

## Eminence of Food Processing Industry in India

<sup>a</sup> **Rajeev R.R.**, <sup>b</sup> **T Rajesh**

<sup>a</sup> Research Scholar, Department of Commerce University of Kerala, Trivandrum, Kerala India

<sup>b</sup> Research Supervisor Assistant Professor, Department of Commerce Government College, Nedumangad, Kerala India

---

### Abstract

Universal nature of change is affected in all area of industry due to the new industrial policy. As the part of this change there is a structural change in the field of food processing industry. The food habit is changing with change in life pattern for the last few decades. This change due to urbanization, nuclear family, multiple family income, time constraints and various other factors. A large crowd of people is shifting for their food from raw fresh agri-product to processed food items. This has given a new opportunity of business man with social upliftment, numerous changes can be observed through the records available on food intake pattern. This study focuses the status of food processing industry in Indian population. Also highlight the role of food processing in the emerging markets in India

**KEYWORDS:** food processing industry, food habit, modern life style, new generation people

---

### INTRODUCTION

In the last few decades Indian food habit is changing due to several factors like the change in life style, spending habit to the food, modern kitchen, reduction in family structure, fastest life etc. The food habits both cooking, preparation and also eating habits in India differentiate from east to west and south to north. In the modern life style of people they would like to change the speedy and short way process of cooking in the place of spending time consuming cooking process. The nature of food items like perishability, poor availability and seasonal nature of raw food products has influenced the new generation people to choose processed food products. The portfolio of the products is very wide and there is no specific marketing strategy. The transportation system of the country become flared from rural to urban peoples are migrated from the rural to urban for education and job and this mankind have reach the processed food either ready to cook food or ready to eat food for convenience rather than depending on restaurant. Now a days most of the nuclear family consist dual income people, due to the less availability of time they shifted their food habit from raw food to processed food. This processed food products brings range to their eating and taste, all the above factors harmonize each other in pouring processed food. In the emerging trends of the global market condition India is becoming the hub of large multinational companies and India is liberalize the policy. In order to change the above situation there is 100 per cent FDI in food processing industry. Local and national level industries are also playing their role in the processed food industry. The expectation of communication technology, raped change in literacy level people are become health conscious and the wealth of available resources of the food materials.

“Natural food is the best medicine” this is not only the phrase but also the true things because; due to change in the food habit numbers of diabetic and heart patients are increasing in India. these is because of much pressure given on lifestyle and food habits of mankind. Today's the people are well educated and the information passed through very virally in mass media so they are very health conscious. For selecting the products the customers have a good idea about the product. They can check the calories, fact, ingredients, method of use and certain product approval certification. In the case of processed food product house wives become the prevailing factors in decisive the food products for the whole family. They select rich food products like high fiber, low calories and nutrition to their family. Sales promotion and mass media advertisement are also become the major factor in the purchasing behavior. Level of obesity is on the growth of Indian population and on one side consumers are becoming awareness of the food they intake and on the other side consumers are carried away by advertisements information and packaging style.

### **Objectives of the study**

1. To examine the present status of food processing industry in India
2. To study the challenges for food processing industry in the present market condition
3. To evaluate the role of food processing industry in the emerging Indian market condition

### **Food Processing**

Food processing is the set of action that converts the raw food products in to the ready to eat food products. It includes the systematic method and technique to transform raw ingredients to consumable food items. Mainly processed food leads to value addition. The processing normally take clean, harvested crops or butchered and slaughtered products and uses these to produce attractive, suitable, marketable and often long shelf life food items. It is a technique of conversion of agricultural resources to fast moving perishable commodity. All these methods are used by food processing industry to give out preserved and processed foods for daily consumption.

Food processing sector having its link with ancient ages, in that time basic processing technique like fermenting, slaughter, drying, preservation with salt, and various method of cooking included steaming, smoking, roasting and oven baking. During 19<sup>th</sup> and 20<sup>th</sup> century modern techniques of food processing was widely used and developed to serve the military's force. Nicolas Appert invented a vacuum bottling technique in 1809 that would supply food for French troops, and this contributes to the development of tinning and then canning by Peter Durand in 1810. Although initially expensive and somewhat hazardous due to the lead used in cans, canned goods would later become a staple around the world. Pasteurization, discovered by Louis Pasteur in 1862, was a significant advance and milestone in ensuring the micro-biological safety of food. In the 20<sup>th</sup> century, there is a rise in consumer's social order in developed countries including the United States contribute to the growth of food processing with such advances as spray drying, juice concentrates, freeze drying and the introduction of artificial sweeteners, coloring agents, and preservatives such as sodium benzoate. Products such as dried instant soups, reconstituted fruits and juices, and self-cooking meals were developed in the last of 20<sup>th</sup> century.

### **Value chain in food processing industry**

In food processing industry the value chain starts from agri-inputs and ends at food retail as well as food service. Delivery of farm inputs such as agro-chemicals, seeds, fertilizers etc. It also includes the production and other promotional scheme like insurance of crop, financial assistance. The second stage is production; it is the key area of the value chain. So many inputs are collectively pooled in this stage. The third stage is procurement and storage; it involves warehouse and other trading activity. The important of cold chance facility is the notable area of this stage. The absence of proper cold chain facility leads to huge wastage of produce. This problem has been marked as the prominent challenge of food processing industry. The distribution also includes export to the other nations. Then comes the processing part which involves grading, sorting, waxing and packing in the case of fruits and vegetable products, milling and grading in the case of grain products. Value addition is the integral part of this stage ie., Value addition of wheat into noodles, bakery items, snacks etc. In the last stage there is wholesale distribution of value added food products. Branding is the key element in this section. The entry of big players in food industrial sector has created a stiff competition for small units. There are also tiff competitions among the small players. Branding is the key issue in the last stage. In this stage there is increase in value addition every segment with increase in demand for processed food.

**Table: 1 - Value Chain of Food Processing Industry in India**

	Inputs	Productions	Procurement and storage	Processing	Retailing
Key Activity	Seeds, Fertilizes and Farm Equipment	Farmers/ Cooperatives and Private Companies	Warehouses, Cold storage and Silos	Grading, Sorting, Milling and Packing	Retail Shops, Malls, Cash and Carry Stores
Key Players	National Seeds Corporation Limited, Cargill, M&M	Farmers, AMUL, Unilever, Pepsi, ITC	Food Corporation of India, Adani, Snowman	Cargill, ITC, Adani Enterprises	Merchant stores, Future Retail, Walmart, Aditya Birla Retail

*Source: India food Report, 2016*

#### **Major segment in food processing sector**

Indian food processing sector is widely fragmented with several sectors. Large number of promotional agencies, widely used infrastructure, huge number of manufacturers, double the number of retailers and millions of customer base are the potential factor of this sector. Some global companies, some domestic companies and a few local players enjoy nationwide recognition in specific product and market segments. The industry may be segmented as follows.

- Fruit and vegetable processing
- Food grain and pulse milling
- Milk and milk products
- Fish, Egg and Poultry
- Meat and meat products
- Beverages
- Soft drinks and aerated water

- Beer and alcoholic beverages
- Breakfast, bread, biscuits and extruded food products
- Edible oil and fats

**Table 2 - Food processing industries in organized sector in India**

Food Processing Industries	Food processing Industries (Numbers)	Proportion in Total Food processing Industries
Rice Mills	139208	75.89
Modernized rice mills	35088	19.14
Fruit and vegetable	5293	2.88
Fish processing	1050	0.57
Solvent extract	725	0.40
Sweetened and aerated water	656	0.36
Flour mills	516	0.28
Sugar mills	429	0.23
Milk product	286	0.16
Meat processing	171	0.09
Total	183422	100

Source: [www.mofpi.nic.in](http://www.mofpi.nic.in)

### Food processing industry in India

In India there was a rapid growth in food processing sector in the post-independence era especially in 1980's. This followed the first stage of green revolution that had resulted in rapid development in agricultural production and the need for the post-harvest management. The importance of this sector was to notable the value addition process enabled. Initially it was, rice processing which was followed closely by wheat milling, milk processing segment, sugarcane processing and oil extraction industry. The development in installed capacity has been far higher than the supply of raw materials. But in other segments like fruits and vegetable processing, there was no encouraging due to poor demand for processed foods by the consumers. In this case, the industry has also not been able to develop the demand adequately.

The Indian domestic food sector is expected to grow nearly 40 per cent of the current market capacity to Rs. 12,900 billion by 2015 and 17,200 billion by 2025. India is the largest producer of fruits, milk, cashew, pulses, coconuts and tea in world and for 10 per cent of global fruit production. Confederation of Indian Industry has estimated the food processing industry has attracting Rs. 1.5 Lakh Crores of Investment in next ten years. The nation wants more revenue from this sector, and to fully utilize the untapped potential resource from this sector. If the policy of Government of India towards food processing industry are evaluated, the level of processing of perishables from 6 per cent to 20 per cent, value addition from 20 to 35 per cent, the global food trade increase from 1.5 to 3 per cent. It can be achieved if the policy are implemented properly and international standards match then food processing sector can become the leading industry of India's market, generating large employment opportunities and increase in revenue.

India has a strong agriculture production base, even though India's food processing sector is still under developed. The largest share of processed food industry is in the dairy sector, where 35 per cent of total produce is processed, of which 15 per cent is processed by organized sector, 85 per cent is processed in unorganized sector. In the

case of fruits and vegetables the level of processing is only 2.2 per cent, 21 per cent in poultry and meat products. The 2.2 per cent processing in fruits and vegetables 48:52 ratio are divided by organized and unorganized sector respectively. Raw food and value added food products are the biggest consumption category in India, with spending on food accounting for nearly 21 per cent of India's GDP and with a market vibrant of Rs.9,050 billion.

**Table 3: State wise estimated number of factories in Registered FPI (Top Ten)**

Rank	Name of States	No. of Food processing factories	Percentage
1	Andhra Pradesh	9359	25.4
2	Tamil Nadu	5186	14.1
3	Maharashtra	3113	8.4
4	Punjab	2784	7.6
5	Uttar Pradesh	2116	5.7
6	Karnataka	1979	5.4
7	Gujarat	1924	5.2
8	West Bengal	1600	4.3
9	Kerala	1437	3.9
10	Assam	1212	3.3
	Others	6161	16.7
Total		36871	100

Source: Annual Survey of Industries

**Table 4 - Status of Food Processing Industry in India**

Sl.No	Particular	Status
1	Rank of industry	5 <sup>th</sup>
2	Employment in number (Lakhs)	16
3	Labour force in Industry (Percentage)	19
4	Total industrial output (Percentage)	14
5	Output of GDP (Percentage)	5.5
6	Estimated Turnover (Rs. In crores)	144000
7	Unorganized Sector (Rs. In crores)	111200

Source: www.mofpi.nic.in

In India the food processing industry ranked fifth and employed 16 lakh human resources, it comprising 19 per cent of the total Industrial output with 5.5 per cent of the GDP. Total turnover is estimated at Rs.144000 crore, out of which Rs.111200 crore is in the unorganized sector.

#### **Wastage in production process**

Even though the huge production of food products in India, food security and food inflation are prominent issue for the policy makers in the country as they affect the basic need for Indian humanity- to have safe, sufficient, affordable and healthy food. It may be seen that majority of the wastage is happening in fruits and vegetables, because of its perishable nature. The adequate processing facility, much of the losses can be reduced thus increasing remunerative wage to the producer as well as ensuring grater supply to the consumer. The percentage of wastage estimated for major products shown below.

**Table 5 : Wastage for major Produces**

Crops	Cumulative wastage (Percent)	
	Year 2010	Year 2015
Cereals	3.9-6.0	4.65-5.99
Pulses	4.3-6.1	6.36-8.41
Oil seeds	2.8-10.1	3.08-9.96
Fruits and Vegetables	5.8-18.0	4.58-15.88
Milk	.08	0.92
Fisheries (Inland)	6.9	5.23
Fisheries (Marine)	2.9	10.52
Meat	2.3	2.71
Poultry	3.7	6.74

Source: [www.mofpi.nic.in](http://www.mofpi.nic.in)

### Food processing industry major challenges and growth potentials

The food processing economy in India has many challenges in front of it, ranging from the basic infrastructure to human force and to technological backwardness. The growing demand of processed food there is a need to address these issues and concerning problems on priority basis. Otherwise India will sacrifice a golden opportunity of optimization its abundant agri-food resources to strengthen economic environment, wake up its rural industries and create employment for huge number of human resources. The major challenges facing the sector and its proposed remedies are illustrated below.

**Table 6 - Challenges for Food Processing Sector**

Sl.No	Challenges	Proposed Remedies
1	Supply chain Infra Gaps	Providing facility for primary processing, storage like cold chain storage facility and mass distribution facility
2	Inadequate link between production and processing	Facilities given to adopt processable varieties
3	Low capacity utilization	Infrastructure development issued for the storage and preservation of seasonal products, so as to eliminate reasonability of operation.
4	Inadequate focus on quality and safety standard	As part of the R&D department, quality control and safety standard developing wing should be adopt and implement as mandatory.
5	Lack of product development and innovation	As the help of Government departments the R&D department of concerned firm should reach their performance to new ideas.
6	Supply chain Institutional Gaps	The procurement of the raw products should not be dependable.

Source: [www.mofpi.nic.in](http://www.mofpi.nic.in)

Food processing sector in India has been significant growth and changes over the previous years; it driven by changing tends in regulation, consumer segment and market. The modern trends, such as change in life style, nuclear family, growing population and

rapid urbanization are expected to continue in the future and, therefore, it will shape the demand for value added food products and thus for food processing segment in India. Food processors and retailers can provide the adequate demand for the agri-produce and facilitate the flow of market information, technology and its inputs the farmer so that he can tailor his output to the needs of the market. In the process of production farmers will be able to raise their own level of income and employment. The consumer is also likely to benefit as there will be an increase in the supply of food products with a longer shelf life.

It is very needful to develop sustainable supply chains, which will link the marketing to the processing items and the farmers seamlessly. In the absence of suitable infrastructure facility the farmer is compelled to sell his produce to the middle man without waiting for better price. The development of infrastructure facility like road facility, cold chain and an intercepted power will strengthen the food processing industry. It will have a very positive face on the perishable food products segment, such as dairy products, fruit and vegetable, meat and poultry segment. The food processing segment of the total industrial units in India is all set to drive Indian economy to higher growth; only need is to pay attention on technological development of field, and generation of skilled manpower.

### **Conclusion**

The implementation of new industrial policy India become liberal economy, world trade and consumer fortune has thrown up new opportunities for modernization and diversification in the food processing sector and opened new outlooks for growth. FPI in India is largely seen as a potential source for driving the rural economy as it brings about synergy between the agriculture, consumer and industry. A well advanced and developed food processing industry is expected to grow farm gate prices, ensure value addition, reduce wastages, crop diversification, and employment as well as export earnings. This industry also capable for addressing the major issues of food security with standard and providing wholesome, nutritious food to the people. In India food processing sector is considered as a sunrise sector, having growth potential and opportunities tat are still untapped. In order to exploit and facilitate the growth potential of this industry, the Government on its part has initiated extensive reforms.

### **REFERENCES**

1. Acharya, S.S. (1997), Agriculture-Industry Linkages, Public Policy and Some Areas of Concern, Agricultural Economics Research Review, Vol.10, No.2
2. ASSOCHAM (2009) Food Processing and Agribusiness. New Delhi, India.
3. Alagh, Y.K, (1995), Agro-Based Industrialisation in India, in Harish Nayyar and P.Rama Swamy (eds), Globaliation and Agricultural Marketing.
4. Bhuyan A (2010) "India's Food Industry on the path of high growth". Indo-Asian News Service, Zurich.
5. Chadha, G.K and P.P.Sahu (2003), "Small Scale Agro-Industry in India: Low Productivity is Its Achilles Heel", Indian Journal of Agricultural Economics, Vol.58, No.3, July-September, pp.518-543.

6. Dinesh Awasthi, Raman Jaggi and V Padmanand(2011) A Manual for Entrepreneurs: Food Processing Industry. Entrepreneurship Development Institute of India, Ahmadabad. Tata McGraw-Hills Publishing Company Limited. New Delhi.
7. FICCI (2007) A report on Processed Food and Agribusiness: Opportunities for investment in India, Mumbai, India.
8. FICCI (2015) Survey on challenges in food processing sector. Mumbai, India
9. Government of India, Ministry of Food Processing Industries (2011) Strategic Plan for Food Processing Industries in India.
10. Government of India, Ministry of Food Processing Industries (2016-17), Annual Report. New Delhi, India.
11. Kachru RP (2006) Agro-Processing Industries in India-Growth, Status and Prospects. Indian Council of Agricultural Research. New Delhi, India.
12. Meeta P (2007) Emerging environment for Agribusiness and Agro-Industry Development in India. Food and Agricultural Organisation of the United Nations, New Delhi, India
13. Merchant A (2008) India-Food Processing Industry OSEC Business Network, New Delhi, India.
14. Sarkar S (1995) "Size structure of agro-industry: A linkage analysis". Indian Journal of Agricultural Economics 50.