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EMPLOYMENT POTENTIAL OF FOOD PROCESSING INDUSTRIES IN INDIA

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Abstract

Food Processing Industry plays a fundamental role in employment creation and income generation, particularly in developing countries where 75% of the poor live in rural areas. India is one of them. The multiplier effect of investment in food processing industries on employment generation is 2.5 times than in other industrial sectors, higher than any other sector. At present the food processing sector employs about 13 million people directly and about 35 million people indirectly. This is extremely labor intensive and is thus an important employment generator. It is estimated that for every Rs. 10 billion worth of investment in the food sector, an additional 54000 people get jobs compared to a figure of 48000 for the textile industry and 25000 for the paper industry It is also noteworthy that this sector employs mostly (72%) illiterate and (95%) landless workers. In this paper analyzes employment potential and trends of Invested capital of food processing industries.

Keywords- Food Processing Industry, Employment Potential, Invested Capital.

Introduction

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In an economy like India, where agriculture is a major occupation of the people, industrialization should lay more stress on rural industrialization which facilitates integration between agriculture and industry. For this purpose, rural industrialization calls for setting up of agro- processing industries which makes use of locally available agricultural raw materials. Agro-processing can be defined as asset of economic activities that are concerned with the conservation, handling and processing of agricultural products. These activities try to make agricultural products usable as food, fuel or industrial raw material. Agro processing industries can be categorized as food processing, agro based industries and non-food processing agro based industries. Here we study only food processing industries in Haryana which is a part of agro based industries. Food processing is the set of methods and techniques used to transform raw ingredient in the food or to transform food into other food for consumption by human beings or animals in the home or by the food processing industries.[1] In other words, we can say the term 'food processing' is mainly defined as a process of value addition to the agricultural or horticultural produce by various methods like grading, sorting and packaging. In other words, it is a technique of manufacturing and preserving food substances in an effective manner with a view to enhance their shelf life; improve quality as well as make them functionally more useful. It covers a spectrum of products from sub-sectors comprising agriculture, horticulture, plantation, animal husbandry and fisheries. It helps to diversify and commercialize farming; enhance income of farmers; create markets for export of agro foods as well as generate greater employment opportunities.

Segments of Food Processing Industry

Food processing is a large sector that covers many activities such as Dairy, fruits & vegetable

[1] Kachru R.P.(2006),"Agro Processing Industries in India- Growth, Status and Prospects."Assistant Director General (processing Engineering), Indian Council of Agricultural Research, New Delhi, PP.114-125.

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Processing, Grain processes, Meat & poultry processing, Fisheries and Consumer foods include packaged foods, beverages and packaged drinking water.

Factors driving demand for FPI

- Increasing nuclear families and working women.
- Higher income elasticity of processed food products.
- Change in Demographic profile of population in India
- Increasing spending on health and nutritional foods.
- Changing life style of people.

In this paper, we analyze the employment potential and trends of invested capital in food processing industries during the period of 1998-99 to 2010-11.

Profile of Food Processing Industries

Food processing sector plays a very crucial role in Indian economy. This sector is now regarded as the sunrise sector of the Indian economy. The Indian food industry is dominated by unorganized sector. The organized sector consisting of large companies, accounts for only 25% of the market, thus 75% of the market is divided between the small scale and the unorganized sector. The unorganised sector accounted for more than 70% of production in terms of volume and 50% in term of value. Food processing industry is the 5th biggest industry in India.[2] The Indian food processing industry is one of the largest industries in the world in terms of production, consumption, export and growth prospects. It has become an attractive destination for investment all over the world. The food processing sector grew at a rate of 13.1% in 2006-07.

[2] MOFPI GOI November 2006 11th Five year plan

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Food processing contributes around 6% of the GDP, the market size of the food processing sector has been estimated at 700 billion US$ in Dec 2008.[3] Food Processing contributes 6% of the industrial investment and 13% of Indian Exports.[4] Food processing industries and agro processing have significant potential for employment generation. The food processing sector generates significant employment. These food processing industries require less capital and generate more employment than other manufacturing industries. FPI sector employs 18% of the manufacturing employment in the country, that it provides the same no of job at a 30% lower capital investment compared to the manufacturing sector as a whole and that many of the sub-sector like macaroni, noodles and other food products. Grain mill products are able to create a job with 75% lower capital investment than the manufacturing sector.[5] The multiplier effect of investment in food processing industries on employment generation is 2.5 times than in other industrial sectors, higher than any other sector. At present the food processing sector employs about 13 million people directly and about 35 million people indirectly[6]. It is estimated that for every Rs 10 billion worth of investment in the food sector, an additional 54000 people get jobs compared to a figure of 48000 for the textile industry and 25000 for the paper industry[7]. It is also noteworthy that this sector employs mostly (72%) illiterate and (95%) landless workers. As argued by Dev (2008) and Rao & Desgupta (2009). In 2004-05 food processing sector contributed about 14% of manufacturing GDP with a share of Rs 2, 80,000 crores.[8]

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[3] IBEF December 2008

[4] Yes bank 2006

[5] N.Chandrasekhara Rao and Sukti Dasgupta Nature of Employment in the FPI Sector –PP-109- 115 EPW-Vol=44,No 17,May 2009

[6] MOFPI GOI November 2006 11th five year plan

[7] MVIRDC World Trade Centre, "Agricultural & Food Processing Industries In India" Mumbai-PP-19 May 2002.

[8] MOFPI GOI November 2006 11th five year plan

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Objective of the study

1. To analyse the employment potential of food processing industry in India.

2. To analyse the trends of invested capital in the food processing industry in India.

Database and Methodology

This study is based on secondary data and survey of literature. The required data were collected and computed from the ministry of food processing industry (MOFPI), Annual Report 2011-12 and Annual Report 2012-13, Govt. of India, Human Resource and Skill Requirements in the Food Processing Sector a report by NSDC and IMaCS (ICRA Management Consulting Services Limited).

Technique of Analysis

AGR is computed with this formula

$$AGR = \frac{(C-P)x100}{P}$$

$$AAGR = \frac{\text{Total sum of A}}{\text{No of years}}$$

The study covers a period of thirteen years (1998-99 to 2010-2011).

Review of Literature

Gandhi et al (2001) examined that agro based industries have been given significant priority in economic development in India. They found agro based industries are labor intensive and capital saving. Agro based industries provide more employment than other industry. Investment of Rs

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100000 in agro based industries provides employment to 14 persons. On the other hand investment of the same amount in another industry (non-agro based) provide employment only 3 persons. In spite of these features these industries face many problems related to finance or raw material. These industries increase farm income and rural employment, particularly among the landless poor. This study suggested that there is a need for new indigenous models to emerge for the organization of the agro industry. Government models alone do not show a good record of performance.

Sharma et al (2003) Highlights that small scale agro processing industry has great significance for industrially backward hilly states like Himachal Pradesh, where the production of foods and vegetables is increasing over the years and where the scope of establishing big industries is quite limited, particularly when about 67% of its working force depends on agriculture alone.
Farming in this is dominated by female workers, as well as household management. The majority of men has migrated to urban areas in search of wage work jobs. There exists a high level of distinguished unemployment and low earning opportunities for rural women. The establishment of an agro processing cooperative unit in these Changur (dry) areas of Kangra and Chamba district in Himichal Pradesh is a welcome step to improve the socioeconomic condition of women. Cooperative society "Smardhi Mahila Cooperative Society (SMCS) comes in 1996. This agro processing unit promises collective prosperity for women processing groups (WPGS). Smardhi Mahila Cooperative society becomes very successful in this area. The gross profit of the society was Rs 844699 during 2002-03, now more and more WPGs are interested to join "Smardhi Mahila Cooperative Society" and the day is not far off when this humble institution will grow into a giant cooperative processing venture in the state. The paper suggested that women member in WPGs are trained by some pioneer institution of food processing. Govt and NGO's come front to help these institutions by technically or financially.

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Subramanyam (1981) Find out that the employment potential of the horticulture industry to remove the problems of rural unemployment and under employment. In this paper we found that horticulture sector creates additional employment directly or indirectly, as well as additional incomes. Indirect employment fruit crops required more labor than grains. It requires roughly 856 man-days per hectare. Vegetable crops require 200 man-days per hectare. Which is more than that require for cereals and millets. Horticulture crops generate indirect employment by fruits and vegetable based industries in India. It is estimated that over one lakh workers are employed on a seasonal basis in the fruits and vegetable industries. This paper found that most of the fruits and vegetables give higher returns as compared to cereals through per hectare cost of cultivation is high. The author suggests that Govt. Should make efforts to increase area under fruits and vegetable cultivation. Special loan should be given to promote the horticulture sector. Fruits orchards and vegetables producing land should be celling free, these industry should be setup in rural area and it should be tax exempted.

Ramnathan Malathi(2004) examined the growth of an organization ,"Shri Mahila Griha Udyog Lajjat Papad,"from its inception to present. This organization is a united effort of seven women. The sale of this institution for the financial year till march 31, 1999 was 25.866 million.

The main significance of this institution to provide a beacon light to the lower class women in India, without any discrimination of their caste, religion or reason. It shows the path towards a better future.

The share of various states in employment in food processing industries in 2010, in India is shown in **Table -1** It shows that the Andhra Pradesh share had 14.10% highest among the states. Uttar Pradesh had 12.00%, followed by Kerala with 11.90%, Tamil Nadu with 11.20% in 2010.[9]

[9] Rais Mohammad, Acharya Shatroopa and Neeraj Sharma(2013),"Food Processing Industry in India: S&T Capability, Skills and Employment opportunities."

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Table-1 Share of various states in employment in food processing industry in 2010

Sl No.	Name of the State	Share of employment in %.
1	Andhra Pradesh	14.10%
2	Assam	4.70%
3	Gujarat	5.90%
4	Haryana	3.30%
5	Karnataka	6.00%
6	Kerala	11.90%
7	Madhya Pradesh	2.30%
8	Maharashtra	7.80%
9	Punjab	7.70%
10	Tamil Nadu	11.20%
11	Uttar Pradesh	12.00%
12	West Bengal	4.80%
13	Others	8.30%

Source: NSDC and IMaCS Analysis

Distribution of human resources by education level in food processing industry is shown by **Table-2** and Basic functional distribution of human resources across segments in food processing industry in 2010 is shown by **Table-3.**[10]

[10] Human Resource and Skill Requirements in the Food Processing Sector in India till 2022 -A Report by National Skill Development Council (NSDC).NSDC engaged IMaCS (ICRA Management Consulting Services Limited) to prepare this report.

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The educational profile of the employees involved in food processing industry in India is analysed by **Table -2.** The following table represents the education profile of persons across segments of the organised side of the Food Processing sector in India. As seen, most of the persons employed are minimally educated and most have studied till 10th standard or below It shows that maximum percentage of workers in food processing industry has low level of education, and therefore their skill level is also low. Low level of skills highlights a very dark picture of Indian food processing industry; here workers can't contribute from their side in the development of the industry, thus leading to stagnation of the industry.

Table-2 Distribution of human resources by education level in food processing industry

Education level	**% 0f employees**
Employees with management education	1-2%
Proportion of food technologists	20%
Post-Graduates	0.5-1%
Graduates	10%
Diploma holders	2-5%
Certificate holders	2-5%
10th Standard or below	80%

Source: NSDC and IMaCS Analysis

The basic functional distribution of human resource across segments in food processing industry is given in Table-3. Around 55% of the human resource in food processing industry is involved in production work, or in the processing stage. Table-3 also provides a basic distribution of human resources across different segments in food processing industry in 2010.

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Table-3 Basic functional distribution of human resources across segments in food Processing industry in 2010(11).

Function	**% of employs**
Procurement	10%
Testing and Quality	20%
Production	55%
R&D	1-2%
Storage	2-3%
Other(Sales and other support functions)	10%

Source: NSDC and IMaCS Analysis

Food processing Industry is one of the major employment intensive segments constituting 13.6% of employment generated in the manufacturing sector in 2010-2011. According to the **Table-4** in 2010-2011, the total no of persons engaged in registered food processing sector is 16.75 lakhs. Persons employed under the registered food processing industries have been increased from 2004-05 to 2007-08. There has been a fall in the growth rate of employment in registered FPI units in 2007-08, probably because the growth had been very high in the preceding years and also because 2007-08 was a year when there was a global slowdown in economic activity. During this study period 1998-99 to 2010-2011, employment in registered food processing sector has been increasing at an Annual Average Growth Rate (AAGR) of 1.68 Per cent.

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Table-4 Number of Person Employed in Agro Processing Industry

S.NO YEARS	YEARS	PERSON EMPLOYED	AGR
1	1998-99	1346826	-
2	1999-00	1347418	0.04
3	2000-01	1332588	-1.1
4	2001-02	1306677	-1.94
5	2002-03	1308335	0.13
6	2003-04	1297073	-0.86
7	2004-05	1342925	3.54
8	2005-06	1391616	3.63
9	2006-07	1476351	6.09
10	2007-08	1505246	1.96
11	2008-09	1564000	3.90
12	2009-10	1606000	2.68
13	2010-11	1675000	4.29
		AAGR	1.86

Source: Ministry of Food Processing Industries, Annual Report 2011-12 and 2012-13.

In term of investment, Food Processing Sector has registered a positive growth in term of Capital Invested (fixed capital and physical working capital).As per **Table -5** in 2010-2011, the Invested Capital in FPI stood at Rs.2,49,337 crore growing at an AAGR of 14.13 per cent during the study period 1998-99 to 2010-2011.

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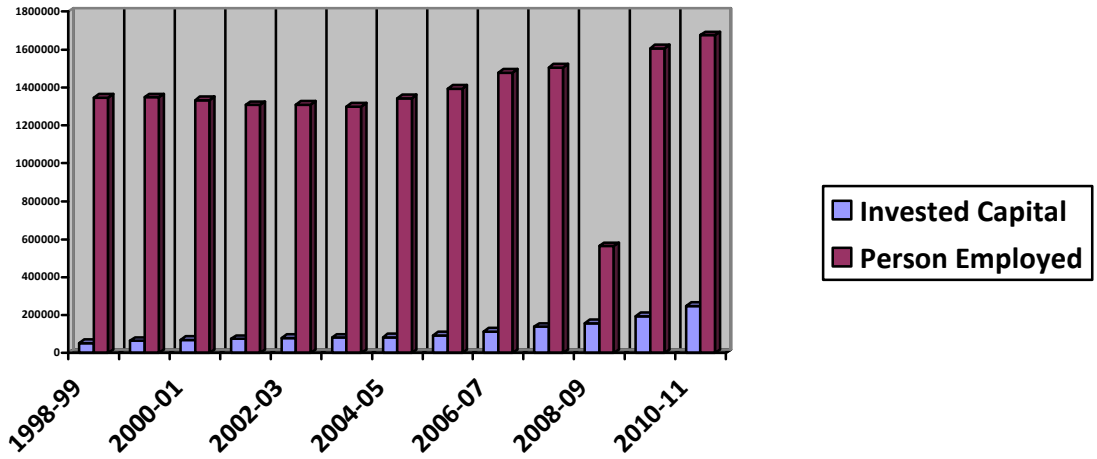
TABLE -5 Invested Capital in Food Processing Industry

S.NO	YEARS	INVESTED CAPITAL	AGR
1	1998-99	52881.72	-
2	1999-00	64544.19	22.05
3	2000-01	70203.45	8.76
4	2001-02	74774.26	6.51
5	2002-03	79563.41	6.40
6	2003-04	81308.45	2.19
7	2004-05	84089.79	3.42
8	2005-06	92038.54	9.45
9	2006-07	112483.99	22.21
10	2007-08	138969.17	23.54
11	2008-09	157062	13.01
12	2009-10	193850	23.42
13	2010-11	249337	28.62
		AAGR	14.13

Source: Ministry of Food Processing Industries, Annual Report 2011-12 and 2012-13.



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Conclusion

In a nutshell, I would like to say that in this paper, we analyzed the employment potential in food processing industry. It also gives employment to the uneducated and unskilled labour. It shows that maximum percentage of workers in food processing industry has a low level of education, and therefore their skill level is also low. Low level of skills highlights a very dark picture of Indian food processing industry. Around 55% of the human resource in food processing industry is involved in production work, or in the processing stage. It is also examined that Food Processing Industry requires less invested capital to generate more employment.

References

Minisrty of Food Processing Industy,GOI

MOFPI, Annual Reports 2011-12 and 2012-13

Rao, N. Chanderasekhara, Desgupta Sukti (2009),"Nature of Employment in Food Processing Sector". Economic and Political Weekly, Vol.44, No.17 (April 25-May 2009)PP-109-115.

Saravanan. S and V Mohanasundaram (2013),"An Analysis of FDI in Indian Food Processing Industries."Indian Journal of Applied Research, Vol.3/Issue.3/March 2013/PP.80-81

Kachru R.P. (2006),"Agro Processing Industries in India- Growth, Status and Prospects."Assistant Director General (processing Engineering), Indian Council of Agricultural Research, New Delhi, PP.114-125.

Gandhi, Vasant, Kumar Gouri (2001),"Agroindustry for rural and small farmer development: Issues and lesson from India."International Food and Agribusiness Management Review 2 (3/4) pp. 331-344.

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International Manuscript ID : 23482001V2I101022014-10

(Approved and Registered with Govt. of India)

Subrahmanyam K.V. (1981),"Employment Potential of Horticulture Industry."Indian Journal of Industrial Relations, Vol.16, No-4 (April 1981) pp. 605-613.

Sharma K.D, Pathania M.S and Vashist G.D (2003),"Role of Rural Women in Small Scale Agro-Processing Sector-An Economic Analysis of Samardhi Mahila ProcessinCo-operative Society in Himachal Pradesh."Industrial Journal of Agricultural Economics, Vol-58, No-3 July-Sep.2003, pp. 577-588.

Ramanathan Malathi(2004),"Women and Impowerment Shri Mahila Griha Udyog Lajjat Papad." Economic and Political weekly April 24,2004. Pp.1689-1696

Human Resource and Skill Requirements in the Food Processing Sector in India till 2022 -A Report by National Skill Development Council (NSDC).NSDC engaged IMaCS (ICRA Management Consulting Services Limited) to prepare this report.