

## GLOBAL JOURNAL OF ENGINEERING SCIENCE AND RESEARCHES TRENDS IN FOOD PROCESSING INDUSTRY IN INDIA: An Exploratory Study

Supriya Lamba Sahdev<sup>\*1</sup> & Prof. Dr. Gurinder Singh<sup>2</sup>

<sup>\*1</sup>Amity International Business School, Amity University, Noida, Uttar Pradesh, India

<sup>2</sup>Group Vice Chancellor, Amity University

### Abstract

This paper throws light on Food processing sector of India which is one of the biggest divisions in India as far as generation, development, utilization, and exports. India is one of the main exporters of the processed food items. It has a focused edge over other nations because of the wide assortment of yields developed because of land and climatic decent variety. The Government is endeavoring to help the business by figuring good approaches. With sufficient government concentrate on the infrastructural support, innovative work and mechanical advancement in this division, India could lighten its household worries on food security, ailing health and food inflation. Secondary data has been used to study the current scenario and the trends in the Food processing sector of India. And it has been found that the Food processing sector of India still faces many challenges that can be overcome with the adoption of Innovation & Technology, especially Open Innovation for SMEs.

**Key words:** Food Processing, India, Economic Growth and Development.

### I. INTRODUCTION

From the perspective of Food Processing Industry, the past decade has seen incredible innovations and the introduction of new technologies and business models at a rapid pace. For the whole food processing industries ecosystem, Open Innovation has not seen widespread adoption from customers to companies (SMEs). Although, India is one of the biggest processed food makers on the planet. India's Food Processing Industry covers leafy foods; flavors; meat and poultry; grain and grain items, mixed refreshments, fisheries, ranch, grain preparing and other purchaser item bunches like sweet shop, chocolates and cocoa items, soya-based items, mineral water, high protein nourishments and so on. The sustenance handling industry in India is a forthcoming part that has picked up significance as of late. Accessibility of crude materials, changing ways of life and unwinding in approaches has given an extensive push to the business' development. This segment is among the not many that fills in as an essential connection between the horticulture and mechanical fragments of the economy. Reinforcing this connection is of basic significance to enhance the estimation of horticultural deliver; guarantee gainful costs to ranchers and in the meantime make positive interest for Indian rural items on the planet showcase. A push to the nourishment handling area suggests huge improvement of the horticulture division and guarantees esteem expansion to it (through embracing Open Innovation By Food Processing Industry). The Indian sustenance preparing industry holds gigantic potential to develop, thinking about the stillness in selection towards Open Innovation.

India is the world's second– biggest maker of foods grown from the ground. India appreciates a comparative stature in the generation of marine items, and meat and poultry. India is the single biggest maker of grain on the planet, with the generation assessed at 137.7 MT. India has the biggest domesticated animals populace over the globe which is equivalent to 512 million, including 119 million milch (in-dairy and dry) creatures, 135 million goats and 65 million sheep. The fragment contributes around 25 percent to the nation's ranch Gross Domestic Product (GDP). To decrease post-reap misfortunes of foods grown from the ground, Government intends to set up 500 cool chain extends in the nation. Also, 42 endorsed super nourishment stops in the nation are probably going to end up operational by 2018. As on November 2016, Food Safety and Standards Authority of India (FSSAI) has propelled a noteworthy plan worth US\$ 72 million to deliver the earnest need to update Food Testing Laboratories in India.

**II. IMPORTANCE OF FOOD PROCESSING INDUSTRY IN INDIA**

The food processing sector in India fills in as an essential connection among farming and industry. Food processing enhances the estimation of the farming produce; guarantees decrease in wastages, gives gainful costs to agriculturists and in the meantime makes ideal interest for Indian farming items on the planet. Further, Food processing food processing leads to significant employment in any case, over the whole inventory network underway of crude materials, stockpiling of create and completed items and dissemination of food items to shoppers. Likewise, Food processing is energetic nourishment preparing industry which is an imperative impetus for harvest enhancement. In any case, the agri and food processing nourishment handling part faces a few difficulties which hamper acknowledgement of its actual potential. On the supply side, there are issues as for access to fund by the Small Scale Industries (SSI) and the sloppy segment; poor dimensions of framework offices, including cool stockpiling accessibility and the board; all prompting surprising expenses, low esteem expansion and low global intensity. On the interest side, the surprising expense structure for some handled nourishments, to a great extent due to the absence of size of tasks and high assessment structure, regularly prompts low customer request at high costs. Additionally, in India there is a social inclination for new nourishments. Despite the fact that noteworthy activities have been taken by the administration, administrative twists have aggregately brought about a few inadequacies. Far reaching production network arrangements are basic for accomplishing economic improvement of the Food Processing area in India. The Indian Government, having understood the capability of Food Processing to contribute to GDP development, business age and fares, has started broad changes to evacuate authoritative obstructions and acquaint encouraging measures with catalyze private area action. The positive strategy condition and expanding enthusiasm of corporates in sustenance handling ought to guarantee that India is well on track to getting to be one of the driving Food Processing countries of the world. It is making a critical check in the worldwide nourishment field - both as an extensive maker and exporter of agrarian items.

The food processing sector has developed as an essential section of the Indian economy as far as its commitment to GDP, work and venture. Amid the most recent 5 years finishing 2012-13, food processing sector has been developing at an Annual Normal Growth Rate (AAGR) of around 8.4 percent when contrasted with 3.3 percent in 1 Agriculture and 6.6 percent in manufacturing.

As found in table beneath, the GDP of Food Processing Ventures (normal for a long time finishing 2016-17) was 15.26 % of the GDP in Agriculture and 18.21% of the GDP in Manufacturing.

**Gross Value Added (GVA) By Food Processing Industries (FPI) at Constant 2011-12 Prices ( % Share in Total GVA of)**

Sr. No.	Economic Activity	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17
1	GVA -FPI	1.81	1.52	1.44	1.38	1.40	1.35
2	GVA Manufacturing	17.39	17.40	17.22	17.34	18.08	18.21
3	GVA- Agriculture, Forestry And Fishing	18.53	17.84	17.75	16.53	15.38	15.26

Source: National Account Statistics, 2018/ Central Statistics Office

**Main Features of Registered Food Processing Units(2011-12)**

	Factories in number	Persons engaged	Fixed Capital ( in Crore rupees)	Value of Output ( in Crore rupees)
<b>Food processing units@, of which</b>	<b>36,881</b>	<b>17,76,643</b>	<b>1,45,038</b>	<b>7,34,340</b>
<b>Grain milling and starch</b>	<b>19,010</b>	<b>3,66,500</b>	<b>17,553</b>	<b>1,58,213</b>

products				
Vegetable & Animal oils and fats	3,394	1,21,232	18,409	1,97,325
Beverages	1,997	1,47,482	22,420	53,301
Dairy products	1,653	1,49,775	10,695	87,015
Fruit and Vegetable products	1,078	62,448	5,060	10,039
Prepared Animal Feeds	755	44,462	2,741	26,602
Fish, crustaceans etc	390	42,081	2,150	15,228
Meat processing & preserving	146	20,621	1,362	10,008

Source: Annual Survey of Industries

The Food Processing sector has an aggregate of 36,881 enlisted units with settled capital of about Rs 1.45 lakh crore and creating end yield of around Rs 7.34 lakh crore in esteem terms. Major ventures establishing food processing sector are grain processing, sugar, consumable oils, refreshments and dairy items.

#### Principal characteristics of Registered\*units in FPI:

##### As per the last MSME census – 2006-07

Working enterprises (nos)	2,23,018
Market value of Fixed Assets (Rs Crore)	60,196
Gross output (Rs Crore)	1,37,287
Total inputs (Rs Crore)	94,628
GVA (Rs Crore)	42,659
Employment (nos)	14,68,426
Working enterprises (nos)	2,23,018
Market value of Fixed Assets (Rs Crore)	60,196

Source: msme census ([http://www.dcsmse.gov.in/ito\\_msme/censuses.htm](http://www.dcsmse.gov.in/ito_msme/censuses.htm))

The above table gives a review of Food Processing Industries in MSME Sector.

### III. CONTRIBUTIONS OF FOOD PROCESSING SECTOR IN INDIA:

- a) **Food processing sector is very work absorptive and less capital serious.** According to Annual Survey of Industries (ASI) 2011-12, among all ventures, 'Food Products' produced the most elevated business (12.13 percent) trailed by 'Materials' (10.86 per %), 'Fundamental Metals' (8.11 percent) and 'Wearing clothing' (6.87 percent). As far as capital prerequisite, settled money to yield proportion for Food items is 0.18 inferring nourishment items requires less capital for delivering one unit of yield, in esteem term, as contrasted with other work concentrated businesses. Notwithstanding the information for the sorted out segment (as caught by the ASI), there is additionally critical work created in the MSMEs.

#### Employment data of Food Processing sector vs other sectors

Description	Food products	Beverages	Textiles	Apparel	Leather	All factory
Division	10	11	13	14	15	
Factories (nos)	34,884	1,997	18,790	9,168	4,049	2,17,554
Employment (nos)	16,29,161	1,47,482	14,58,073	9,22,725	3,04,811	1,34,29,956
Share of total employment	12.13%	1.09%	10.86%	6.87%	2.26%	100%
Fixed capital to output	0.18	0.42	0.40	0.22	0.20	0.34

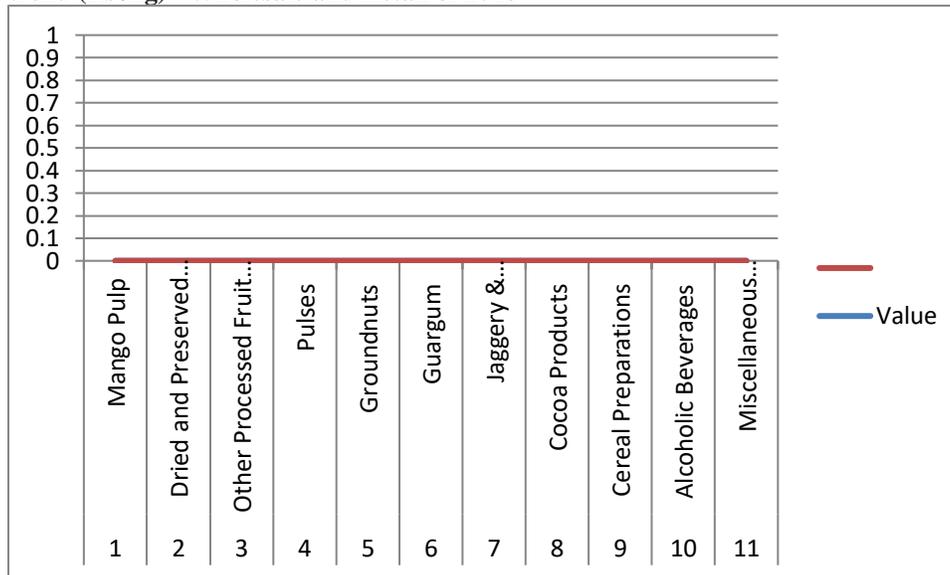
Output per employee	41,80,303	36,14,085	20,21,470	8,44,567	11,78,150	43,00,851
---------------------	-----------	-----------	-----------	----------	-----------	-----------

Source: Annual Survey of Industries; \*Divisions as per NIC-2008 classification adopted in ASI

According to the twelfth Five year plan report, inside the general Manufacturing sector, the sub-part of Food items and drinks had a work of 5.5 million (mln) in 2009-10. Actually, according to the twelfth Five year plan, the Ministry of Food Processing Enterprises (MoFPE) was one of the key parts distinguished for work age as it is commanded by MSMEs. The work in this sub-part can possibly increment to 7.29 mln by 2016-17 and 9.5 mln by 2024-25 on the off chance that it develops at a GDP CAGR of 8.8% according to the assembling plan spread out in the twelfth Five Year Plan.

- b) **Food processing assumes a key job in tending to expansion.** Most agri items are occasional with costs being very low at time of collect and expanding in the off season. The food could be obtained amid sufficient supply and changed over to a processed food product. The equivalent could be sold in the off season and give a support against rising costs. A case of onion is featured in figure:

Onion price trend (Rs /kg) - Wholesale and Retail of 2018



Source: National Horticulture Board (NHB)/Delhi

<http://nhb.gov.in/OnlineClient/MonthwiseAnnualPriceandArrivalReport.aspx?enc=3ZOO8K5CzcdC/Yq6HcdIxJ4o5jmAcGG5QGUXX3BIAP4=>

While the onion costs have been genuinely unstable, preparing of onion and deal as got dried out onions can give a decent fence against expansion. In India, there are 90 dynamic onion dehydration units. Of these, 75 units are situated in Gujarat generally in Bhavnagar Vadodara and Rajkot. The nation has around 30 trade situated units of onion got dried out items while the rest are suppliers.

- c) **Food processing decreases wastages along the Agri esteem chain.** A country astute investigation on quantitative appraisal of collect and post-gather misfortunes for 46 agrarian delivers in 106 haphazardly chosen areas was done by CIPHET (Central Institute of PostHarvest Engineering & Technology, Ludhiana).

## Extent of wastages across food and agri segments

Crop Cumulative wastage (%)
Cereals 3.9 - 6.0%
Pulses 4.3 - 6.1%
Oilseeds 2.8 - 10.1%
Fruits and Vegetables 5.8 - 18.0%
Milk 0.8%
Fisheries (Inland) 6.9%
Fisheries (Marine) 2.9%
Meat 2.3%
Poultry 3.7%

Source: CIPHET, 2010

## Post-harvest losses for major crop/commodities, 2010

Crop / commodity	Estimate of economic value of the losses, \$ million dollar
Cereals	1,949
Pulses	268
Oilseeds	790
Fruits	1,151
Vegetables	908
Spices and plantation crops	892
Livestock produce	872
Total	6,830

Source: Post-harvest Situation and Losses in India

<file:///C:/Users/user/Downloads/Post-harvestSituationandLossesinIndia.pdf>

It might be seen that a large portion of the wastage is occurring in leafy foods, beats also, oats. With enhanced spotlight on post-harvest practices and satisfactory processing, a lot of this waste can be lessened along these lines expanding value acknowledge to the producer and in addition guaranteeing more noteworthy supply to the purchaser. Hence, Processed Food is nourishment spared. This is critical with regards to India, where sustenance and healthful security is a key concern. Processed foods guarantee that shoppers eat sound, sheltered and nutritious and bundled nourishment. Sorted out, retail represents less than 1% of aggregate offers of foods grown from the ground. As they develop, they are probably going to source from sellers who can set up the required back end framework for arranging/reviewing of deliver and atmosphere controlled transportation in this way decreasing the wastage/esteem misfortune.

- d) **Food processing prompts better agri earnings and higher rustic development.** Horticulture is vital to India's economy with the greater part the general population utilized in horticulture and associated parts. The Food processing industry through in reverse linkages can assist the agriculturists with sources of info and better ranch rehearses so the business gets great quality crude material and agriculturists show signs of improvement costs for their deliver in a win-win partnership. Whenever processed food industry develops, horticulture GDP will develop which will lead to comprehensive development. For instance, pineapples from Philippines, palm oil from Malaysia, wine from Italy and so forth have had a multiplier impact on the homestead earnings and prompted critical venture along the whole supply chain. Food processing can improve the situation rustic rural India, what Information Technology has done for the urban India.

Since 2005, The Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) ensures 100 days of wage-work in a fiscal year to a rural family unit. This alongside other social sector schemes has prompted increment in provincial livelihoods and higher spending power. According to the Union Budget (2014-15), wage work gave under MGNREGA will be significantly connected to agribusiness and allied exercises. This is relied upon to give a further fillip to rustic rural incomes.

The 2017-18 budget saw the most noteworthy ever portion to Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) € " the world's biggest make-work program € " at Rs 48,000 crore, however 56 percent compensation were postponed and 15 percent wage searchers did not look for some kind of employment in 2016-17. India's agricultural growth has been declining, and has now plunged to 2.1 percent. (Source: The Ministry of Statistics and Programme <http://mospi.nic.in/data>)

- e) Food processing can take advantage of the huge capability of self-improvement gatherings, also called as self-help groups. Handling levels in food processing could be enhanced by setting up processing centers which focuses on all over India through utilization of the immense framework of self-help groups. These focuses could concentrate on essential handling (pressing/reviewing, fundamental handling and pressing). Truth be told in nations, for example, South Korea, the whole electronic industry has been spread crosswise over self-improvement gatherings. Enormous businesses outsource the routine jobs to vast number of households which become part of the industry. Example of the same is Shri Mahila Griha Udyog Lijjat Papad, famously known as Lijjat, is an Indian ladies' association fabricating different items. The association's enlisted office is arranged in Mumbai and it has 67 branches and 35 divisions all over India. Begun in 1959 with a capital of INR 80, Lijjat today has a yearly turnover of around Rs. 315 crore (Rs. 3.15 billion), with Rs. 12 crore in exports and has around 42,000 employee. Lijjat is principally a cottage industry, urban by its starting point, that has spread to the provincial area. It is considered as a standout amongst the most momentous enterprenual activity by ladies that is related to ladies strengthening in India.
- f) **Food processing can fuel "Value added" exports. All farming produces when sent out experience a component of processing.** As observed in the table below, is the estimation of exports of Food Processed items to different countries, demonstrating an expanding drift in exports of Food processing goods of the most recent 2 years.

S.No	Country	2017-2018Values in Rs. Lacs	2018-2019(Apr- Sep)Values in Rs. Lacs	2017-2018Values in Rs. Lacs	2018-2019(Apr- Sep)Values in Rs. Lacs
1	HONG KONG	0.22		0.22	
2	ITALY	0.09		0.2	
3	LIBERIA	0.03		0.06	
4	MADAGASCAR	0			
5	MALAYSIA	0.19		0.42	
6	MALDIVES	0.01		0	
7	NEPAL		1		2
8	NETHERLAND	0.19		0.1	
9	NEW ZEALAND	5.3		0.65	
10	PANAMA REPUBLIC	1.24		2.26	
11	SINGAPORE	0.05		0.02	
12	THAILAND	0.25		0.37	
13	U K		0.05		0.05
14	UNSPECIFIED	74.47	5.93	187.81	5.25
<b>India's Total</b>		<b>195,651,452.80</b>	<b>112,149,130.29</b>		
<b>%Share</b>		<b>0</b>	<b>0</b>		

Source: DGFT

<http://dgft.gov.in/more/data-statistics/export-import-data-bank>

The Indian food processing industry is essentially export oriented. India's land circumstance gives it the special preferred standpoint of network to Europe, the Middle East, Japan, Singapore, Thailand, Malaysia and Korea. One

such precedent demonstrating India's area preference is the estimation of trade of agribusiness and processed food among India and Gulf.

Retail, one of the biggest divisions in the worldwide economy (USD 7 Trillion), is experiencing a change phase in India. One of the prime components for non-intensity of the food processing industry is a direct result of the expense and nature of showcasing/marketing channels. Comprehensively over 72% of food sales happen through super stores. India displays a gigantic chance and is good to go for a major retail change. India is the slightest saturated of worldwide markets with a little sorted out retail and furthermore the minimum competitive/focused of the worldwide market.

India's exports of Processed Food was Rs. 27,257.69 Crores in 2017-18

#### Export data of key commodities

S.No	Export data of key Processed Food commodities in 2017-18 from India	Value
1	Mango Pulp	Rs. 673.92 Crores/ 104.54 USD Millions
2	Dried and Preserved Vegetable	Rs. 944.65 Crores/ 146.54 USD Millions
3	Other Processed Fruit and Vegetable	Rs. 3404.70 Crores/ 528.22 USD Millions
4	Pulses	Rs. 1473.26 Crores/ 228.32 USD Millions
5	Groundnuts	Rs. 3386.30 Crores/ 524.82 USD Millions
6	Guargum	Rs. 4169.56 Crores/ 646.94 USD Millions
7	Jaggery& Confectionary	Rs. 1380.35 Crores/ 214.20 USD Millions
8	Cocoa Products	Rs. 1144.37 Crores/ 177.47 USD Millions
9	Cereal Preparations	Rs. 3559.87 Crores/ 552.33 USD Millions
10	Alcoholic Beverages	Rs. 2105.87 Crores/ 326.68 USD Millions
11	Miscellaneous Preparations	Rs. 2853.03 Crores/ 442.56 USD Millions
12	Milled Products	Rs. 876.59 Crores/ 136.00 USD Millions
	Total	Rs. 27,257.69 Crores

Source:APEDA ([http://apeda.gov.in/apedawebsite/six\\_head\\_product/PFV\\_OPF.htm](http://apeda.gov.in/apedawebsite/six_head_product/PFV_OPF.htm))

With geographical indications and the scholarly world industry connect, India gets an opportunity to cut a particular place in the food processing sector. Ginger, Basmati Rice, fennel, Alphonso mangoes, saffron and dark pepper are one of a kind to India and could take the Indian food processing sector forward major time.

**g) Food processing sector can drive Foreign Direct Investment (FDI) into India**

Business-accommodating approaches, key government changes, and monetary motivating forces make India one of the world's most alluring venture destinations.

India is the biggest maker of a several agricultural items, and is positioned second in food production, all inclusive. The yearly development rate of the n food processing sector is over 7% and the online food delivery industry developed by 150% year on year in 2016.

Under World Food India 2017, Government of India declared 100% FDI through automatic route in food processing. The Department of Industrial Policy and Promotion is the nodal Department for detailing of the strategy of the Government on Foreign Direct Investment (FDI). It is likewise in charge of upkeep and the board of information on internal FDI into India, in view of the settlements revealed by the Reserve Bank of India.

The FDI arrangement is looked into on a continuous premise, with a view to making it more financial specialist well disposed. To pull in more elevated amounts of FDI, Government has set up a liberal arrangement on FDI, under which FDI up to 100%, is allowed, under the programmed course, in many parts/exercises. Huge changes have been made in the FDI strategy routine as of late, to guarantee that India remains an inexorably appealing venture goal.

100% FDI is permitted through government endorsement course to trade, incorporating through web based business/online business in regard of food products made or produced in India.

**h) Food processing sector superbly fits with the "Make in India" opportunity.** "Make in India" is a national program that is intended to encourage speculation, cultivate advancement, upgrade skill development and make world class producing framework in India. The Govt's vision is to make India a hub of food processing, also, not only an exporter of raw produce of the food sector. In this situation, the Ministry of Food Processing Industries (MoFPI) in relationship with other similar/allied/united areas is dealing with another complete, comprehensive National Food Processing Policy to give a fillip to the food processing sector in India as conceived in the "Make in India" mission activity.

The "Make in India" program could be additionally reinforced with help for Market advancement and Market development, which could be reached out to the Food Processing organizations that are engaged in contributing towards improvement of 'Made in India' mark abroad by export of processed foods with international level of quality, and pricing.

Few initiatives our Government can take under "Make in India", with help of Food Processing Sector, like for example, at present, the greater part of the oats consumed in India are imported in. There is open door for import substitution wherein oats can be produced and processed domestically. Another example can be of India's bulk trade of Tea. India exports to a great extent tea selling in huge quantities. Production and trade of significant worth pack of included bundled tea, for example, standard tea, green tea and natural organic tea could be empowered.

**i) Food processing has a key job in upgrading wholesome nutritional security.** In India, food processing concentrates just on nourishment accessibility and availability (to a great extent wheat and rice). India's advance in enhancing nourishment has been unsatisfactorily moderate. Just about one of every two Indian kids is hindered and 40% are underweight. 33% of every single Indian lady are underweight. Rates of micronutrient insufficiencies are to a great degree high, with relatively 80% of kids and 56% of ladies being weak. All around, food security index (in view of a report by the Economist Intelligence Unit) surveys food security crosswise over three universally assigned measurements: moderateness, accessibility and nourishing quality/wellbeing of food. India is positioned 66th out of 105 nations on Global Food Security Record. It is basic that India centers around the worldwide meaning of nourishment security. In

this setting Food processing has an imperative task to carry out as far as upgrading healthful security e.g. food fortified with more beneficial fixings, Iodized salt and so forth.

#### **SCOPE OF THE STUDY-**

- Global and Indian Perspectives of the Indian Food Processing Industry
- Market Size and Dynamics
- Investment Trends of the Industry
- Outlook of the Industry

#### **OBJECTIVES OF THE STUDY-**

1. To understand present scenario of food processing sector in India.
2. To analyze key segments in the food processing industry in India.
3. To understand the role of government for development of food processing industry in India.

#### **Data base and methodology**

This study is based on analysis of secondary data taken from the various agencies and organizations. The present study makes use of data and information provided Ministry of Food Processing Industries, world food india, fao, ibef, agricoop, Indian Brand Equity Foundation, economic times, indiatimes. The major part of food processing industries data was collected from Ministry of Food Processing Industries, Department of Industrial Policy & Promotion, Ministry of Commerce & Industry, Government of India and various websites.

### **IV. KEY SEGMENTS IN THE FOOD PROCESSING INDUSTRY**

#### **1. Fruits & vegetable processing**

Fruit and vegetable processing in India is similarly divided between the composed and disorderly segments, with the sorted out part holding 48 percent of the offer. While items like squeezes and mash think are to a great extent made by the composed division, the chaotic segment's toehold is in the conventional regions of handled things like pickles, sauces and squashes. By size, pickles frame the most grounded class. The legislature expects the preparing in this division to develop to 10 percent in 2010 and 25 percent of the aggregate create by 2025. The greater part of the units occupied with above is as of now send out arranged. Household utilization of prepared organic products and vegetable items is low, demonstrating a potential for development through expanded entrance of the residential market.

#### **2. Meat and Poultry Processing**

India's poultry is the greatest examples of success stories of the nation over the previous decade. India is the second biggest egg maker and third biggest. Oven chicken maker on the planet with generation assessments of 65,000 million (2.8 million tons) eggs and 3 million tons of grill meat every year. The market is evaluated to be worth about INR 90,000 Crore (EUR 12.65 Bn). Nearly 20 million agriculturists are utilized in poultry industry with around 1,000 incubation facilities working crosswise over India. While agrarian creation has been ascending at the rate around 2% per annum in the course of the last a few decades, poultry generation has been ascending at the rate of around 8-10%, posting a yearly turnover of US\$ 7500 million. The residential market has shown expanding lightness, attributable to a developing provincial market dependent on lower feed and poultry costs, developing discretionary cash flow and expanded attention to new innovations and automation in the division. In any case, urban interest still records for 80% of local utilization.

#### **3. Dairy processing**

The dairy business in India has been on an enduring way of movement since Indian autonomy. It has developed from delivering 17 million tons of drain in 1951 to creating 121 million tons in 2011. Today, India is one of the biggest drain delivering nations on the planet. This strong advancement is essentially inferable from auxiliary changes in the Indian dairy industry realized by the coming of dairy cooperatives. The Indian dairy industry detailed a market size of USD 48.5 billion in FY2011. With a Compound Annual Growth Rate (CAGR) of 16 percent, it is

foreseen to reach USD 118 billion out of 2017. On the back of an ascent in extra cash, combined with solid interest for dairy items, the Indian dairy industry is good to go to encounter high development rates in the following five years. The utilization example of dairy items in India is very exceptional when contrasted with a portion of the western nations. Utilization is fundamentally skewed towards conventional items; in any case, westernized items are bit by bit picking up energy in the urban regions. Curiously, wild ox drain represents the biggest offer of the aggregate drain created in the nation. Since the estimating of drain depends on the fat substance, wild ox drain offers higher overall revenues when contrasted with dairy animals drain as it contains higher fat. The Indian dairy area is portrayed by high discontinuity. It is ruled by the sloppy part involving 70 million provincial family units. The per capita accessibility of drain in India remains at 289.4 grams every day. Supported by solid residential interest, the per capita accessibility of drain to achieve 336 grams for each day in FY2017. In spite of being the one of the biggest drain delivering nations on the planet, India represents an insignificant offer in the overall dairy exchange. The regularly expanding ascend in residential interest for dairy items and a substantial interest supply hole could lead India to be a net merchant of dairy items sooner rather than later. With quick increment in household interest for drain and drain based items; the dairy business in India is probably going to reach about Rs 5 lakh crore by 2015. Drain generation is probably going to reach around 190 million tons in 2015 from current dimension of around 123 million tons. India is world's biggest drain maker and records for about 20% of aggregate drain generation of the world however every last bit of it gets devoured locally. Developing at about 10% every year, the Indian dairy industry is overwhelmingly controlled by the sloppy area which represents almost 85%. Around 8 crore rustic families crosswise over India are occupied with dairy generation and the country advertise expends over portion of the aggregate drain create. Attributable to ordinary dietary propensities for Indian family units, about 60% of drain created is devoured in the fluid shape and the remaining is expended as margarine, cleared up spread (desi ghee), cheddar, curd, paneer, dessert, dairy whiteners and conventional desserts. There is colossal extension seen ahead before the dairy business for esteem included items including custards, treats, puddings, sauces, mousse, blended yogurt and nectars. Interest for prepared and bundled dairy create in urban focuses will see a marvelous development because of developing populace with higher extra cash and more noteworthy wellbeing awareness. In any case, upward spiraling costs and absence of grain bringing about low yield from steers together with absence of prepared and talented dairy cultivate work, absence of appropriate framework like cool storerooms and absence of straightforward drain estimating framework are sure key issues influencing retail utilization of drain and prompting raising milk costs in the local market Private division can assume a crucial job in diminishing the expense of creation by utilizing propelled strategies to upgrade profitability, give rearing offices to cows and enhancing the wellbeing of the dairy creatures separated from creating legitimate dairy generation handling and advertising foundation.

#### **4. Consumer Products.**

This involves item bunches like dessert shop, chocolates, cocoa items, soya-based items, prepared to-eat food, mineral water, high protein nourishments and so on. This segment has pulled in an incredible speculation of Rs. 1,28,000 million, including remote venture of Rs.50,000 million, since progression. Sodas appreciate the greatest offer in this. The Indian soda pops' market is worth Rs.22,000 million per year. Measurably, this infers three jugs for every Indian. Cola, orange and lemon are a portion of the acknowledged preferences for India. It is evaluated that 65% favor non-carbonated beverages. Lemon drinks keep on being extremely well known in the nation. India creates an extensive scope of cocoa and non-cocoa based ice cream parlor things, other than other cocoa-based items. The creation of candy stores, with the exception of chocolates, is saved for the little scale segment. Notwithstanding, there are a few vast organizations with a built up market nearness and brands in cocoa and non-cocoa candy store markets. Candy store yield developed at a compound rate of 6 to 7% lately. Chocolate generation is developing at the rate of 10 to 15% per year. Among the prepared to-eat items, the introduced limit in the sorted out area is 33,400 tones for fabricate of pasta items like noodles, macaroni, vermicelli, and so on. Moreover, there are 10 units with a yearly limit of 9,340 tones for corn chips, oat drops and pearl grain.

#### **5. Alcoholic Beverages**

India is considered as a worthwhile unexplored goal for mixed beverages showcase by a few worldwide organizations working in soaked mixed drinks markets of Europe and the US. India's mixed refreshment showcase has developed consistently over the most recent 5 years. The business achieved the 500 million cases utilization

check in FY'2007 and 5 million cases utilization stamp in FY'2009, exhibiting a quick development. From a 430.3 million cases advertise in FY'2005, the market has timed an utilization of 9 million cases in FY'2010, enrolling a CAGR of 7%. Country Liquor has the most noteworthy piece of the pie in India making as of now the most expended mixed drink in India and has an instructing nearness in the northern conditions of India. Despite the fact that in the short run, nation alcohol is as yet anticipated that would have the real piece of the overall industry, over the long haul, their piece of the overall industry will diminish to 6% by FY'2015 and will be surpassed by the IMFL portion. The section is required to continue the market authority to a more extended period just to some degree by expanding quality, legitimate marking and advancements. Lager is a quickly growing section in the Indian Alcoholic Beverages industry. It is the third biggest market and second quickest developing business sector in the Indian mixed drinks industry. Brew showcase has been fragmented into solid lager and mellow brew based on their liquor content. Solid brew which has liquor content over 5%, overwhelms the Indian market representing 11% of the aggregate lager devoured in India, expressing its ubiquity and inclination.

## 6. Fisheries Sector

India gloats of the seventh biggest marine landing base on the planet with an extensive 7,500 km coastline and an Exclusive Economic Zone (EEZ) of 2 million sq km, to a great extent undiscovered, and a 29,000 km stretch of streams and channels, 145 million hectares of supplies and 0.75 million hectares of tanks and lakes. Despite the fact that India's fish potential from the EEZ has been assessed at 3.9 million tons, the reap is just of 2.87 million tons. This can be expanded to 3.37 million tons by extreme tapping in seaward and remote ocean grounds utilizing current innovation. There is additionally a decent extension to enhance angle collect from inland waters which, at present is 2.7 million tons. Plus, the fish potential in aquaculture and shrimp cultivating has likewise to a great extent stayed undiscovered.

### Major Players in Indian Food processing

1. Nestle
2. HUL
3. Wrigley
4. Joyco
5. Candico
6. Parle
7. Godrej Nutrine
8. Ravalgaon
9. Lotte
10. Parry
11. ITC
12. Cadbury.

### Top 100 Food Processing Companies registered with NSE

Company Name	Net Sales (Rs. cr)
<b>Nestle</b>	10,009.60
<b>Britannia</b>	8,414.37
<b>Kwality</b>	6,131.23
<b>Hatsun Agro</b>	4,199.66
<b>GlaxoSmith Con</b>	3,986.46
<b>KRBL</b>	3,146.42
<b>Varun Beverages</b>	3,062.45
<b>Heritage Foods</b>	2,273.40
<b>LT Foods</b>	2,076.37
<b>Parag Milk Food</b>	1,701.09
<b>Future Consumer</b>	1,644.99

<u>Prabhat Dairy</u>	1,131.16
<u>Kohinoor Foods</u>	1,050.82
<u>Lakshmi Energy</u>	1,021.44
<u>ManpasandBever</u>	701.46
<u>Apex Frozen</u>	699.12
<u>GRM Overseas</u>	591.15
<u>Vadilal Enter</u>	517.95
<u>Chaman Lal Seti</u>	493.32
<u>VadilalInd</u>	468.95
<u>Modern Dairies</u>	457.34
<u>Usher Agro</u>	436.25
<u>Milkfood</u>	388.77
<u>DFM Foods</u>	344.89
<u>Foods and Inns</u>	337.12
<u>Tasty Bite</u>	252.27
<u>KLRF</u>	218.30
<u>Umang Dairies</u>	209.95
<u>Bambino Agro</u>	207.86
<u>ADF Foods</u>	166.41
<u>Sita Shree Food</u>	146.64
<u>NHC Foods</u>	138.09
<u>Sunil Agro Food</u>	132.70
<u>Himalaya Food</u>	121.29
<u>MSR India</u>	112.60
<u>Coffee Day</u>	96.46
<u>Flex Foods</u>	85.17
<u>Kothari Ferment</u>	79.09
<u>Virat Crane</u>	71.48
<u>Lotus Chocolate</u>	66.46
<u>Chordia Food</u>	51.90
<u>Century Prot</u>	39.27
<u>Hindustan Foods</u>	37.86
<u>OceanaaBiotek</u>	36.70
<u>Silver Oak Comm</u>	34.99
<u>SampreNutritio</u>	33.58
<u>Raghuvansh Agro</u>	7.43
<u>Shah Foods</u>	5.33
<u>Tarai Foods</u>	2.93
<u>Mahaan Foods</u>	1.70
<u>Saptarishi Agro</u>	0.08
<u>Super Bakers</u>	0.00

Source: Money Control.com

## V. FOOD PROCESSING SECTOR – MAJOR CHALLENGES

- ❖ Supply Chain Infra Gaps, which incorporates absence of Primary Processing, stockpiling and dispersion offices.
- ❖ Supply Chain Institutional Gaps like acquirement reliance on APMC markets.
- ❖ Inadequate connection among Production and Processing.
- ❖ Lack of Product Development and Innovation.

- ❖ Inadequate spotlight on quality and security norms.
- ❖ Seasonability of tasks and absence of usage.

### **Government Initiatives for Development of food processing Industry in India**

Government of India is now encouraging food processing industries by providing :

1. 100% FDI in this sector.
2. Agri Export Zones.
3. National Mission on Agriculture.

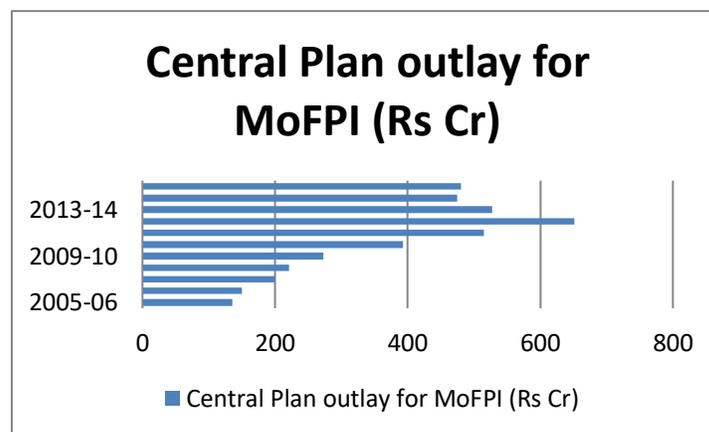
Boards and Institutions

NIFTEM – National Institute of Food Technology and Entrepreneurial Management.

IGPB – Indian Grape Processing Board.

IICPT – Indian Institute of Crop Processing Technology.

NMPPB – National Meat and Poultry Processing Board.



*Figure: Central Budget for MoFPI (Rs Cr)*

Source: Union Budget, Government of India

Truth be told the Central Plan expense for MoFPI over the most recent three years has been in the scope of only 0.08% to 0.11% of the aggregate Central Outlay (crosswise over Ministries/Departments).

## **VI. MAJOR SCHEMES BY GOVERNMENT INCLUDE**

1. On 9<sup>th</sup> April 2018, many projects were approved under the **Scheme for Creation of Infrastructure for Agro Processing Clusters of Pradhan Mantri Kisan Sampada Yojana (PMKSY)** {[file:///C:/Users/user/Desktop/notice-approved\\_projects-apc.pdf](file:///C:/Users/user/Desktop/notice-approved_projects-apc.pdf)}

2. **Food Processing Industries given special treatment as Priority Sectors Identified in the Twelfth Plan Sectors** that will create large employment are- Food Processing Industries, Textiles and Garments, Leather and Footwear, Gems and Jewellery, Handlooms and Handicrafts. {[http://mofpi.nic.in/sites/default/files/vol\\_3.pdf.pdf](http://mofpi.nic.in/sites/default/files/vol_3.pdf.pdf)}

3. **Under the 12<sup>th</sup> five year plan, indicative actions taken for Ministry of Food Processing Industries**

- Promote processing of locally available nutritious foods through training of women's SHGs/Federations (564 FPTCs in 2010–11) and use this for nutrition communication.
- Cater to cluster development for nutritious food preparation.
- Enable women's SHGs to become nutrition educators and change nutrition related behaviour within their own families and communities. {[http://mofpi.nic.in/sites/default/files/vol\\_3.pdf.pdf](http://mofpi.nic.in/sites/default/files/vol_3.pdf.pdf)}

4. Government of India (GOI) has approved **Pradhan Mantri Kisan SAMPADA Yojana** which is a scheme for Agro-Marine Processing and Development of Agro-Processing Clusters with an allocation of Rs. 6,000 crore for the period 2016-20 coterminous with the 14th Finance Commission cycle. The scheme will be implemented by Ministry of Food Processing Industries (MoFPI).

**The following is the list of schemes that will be implemented under the umbrella of PM Kisan SAMPADA Yojana :**

- ❖ **Mega Food Parks**-The Scheme of Mega Food Park aims at providing a mechanism to link agricultural production to the market by bringing together farmers' processors and retailers so as to ensure maximizing value addition, minimizing wastage, increasing farmers' income and creating employment opportunities particularly in rural sector. The Mega Food Park Scheme is based on "Cluster" approach and envisages creation of state of art support infrastructure in a well-defined agri / horticultural zone for setting up of modern food processing units in the industrial plots provided in the park with well-established supply chain. Mega food park typically consist of supply chain infrastructure including collection centers, primary processing centers, central processing centers, cold chain and around 30-35 fully developed plots for entrepreneurs to set up food processing units.

**There are 12 Mega food Parks which are functional :**

- Patanjali Food and Herbal Park, Haridwar,
  - Srimi Food Park, Chittoor,
  - North East Mega Food Park,
  - Nalbari, International Mega Food Park, Fazilka,
  - Integrated Food Park, Tumkur, Jharkhand
  - Mega Food Park, Ranchi,
  - Indus Mega Food Park, Khargaoan,
  - Jangipur Bengal Mega Food Park, Murshidabad
  - MITS Mega Food Park Pvt Ltd, Rayagada, Satara
  - Mega Food Park, Satara,
  - Himalayan Food Park Pvt.Ltd., Udham Singh Nagar, and
  - Greentech Mega Food Park Pvt. Ltd., Ajmer are functional.
- ❖ **Integrated Cold Chain and Value Addition Infrastructure**-The Scheme is in real life from 2009. The goal of the Scheme of Cold Chain, Value Addition and Preservation Infrastructure is to give coordinated chilly chain and conservation foundation offices, with no break, from the homestead door to the customer. It covers making of framework office along the whole inventory network viz. pre-cooling, gauging, arranging, reviewing, waxing offices at homestead level, multi-item/multi temperature chilly stockpiling, CA stockpiling, pressing office, IQF, shoot solidifying in the dissemination center point and reefer vans, versatile cooling units for encouraging appropriation of cultivation, natural create, marine, dairy, meat and poultry and so forth. The plan permits adaptability in venture arranging with extraordinary accentuation on production of cool chain foundation at ranch level. The coordinated chilly tie venture is set up by Partnership/Proprietorship Firms, Companies, Corporations, Cooperatives, Self Help Groups (SHGs), Farmer Producer Organizations (FPOs), NGOs, Central/State PSUs, and so on subject to fulfilment of qualification states of plan rules.
  - ❖ **Creation/Expansion of Food Processing and Preservation Capacities**-The principle goal of the Scheme is making of handling and protection limits and modernization/development of existing nourishment preparing units with a view to expanding the dimension of handling, esteem expansion prompting decrease of wastage. The preparing exercises attempted by the individual units' covers an extensive variety of post-reap forms bringing about esteem expansion as well as upgrading time span of usability with specific offices required for conservation of perishables. While extension of preparing limit is important to build the dimension of handling and decrease wastage, the enlistment of current innovation is expected to have a reasonable effect as far as process efficiencies and additionally enhancing the nature of the final result. Plan is actualized through associations, for example, Central and State PSUs/Joint Ventures/Farmer Producers Organization (FPOs)/NGOs/Cooperatives/SHG's/Pvt. Ltd organizations/people proprietorship firms occupied with foundation/upgradation/modernization of nourishment handling units.

- ❖ **Infrastructure for Agro-handling Clusters**-The plan goes for advancement of current foundation and normal offices to urge gathering of business visionaries to set up sustenance preparing units dependent on bunch approach by connecting gatherings of makers/agriculturists to the processors and markets through all around furnished production network with present day framework. Each agro preparing bunches under the plan have two fundamental parts i.e. Fundamental Enabling Infrastructure (streets, water supply, control supply, seepage, ETP and so on.), Core Infrastructure/Common offices (product houses, chilly stockpiles, IQF, tetra pack, arranging, reviewing and so forth.) and something like 5 nourishment handling units with a base venture of Rs. 25 crore. The units are set up synchronous alongside formation of normal framework. Something like 10 sections of land of land is required to be masterminded either by buy or on rent for no less than 50 years for setting up of Agro Processing Cluster. To see Indicative rundown of distinguished agri-horti creation groups (natural products and vegetables) and visit Geo-Sampada on spread and profundity of Agri-Resources .Agro preparing bunches set up by Project Execution Agency (PEA)/Organization, for example, Govt./PSUs/Joint Ventures/NGOs/Cooperatives/SHGs/FPOs/Private Sector/people and so forth and are qualified for money related help subject to terms and conditions under the plan rules.
- ❖ **Creation of Backward and Forward Linkages**-The goal of the plan is to give successful and consistent in reverse and forward incorporation for prepared nourishment industry by connecting the holes store network as far as accessibility of crude material and linkages with the market. Under the plan, budgetary help is given to setting up of essential handling focuses/gathering focuses at homestead entryway and current retail outlets at the front end alongside availability through protected/refrigerated transport. The Scheme is pertinent to transitory agriculture and non-cultivation deliver, for example, organic products, vegetables, dairy items, meat, poultry, angle, Ready to Cook Food Products, Honey, Coconut, Spices, Mushroom, Retails Shops for Perishable Food Products and so on. The Scheme would empower connecting of ranchers to processors and the market at guaranteeing profitable costs for Agri deliver. The plan is executed by offices/associations, for example, Govt./PSUs/Joint Ventures/NGOs/Cooperatives/SHGs/FPOs/Private Sector/people and so on. The Ministry has connected with Technical Agencies (TAs) for helping rancher/maker bunches including Farmer Producer Companies, Farmer Producer Organization, and Self Help Groups to encourage their investment under the Scheme. The TAs are in charge of planning of Business Plan, Detail Project Report, Capacity Building, Trainee and other related help administrations.
- ❖ **Food Safety and Quality Assurance Infrastructure**-Quality and Food Safety have turned out to be aggressive edge in the worldwide market for sustenance items. For the inside and out advancement of the nourishment handling segment in the nation, different part of Total Quality Management (TQM, for example, quality control, quality framework and quality affirmation ought to work in a level form. Aside from this, in light of a legitimate concern for purchaser wellbeing and general wellbeing, there is a need to guarantee that the quality sustenance items fabricated and sold in the market meet the stringent parameters recommended by the nourishment security controller.
- ❖ **Human Resources and Institutions-**
  - **Research & Development**- Under the plan, the Ministry of Food Processing Industries has been stretching out monetary help to embrace request driven R&D work for the advantage sustenance preparing industry as far as item and process advancement, proficient advances, enhanced bundling, esteem expansion and so on with business esteem alongside institutionalization of different components viz. added substances, shading operators, additives, pesticide deposits, compound contaminants, microbiological contaminants and normally happening dangerous substances inside admissible points of confinement.
  - **Promotional Activities**-To sort out, co-support, take an interest in all India level classes, workshops, fairs and displays for nourishment handling part to empower interest in sustenance preparing and to make familiarity with the plans being executed by the service. To commission examines/studies to survey, assess different parts of nourishment handling divisions and partnered

exercises. To make mindfulness about plans of the service through print/various media through promotions and attention materials. To sort out street appears, improvement of programming and speculator assistance exercises to advance nourishment preparing segment.

- **Skill Development-** The goals of the plan are as per the following:  
To give part explicit talented workforce from floor level specialists, administrators, bundling and mechanical production system laborers to quality control manager and so forth in the different sections of nourishment preparing enterprises. To contribute towards accomplishing the anticipated gifted HR necessity as imagined by National Skill Development Corporation (NSDC) in sustenance handling area i.e 17.8 million people continuously 2022. Aside from execution of the Skill segment under PMKSY, various activities have been taken by GOI to address the ability hole in the sustenance handling area. The Ministry of Food Processing Industries is working in close coordinated effort with other related offices to enlarge talented labor in the nourishment handling area. The Ministry is teaming up with the Food Industry Capacity and Skill Initiative (FICSI), the area Skill Council (SSC) in nourishment handling, for the approval of the Qualification Packs (QPs) for distinguished employment jobs and growing course educational programs for sustenance preparing segment through the National Institute of Food Technology Entrepreneurship and Management (NIFTEM).
- **Strengthening of Institutions-**(a) National Institute of Food Technology, Entrepreneurship and Management (NIFTEM): The Ministry has set up the NIFTEM at Kundli, District Sonapat, Haryana in May, 2012. NIFTEM has been announced a Deemed University under again class. NIFTEM is running the B. Tech., M. Tech. and Ph.D courses and attempts R&D extends in the zone of nourishment innovation. Under the plan, assets will be given to NIFTEM to making of scholastic and managerial foundation like remote understudy's inn, sports offices, perilous synthetic stockpiling, profluent treatment plant, strong waste administration framework, private units and so on. Assets will likewise be given to advance research exercises, grow Village Adoption Program (VAP) and expertise improvement in the sustenance preparing part. A distribution of Rs. 100 crore has been made amid the time of plan.
- (b) Indian Institute of Food Processing Technology (IIFPT): The Ministry has updated IIFPT, Thanjavur, Tamil Nadu to a National dimension establishment in February, 2008. IIFPT is running the B. Tech., M. Tech. and Ph.D courses and undertaking R&D extends in the territory of sustenance handling. Under the plan, assets will be given to IIFPT to production of framework offices including buy of extra land (22.7 sections of land) for extending grounds and making of scholastic and authoritative foundation like machine creation and testing focus, sport complex, amphitheater, opening preparing cum brooding focuses and private units and so forth. To empower the organization to extend its exercises and projects to meet the consistently growing need of nourishment preparing division in the nation, a designation of Rs. 75 crore has been made amid the time of plan.

## VII. ENTREPRENEURSHIP DEVELOPMENT IN FOOD PROCESSING IN INDIA

India, the second biggest nourishment maker on the planet can't guarantee ideal quality and amount of sustenance items to dominant part of its buyers. Around 10-18% of aggregate generation gets squandered because of ill-advised post-reap rehearses, insufficient storerooms, preparing misfortunes, and poor foundation offices. The wastage could be decreased by embracing legitimate preparing office in our nation, which is greatly low when contrasted with the global situation. Optional horticulture and item broadening has been considered as a panacea for the current situation in agribusiness division. Be that as it may, there are numerous difficulties in the sustenance preparing business enterprise which are frustrating the practical and reasonable handling units. There are numerous open doors for pioneering openings in preparing area. Forthcoming business people, sustenance engineers, rural specialists, nourishment processors, sustenance technologists, analysts and furthermore those working in the pertinent fields can likewise be business visionaries in the nourishment Processing field.

**(FDI) in Foreign Direct Investment Food Processing sector:**

- ❖ Foreign Direct Investment (FDI) is allowable for all the prepared sustenance items up to 100 percent on programmed course aside from things held for Micro and Small Enterprises(MSEs) subject to appropriate laws/controllers', securities and other conditionality's.
- ❖ For make of things held for Micro, Small and Medium endeavors, FDI is passable under programmed course up to 24 percent of the capital.
- ❖ If outside venture is more than 24 percent, Industrial License under Industries (Development and Regulation), Act 1951 is required.
- ❖ For concede of endorsement for remote venture for Trading in (Single brand, Multi brand and Food Product retail exchanging) Department of Industrial Policy and Promotion is the skillful specialist.
- ❖ Application looking for authorization of the Government for FDI surpassing 49% in an organization which proposes to attempt single brand retail exchanging India would be made to the Secretariat for Industrial Assistance (SIA) in the Department of Industrial Policy and Promotion. The applications would explicitly show the item/item classes which are proposed to be sold under a 'Solitary Brand'. Any expansion to the item/item classes to be sold under 'Single Brand' would require a new endorsement of the Government. In the event of FDI up to 49%, the rundown of items/item classes proposed to be sold aside from nourishment items would be given to the RBI.

**SWOT Analysis of Food–Processing Industry**

**Strengths**

- ❖ Abundant accessibility of crude material.
- ❖ Priority area status for agro-handling given by the focal Government.
- ❖ Vast system of assembling offices everywhere throughout the nation.
- ❖ Vast local market

**Weaknesses**

- ❖ Low accessibility of satisfactory infrastructural offices.
- ❖ Lack of satisfactory quality control and testing strategies according to universal benchmark.
- ❖ Inefficient store network because of countless.
- ❖ High necessity of working capital.
- ❖ Inadequately created linkages between R&D labs and industry.
- ❖ Seasonality of raw material

**Opportunities**

- ❖ Large yield and material base offering a huge potential for agro handling exercises.
- ❖ Setting of SEZ/AEZ and sustenance parks for giving added motivator to create greenfield ventures.
- ❖ Rising pay levels and changing utilization designs.
- ❖ Favorable statistic profile and changing ways of life.
- ❖ Integration of advancement in contemporary innovations, for example, gadgets material science, bio-innovation and so on offer tremendous degree for quick enhancement and advancement.
- ❖ Opening of worldwide markets

**Threats**

- ❖ Affordability and cultural preferences of fresh food
- ❖ High inventory carrying cost
- ❖ High taxation
- ❖ High packaging cost

**Findings:**

Expanded urbanization and changing way of life of people have assumed a noteworthy job in prodding development in this part. Regardless of preparing levels being appallingly low in the nation, the rising pay and resultant expanded spending on sustenance things have guaranteed that volume of handled nourishment expended in the nation has

stayed high. Expanded entrance of composed retail is likewise helping in driving interest for prepared nourishment as more people are getting to be mindful of their accessibility. Also, handled sustenance is an appealing choice to countless families and expanding number of working ladies in India as it encourages them spare time and requires less exertion for readiness.

A noteworthy issue being looked by the business is the holes in the store network. The nation needs appropriate capacity and circulation offices. In addition, the insufficient and surprising expense of credit is one of the significant explanations behind the stifled development of the rural part, the key crude material providing industry. In any case, the Government of India has been assuming a proactive job in building up the division and diminishing infrastructural obstacles. Through the Ministry of Food Processing Industries (MoFPI), it is giving abundant help to the business. In the Union Budget 2015-16, the legislature allotted INR 3.29 bn for infrastructural advancement. Additionally, the National Mission on Food Processing, a midway supported plan propelled by MoFPI, is advancing the improvement of offices for post-collect activities in the nation. India as of now has 14 uber nourishment parks, and an extra eight sustenance parks are required to be operational before the current year's over. This will additionally help in the advancement of the nation's nourishment handling industry<sup>3</sup>.

India's food industry offers immense open doors for ventures with invigorating development in the food retail sector, good financial strategies and alluring monetary motivating forces. The Government of India through the Ministry of Food Processing Industries (MoFPI) is likewise finding a way to support interests in the food processing industry. The administration has endorsed 42 Mega Food Parks (MFPs) to be set up in the nation under the Mega Food Park Scheme. At present, 12 Mega Food Parks have turned out to be useful.

By 2020, Indian Food and retail market will showcase a value worth \$ 482 bn.

By 2020, the Indian Dairy industry is relied upon to twofold to \$ 140 bn.

By 2020, the Food processing industry has the capability of pulling in \$ 33 bn of speculation.

By 2030, Indian yearly household utilization to treble, making India fifth biggest consumer.

## VIII. CONCLUSION

India is a land well known for nourishment creation. Over half of Indian populace works in Agriculture related exercises. On the off chance that there are great sustenance handling ventures in India, crude materials like grains or meat can be changed over into nourishment for local and remote utilization. Indian sustenance preparing industry is broadly perceived as a 'dawn industry' having enormous potential for elevating farming economy, production of extensive scale handled nourishment assembling and natural pecking order offices, and the resultant age of work and fare income. India's expanded urbanization, enhanced ways of life and the advantageous need of double pay families indicate out the significant market possibilities in the sustenance handling and showcasing areas.

An all-around created sustenance preparing segment with more elevated amount of handling helps in the decrease of wastage, enhances esteem expansion, advances edit broadening, guarantees better come back to the agriculturists, advances work and in addition expands send out profit. This division is additionally fit for tending to basic issues of sustenance security, nourishment expansion and giving healthy, nutritious sustenance to the majority.

Indian nourishment preparing industry has seen critical development and changes in the course of recent years, driven by changing patterns in business sectors, buyer portions and controls. These patterns, for example, evolving socioeconomics, developing populace and quick urbanization are required to proceed later on and accordingly, will shape the interest for esteem included items and subsequently for nourishment preparing industry in India. The Government of India's concentration towards nourishment handling industry as a need part is relied upon to guarantee strategies to help interest in this division and hence draw in more FDI. A portion of the segments which are generally progressively appealing incorporate Fruits and Vegetables, Meat, poultry and fisheries, dairy items,

nibble nourishments and prepared to-make things. India, approaching huge pool of common assets and developing specialized learning base, has solid near points of interest over different countries in this industry. Additionally, the Government has given different motivating forces, for example, capital endowments and expense exclusions for boosting interests in these fragments. Anyway notwithstanding the different angles making these areas alluring certain achievement factors are urgent in procuring their potential. These incorporate, scale and inventory network productivity, mark intensity and powerful advertising, conveying predominant innovation, item advancement and evaluating. The Government additionally energizes numerous participative models, for example, terminal markets and contract cultivating courses of action to profit the different partners. Numerous private players taking an interest in these game plans have been fruitful. Additionally, the different states understanding the significance of this industry from a work and in addition income age points of view have been to a great degree anticipated in supporting development in this industry. A portion of the states that have taken an additional mile by giving different financial and non-monetary activities incorporate Andhra Pradesh, Punjab, Madhya Pradesh, Uttar Pradesh and Karnataka. These states while having ideal consider conditions terms of bounty of crude materials and work, have likewise planned explicit nourishment preparing arrangements to energize private segment support and remote ventures. Numerous remote MNC's, for example, Nestle, Perfetti Van Melle and Indo Nissin Products have been effective by utilizing the India-advantage. Gaining from the encounters of these effective MNC's and in light of the above evaluation, the nourishment preparing segment in India is obviously an alluring area for speculation and offers noteworthy development potential to organizations so contributing. A very much incorporated inventory network and a fruitful promoting technique with interests in the most alluring fragments and states is critical to aggressiveness to achievement in this part.

It is difficult to bind an explicit innovation as having the biggest potential to affect Open Innovation as most advancement are intensely intertwined with others. No single development affects its own, fairly it is the rise of a biological community of mechanical leaps forward joined with plans of action that allow Food Processing SMEs to exploit them, which has had and keeps on having the capacity to affect Open Innovation the most.

## REFERENCES

1. *Annual Report of 2016-17, Ministry of Food Processing Industries*, <http://mofpi.nic.in/documents/reports/annual-report>
2. *Sudheer K P January 2018, Entrepreneurship Development in Food Processing*, [https://www.researchgate.net/publication/322144576\\_Entrepreneurship\\_Development\\_in\\_Food\\_Processing/citations](https://www.researchgate.net/publication/322144576_Entrepreneurship_Development_in_Food_Processing/citations)
3. *Consolidated FDI Policy (Effective from August 28, 2017), Department of Industrial Policy and Promotion Ministry of Commerce and Industry Government of India*, [http://www.mofpi.nic.in/sites/default/files/cfpc\\_2017\\_final\\_released\\_28.8.17.pdf](http://www.mofpi.nic.in/sites/default/files/cfpc_2017_final_released_28.8.17.pdf)
4. *Kachru, R.P.,2014 Agro processing industry in India- Growth, Status and Prospects*.[https://www.researchgate.net/publication/285701985\\_SWOT\\_Analysis\\_of\\_Food\\_Processing\\_Sector\\_in\\_India](https://www.researchgate.net/publication/285701985_SWOT_Analysis_of_Food_Processing_Sector_in_India).
5. *Potential of Dairy Industry 2017 report*, <http://www.gyananalytics.com/industry-insights/Industry%20Insights-Synopsis%20&%20TOC-%20Potential%20of%20Indian%20Dairy%20Industry-2017.pdf>
6. *Report on Indian Food Processing Industry – 2017*,<http://www.reportsweb.com/food-processing-industry-in-india-2017>.
7. *Money Control* <http://www.moneycontrol.com/stocks/marketinfo/netsales/bse/index.html>
8. *Food Processing – Market & Opportunities*, by Indian Brand Equity Foundation [https://www.ibef.org/download/Food\\_Processing\\_270608.pdf](https://www.ibef.org/download/Food_Processing_270608.pdf)
9. *Gyan Research and Analytics Pvt. Ltd., Indian Food Processing Industry – Opportunities and Outlook 2015, 2012*.<https://www.gyananalytics.com/buy-reports/indian-food-processing-industry-opportunities-and-outlook-2015/>
10. *Indian Packaged Food Market to be Worth \$50 Billion by 2017, July 12, 2017*,<https://food.ndtv.com/food-drinks/packaged-food-market-to-be-worth-50-bn-by-2017-1254654>

11. *Stable trade policy needed to boost agri exports: Draft policy* ;<https://economictimes.indiatimes.com/news/economy/agriculture/stable-trade-policy-needed-to-boost-agri-exports-draft-policy/articleshow/63369094.cm>
12. <http://dipp.nic.in>
13. <http://mospi.nic.inwww.apeda.gov.in>
14. <http://rbi.org.in>
15. [www.fao.org](http://www.fao.org)
16. <http://agricoop.nic.in>
17. [www.ibef.in](http://www.ibef.in)
18. [http://shodhganga.inflibnet.ac.in/bitstream/10603/74740/12/12\\_chapter%20no.%2005.pdf](http://shodhganga.inflibnet.ac.in/bitstream/10603/74740/12/12_chapter%20no.%2005.pdf)
19. G. Suresh Babu, Prof. M. Raja Sekhar, *Impact of Foreign Direct Investment (FDI) In Indian Food Processing Sector (2015)*, IOSR Journal of Business and Management (IOSR-JBM).  
<http://iosrjournals.org/iosr-jbm/papers/Vol17-issue1/Version-1/B017110612.pdf>
20. *World Food India 2017*, <https://www.worldfoodindia.in/invest>
21. [http://www.mofpi.nic.in/sites/default/files/gross\\_value\\_added\\_gva\\_by\\_food\\_processing\\_sector\\_at\\_constant\\_prices.pdf](http://www.mofpi.nic.in/sites/default/files/gross_value_added_gva_by_food_processing_sector_at_constant_prices.pdf)