

## Project Profile: Popcorn Manufacturing



## **Project Profile 3: Popcorn Manufacturing**

### **Introduction**

Popcorn or Popping Corn is a type of corn which explodes from the kernel and puffs up after heating. However, there are special varieties of corn that give improved popping yield. And these varieties are most suitable for the production. The industrial popcorn production demands a comparatively small space and infrastructure for commencing.

### **Products & Its Application**

Popcorn is quickly becoming a favourite snack among Indians. Because of its ease of consumption, popcorn is widely consumed by audiences in cinemas, theatres, and other stage shows. Popcorn fits into the better-for-you snack trend as a low-calorie food with endless flavouring options.

### **Desired Qualification for Promoter**

There is no necessary requirement of specific education. Anyone is eligible to run this business.

### **Industry Outlook and Trends**

Global popcorn market growth is steadily at a CAGR of approximately 7% during the forecast period. The growing opportunity in the snacks industry is the primary growth driver of this market. Globally, customers are spending more on convenient snacks, with some of these snacks acting as meal replacements. Customers consider both taste and health at the point of purchases forcing the snack manufacturers to understand the consumption drivers and build a product accordingly.

The rising number of varieties and flavours of popcorn has also been contributing to the market growth. Numerous vendors have started including flavours like

bacon, blue cheese, spicy or salted caramel, cheesecake and stout beer to cater to a large consumer based. For instance, Snacks101 offers baked and gluten free popcorn varieties such as white cheddar, sea salt, sweet & spicy sriracha and smoky chipotle.

### **Market Potential and Market Issues, If Any:**

From the user's perspective, this is a very delicious and tasty snack item. Furthermore, the product is both safe and healthy to consume. This product is gaining popularity among both consumers and manufacturers. Increased consumption from Tier I cities is one of the key factors driving its market growth in India. Furthermore, the expansion of multiplexes in the country and the entry of a number of manufacturers with innovative flavours are major factors. As a result, the snack, that ever-present movie-time snack, has become a brisk business in India these days. The popcorn market in India is rapidly expanding, particularly in multiplexes. Furthermore, the gross profit margin is very high.

### **Raw Material Requirements**

Corn, also known as maize, is the most commonly used raw material. Additionally, salt, butter, flavours, spices, and other ingredients will be required. Food grade HDPE bottles/bags and cardboard boxes are required for packaging.

### **Manufacturing Process**

The product is produced by heating kernels until the internal moisture expands and pops through the outer shell of the kernel, allowing the starch within to expand and cool. The machine will do everything to produce crispy popcorns. For flavouring, prepared popcorn is stored in storage and then fed into seasoning/flavouring machine. Finally, the product will be packed with the moisture proof packaging materials. Generally, corrugated outer cartons are used for the transportation and bulk handling of the items.

## Manpower Requirement

For the production of peanut butter following category of manpower will be required for day to day production.

Sr.No.	Designation	No. of employees required	Amount (Per Person)	Total
1	Unskilled Labour	2	9,000	18,000
2	Production Manager	1	30,000	30,000
3	Skilled Labour	2	12,000	24,000
4	Accountant	1	16,000	16,000
5	Office Assistant	1	7,000	7,000
<b>Total</b>				<b>95,000</b>

## Implementation Schedule

The project can be commissioned within eight months of tying up of finance. There is no complicated machinery and equipment required and space required is also small. Therefore, implementation time is eight months.

## List of Machinery

Sr. No.	Plant & Machinery / Equipments
1	Automatic Popcorn making machine
2	Flavoring Machine
3	SS Storage tanks
4	Weighing Scale

All the machines and equipments are available from local manufacturers. The entrepreneur needs to ensure proper selection of product mix and proper type of machines and tooling to have modern and flexible designs. It may be worthwhile to look at reconditioned imported machines, dies and tooling. Some of the machinery and dies and tooling suppliers are listed here below:

1. Fry-Tech Food Equipments Private Limited

S. No. 4, Raviraj Industrial Estate,  
Bhikhubhai Mukhi Ka Kuwa Bharwadvash,  
Ramol, Ahmedabad - 380024,  
Gujarat, India

2. Hindustan Vibrotech Pvt. Ltd.

Office No. 2, Ground Floor,  
Vrindavan Building, Vile Parle East,  
Mumbai - 400057,  
Maharashtra, India

3. Electrons cooling systems Pvt. Ltd.

S-27, SIDCO Industrial Estate  
Kakkalur Industrial Estate  
Tiruvallur - 602003,  
Tamil Nadu, India

4. Springboard Enterprises India Ltd.

1st, 2nd & 3rd Floor,  
Plot No. 7, 8 & 9,  
Garg Shopping Mall,  
Service Centre, Rohini Sector 2  
New Delhi - 110085,

5. Flour Tech Engineers Private Limited

Plot No. 182, Sector 24,  
Faridabad - 121005,  
Haryana, India

6. P Square Technologies

3, Swami Mahal,  
Gurunanak Nagar,  
Off. Shankarsheth Road Bhavani Peth,  
Pune - 411002,  
Maharashtra, India

7. Ricon Engineers

10 To 13, Bhagwati Estate,  
Near Amraiwadi Torrent Power,  
Behind Uttam Dairy,  
Rakhial, Ahmedabad - 380023,  
Gujarat, India

8. Kamdhenu Agro Machinery

Plot No. 6, Near Power House,  
Wathoda Road Wathoda,  
Nagpur - 440035,  
Maharashtra, India

### Cost of Project

The cost of project as per market rate of factory building, machinery, and miscellaneous items, preliminary and pre-operative expenses works out as under:

Sr. No.	Particulars	Amount
1	Land(rent)	30,000
2	Plant & Machinery	6,40,000
3	Furniture & Electrical Installations	90,000
4	Miscellaneous	40,000
<b>Total</b>		<b>8,00,000</b>

### Means of Finance

Based on the present norms of bank, means of finance is worked out as under:

Sr. No.	Particulars	Amount
1	Promoter's contribution	2,11,500
2	Bank Finance	6,83,500
<b>Total</b>		<b>8,95,000</b>

### Break-Even Analysis

Sr. No.	Particulars	Details
1	Fixed Investment (A)	800000
2	Loan	638500
3	Interest Rate @7.5% on Loan (B)	47887.5
4	Capital Investment	211500

5	Depreciation @10% on Capital investment (C)	21150
6	<b>Total Fixed cost (D = A+B+C)</b>	<b>869038</b>
7	Variable Cost (E)	50000
8	Manpower cost (F)	95000
9	Total Variable cost (G = E+F)	145000
10	Number of Units Sold/Month (H)	1600
11	Average Variable cost (I = G/H)	90.63
12	Selling price per unit (J)	140
13	<b>Contribution margin (K = J-I)</b>	<b>49.38</b>
14	<b>Beak Even Point in Units (D/K)</b>	<b>17601</b>

### Assumptions

- Interest rate is assumed at the rate of 7.5% p.a.
- Depreciation on capital investment i.e. machinery would be 10% p.a.
- Unit can produce 2000 units of packets p.m. at full capacity then it would be at breakeven when they will sell 17601 units of popcorn packet of 500gm.
- Variable cost comprises of the raw material price p.m. and electricity and other administrative/utility expenses.

### Statutory/Government Approvals

The Ministry of Food Processing Industries has been operating several plan schemes for the development of processed food sector in the country during the 10th Plan. One of the schemes relates to the Technology Up-gradation/ Establishment/ Modernization of food processing industries.



The Indian food processing industry is regulated by several laws which govern the aspects of sanitation, licensing and other necessary permits that are required to start up and run a food business. The legislation that dealt with food safety in India was the Prevention of Food Adulteration Act, 1954 (hereinafter referred to as "PFA"). The PFA had been in place for over five decades and there was a need for change due to varied reasons which include the changing requirements of our food industry. The act brought into force in place of the PFA is the Food Safety and Standards Act, 2006 (hereinafter referred to as "FSSA") that overrides all other food related laws.

FSSA initiates harmonization of India's food regulations as per international standards. It establishes a new national regulatory body, the Food Safety and Standards Authority of India (hereinafter referred to as "FSSAI"), to develop science based standards for food and to regulate and monitor the manufacture, processing, storage, distribution, sale and import of food so as to ensure the availability of safe and wholesome food for human consumption. Entrepreneur may contact State Pollution Control Board where ever it is applicable.

**All food imports will therefore be subject to the provisions of the FSSA and rules and regulations which as notified by the Government on 5th of August 2011 will be applicable.**

#### **Key Regulations of FSSA**

- A. Packaging and Labeling
- B. Signage and Customer Notices
- C. Licensing Registration and Health and Sanitary Permits

#### **Backward & Forward Integration**

##### **Backward Linkage**

- Integrated Pack-house(s) (with mechanized sorting & grading line/ packing line/ waxing line/ staging cold rooms/cold storage, etc.)

- Pre Cooling Unit(s)/ Chillers
- Reefer boats
- Machinery & equipment for minimal processing and/or value addition such as cutting, dicing, slicing, pickling, drying, pulping, canning, waxing, etc.
- Machinery & equipment for packing/ packaging.

#### **Forward Linkage:**

- Retail chain of outlets including facilities such as frozen storage/ deep freezers/ refrigerated display cabinets/cold room/ chillers/ packing/ packaging, etc.
- Distribution center associated with the retail chain of outlets with facilities like cold room/ cold storage/ ripening chamber.

#### **Training Centers/Courses**

For food processing industry training and short term courses are available at Indian Institute of Food Processing Technology, Thanjavur, Tamil Nadu and Central Food Technological Institute, Mysore, Karnataka and Ground Nut Research Centre, Junagarh, Gujarat.

Udyamimitra portal (ink: [www.udyamimitra.in](http://www.udyamimitra.in)) can also be accessed for handholding services viz. application filling / project report preparation, EDP, financial Training, Skill Development, mentoring etc.

Entrepreneurship development programs help to run businesses successfully and are available from Institutes like Entrepreneurship Development Institute of India (EDII) and its affiliates all over India.