement product planning strictly considering the taste and needs of various outsiders along with tourist and seasonal variation, various festival, etc.
3. During the designing and implementing production planning, marketing policy and selling decision the selected industries seriously look into the matter of the composition of demographic and its growing trend so that the industries can able to produce right types of goods at the right amount in right time.

(B) Recommendation on the supply side

1. The selected industry should immediately formulate a policy for full utilization of raw material available in the District with an efficient and effective way. In designing and implementing this plan, most emphasis should be given on the application of food production technology and the use of the human resource as because these two aspects are most essential for the quality production of food items.

2. Both the employers and employees of the selected industries should be interested in the prevailing scheme of Ministry of Food Processing Industry and they much be fitted from all possible aspects to capture the advantages of these schemes and them much committed their effort for achieving the goal and objectives for which these schemes have been formulated and introduced in the District of Kokrajhar.

3. Along with the selected food processing industry, all other food processing industry should immediately adopt the various technology-based schemes with the purpose of the overall development of the industry.

4. Along with BTAD Government, the Government of Assam and Central Government should have a combine and co-ordinate effort based on long-term vision towards the development of all necessary dimensions of infrastructure within the District of Kokrajhar. The Industry Department of Government of Assam should emphasis to established special economic zone in different potential place of the District in the greater interest of overall development of Food Processing Industry (Sarma , G. et. al, 2017).

5. There is a need for knowledge communication among the proprietor of the selected industry with the banking sector, government department, agencies and the familiar person in these fields. So that by these communications they will able to know all about financial and another facility available behind the schemes introduced either by central or state government. In this regards, it is suggested to have training facilities among the proprietor of the selected industries.

8.3 Conclusion

After conducting this study, it is identified that in Kokrajhar District food processing industry sector plays an important role in terms of its share in the agro-based industrial sector and employment level. However, its trend of growth is not as satisfactory as the like the state level during the study period, but it plays a significant role in bringing the industrial environment in the district.

The central focus of the marketing analysis chapter is to analyze the marketing activity which has been analysed on three angles. The first angle is that the marketing activities are examined through the implementation level of 4p's of marketing mix by the selected 90 number of industries under study. In case of product mix technology, quality, packaging, product diversification and labeling are considered. Further, in case of price mix penetration pricing ,psychological pricing , cost-plus pricing ,terms of credit , discount , non-price competition and skimming pricing techniques are taken into observation. In case of place mix retail, wholesale, discount, internet and multichannel are taken into observation. In promotion mix advertising, special offer, direct mailing, free gift and signboard are considered. From the point of the second angle, preference wise consumer buying behaviour is examined in the case of selected food items regarding the 4p's of marketing mix tool. Lastly, marketing activities of the selected industries are examined from buying behaviour point of view. In doing so, both the local based and outside based products are taken into consideration. It is observed that in case of rice , bakery and fruits & vegetable processing products highest number of consumer prefer local-based products and in case of oil and flour highest number of consumer prefer outside based products. The analysis of the marketing chapter reveals that the food processing industry sector is far away from the use of modern marketing tools. To survive this industry sector in the globalized marketing environment, they anyhow need to adopt modern marketing tools like the product, price, place, and promotion mix tool.

The chapter five entitled Comparative Analysis of Food Processing Industries is an attempt to examine a comparative study of five food processing industries under study. In this chapter basically comparison is made years wise growth rate of unit and employment position of selected five categories of industries as well as annual growth

rate. Further education qualification of proprietors and source of fund of the selected industry are also analysed in this chapter. Through this comparative study mainly emphasize is given to ascertain as how at different levels different industries are performing their fundamental business activities.

The chapter six analyse the various problematic dimensions of the selected industries under study. Among a lot of problems of the selected food processing industries, these chapters concentrate to highlight only on 8 categories of different problems. These eight problems are considered as most serious problems which stand on the way of the overall development of the selected food processing industries. These problems are infrastructure, human resource skill, financial problem, production problem, marketing problem, technological problem, government initiative related problems and other problems.

The chapter seven highlights the various prospective dimensions of food processing industries in the district under study. During the period of study, ample prospects of food processing industries of Kokrajhar District in multifarious dimension have been identified. Hence, this chapter attempts to highlight such an important prospect in support of relevant and adequate data and information. In this regards demand of customers is worth mentioning as a prospect. In second prospect availability of raw materials is considered. It was seen from the study that this district has great prospects of the food processing industry sector. The urbanization, increase PCI, the growth of BTAD, Tourism etc. are identified the some of the important dimensions of food processing industry sector.

The last chapter provides findings as well as the recommendation for the overall development of the food processing industry sector. The findings and suggestion will help the proprietor of this industry sector to improve their industrial units. The study is also helpful for government and policymakers to implement a suitable policy to develop the overall industrial sector of this region. It will be further beneficial to new entrepreneurs, research scholars, academicians and various government department interested in the food processing industry sector.

REFERENCES

Sarma, Gunajit , Debnath, Arabinda and Devi, Mridula (June, 2017), "An Empirical Study on Insight of Some Major Problematic Dimension of a few Selected Food Processing Industries of Kokrajhar District of Assam," Asian Journal of Research in Business Economics and Management , Vol. 7 , No. 6 , pp.104-116.

Sarma, Gunajit , Devi, Mridula and Debnath, Arabinda (2017), "Prospects of Food Processing Industry in Kokrajhar District of Assam : An Envisioning Study beyond its Present Position," International Journal of Tropical Agriculture , Vol.35 , No. 2 , pp.223-239.

BIBLIOGRAPHY

A. Books

Bhatnagar, B. and Budhiraja , A. (2009), "Entrepreneurship Development and Small Business Management" , Vayu Education of India, New Delhi - 110063

Banerjee , A. C. and Roy S. S. (2010), "Problems and Prospects of Bodoland" Mittal Publications, New-Delhi - 110063

Charantimath , P.M. (2013) , "Total Quality Management" , Pearson , New Delhi-110017

Dhar , P. K.(1998) , "The Economy of Assam" , Kalyani Publishers , New Delhi-110039

Dhar, P.K.(2005), "Indian Economy,Kalyani Publishers" , Ludhiana.

Das, Dinesh (2014) , "Prospects and Problems of Agro-based Industries in Assam" N.L. Publications , Guwahati -781001

Dhar , P.K.(2013), "Urbanisation Its Challenges and Environmental Degradation," EBH Publisher , Guwahati -781001

Debnath , A. (2018) , "Industrial Management and Entrepreneurship," Kalyani Publishers , Delhi -110039

Das, Dinesh (2016), " Emerging Challenge in Indian Agriculture The Looking Forward" Excel India Publishers, New Delhi- 110063

Dewett , K.K. and Navalur , M.H.(2010) , "Modern Economic Theory" S. Chand & Company Ltd. , New Delhi – 110055

Dornbush , R and et al. (2016) , "Macro Economics" , Mc Graw Hill Education , New Delhi -110063

Gupta , G.S. (2016) , "Managerial Economics" , Mc Graw Hill Education , New Delhi – 110063

Gupta, S. P. (1999) , "Statistical Methods," Sultan Chand & Sons , New Delhi -32

Gupta, S. C. (1998), "Fundamentals of Statistics," Himalaya Publishing House , Mumbai – 400004

Kotler , P.and Armstrong , G (2009) , "Principles of Marketing" ,Pearson Education, New –Delhi – 110017

Kumar , Arya (2015) , "Entrepreneurship Creating and Leading An Entrepreneurial Organization" , Pearson Education , New Delhi – 110017

Kothari , C. R. (2004) , "Research Methodology Methods and Techniques," New Age International Publishers ,New Delhi – 110002

Mandal ,Ram Krishna(2011), "Entrepreneurship and Rural Development in North East India," DVS Publishers , H.B. Road ,Panbazar ,Guwahati-781001

Mishra , P. and et al. (2011) , "Marketing Management," Variety Books Publishers , Delhi – 110092

Miller , R. L. and et al. (2002) , "SPSS for Social Scientist , Palgrave Macmillan," New York , N.Y. 10010

Namakumari , R. (2015) , "Marketing Management Indian context," Mc Graw Hill Education , New Delhi -110063

Prasad , C.S. ,Mathur ,V. and Chatterjee, A.(2007) , "Sixty Years of Indian Economy-1947 to 2007" ,New Century Publications , New Delhi - 110092

Padberg ,D.I., Ritson, C. , Albisu, L.M(2002), "Agro-Food Marketing, CABI Publishing," New-York.

Roy, Anuradha (2010), "Food Processing," Yking Books, Jaipur

Roy , Rajeev (2016) , "Entrepreneurship," Oxford University Press , New Delhi – 110001

Saxena , Rajan (2016) , "Marketing Managemen"t , Mc Graw Hill Education , New Delhi – 110063

Samuelson , P. A. and et al. (2016) , "Macro Economics," Mc Graw Hill Education , New Delhi -110063

Samuelson , P. A. and Nordhaus , W. D. (2016) , "Micro Economics," Mc Graw Hill Education , New Delhi -110063

Winer , Russell S. (2008) , "Marketing Management," Pearson Education , New –Delhi – 110017

B. Articles

Ahmad , Azhar (2009),"Marketing Practices Among Malaysian SMEs in Agro-Based Industry," Prosiding Perkem , Vol.4 ,Issue 2, pp. 145-150.

Bhattacharyya , B.(2013) , Problems and Prospects of Fruits and Vegetable Processing Industry: A Study in Kamrup District of Assam, Asian Resonance, Volume –II ,Issue-IV ,October -2013,pp. 38-44.

Bhattacharyya , B. and Goswami , N. (October -2015) ,"Prospect of Contract Farming and Agro Processing Industry in Assam," Remarking , Vol.2 , Issue.5 , pp.44-48.

Chanu, A. Ibemcha and Barman, K. (April - 2018), "Cultural Tourism and Entrepreneurship in Bodoland Territorial Area District, Assam," JONER, Vol. 4, Issue 6 , pp. 207-215.

Debnath , A. , Sarma , G. and Devi , M. (Nov. –Dec. , 2018) , "Impact of Food Processing Industry on Society : A Normative Study in the Glimpses of Indian Trimuvirate Ethical Value," Indian Journal of Social Research , Vol. 59 , No. 6 , pp. 845 -857.

Dev ,S.M. and Rao , N.C.(June -2004), "Food Processing in Andhra Pradesh Opportunities and Challenges," Working paper no 57, Centre For Economic and Social Studies,Hyderabad-50016

Debnath, A. and Sarma, G. (July –December, 2017), "A priority Based Comparative Economic Analysis Among A Few Selected Food Processing Industry of Kokrajhar District of Assam," AGU International Journal of Research in Social Sciences & Humanities, Vol.5, pp- 246.

Dave ,R. and Amin ,A.(2013), " Indian Processed Food: Recent Trends and Future Prospects," International Journal of Research in Business Management, Vol 1, Issue 1.

Gautam H. R. (May , 2014), "Employment Opportunities in Food Processing Industry For Rural Areas," Kurukshetra , Vol.62 , No. 07 , pp. 03– 05.

Gupta, A.K(2009), Innovations for Reviving Small Scale Industries, Working paper, IIM Ahmedabad , pp.2-13.

Gupta, A. (November , 2015) ,"Impact of Marketing Practice followed by Agro –Based Units on Consumer Consumption : with special Reference to Varanasi District , UP, India," International Research Journal of Social Sciences , Vol. 4 , No. 11, pp. 30-36.

Haidi, M. F. and Wandebori, H. (2016),"Determining Brand Equity and Marketing Mix in Bakery Store (Case Study : Rogheef Bakery)," Journal of Business and Management, Vol.5 , No. 1, pp. 154-168.

Indumathi, N and Dawood, A. K.(October -2016) ,"Impact of Marketing Mix on Consumer Buying Behaviour In Organic Product," International Journal of Research in Finance and Marketing , Vol. 6 , Issue 10 , pp.43-54.

Jamir, T. and et al. (2017), "Empirical Study on Agro-Based Industrial Economy of Dimapur District of Nagaland , India," International Journal of Advanced Research ,Vol. 5 , No. 11, pp. 1169 -1175.

Kiumarsi, S. ,Jayaraman, K. , Isa, Salmi Mohd and Varastegani (2014), "Marketing Strategies to Improve the Sales of bakery products of Small –medium enterprise (SMEs) in Malaysia," International Food Research Jurnal , 21 (6) , pp.2101-2107.

Kachru, R.P.(2006), Agro-Processing Industries in India—Growth , Status and Prospects---www.npkv.academia.edu/…Papers, Assistant Director-General (processing Engineering) ,Indian Council of Agricultural Research ,New Delhi ,PP.114-125.

Khan, F.M. and Ahmad, S.(2014), "Managerial issues for Green Marketing in Food Processing Industry of India," International Journal of Agriculture and Food Science Technology ,Vol 5 ,No 3 , pp. 125-134.

Kiumarsi, S. and et al. (2014) , "Marketing Strategies to improve the sales of bakery products of small-medium enterprise (SMEs) in Malaysia," International Food Research Journal ,Vol. 21 , No. 6, pp.2101-2107.

Lala ,N.S.(2014), "Globalization and its Impact on Indigenous Food Habits and Culture of the Khasi Community of the North East," International Journal of English ,Language ,Literature and Humanities ,Vol 2 ,Issue 2, pp. 252-260.

 Majumdar, K.(2012), "Foreign Direct Investment in Indian Food Processing Industry," Asian Journal of Research in Business Economics and Management, Vol2, Issue 4, pp. 113-120.

Nguyen, T. N. and et al. (2015) , "The Impact of Marketing Mix Elements of Food Buying Behavior : A Study of Supermarket Consumers in Vietnam," International Journal of Business and Management , Vol. 10 , No. 10 , pp. 206-215.

Negi, S. and Anand ,N.(2015), "Issues and challenges in the Supply Chain of Fruits & Vegetables Sector In India : A Review," International Journal of Managing Value and Supply Chain ,Vol 6 ,No 2 ,pp. 47-62.

Nagaraja, G. (April , 2015), "Analysis of Agro –Processing Industries Problems : A Case Study Chittoor District , Andhra Pradesh," International Research Journal of Marketing and Economics, Vol. 2 , Issue.4,pp. 01-15.

Naqvi, M. H. and Pervez, A.(September,2015), "A Study on Growth & Employment Trends of Food Processing Sector in India," International Journal of Techno – Management Research , Vol. 03 ,No. 02 , pp. 01-11.

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

Rais , M. and et al. (2013),"Food Processing Industry in India : S&T Capability , Skills and Employment Opportunities," Journal of Food Processing Technology,Vol.4 ,Issue.9.

Reddy , C. L. K. and Kumari S. R. (January , 2014),"Performance of Agro-Based Industries in India : A Critical Analysis," IOSR Journal of Economics and Finance , Vol 2, Issue 4 , pp. 15-25.

Rais, M and et al. (January – June ,2014),"Food Processing Industry : Opportunities in North East Region of India," The NEHU Journal , VOl.12, No.1, pp. 7-15.

Sarma , Gunajit (2018), " A Comparative Analysis of various economic variables among the Selected Five Food Processing Industries of Kokrajhar District in Assam," Pramana Research Journal, Vol. 8 , No. 11 , Pp. 319-330.

Shehrawat , P.S. (2006),"Agro Processing Industries –A Challenging Entrepreneurship For Rural Development," Journal of Asia Entrepreneurship and Sustainability, Vol.2, No.3.

Singh, S.P. and et al.(2012), "The Food Processing Industry in India: Challenges and Opportunities," Journal of Food Distribution Research ,Vol 43 ,Issue 1,pp. 1-7.

Singh , M. (September –October ,2012),''Marketing Mix of 4 P"s for Competitive Advantage," IOSR Journal of Business and Management,Vol.3, Issue 6, pp. 40-45.

Singh, A.K.(2014), " A Study on Development Trend of Food Processing Sector in India," Shodh Sanchayan ,Vol 5,Issue 1 , pp. 1-7.

Sharma, Arpita (May,2014), "Agro Based Industries and Rural Development," Kurukshetra , Vol.62 , No. 07 , pp. 10 – 12.

Singh, Rewa (2015), "Status and Prospects of Registered Food Processing Units in India : A Comparative Study," www. newmanpublication.com, Vol. 2 , Issue. 7 , pp.107 -121.

Sarma, G. and Devi, M. (2016) , " An Evaluative Study on the Prospect and Problem of Fruits and Vegetable Processing Industry in Kokrajhar District of Assam," Journal of Development Research , Vol. 9 , No. 1 , pp. 7-14.

Sarma, G. and Devi, M. (2016) , "An Analytical Study on Status of Food Processing Industry in BTAD Area of Assam and its future outlook for inclusive growth of the Region," Indian Journal of Social Development , Vol. 16 , No.2 , pp.137-149.

Sarma, G. , Debnath, A. and Devi, M. (June, 2017), "An Empirical Study on Insight of Some Major Problematic Dimension of a few Selected Food Processing Industries of Kokrajhar District of Assam," Asian Journal of Research in Business Economics and Management , Vol. 7 , No. 6 , , pp.104-116.

Sarma, G. , Devi, M. and Debnath, A. (2017), "Prospects of Food Processing Industry in Kokrajhar District of Assam : An Envisioning Study beyond its Present Position," International Journal of Tropical Agriculture , Vol.35 , No. 2 , pp.223-239.

Shelly, Ms. and Kaur, Kuldip (June , 2015), "Impact of Food Processing Industry on Economic Growth , FDI and Exports of India," Pacific Business Review International , Vol. 7 , Issue 12 , pp. 63-72.

Singh, R.(July 2015), "Status and Prospects of Registered Food Processing Units in India: A Comparative Study" New Man International Journal of Multidisciplinary Studies, Vol.2, Issue. 7 , pp.107-121.

Saraswati(2014) , "Export Potential of Food Processing Industry in India," International Journal of Computing and Corporate Research ,Volume 4,Issue 2.

Shukla, A. and et al.(2015) , "Agro and Food Processing Industry in India :Status ,Opportunities & Challenges," International Journal of Social & Scientific Research ,India ,June 15, pp. 1-8 .

Shelly, Ms and Kaur, K. (June , 2015), "Impact of Food Processing Industry on Economic Growth , FDI and Exports of India," Pacific Business Review International , Vol. 7 , Issue 12 , pp. 63-72.

Tiwari, S. and et al. (2015), "Present status of Food Processing Industry in Central India : A study in Chhattisgarh," International Journal of Research and Development – A Management Review , Vol.-4 , Issue – 4, pp.13-18.

Thakuria, K. (June,2016), "Problems and Prospects of Agro Based Small Scale Industries : An Analysis of Barpeta District in Assam," Chinaky – A Research Journal on Humanities and Social Science , Vol. 5 , No. 3 , pp.39-50.

Wilkinson, John (2004),"The Food Processing Industry, Globalization and Developing Countries," Electronic Journal of Agricultural and Development Economics, Vol.1, No.2, pp. 184 – 201.

Zekiri, J. and Hasani, V. V. (2015), "The Role and Impact of the Packaging Effect on Consumer Buying Behaviour," ECOFORUM , Vol. 4 , Special Issue 1, pp. 232-240.

C. Report

Government of Assam (2015), Directorate of Economics and Statistics, Statistical Handbook of Assam, 2014, Guwahati-28

Government of Assam (2015) , Directorate of Economics and Statistics, State/District Wise Area, Production, Price and Value of the Major Crops in Assam from 2003-04 To 2014-15, Guwahati-28

Government of Assam (2014) , Directorate of Economics and Statistics, Area, Production, Price and Value of Some Horticulture Crops in Assam from 2003-04 To 2012-13, Guwahati-28

Government of Assam (2016) , Directorate of Economics and Statistics, Estimates of Area, Production and Average Yield of Principal Crops in Assam, 2007-08 to 2013-14, Guwahati -28

Government of Assam (2017),Industries & Commerce , Commissionarate of Industries & Commerce, Assam Startup Policy Draft 2017, Policy Draft Created by Startup India/Invest India (National Investment Promotion and Facilitation Agency) (www.industriescom.assam.gov.in/ Assam startup policy 2017)

Government of Assam (2018) , Report on Advantage Assam , Agricultural & Food Processing including Organic cultivation and Bamboo (www.advantageassam.com)

Government of Assam (2018) , Office of the Deputy Director of Economics & Statistics , District Statistical Hand Book Kokrajhar 2016-17, Kokrajhar.

Government of Assam(2018), Office of the Joint Director of Economics & Statistics BTC , Kokrajhar Statistical Handbook of Bodoland Territorial Council 2016-17 , Kokrajhar.

Government of Assam (2017), Directorate of Economics and Statistics, Statistical Hand Book of Assam 2016, , Guwahati -28

Government of Assam , Director Cum CHD Office, Tourism , Kokrajhar , BTC ,Hand Book on Bodoland Tourism, Kokrajhar .(www.bodolandtourism.org)

Government of Assam (2018) , Directorate of Economics and Statistics , Economic Survey of Assam 2017-18 , Guwahati -28

Government of Assam(2018) , Office of the Deputy Director of Economics & Statistics , Kokrajhar , District Statistical Handbook Kokrajhar 2016 -17 , Kokrajhar.

Government of India(2011) , Directorate of Census Operations , Assam , Census of India 2011 , Assam , Series- 19 , Part XII – B , District Census Handbook , Kokrajhar , 2011

Government of India (2018), Ministry of Food Processing Industries , Annual Report 2016 -17 , New Delhi -110049 (www.mofpi.nic.in)

D. Dissertation, Newspaper and Others

Balasaheb , N. R. (2014), "Economic Analysis of Selected Pulse Processing Mills in Solapur District" (Thesis) , Submitted to Mahatma Phule Krishi Vidyapeeth , Maharastra (available at Sodhganga)

Cherian , P.E. (2006), "Economic Analysis of Agro – Processing Industries in Kerala" (Thesis) , Submitted to Mahatma Gandhi University , Kottayam , Kerala(available at Sodhganga)

Power S.R. (2011), "Problems and Prospects of Food Processing Industry in Kolhapur District" (Thesis), submitted to Shivaji University ,Kolhapur , Maharastra (available at Sodhganga)

Reddy , C. L. (2016) , "Problems and Prospects of Agro Based Industries in Kurnool District" (Thesis) , Submitted to Sri Venkateswara University , Tirupati(available at Sodhganga)

Singh , Ranjana (2018) , "Problems and Prospects of Women Entrepreneurship with Special Reference to MSMEs in the State of Gujrat" (Thesis) , Submitted to Gujrat Technical University , Gujrat (available at Sodhganga)

Sahoo ,S. K. (2008) , "Role of Agro Industries in the Economic Development of Orissa : A case study of the un-divided Cuttack District" (Thesis), Submitted to Utkal University , Orissa(available at Sodhganga)

Sharma , R. (2013), "Agro-Industries in Ghaziabad District : A Geographical Study" (Thesis) , Submitted to Charan Singh University , Meerut(available at Sodhganga)

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