

# CONFECTIONARY



## 1.0 INTRODUCTION

Confectionary products are in vogue since long and the market is growing continuously. There are two distinct market segments. One is dominated by national and international brands whereas the second one, low cost, by the small scale sector. It is scattered throughout the country and small units have a significant market share. There are many products like caramel, sugar coated candies, lozenges, toffee, chocolates etc. There are many flavours as well. The market is growing rapidly and semi-urban and rural areas provide good scope. The project can be set up in several states of the country.

## 2.0 PRODUCT

### 2.1 Applications

A new entrant may select some fast moving items to begin with and then expand the product range suitably. Hence, it is envisaged that initially there would be two products viz. candies and toffees with various flavours and attractive packing. Pricing would also be an important aspect. This note considers Bihar and Jharkhand as the potential locations.

### 2.2 Compliances and quality standards

Compliances with the provisions of the FPO and PFA Act are necessary. BIS has specified quality standards vide IS 1008:1971.

## 3.0 MARKET POTENTIAL

### 3.1 Demand and Supply

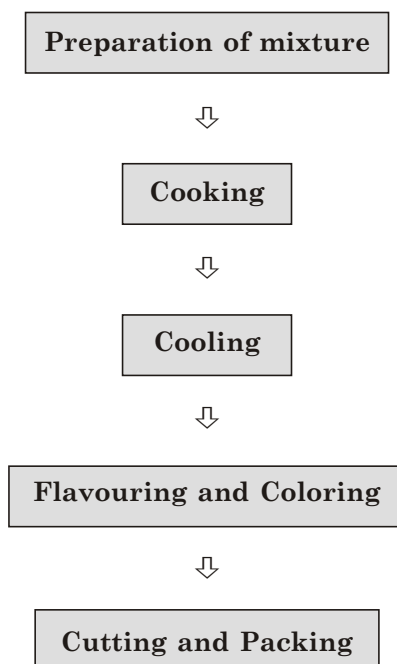
Children and young generation would be the primary target with concentration on rural and semi-urban areas. There are some established brands like Cadbury, Nestle, Amul etc. but they are basically in urban areas and their products are costly. There is a vast market for low priced, reasonable quality candies and toffees.

### 3.2 Marketing Strategy:

There is a competition in this market as well from local small scale manufacturers but the market is growing continuously and with proper marketing network and lucrative commission to the retailers, the products can be sold. Instead of advertisement in the local media, adequate publicity and incentives at select outlets would be beneficial. Availability at strategic locations like schools or colleges, taxi or bus-stands, in local weekly bazars or fairs would make the products popular.

## 4.0 MANUFACTURING PROCESS

It is simple and standardised. Candies are manufactured by preparing a solution of cane sugar to which invert sugar or glucose syrup is added and then this mixture is cooked under vacuum in a steam jacketted kettle. Vacuum cooking gives a light coloured product and prevents caramelisation. The product is then quickly cooled by spreading on oiled and water cooled plates or cast iron slabs. Flavouring and colouring materials are added and they are homogenously mixed. Then it is cut in various sizes by frame cutters. Plain toffee is prepared from sugar and glucose syrup. Milk and fats are added to produce superior varieties and to impart flavour and develop a softer texture. Mixture is cooked in open pans and then cooled as stated earlier and then cut in the required sizes. The Process Flow Chart is as under:



## 5.0 CAPITAL INPUTS

### 5.1 Land and Building

To limit initial capital expenditure and to save implementation time, it is suggested to buy a readymade shed of around 100 sq.mtrs. which can accommodate production facilities leaving adequate space for storage and packing. Cost of shed is taken as Rs.2.50 lacs.

## 5.2 Machinery

Rated production capacity of 80 tonnes per year considering 300 working days and working of two shifts per day would require following equipments.

Item	Qty.	Price (Rs.)
Oil-fired Furnaces	2	15,000
Steam-jacketted Kettle	1	50,000
Toffee Sizing Machine	1	8,000
Pedal press with 1 Set of dye	1	10,000
Toffee Cutter	1	2,000
Boiling Pans	6	15,000
Sugar Grinder	1	10,000
Cast Iron Plates	4	20,000
Aluminium top tables	4	30,000
Homogeniser	1	35,000
Weighing scales, polythene bag, sealing machine etc.	--	15,000
	<b>Total</b>	<b>2,00,000</b>

## 5.3 Miscellaneous Assets

Some other assets like furniture & fixtures, SS utensils, plastic buckets, storage racks etc. would cost Rs.35,000/-.

## 5.4 Utilities

Power requirement shall be 15 HP whereas daily water requirement shall be around 1000 ltrs. Furnace oil shall be required in small quantity.

## 5.5 Raw and Packing Materials

Materials like sugar, glucose, milk powder or condensed milk, butter, flavours and food grade colours shall be available locally. Packing materials like wrappers, polythene bags, plastic jars etc. shall be needed for which prior arrangements must be made.

## 6.0 MANPOWER REQUIREMENTS

Particulars	Nos.	Monthly Salary (Rs.)	Total Monthly Salary (Rs.)
Skilled Workers	2	2,500	5,000
Semi-skilled Workers	2	1,750	3,500
Helpers	8	1,250	10,000
Salesman	1	2,500	2,500
		<b>Total</b>	<b>21,000</b>

## 7.0 TENTATIVE IMPLEMENTATION SCHEDULE

Activity	Period (in months)
Application and sanction of loan	1.5
Site selection and commencement of civil work	0.5
Completion of civil work and placement of orders for machinery	1.5
Erection, installation and trial runs	0.5

## 8.0 DETAILS OF THE PROPOSED PROJECT

### 8.1 Building

A readymade shed of around 100 sq.mtrs. would cost Rs.2.50 lacs as explained earlier.

### 8.2 Machinery

The total cost of machinery is estimated to be Rs.2.00 lacs as spelt out earlier.

### 8.3 Miscellaneous Assets

A provision of Rs. 35,000/- is sufficient for other assets as discussed before.

### 8.4 Preliminary & Pre-operative Expenses

An amount of Rs.50,000/- would take care of pre-production expenses like establishment and registration charges, administrative expenses, travelling, interest during implementation etc.

### 8.5 Working Capital Requirements

Most of the raw materials would be available locally and hence stocking period will not be much. Sales outlets shall be scattered and many of them could be small shops. Hence, banks may sanction Rs.50,000/- adhoc facility against appropriate security and the promoters would provide margin of Rs.25,000/-.

**8.6 Cost of the Project & Means of Financing** (Rs. in lacs)

Item	Amount
Building	2.50
Machinery	2.00
Miscellaneous Assets	0.35
P&P Expenses	0.50
Contingencies @ 10% on Building and Plant & Machinery	0.45
Working Capital Margin	0.25
<b>Total</b>	<b>6.05</b>
<b>Means of Finance</b>	
Promoters' Contribution	1.80
Term Loan from Bank/FI	4.25
<b>Total</b>	<b>6.05</b>
Debt Equity Ratio	2.36:1
Promoters' Contribution	30%

Financial assistance in the form of grant is available from the Ministry of Food Processing Industries, Govt. of India, towards expenditure on technical civil works and plant and machinery for eligible projects subject to certain terms and conditions.

**9.0 PROFITABILITY CALCULATIONS**

**9.1 Production Capacity & Build-up**

As against the rated annual capacity of 80 tonnes, working in the first year is taken at 60% and thereafter it is restricted to 75%.

**9.2 Sales Revenue at 100%**

Average selling price is taken at Rs.40,000/- per ton. Hence, annual income of 80 tonnes would be Rs.32.00 lacs.

**9.3 Raw and Packing Materials Required at 100%**

(Rs. in lacs)

Product	Qty. (Tonnes)	Price/Ton (Rs.)	Value
Sugar	10	18,000	1.80
Glucose	5	60,000	3.00
Condensed Milk & Butter	5	75,000	3.75
Flavours, Colours etc.	--	--	0.60
Packing Materials @ Rs.6000 per ton	--	--	4.80
		<b>Total</b>	<b>13.95</b>

#### 9.4 Utilities

Annual cost of utilities at 100% utilisation would be Rs.70,000/-.

#### 9.5 Selling Expenses

A provision of 25% of sales income every year would take care of selling commission, sampling, transportation costs, publicity materials etc.

#### 9.6 Interest

Interest on term loan of Rs.4.25 lacs is worked out @ 12% per annum assuming complete repayment in 3 years including a moratorium period of 6 months whereas on working capital from bank it is computed @ 14% per annum.

#### 9.7 Depreciation

It is calculated on WDV basis @ 10% on building and 20% on machinery and miscellaneous assets.

### 10.0 PROJECTED PROFITABILITY

(Rs. in lacs)

No.	Particulars	1st Year	2nd Year
<b>A</b>	<b>Installed Capacity</b>	--- 80 Tonnes ---	
	Capacity Utilisation	60%	75%
	Sales Realisation	19.20	24.00
<b>B</b>	<b>Cost of Production</b>		
	Raw and Packing Materials	8.40	10.50
	Utilities	0.42	0.53
	Salaries	2.52	2.80
	Stores and Spares	0.15	0.21
	Repairs & Maintenance	0.24	0.36
	Selling Expenses @ 25%	4.80	6.00
	Administrative Expenses	0.48	0.60
	<b>Total</b>	<b>17.01</b>	<b>21.00</b>
<b>C</b>	<b>Profit before Interest &amp; Depreciation</b>	<b>2.19</b>	<b>3.00</b>
	Interest on Term Loan	0.41	0.24
	Interest on Working Capital	0.07	0.10
	Depreciation	0.72	0.60
	Profit before Tax	0.99	2.06
	Income-tax @ 20%	--	0.40
	Profit after Tax	0.99	1.66
	Cash Accruals	1.71	2.26
	Repayment of Term Loan	0.75	1.50

## 11.0 BREAK-EVEN ANALYSIS

(Rs. in lacs)

No	Particulars	Amount	
[A]	Sales		19.20
[B]	Variable Costs		
	Raw and Packing Materials	8.40	
	Utilities (70%)	0.29	
	Salaries (70%)	1.76	
	Stores & Spares	0.15	
	Selling Expenses (70%)	3.36	
	Admn Expenses (50%)	0.24	
	Interest on WC	0.07	14.27
[C]	Contribution [A] - [B]		4.93
[D]	Fixed Cost		2.96
[E]	Break-Even Point [D] ÷ [C]		60%

## 12.0 [A] LEVERAGES

### Financial Leverage

$$= \text{EBIT/EBT}$$

$$= 1.47 \div 0.99$$

$$= 1.48$$

### Operating Leverage

$$= \text{Contribution/EBT}$$

$$= 4.93 \div 0.99$$

$$= 4.98$$

### Degree of Total Leverage

$$= \text{FL/OL}$$

$$= 1.48 \div 4.98$$

$$= 0.30$$

**[B] Debt Service Coverage Ratio (DSCR)**

(Rs. in lacs)

Particulars	1st Yr	2nd Yr	3rd Yr
Cash Accruals	1.71	2.26	2.85
Interest on TL	0.41	0.24	0.11
<b>Total [A]</b>	<b>2.12</b>	<b>2.50</b>	<b>2.96</b>
Interest on TL	0.41	0.24	0.11
Repayment of TL	0.85	1.70	1.70
<b>Total [B]</b>	<b>1.26</b>	<b>1.94</b>	<b>1.81</b>
<b>DSCR [A] ÷ [B]</b>	<b>1.68</b>	<b>1.29</b>	<b>1.64</b>
<b>Average DSCR</b>	----- <b>1.54</b> -----		

**[C] Internal Rate of Return (IRR)**

Cost of the Project Rs. 6.05 Lacs.

(Rs. in lacs)

Year	Cash Accruals	24%	28%	32%
1	1.71	1.38	1.34	1.30
2	2.26	1.47	1.38	1.30
3	2.85	1.49	1.36	1.24
4	3.41	1.44	1.27	1.12
5	3.99	1.36	1.16	1.00
	<b>18.68</b>	<b>7.14</b>	<b>6.51</b>	<b>5.96</b>

The IRR is around 29%.

**Some of the machinery suppliers are**

1. AMS Engg, Station road, Patna
2. Prabhat Agency, Siwan 841 226
3. Siwan Foundry, Siwan 841 226