



## **DETAILED PROJECT REPORT**

### **POPCORN MAKING UNIT**

### **UNDER PMFME SCHEME**



National Institute of Food Technology Entrepreneurship and Management

Ministry of Food Processing Industries

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**1. PROJECT SUMMARY**

1. Name of the proposed project	:	Popcorn Making Unit
2. Nature of proposed project	:	Proprietorship/Company/Partnership
3. Proposed project capacity	:	342000 Kg/annum(40,45,50,55&60% capacity utilization in 1 <sup>st</sup> to 5 <sup>th</sup> Year respectively)
4. Raw material	:	Corn Kernels, Salt and butter
5. Major product outputs	:	Popcorn
6. Total project cost	:	Rs. 31.75 Lakh
• Land development, building & Civil Construction	:	Nil
• Machinery and equipment's	:	Rs. 18.25 Lakh
• Miscellaneous Fixed Assets	:	Rs. 3.50 Lakh
• Working capital	:	Rs. 10.00 Lakh
8. Means of Finance		
• Subsidy (max 10lakhs)	:	Rs. 7.61 Lakh
• Promoter's contribution (min10%)	:	Rs. 3.18 Lakh
• Term loan	:	Rs. 11.96 Lakh
• Working Capital Requirement	:	Rs. 9.00 Lakh
9. Profit after Depreciation, Interest & Tax		
• 1 <sup>st</sup> year	:	Rs. 1.87 Lakh
• 2 <sup>nd</sup> year	:	Rs. 4.72 Lakh
• 3 <sup>rd</sup> year	:	Rs. 6.87 Lakh
• 4 <sup>th</sup> year	:	Rs. 10.04 Lakh
• 5 <sup>th</sup> year	:	Rs. 13.15 Lakh
11. Average DSCR	:	Rs. 3.39
12. Term loan repayment	:	5 Years with 6 months grace period

## 2. ABOUT THE PRODUCT

### 2.1. PRODUCT INTRODUCTION:

Mushroom or Butter fly variety of Corn is used to make the popcorn. Popper can be Hot Air based or Oil Kettle Based. At harvesting, popcorn has a moisture content of 16-20%. That's a bit too high. So, to bring it down to 14% they condition the crop in the giant bins pumping more air up through it. Popcorn that's too dry may not pop and if too wet it could spoil when stored.

The content of popcorn kernels is about 14% water. When the kernels are heated, this turns into water vapor at water's boiling point. However, it is trapped by the kernels shell until the pressure builds up enough to crack through. Individual kernel volume (size of the kernel) was correlated with starch content ( $r=0.84$ ).

**Popcorn Varieties-** There are many varieties of corn:

- Sweet Corn – The corn that we eat on the cob
- Field Corn – The corn that is used to feed animals
- Flint Corn – Also called Indian corn, used as a decoration
- Popcorn – The only corn that pops. There are several varieties of popcorn, including rice popcorn, pearl popcorn, red, black, rainbow, yellow, white, and blue. These are known as gourmet specialty popcorn varieties. Some larger popcorn companies employ scientists who are constantly creating new strains and hybrids to improve popcorn's "pop".

### **Popcorn Flavors**

- Salt and butter
- Cheese flavor
- Combination of herbs and spices
- Glazed popcorn- caramel, peanut butter, chocolate, blueberry etc.

## **2.2. MARKET POTENTIAL:**

The popcorn market in India is dominated by the unorganized sector with more than 60% of the share in the overall market. However, the scenario is expected to change due to the growth in the number of multiplexes and popularity of popcorn. The market of popcorn in India is expected to grow at a compound annual rate of 36% between 2016 and 2022. It is considered as the high profit margin industry with minimal processing. There has been a steep rise in the demand of gourmet popcorns these days. Caramel Market is poised to touch USD 2,940.9 Million by 2025 at an impressive 5.6% CAGR during the forecast period (2018-2023), reveals the latest report by Market Research Future (MRFR).

The geographical analysis of the global Caramel Market encompasses four regions – Asia Pacific, North America, Europe, and the Rest of the World (RoW). Among these, Asia Pacific accounted for a major share of the market in 2017 accounting for 34.07% share. It is projected to exhibit a comparatively higher CAGR of 5.9% across the forecast period.

### 2.3. RAW MATERIAL DESCRIPTION:

Popcorn is a rich and centred source of nutrients such as proteins, antioxidants, fibre, vitamin B complex, and others, making it popular for breakfast and meals as a healthy alternative among households. Popcorn is also a good source of polyphenols, in addition to fibre, which are antioxidants that have been associated with increased blood circulation and digestive health, as well as a potentially lower risk of some cancers.

The basic raw materials used are:

- Salt
- Butter
- Corn Kernels

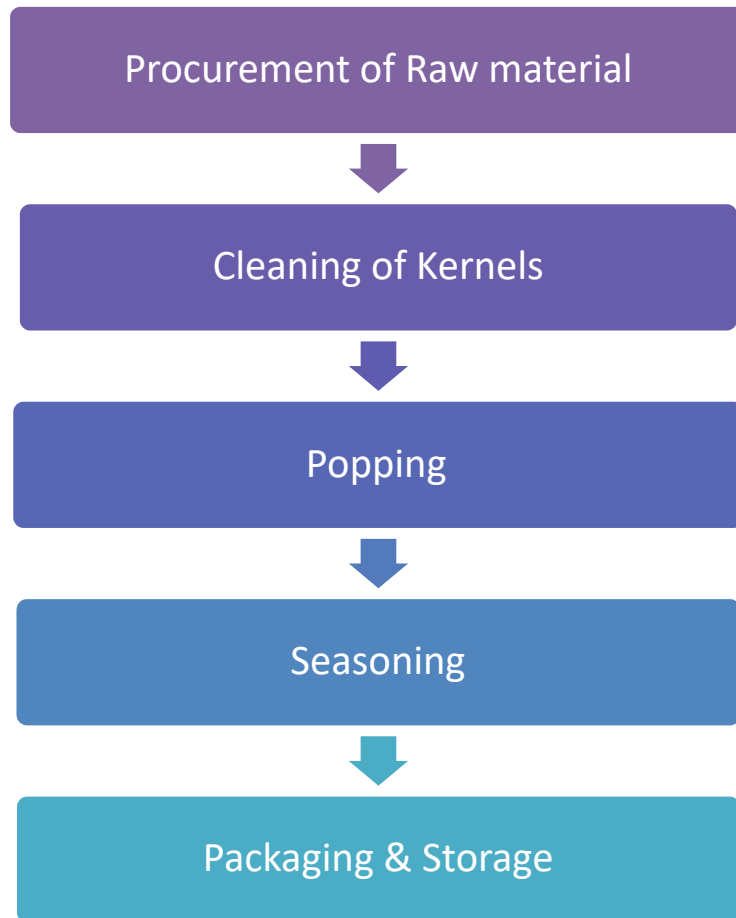
S.N.	Particulars	Rate (Approx.)
1	Corn Kernels	Rs. 18-20/Kg
2	Salt	Rs. 10-12/Kg
3	Butter	Rs. 40-50/Kg

Average raw material cost per 1 kg packet: Rs. 60-70

### 3. PROCESS FLOW CHART

- **Transportation-** The raw material procured from the local vendor and transported to the factory for further processing.
- **Cleaning of kernels-** A cleaner and de-stoner sort out grains and any dirt or particles by passing it through a series of screens to separate. A gravity separator is then used to separate good kernels from bad; the kernels that have matured properly are lighter in weight, so the bad kernels drop through the bottom of the separator and are recycled for use as seed. The kernels near the two ends of the cob also tend to be either too small or too large to pop properly, and the gravity separator removes them as well.
- **Popping:** There are two methods. The dry method consists of putting the un-popped grain in a basket or wire cage, agitating it over a heat source like the campfire or coal stove, allowing the corn to pop, and seasoning it with butter and salt. The general method in caramel popcorn used is the wet-pop method; corn is placed in a container with a solid bottom. Oil is added (either before the corn or poured on top), and the oil helps to distribute the heat and cause more even and complete popping.
- **Seasoning:** The unit consists of a salt coating machine which is used to coat the popped corns for flavouring. Here in this project we are explaining how to make popcorn with salt and butter flavour.

- **Packaging of Product:** Finally, popcorns are packed by a packing machine, which simply seals one end of continuous packaging first, then it simply fills the packet as per required weight & seals the other end, generating the required packet.





## **4. ECONOMICS OF THE PROJECT**

### **4.1. BASIS & PRESUMPTIONS**

1. Production Capacity of Popcorn is 150 kg per hr. First year, Capacity has been taken @ 40%.
2. Working shift of 8 hours per day has been considered.
3. Raw Material stock is for 10 days and Finished goods Closing Stock has been taken for 10 days.
4. Credit period to Sundry Debtors has been given for 14 days.
5. Credit period by the Sundry Creditors has been provided for 10 days.
6. Depreciation and Income tax has been taken as per the Income tax Act, 1961.
7. Interest on working Capital Loan and Term loan has been taken at 11%.
8. Salary and wages rates are taken as per the Current Market Scenario.
9. Power Consumption has been taken at 12 KW.
10. Increase in sales and raw material costing has been taken @ 5% on a yearly basis.

#### 4.2. CAPACITY, UTILIZATION, PRODUCTION & OUTPUT

<b><u>COMPUTATION OF PRODUCTION OF POPCORN</u></b>		
<b>Items to be Manufactured</b>		
Popcorn		
Machine capacity Per hour	150	Kg
Total working Hours	8	
Machine capacity Per Day	1,200	Kg
Working days in a month	25	Days
Working days per annum	300	
Wastage Considered	5%	
Raw material requirement	360000	Kg
Final Output per annum after wastage	342000	Kg
Final Product to be packed in 1 kg packet		
Number of packets per annum	342000	1 Kg Packet

<b>Production of Popcorn</b>		
<b>Production</b>	<b>Capacity</b>	<b>KG</b>
1st year	40%	1,36,800
2nd year	45%	1,53,900
3rd year	50%	1,71,000
4th year	55%	1,88,100
5th year	60%	2,05,200




<b>Raw Material Cost</b>			
<b>Year</b>	<b>Capacity Utilisation</b>	<b>Rate (per Kg)</b>	<b>Amount (Rs. in lacs)</b>
1st year	40%	60.00	86.40
2nd year	45%	63.00	102.06
3rd year	50%	66.00	118.80
4th year	55%	69.00	136.62
5th year	60%	72.00	155.52

<b>COMPUTATION OF SALE</b>					
<b>Particulars</b>	<b>1st year</b>	<b>2nd year</b>	<b>3rd year</b>	<b>4th year</b>	<b>5th year</b>
Op Stock	-	4,560	5,130	5,700	6,270
Production	1,36,800	1,53,900	1,71,000	1,88,100	2,05,200
Less : Closing Stock	4,560	5,130	5,700	6,270	6,840
<b>Net Sale</b>	<b>1,32,240</b>	<b>1,53,330</b>	<b>1,70,430</b>	<b>1,87,530</b>	<b>2,04,630</b>
Sale price per packet	100.00	105.00	110.00	116.00	122.00
<b>Sales (in Lacs)</b>	<b>132.24</b>	<b>161.00</b>	<b>187.47</b>	<b>217.53</b>	<b>249.65</b>




### 4.3. PREMISES/INFRASTRUCTURE

The approximate total area required for complete factory setup is 2000-2500 Sq. ft. for smooth production including storage area. It is expected that the premises will be on rental.

#### 4.4. MACHINERY & EQUIPMENTS

Machine Name	Description	Machine Image.
Gravity Separator	Gravity separator machine may be used to separate any type of dry bulk particles that are similar in size and shape but differs in weight. Gravity separator are suitable for processing of the seeds of corn, Wheat, rice, soybean, sorghum, various vegetables and other agricultural and sideline products.	
Popcorn Making Machine	The hot air popcorn popper is used to dry and puff the corn. It is equipped with compelling ventilation heating system, inner layer airflow baffle, accurate temperature control and tricked insulation layer.	
Popcorn Seasoning Machine	The dried popcorn is put into this machine for seasoning coating.	

PM FME- Detailed Project Report of Popcorn Making Unit

Popcorn filling Machine	This machine is used to package the coated popcorns in the boxes or plastics packages.	
Vibro separator	Vibro separator is used to clean dust contained in the maize, dirt, and other foreign particle etc.	
Material handling Equipments & other equipments.	These Equipments are used for material handling and other equipments like conveyor, bins, etc are also used.	

Machine	Unit	Rate	Price
Gravity Separator (200 kg/hr)	1	80,000	80,000
Popcorn Making Machine (150 kg/hr)	1	5,50,000	5,50,000
Popcorn Seasoning Machine	1	3,50,000	3,50,000
Popcorn filling Machine (40-45 Pouches per Minute)	1	4,80,000	4,80,000
Vibro Separator	1	65,000	65,000
Material handling & other equipments	1	3,00,000	3,00,000

**Note:** Approx. Total Machinery cost shall be Rs 18.25 lakh including equipment's but excluding GST and Transportation Cost.

#### 4.5. MISCELLANEOUS FIXED ASSETS

- Water Supply Arrangements
- Furniture & Fixtures
- Computers & Printers

#### 4.6. TOTAL COST OF PROJECT

<b>COST OF PROJECT</b>	
	(in Lacs)
<b>PARTICULARS</b>	<b>Amount</b>
Land & Building	Owned/Rented
Plant & Machinery	18.25
Miscellaneous Assets	3.50
Working capital	10.00
<b>Total</b>	<b>31.75</b>

#### 4.7. MEANS OF FINANCE

<b>MEANS OF FINANCE</b>	
<b>PARTICULARS</b>	<b>AMOUNT</b>
Own Contribution (min 10%)	3.18
Subsidy @35%(Max. Rs 10 Lac)	7.61
Term Loan @ 55%	11.96
Working Capital (Bank Finance)	9.00
<b>Total</b>	<b>31.75</b>

**4.8. TERM LOAN:** Term loan of Rs. 11.96 Lakh is required for project cost of Rs. 31.75 Lakh

#### 4.9. TERM LOAN REPAYMENT & INTEREST SCHEDULE

REPAYMENT SCHEDULE OF TERM LOAN							
					Interest	11.00%	
Year	Particulars	Amount	Addition	Total	Interest	Repayment	Closing Balance
<b>1st</b>	Opening Balance						
	1st month	-	11.96	11.96	-	-	11.96
	2nd month	11.96	-	11.96	0.11	-	11.96
	3rd month	11.96	-	11.96	0.11	-	11.96
	4th month	11.96	-	11.96	0.11		11.96
	5th month	11.96	-	11.96	0.11		11.96
	6th month	11.96	-	11.96	0.11		11.96
	7th month	11.96	-	11.96	0.11	0.22	11.74
	8th month	11.74	-	11.74	0.11	0.22	11.52
	9th month	11.52	-	11.52	0.11	0.22	11.30
	10th month	11.30	-	11.30	0.10	0.22	11.08
	11th month	11.08	-	11.08	0.10	0.22	10.85
	12th month	10.85	-	10.85	0.10	0.22	10.63
					1.18	1.33	
<b>2nd</b>	Opening Balance						

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1st month	10.63	-	10.63	0.10	0.22	10.41
2nd month	10.41	-	10.41	0.10	0.22	10.19
3rd month	10.19	-	10.19	0.09	0.22	9.97
4th month	9.97	-	9.97	0.09	0.22	9.75
5th month	9.75	-	9.75	0.09	0.22	9.53
6th month	9.53	-	9.53	0.09	0.22	9.30
7th month	9.30	-	9.30	0.09	0.22	9.08
8th month	9.08	-	9.08	0.08	0.22	8.86
9th month	8.86	-	8.86	0.08	0.22	8.64
10th month	8.64	-	8.64	0.08	0.22	8.42
11th month	8.42	-	8.42	0.08	0.22	8.20
12th month	8.20	-	8.20	0.08	0.22	7.97
				<b>1.04</b>	<b>2.66</b>	
<b>3rd</b>	<b>Opening Balance</b>					
1st month	7.97	-	7.97	0.07	0.22	7.75
2nd month	7.75	-	7.75	0.07	0.22	7.53
3rd month	7.53	-	7.53	0.07	0.22	7.31
4th month	7.31	-	7.31	0.07	0.22	7.09
5th month	7.09	-	7.09	0.06	0.22	6.87
6th month	6.87	-	6.87	0.06	0.22	6.65
7th month	6.65	-	6.65	0.06	0.22	6.42
8th month	6.42	-	6.42	0.06	0.22	6.20
9th month	6.20	-	6.20	0.06	0.22	5.98
10th month	5.98	-	5.98	0.05	0.22	5.76



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	11th month	5.76	-	5.76	0.05	0.22	5.54
	12th month	5.54	-	5.54	0.05	0.22	5.32
					<b>0.74</b>	<b>2.66</b>	
<b>4th</b>	Opening Balance						
	1st month	5.32	-	5.32	0.05	0.22	5.10
	2nd month	5.10	-	5.10	0.05	0.22	4.87
	3rd month	4.87	-	4.87	0.04	0.22	4.65
	4th month	4.65	-	4.65	0.04	0.22	4.43
	5th month	4.43	-	4.43	0.04	0.22	4.21
	6th month	4.21	-	4.21	0.04	0.22	3.99
	7th month	3.99	-	3.99	0.04	0.22	3.77
	8th month	3.77	-	3.77	0.03	0.22	3.54
	9th month	3.54	-	3.54	0.03	0.22	3.32
	10th month	3.32	-	3.32	0.03	0.22	3.10
	11th month	3.10	-	3.10	0.03	0.22	2.88
	12th month	2.88	-	2.88	0.03	0.22	2.66
					<b>0.45</b>	<b>2.66</b>	
<b>5th</b>	Opening Balance						
	1st month	2.66	-	2.66	0.02	0.22	2.44
	2nd month	2.44	-	2.44	0.02	0.22	2.22
	3rd month	2.22	-	2.22	0.02	0.22	1.99
	4th month	1.99	-	1.99	0.02	0.22	1.77
	5th month	1.77	-	1.77	0.02	0.22	1.55
	6th month	1.55	-	1.55	0.01	0.22	1.33
	7th month	1.33	-		0.01	0.22	1.11

			1.33			
8th month	1.11	-	1.11	0.01	0.22	0.89
9th month	0.89	-	0.89	0.01	0.22	0.66
10th month	0.66	-	0.66	0.01	0.22	0.44
11th month	0.44	-	0.44	0.00	0.22	0.22
12th month	0.22	-	0.22	0.00	0.22	-
				<b>0.16</b>	<b>2.66</b>	
DOOR TO DOOR MORATORIUM PERIOD	60	MONTHS				
	6	MONTHS				
REPAYMENT PERIOD	54	MONTHS				

#### 4.10. WORKING CAPITAL CALCULATIONS

<b>COMPUTATION OF CLOSING STOCK &amp; WORKING CAPITAL</b>						(in Lacs)
<b>PARTICULARS</b>	<b>1st year</b>	<b>2nd year</b>	<b>3rd year</b>	<b>4th year</b>	<b>5th year</b>	
<b><u>Finished Goods</u></b>						
	4.03	4.73	5.47	6.28	7.14	
<b><u>Raw Material</u></b>						
	2.88	3.40	3.96	4.55	5.18	
<b>Closing Stock</b>	<b>6.91</b>	<b>8.14</b>	<b>9.43</b>	<b>10.83</b>	<b>12.32</b>	

<b>COMPUTATION OF WORKING CAPITAL REQUIREMENT</b>					
<b>TRADITIONAL METHOD</b>					<b>(in Lacs)</b>
<b>Particulars</b>	<b>Amount</b>	<b>Own Margin</b>		<b>Bank Finance</b>	
Finished Goods & Raw Material	6.91				
Less : Creditors	2.88				
<b>Paid stock</b>	<b>4.03</b>	<b>10%</b>	<b>0.40</b>	<b>90%</b>	<b>3.62</b>
<b>Sundry Debtors</b>	<b>6.17</b>	<b>10%</b>	<b>0.62</b>	<b>90%</b>	<b>5.55</b>
	<b>10.20</b>		<b>1.02</b>		<b>9.18</b>
<b>MPBF</b>					<b>9.18</b>
<b>WORKING CAPITAL LIMIT DEMAND ( from Bank)</b>					<b>9.00</b>
<b>Working Capital Margin</b>					<b>1.00</b>

#### 4.11. SALARY & WAGES

<b><u>BREAK UP OF LABOUR CHARGES</u></b>			
<b>Particulars</b>	<b>Wages</b>	<b>No of</b>	<b>Total</b>
	<b>Rs. per Month</b>	<b>Employees</b>	<b>Salary</b>
Machine Operator	15,000	2	30,000
Supervisor	20,000	1	20,000
Skilled (in thousand rupees)	12,000	4	48,000
Unskilled (in thousand rupees)	8,500	4	34,000
<b>Total salary per month</b>			<b>1,32,000</b>
<b>Total annual labour charges</b>	<b>(in lacs)</b>		<b>15.84</b>

<b><u>BREAK UP OF STAFF SALARY CHARGES</u></b>			
<b>Particulars</b>	<b>Salary Rs. per Month</b>	<b>No of Employees</b>	<b>Total Salary</b>
Administrative Staff	8,000	2	16,000
Manager	18,000	1	18,000
Accountant	15,000	1	15,000
<b>Total salary per month</b>			<b>49,000</b>
<b>Total annual Staff charges</b>	<b>(in lacs)</b>		<b>5.88</b>

#### 4.12 POWER REQUIREMENT

<b>Utility Charges (per month)</b>		
<b>Particulars</b>	<b>value</b>	<b>Description</b>
Power connection required		12 KWH
consumption per day		96 units
Consumption per month	2,400 units	
Rate per Unit	10 Rs.	
power Bill per month	24,000 Rs.	

**4.13. DEPRECIATION CALCULATION**

<b>COMPUTATION OF DEPRECIATION</b>			(in Lacs)
<b>Description</b>	<b>Plant &amp; Machinery</b>	<b>Miss. Assets</b>	<b>TOTAL</b>
Rate of Depreciation	<b>15.00%</b>	<b>10.00%</b>	
<b>Opening Balance</b>	-	-	-
Addition	18.25	3.50	21.75
Total	18.25	3.50	21.75
Less : Depreciation	2.74	0.35	3.09
<b>WDV at end of Year</b>	<b>15.51</b>	<b>3.15</b>	<b>18.66</b>
Additions During The Year	-	-	-
Total	15.51	3.15	18.66
Less : Depreciation	2.33	0.32	2.64
<b>WDV at end of Year</b>	<b>13.19</b>	<b>2.84</b>	<b>16.02</b>
Additions During The Year	-	-	-
Total	13.19	2.84	16.02
Less : Depreciation	1.98	0.28	2.26
<b>WDV at end of Year</b>	<b>11.21</b>	<b>2.55</b>	<b>13.76</b>
Additions During The Year	-	-	-
Total	11.21	2.55	13.76
Less : Depreciation	1.68	0.26	1.94
<b>WDV at end of Year</b>	<b>9.53</b>	<b>2.30</b>	<b>11.82</b>
Additions During The Year	-	-	-
Total	9.53	2.30	11.82
Less : Depreciation	1.43	0.23	1.66
<b>WDV at end of Year</b>	<b>8.10</b>	<b>2.07</b>	<b>10.16</b>

**4.14. REPAIR & MAINTENANCE:** Repair & Maintenance is 3.0% of Gross Sale.

#### 4.15. PROJECTIONS OF PROFITABILITY ANALYSIS

<b><u>PROJECTED PROFITABILITY STATEMENT</u></b>						<b>(in Lacs)</b>
<b>PARTICULARS</b>	<b>1st year</b>	<b>2nd year</b>	<b>3rd year</b>	<b>4th year</b>	<b>5th year</b>	
Capacity Utilisation %	<b>40%</b>	<b>45%</b>	<b>50%</b>	<b>55%</b>	<b>60%</b>	
<b><u>SALES</u></b>						
<b>Gross Sale</b>						
Popcorn	132.24	161.00	187.47	217.53	249.65	
<b>Total</b>	<b>132.24</b>	<b>161.00</b>	<b>187.47</b>	<b>217.53</b>	<b>249.65</b>	
<b><u>COST OF SALES</u></b>						
Raw Material Consumed	86.40	102.06	118.80	136.62	155.52	
Electricity Expenses	2.88	3.31	3.81	4.38	4.82	
Depreciation	3.09	2.64	2.26	1.94	1.66	
Wages & labour	15.84	18.69	21.49	24.72	28.43	
Repair & maintenance	3.97	4.83	5.62	6.53	7.49	
Packaging	8.60	10.46	12.19	14.14	16.23	
<b>Cost of Production</b>	<b>120.77</b>	<b>142.00</b>	<b>164.17</b>	<b>188.32</b>	<b>214.14</b>	
<b>Add: Opening Stock /WIP</b>	<b>-</b>	<b>4.03</b>	<b>4.73</b>	<b>5.47</b>	<b>6.28</b>	
<b>Less: Closing Stock /WIP</b>	<b>4.03</b>	<b>4.73</b>	<b>5.47</b>	<b>6.28</b>	<b>7.14</b>	
Cost of Sales	116.74	141.29	163.44	187.52	213.28	
<b>GROSS PROFIT</b>	<b>15.50</b>	<b>19.70</b>	<b>24.04</b>	<b>30.02</b>	<b>36.37</b>	
	<b>11.72%</b>	<b>12.24%</b>	<b>12.82%</b>	<b>13.80%</b>	<b>14.57%</b>	
Salary to Staff	5.88	6.59	7.64	8.86	10.10	
Interest on Term Loan	1.18	1.04	0.74	0.45	0.16	
Interest on working Capital	0.99	0.99	0.99	0.99	0.99	
Rent	3.60	3.96	4.36	4.79	5.27	
selling & adm exp	1.98	2.41	2.81	3.26	3.74	
<b>TOTAL</b>	<b>13.63</b>	<b>14.99</b>	<b>16.54</b>	<b>18.36</b>	<b>20.27</b>	
<b>NET PROFIT</b>	<b>1.87</b>	<b>4.72</b>	<b>7.50</b>	<b>11.66</b>	<b>16.10</b>	
	<b>1.41%</b>	<b>2.93%</b>	<b>4.00%</b>	<b>5.36%</b>	<b>6.45%</b>	
Taxation	-	-	0.62	1.62	2.96	
<b>PROFIT (After Tax)</b>	<b>1.87</b>	<b>4.72</b>	<b>6.87</b>	<b>10.04</b>	<b>13.15</b>	

#### 4.16. BREAK EVEN POINT ANALYSIS

<b>BREAK EVEN POINT ANALYSIS</b>					
<b>Year</b>	<b>I</b>	<b>II</b>	<b>III</b>	<b>IV</b>	<b>V</b>
<b>Net Sales &amp; Other Income</b>	132.24	161.00	187.47	217.53	249.65
Less : Op. WIP Goods	-	4.03	4.73	5.47	6.28
Add : Cl. WIP Goods	4.03	4.73	5.47	6.28	7.14
<b>Total Sales</b>	<b>136.27</b>	<b>161.70</b>	<b>188.21</b>	<b>218.34</b>	<b>250.51</b>
<b>Variable &amp; Semi Variable Exp.</b>					
Raw Material Consumed	86.40	102.06	118.80	136.62	155.52
Electricity Exp/Coal Consumption at 85%	2.45	2.82	3.24	3.72	4.10
Wages & Salary at 60%	13.03	15.17	17.48	20.15	23.12
Selling & administrative Expenses 80%	1.59	1.93	2.25	2.61	3.00
Interest on working Capital	0.99	0.99	0.99	0.99	0.99
Repair & maintenance	3.97	4.83	5.62	6.53	7.49
Packaging	8.60	10.46	12.19	14.14	16.23
<b>Total Variable &amp; Semi Variable Exp</b>	<b>117.02</b>	<b>138.26</b>	<b>160.57</b>	<b>184.76</b>	<b>210.44</b>
<b>Contribution</b>	<b>19.25</b>	<b>23.45</b>	<b>27.64</b>	<b>33.58</b>	<b>40.07</b>
<b>Fixed &amp; Semi Fixed Expenses</b>					
Electricity Exp/Coal Consumption at 15%	0.43	0.50	0.57	0.66	0.72
Wages & Salary at 40%	8.69	10.11	11.65	13.43	15.41
Interest on Term Loan	1.18	1.04	0.74	0.45	0.16
Depreciation	3.09	2.64	2.26	1.94	1.66
Selling & administrative Expenses 20%	0.40	0.48	0.56	0.65	0.75
Rent	3.60	3.96	4.36	4.79	5.27
<b>Total Fixed Expenses</b>	<b>17.38</b>	<b>18.73</b>	<b>20.15</b>	<b>21.92</b>	<b>23.97</b>
<b>Capacity Utilization</b>	<b>40%</b>	<b>45%</b>	<b>50%</b>	<b>55%</b>	<b>60%</b>
<b>OPERATING PROFIT</b>	<b>1.87</b>	<b>4.72</b>	<b>7.50</b>	<b>11.66</b>	<b>16.10</b>
<b>BREAK EVEN POINT</b>	<b>36%</b>	<b>36%</b>	<b>36%</b>	<b>36%</b>	<b>36%</b>
<b>BREAK EVEN SALES</b>	<b>123.05</b>	<b>129.16</b>	<b>137.17</b>	<b>142.52</b>	<b>149.85</b>

**4.17. PROJECTED BALANCE SHEET**

<b><u>PROJECTED BALANCE SHEET</u></b>						<b>(in Lacs)</b>
<b>PARTICULARS</b>	<b>1st year</b>	<b>2nd year</b>	<b>3rd year</b>	<b>4th year</b>	<b>5th year</b>	
<b><u>Liabilities</u></b>						
Capital						
opening balance		10.65	12.87	15.24	18.28	
Add:- Own Capital	3.18					
Add:- Retained Profit	1.87	4.72	6.87	10.04	13.15	
Less:- Drawings	2.00	2.50	4.50	7.00	9.00	
Subsidy/grant	7.61					
Closing Balance	10.65	12.87	15.24	18.28	22.43	
Term Loan	10.63	7.97	5.32	2.66	-	
Working Capital Limit	9.00	9.00	9.00	9.00	9.00	
Sundry Creditors	2.88	3.40	3.96	4.55	5.18	
Provisions & Other Liab	0.40	0.50	0.60	0.72	0.86	
<b>TOTAL :</b>	<b>33.57</b>	<b>33.75</b>	<b>34.12</b>	<b>35.21</b>	<b>37.48</b>	
<b><u>Assets</u></b>						
<b>Fixed Assets ( Gross)</b>	21.75	21.75	21.75	21.75	21.75	
Gross Dep.	3.09	5.73	7.99	9.93	11.59	
<b>Net Fixed Assets</b>	<b>18.66</b>	<b>16.02</b>	<b>13.76</b>	<b>11.82</b>	<b>10.16</b>	
<b>Current Assets</b>						
Sundry Debtors	6.17	7.51	8.75	10.15	11.65	
Stock in Hand	6.91	8.14	9.43	10.83	12.32	
Cash and Bank	1.83	2.08	2.18	2.41	3.34	
<b>TOTAL :</b>	<b>33.57</b>	<b>33.75</b>	<b>34.12</b>	<b>35.21</b>	<b>37.48</b>	



**4.18. CASH FLOW STATEMENT**

<b><u>PROJECTED CASH FLOW STATEMENT</u></b>						<b>(in Lacs)</b>
<b>PARTICULARS</b>	<b>1st year</b>	<b>2nd year</b>	<b>3rd year</b>	<b>4th year</b>	<b>5th year</b>	
<b><u>SOURCES OF FUND</u></b>						
Own Margin	3.18					
Net Profit	1.87	4.72	7.50	11.66	16.10	
Depriciation & Exp. W/off	3.09	2.64	2.26	1.94	1.66	
Increase in Cash Credit	9.00	-	-	-	-	
Increase In Term Loan	11.96	-	-	-	-	
Increase in Creditors	2.88	0.52	0.56	0.59	0.63	
Increase in Provisions & Oth lib	0.40	0.10	0.10	0.12	0.14	
Sunsidy/grant	7.61					
<b>TOTAL :</b>	<b>39.98</b>	<b>7.98</b>	<b>10.42</b>	<b>14.31</b>	<b>18.54</b>	
<b><u>APPLICATION OF FUND</u></b>						
Increase in Fixed Assets	21.75					
Increase in Stock	6.91	1.23	1.30	1.40	1.49	
Increase in Debtors	6.17	1.34	1.24	1.40	1.50	
Repayment of Term Loan	1.33	2.66	2.66	2.66	2.66	
Drawings	2.00	2.50	4.50	7.00	9.00	
Taxation	-	-	0.62	1.62	2.96	
<b>TOTAL :</b>	<b>38.16</b>	<b>7.73</b>	<b>10.32</b>	<b>14.08</b>	<b>17.60</b>	
Opening Cash & Bank Balance	-	1.83	2.08	2.18	2.41	
Add : Surplus	1.83	0.25	0.10	0.23	0.93	
Closing Cash & Bank Balance	<b>1.83</b>	<b>2.08</b>	<b>2.18</b>	<b>2.41</b>	<b>3.34</b>	

**4.19. DEBT SERVICE COVERAGE RATIO**

<b><u>CALCULATION OF D.S.C.R</u></b>					
<b>PARTICULARS</b>	<b>1st year</b>	<b>2nd year</b>	<b>3rd year</b>	<b>4th year</b>	<b>5th year</b>
CASH ACCRUALS	4.95	7.36	9.13	11.97	14.81
Interest on Term Loan	1.18	1.04	0.74	0.45	0.16
<b>Total</b>	<b>6.13</b>	<b>8.40</b>	<b>9.88</b>	<b>12.43</b>	<b>14.96</b>
<b><u>REPAYMENT</u></b>					
Instalment of Term Loan	1.33	2.66	2.66	2.66	2.66
Interest on Term Loan	1.18	1.04	0.74	0.45	0.16
<b>Total</b>	<b>2.50</b>	<b>3.69</b>	<b>3.40</b>	<b>3.11</b>	<b>2.82</b>
<b>DEBT SERVICE COVERAGE RATIO</b>	<b>2.45</b>	<b>2.27</b>	<b>2.90</b>	<b>4.00</b>	<b>5.31</b>
<b>AVERAGE D.S.C.R.</b>	<b>3.39</b>				