

PROJECT REPORT

Of

ICE CREAM

PURPOSE OF THE DOCUMENT

This particular pre-feasibility is regarding **Ice Cream Unit**.

The objective of the pre-feasibility report is primarily to facilitate potential entrepreneurs in project identification for investment and in order to serve his objective; the document covers various aspects of the project concept development, start-up, marketing, finance and management.

[We can modify the project capacity and project cost as per your requirement. We can also prepare project report on any subject as per your requirement.]



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PROJECT REPORT

ON

'ICE CREAM'



INTRODUCTION:

Ice Cream is a popular food product. It was considered as a luxury food for summer season only. However, with the development of Dairy and Milk processing industry it has also found use as a Dessert. The Bureau of Indian Standards have formulated IS2802:1964 for performed Ice Cream and IS5839:1970 for hygienic conditions for manufacture, storage and sale of Perfumed Ice Cream. Average Ice Cream and Premium Ice Cream differ in solid content as below:

Sl.No.	Ingredient	Content as percent in	
		Average Ice Cream	Premium Ice Cream
1.	Milk Fat	10.5%	16.0%
2.	Non Fat Milk solids	11.0%	9.0%
3.	Sucrose	12.5%	16.0%
4.	Corn syrup	5.5%	-
5.	Stabilizers	0.3%	0.1%
6.	Emulsifier	0.1%	-
	Total solids	39.9%	41.1%

One hundred grams of Ice Cream contain more than 200 calories and 4% protein, besides Minerals and Vitamins.

MARKET:

Ice Cream is consumed as Dessert as well as anytime snacks. Its demand peak in Summer months. Railways are the most important bulk consumer of Ice Cream. Hotels, Restaurants, Resorts and flight kitchens are other bulk consumers. Sales through vendors and shops attract other consumers the most. Street vendors find good market for Ice Creams among school children.

Ice cream is consumed both as Dessert and as anytime snacks, street vendors find excellent market for Ice Cream among school children. Brand consciousness in rural and semi urban areas is comparatively less and hence local Brands sells well. Bulk consumption of Ice Cream in hotels, Restaurants, etc. is by far less than national average.

CAPACITY:

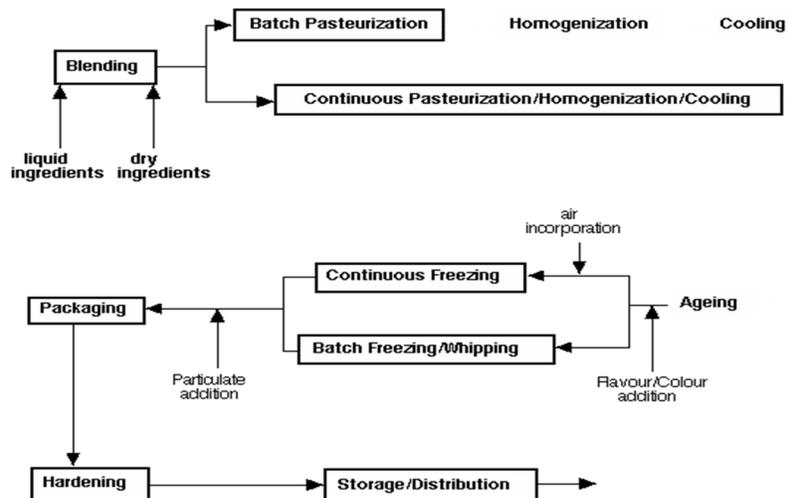
The Unit shall single shift of eight hours per day for three hundred working days per annum. Accordingly it will have an annual installed capacity to produce 75,000 kgs of Ice Cream per annum.

PROCESS OF MANUFACTURE:

the process suggested here is the one tested and practiced all over India. Milk shall be pasteurized in Steam- Jacketed SS Vessel. Milk, Cream, Butter and Sugar in exact quantities shall be mixed in a SS Homogenizer. The Mix shall be Pasteurized again. Emulsifiers and Stabilizers shall be added to the mix and blended. This mix is further homogenized so that the globule sizes are 4 microns or less. The mixture is cooled again and kept cool for at least 24 hours at 4degreeC to 0degreeC. Flavors and colours are added prior to cooling. The mixture is cooled again below 0degreeC for hardening in a Batch Freezer. Ice Cream is packed in small cups and as cones with Wooden/Bamboo handles. For cups and cubes the above process suffice. For cones the Ice Cream is placed inside moulds with the handle for deep freezing. Such cones are packed in Plastic/Paper packets. Ice Cream in Cups and Cones shall be vended in Cooled Hand Carts by authorized vendors in and around towns. Vendors are given 35% of sales realization as Commission and they work for the Commission only. Basic steps in the manufacturing of ice cream are generally as follows:

- Blending of the mix ingredients
- Pasteurization
- Homogenization
- Aging the mix
- Freezing
- Packaging
- Hardening

PROCESS FLOW:



Printed Ice Cream cups, paper cover and sticks shall be bulk purchased from outside the state and these packing materials shall be stored for 3 months. Milk shall be stored for one day only. Other raw-materials shall be stored for a week.

FSSAI LICENSE: FSSAI License is issued by the Food Safety and Standards Authority of India (FSSAI), Ministry of Family Health & Welfare, Government of India. Application to commence a food business must be made to the FSSAI in the prescribed format. Based on the application and supporting documents, FSSAI will accord approval. The Food Safety and Standards (Licensing and Registration of Food Businesses) Regulations 2011 introduced to improve the hygiene and quality of food has brought about tremendous changes in the food industry. As per the Act, no person shall commence or carry on any food business except under a FSSAI license or FSSAI registration. Therefore, any food manufacturing or processing or packaging or distributing entity is now required to obtain a FSSAI License or Registration.

PROJECT AT A GLANCE

- 1 Name of the Entrepreneur : XXXXXXXX
- 2 Constitution (legal Status) : XXXXXXXX
- 3 Father's/Spouce's Name : XXXXXXXX
- 4 Unit Address : XXXXXXXX
- Taluk/Block: XXXXX
 District : XXXXX
 Pin: XXXXX State:
 E-Mail : XXXXX
 Mobile XXXXX
- 5 Product and By Product : **Ice cream**
- 6 Name of the project / business activity proposed : **Ice cream**
- 7 Cost of Project : Rs25.00lac
- 8 Means of Finance
 Term Loan Rs.17.73 Lacs
 KVIC Margin Money - As per Project Eligibility
 Own Capital Rs.2.5 Lacs
 Working Capital Rs.4.77 Lacs
- 9 Debt Service Coverage Ratio : 2.40
- 10 Pay Back Period : 5 Years
- 11 Project Implementation Period : 6 Months
- 12 Break Even Point : 42%
- 13 Employment : 11 Persons
- 14 Power Requirement : 25.00 HP
- 15 Major Raw materials : **Milk, Butter , cream, Sugar,Emulsifier**
 Corn syrup, Packagings
- 16 Estimated Annual Sales Turnover : 57.71 Lacs
- 16 Detailed Cost of Project & Means of Finance

COST OF PROJECT

(Rs. In Lacs)

Particulars	Amount
Land	Rented/Owned
Building & Civil Work (2000 Sq Ft)	2.00
Plant & Machinery	16.70
Furniture & Fixtures	0.50
Pre-operative Expenses	0.50
Working Capital Requirement	5.30
Total	25.00

MEANS OF FINANCE

Particulars	Amount
Own Contribution @10%	2.50
Term Loan	17.73
Workign Capital Finance	4.77
Total	25.00

	General	Special
Beneficiary's Margin Money	10%	5%
(% of Project Cost)		

PLANT & MACHINERY			
PARTICULARS	QTY.	RATE	AMOUNT IN RS.
2No of 300 Ltr. Capacity SS Milk Storage Tanks	2.00		
One 400 Ltrs capacity SS steam Jacketed Pan	1.00		
One ss steam Jacketed Pasteuriser of 320 Ltrs. Capacity with	1.00		
6 HP Motor for Agitator	1.00		
One SS Two stage Homogeniser of 350 Liter capacity with water cooling	1.00		
system operating at 300 PSI with 4.5 H.P. Motor, pressure gauge etc.	1.00		
One SS Surface Cooler (4.4 @C to 0@C) in two sections: water cooled and gas cooled	1.00		
One SS Agency vat/storage Tank of 300 Liters capacity with copper coil of 50 ft. lengthand condensation unit	1.00		
One 35 Liter capacity Batch freezer with 9.0 TR and 6HP Compressor	1.00		
One Deep Freeze	1.00		
One volumetric filling machine	1.00		
One Baby Boiler (Non-IBR)	1.00		
			#####

PROJECTED CASH FLOW STATEMENT

PARTICULARS	IST YEAR	IIND YEAR	IIIRD YEAR	IVTH YEAR	VTH YEAR
<u>SOURCES OF FUND</u>					
Share Capital	2.50	-	-	-	-
Reserve & Surplus	4.61	6.79	9.84	12.72	15.40
Depriciation & Exp. W/off	2.73	2.36	2.01	1.72	1.47
Increase in Cash Credit	4.78	-	-	-	-
Increase In Term Loan	17.73	-	-	-	-
Increase in Creditors	1.62	0.27	0.27	0.27	0.27
Increase in Provisions	0.36	0.04	0.04	0.04	0.05
TOTAL :	34.34	9.45	12.17	14.76	17.19
<u>APPLICATION OF FUND</u>					
Increase in Fixed Assets	19.20	-	-	-	-
Increase in Stock	4.05	0.33	0.53	0.53	0.53
Increase in Debtors	2.89	0.63	0.51	0.51	0.51
Increase in Deposits & Adv	2.50	0.25	0.28	0.30	0.33
Repayment of Term Loan	-	4.43	4.43	4.43	3.32
Taxation	-	0.68	1.97	2.54	3.08
TOTAL :	28.64	5.66	7.71	8.32	7.77
Opening Cash & Bank Balance	-	5.70	9.49	13.95	20.39
Add : Surplus	5.70	3.79	4.46	6.44	9.42
Closing Cash & Bank Balance	5.70	9.49	13.95	20.39	29.81

PROJECTED BALANCE SHEET

PARTICULARS	IST YEAR	IIND YEAR	IIRD YEAR	IVTH YEAR	VTH YEAR
<u>SOURCES OF FUND</u>					
Capital Account	2.50	2.50	2.50	2.50	2.50
Retained Profit	4.61	10.72	18.60	28.77	41.09
Term Loan	17.73	13.30	8.87	4.43	1.12
Cash Credit	4.78	4.78	4.78	4.78	4.78
Sundry Creditors	1.62	1.89	2.16	2.43	2.70
Provisions & Other Liab	0.36	0.40	0.44	0.48	0.53
TOTAL :	31.61	33.59	37.34	43.40	52.72
<u>APPLICATION OF FUND</u>					
Fixed Assets (Gross)	19.20	19.20	19.20	19.20	19.20
Gross Dep.	2.73	5.09	7.10	8.82	10.30
Net Fixed Assets	16.47	14.11	12.10	10.38	8.90
Current Assets					
Sundry Debtors	2.89	3.52	4.02	4.53	5.04
Stock in Hand	4.05	3.72	4.25	4.78	5.31
Cash and Bank	5.70	9.49	13.95	20.39	29.81
Deposits & Advances	2.50	2.75	3.03	3.33	3.66
TOTAL :	31.61	33.59	37.34	43.40	52.72
	-	-	-	-	-

PROJECTED PROFITABILITY STATEMENT

PARTICULARS	IST YEAR	IIND YEAR	IIRD YEAR	IVTH YEAR	VTH YEAR
<u>A) SALES</u>					
Gross Sale	57.71	70.37	80.49	90.62	100.74
Total (A)	57.71	70.37	80.49	90.62	100.74
<u>B) COST OF SALES</u>					
Raw Mateiral Consumed	32.44	37.84	43.25	48.65	54.06
Elecricity Expenses	4.30	5.02	5.74	6.45	7.17
Repair & Maintenance	-	0.70	0.80	0.91	1.01
Labour & Wages	9.11	10.02	11.02	12.12	13.34
Depriciation	2.73	2.36	2.01	1.72	1.47
Consumables and Other Expense	1.15	1.41	1.61	1.81	2.01
Cost of Production	49.73	57.35	64.43	71.67	79.06
Add: Opening Stock /WIP	-	2.43	2.84	3.24	3.65
Less: Closing Stock /WIP	2.43	2.84	3.24	3.65	4.05
Cost of Sales (B)	47.30	56.94	64.03	71.26	78.65
<u>C) GROSS PROFIT (A-B)</u>					
	10.41	13.43	16.47	19.35	22.09
	18%	19%	20%	21%	22%
D) Bank Interest (Term Loan)	1.53	1.85	1.34	0.83	0.33
Bank Interest (C.C. Limit)	0.48	0.48	0.48	0.48	0.48
E) Salary to Staff	2.64	2.90	3.19	3.51	3.87
F) Selling & Adm Expenses Exp.	1.15	1.41	1.61	1.81	2.01
TOTAL (D+E)	5.80	6.64	6.62	6.63	6.69
H) NET PROFIT	4.61	6.79	9.84	12.72	15.40
I) Taxation	-	0.68	1.97	2.54	3.08
J) PROFIT (After Tax)	4.61	6.11	7.88	10.18	12.32

COMPUTATION OF MANUFACTURING OF ICE CREAM

Items to be Manufactured

ICE CREAM

Manufacturing Capacity per day	-	0.25	MT
	-		
No. of Working Hour		8	
No of Working Days per month		25	
No. of Working Day per annum		300	
Total Production per Annum		75.00	MT
Year		Capacity	MT
		Utilisation	
IST YEAR		60%	45
IIND YEAR		70%	53
IIIRD YEAR		80%	60
IVTH YEAR		90%	68
VTH YEAR		100%	75

COMPUTATION OF RAW MATERIAL

Item Name		Quantity of Raw Material	Recovery	Unit Rate of /MT	Total Cost Per Annum (100%)
Milk	Ltrs	54,000.00	100%	30.00	1,620,000.00
Cream	Kg	6,300.00		70.00	441,000.00
Butter	Kg	2,200.00		400.00	880,000.00
sugar	Kg	10,900.00		35.00	381,500.00
Stabilizers & Emulsifiers & flavour	Kg	3,225.00		200.00	645,000.00
Corn syrup	Kg	4,200.00		30.00	126,000.00
Printed Ice Cream cups	nos	750,000.00		1.00	750,000.00
Ice cream sticks	nos	750,000.00		0.25	187,500.00
Printed paper cover	nos	750,000.00		0.50	375,000.00

Total (Rounded off in lacs)

5,406,000.00

Annual Consumption cost

(In Lacs)

54.06

Raw Material Consumed	Capacity Utilisation	Amount (Rs.)
IST YEAR	60%	32.44
IIND YEAR	70%	37.84
IIIRD YEAR	80%	43.25
IVTH YEAR	90%	48.65
VTH YEAR	100%	54.06

COMPUTATION OF CLOSING STOCK & WORKING CAPITAL

PARTICULARS	IST YEAR	IIND YEAR	IIIRD YEAR	IVTH YEAR	VTH YEAR
<u>Finished Goods</u>					
(15 Days requirement)	2.43	2.84	3.24	3.65	4.05
<u>Raw Material</u>					
(15 Days requirement)	1.62	0.88	1.01	1.14	1.26
Closing Stock	4.05	3.72	4.25	4.78	5.31

COMPUTATION OF WORKING CAPITAL REQUIREMENT

Particulars			Total Amount
Stock in Hand			4.05
Sundry Debtors			2.89
		Total	6.94
Sundry Creditors			1.62
Working Capital Requirement			5.32
Margin			0.53
Working Capital Finance			4.78

BREAK UP OF LABOUR

Particulars		Wages Per Month	No of Employees	Total Salary
Machine operator		12,000.00	1	12,000.00
Skilled Worker		9,000.00	3	27,000.00
Semi skilled Worker		6,000.00	5	30,000.00
				69,000.00
Add: 10% Fringe Benefit				6,900.00
Total Labour Cost Per Month				75,900.00
Total Labour Cost for the year (In Rs. Lakhs)			9	9.11

BREAK UP OF SALARY

Particulars		Salary Per Month	No of Employees	Total Salary
Accountant		8,000.00	1	8,000.00
Sales Representative		12,000.00	1	12,000.00
Total Salary Per Month				20,000.00
Add: 10% Fringe Benefit				2,000.00
Total Salary for the month				22,000.00
Total Salary for the year (In Rs. Lakhs)			2	2.64

COMPUTATION OF DEPRECIATION

Description	Land	Building/shed	Plant & Machinery	Furniture	TOTAL
Rate of Depreciation		10.00%	15.00%	10.00%	
Opening Balance	Leased	-	-	-	-
Addition	-	2.00	16.70	0.50	19.20
	-	2.00	16.70	0.50	19.20
Less : Depreciation	-	0.20	2.51	0.03	2.73
WDV at end of Ist year	-	1.80	14.20	0.48	16.47
Additions During The Year	-	-	-	-	-
	-	1.80	14.20	0.48	16.47
Less : Depreciation	-	0.18	2.13	0.05	2.36
WDV at end of IIInd Year	-	1.62	12.07	0.43	14.11
Additions During The Year	-	-	-	-	-
	-	1.62	12.07	0.43	14.11
Less : Depreciation	-	0.16	1.81	0.04	2.01
WDV at end of IIIrd year	-	1.46	10.26	0.38	12.10
Additions During The Year	-	-	-	-	-
	-	1.46	10.26	0.38	12.10
Less : Depreciation	-	0.15	1.54	0.04	1.72
WDV at end of IV year	-	1.31	8.72	0.35	10.38
Additions During The Year	-	-	-	-	-
	-	1.31	8.72	0.35	10.38
Less : Depreciation	-	0.13	1.31	0.03	1.47
WDV at end of Vth year	-	1.18	7.41	0.31	8.90

REPAYMENT SCHEDULE OF TERM LOAN

11.5%

Year	Particulars	Amount	Addition	Total	Interest	Repayment	CI Balance
IST YEAR	Opening Balance						
	Ist Quarter	-	17.73	17.73	-	-	17.73
	Iind Quarter	17.73	-	17.73	0.51	-	17.73
	IIIrd Quarter	17.73	-	17.73	0.51	-	17.73
	Ivth Quarter	17.73	-	17.73	0.51	-	17.73
					1.53	-	
IIND YEAR	Opening Balance						
	Ist Quarter	17.73	-	17.73	0.51	1.11	16.62
	Iind Quarter	16.62	-	16.62	0.48	1.11	15.51
	IIIrd Quarter	15.51	-	15.51	0.45	1.11	14.41
	Ivth Quarter	14.41	-	14.41	0.41	1.11	13.30
					1.85	4.43	
IIIRD YEAR	Opening Balance						
	Ist Quarter	13.30	-	13.30	0.38	1.11	12.19
	Iind Quarter	12.19	-	12.19	0.35	1.11	11.08
	IIIrd Quarter	11.08	-	11.08	0.32	1.11	9.97
	Ivth Quarter	9.97	-	9.97	0.29	1.11	8.87
					1.34	4.43	
IIVTH YEAR	Opening Balance						
	Ist Quarter	8.87	-	8.87	0.25	1.11	7.76
	Iind Quarter	7.76	-	7.76	0.22	1.11	6.65
	IIIrd Quarter	6.65	-	6.65	0.19	1.11	5.54
	Ivth Quarter	5.54	-	5.54	0.16	1.11	4.43
					0.83	4.43	
VVTH YEAR	Opening Balance						
	Ist Quarter	4.43	-	4.43	0.13	1.11	3.32
	Iind Quarter	3.32	-	3.32	0.10	1.11	2.22
	IIIrd Quarter	2.22	-	2.22	0.06	0.55	1.67
	Ivth Quarter	1.67	-	1.67	0.05	0.55	1.12
					0.33	3.32	

CALCULATION OF D.S.C.R

PARTICULARS	IST YEAR	IIND YEAR	IIIRD YEAR	IVTH YEAR	VTH YEAR
<u>CASH ACCRUALS</u>	7.34	8.47	9.89	11.90	13.79
Interest on Term Loan	1.53	1.85	1.34	0.83	0.33
Total	8.87	10.31	11.23	12.73	14.12
<u>REPAYMENT</u>					
Instalment of Term Loan	4.43	4.43	4.43	3.32	3.32
Interest on Term Loan	1.53	1.85	1.34	0.83	0.33
Total	5.96	6.28	5.77	4.14	3.65
DEBT SERVICE COVERAGE R	1.49	1.64	1.95	3.07	3.87
AVERAGE D.S.C.R.			2.40		

COMPUTATION OF SALE

Particulars	IST YEAR	IIND YEAR	IIIRD YEAR	IVTH YEAR	VTH YEAR
Op Stock	-	2	3	3	3
Production	45	53	60	68	75
	45	55	63	71	78
Less : Closing Stock	2	3	3	3	4
Net Sale	43	52	60	67	75
Sale Price per MT	135,000.00	135,000.00	135,000.00	135,000.00	135,000.00
Sale (in Lacs)	57.71	70.37	80.49	90.62	100.74

COMPUTATION OF ELECTRICITY**(A) POWER CONNECTION**

Total Working Hour per day	Hours	8	
Electric Load Required	HP	25	
Load Factor		0.7460	
Electricity Charges	per unit	8.00	
Total Working Days		300	
Electricity Charges (8 Hrs Per day)			358,080.00

Add : Minimim Charges (@ 10%)

(B) D.G. SET

No. of Working Days		300	days
No of Working Hours		2	Hour per day
Total no of Hour		600	
Diesel Consumption per Hour		8	
Total Consumption of Diesel		4,800	
Cost of Diesel		65.00	Rs. /Ltr
Total cost of Diesel		3.12	
Add : Lube Cost @15%		0.47	
Total		3.59	
Total cost of Power & Fuel at 100%			7.17

Year	Capacity	Amount (in Lacs)
IST YEAR	60%	4.30
IIND YEAR	70%	5.02
IIIRD YEAR	80%	5.74
IVTH YEAR	90%	6.45
VTH YEAR	100%	7.17

BREAK EVEN POINT ANALYSIS

Year	I	II	III	IV	V
Net Sales & Other Income	57.71	70.37	80.49	90.62	100.74
Less : Op. WIP Goods	-	2.43	2.84	3.24	3.65
Add : Cl. WIP Goods	2.43	2.84	3.24	3.65	4.05
Total Sales	60.14	70.77	80.90	91.02	101.15
Variable & Semi Variable Exp.					
Raw Material & Tax	32.44	37.84	43.25	48.65	54.06
Electricity Exp/Coal Consumption at 85%	3.66	4.27	4.87	5.48	6.09
Manufacturing Expenses 80%	0.92	1.69	1.93	2.17	2.42
Wages & Salary at 60%	7.05	7.75	8.53	9.38	10.32
Selling & administrative Expenses 80%	0.92	1.13	1.29	1.45	1.61
Intt. On Working Capital Loan	0.48	0.48	0.48	0.48	0.48
Total Variable & Semi Variable Exp	45.47	53.15	60.35	67.62	74.98
Contribution	14.68	17.62	20.55	23.40	26.17
Fixed & Semi Fixed Expenses					
Manufacturing Expenses 20%	0.23	0.42	0.48	0.54	0.60
Electricity Exp/Coal Consumption at 15%	0.65	0.75	0.86	0.97	1.08
Wages & Salary at 40%	4.70	5.17	5.69	6.25	6.88
Interest on Term Loan	1.53	1.85	1.34	0.83	0.33
Depreciation	2.73	2.36	2.01	1.72	1.47
Selling & administrative Expenses 20%	0.23	0.28	0.32	0.36	0.40
Total Fixed Expenses	10.07	10.83	10.70	10.68	10.77
Capacity Utilization	60%	70%	80%	90%	100%
OPERATING PROFIT	4.61	6.79	9.84	12.72	15.40
BREAK EVEN POINT	41%	43%	42%	41%	41%
BREAK EVEN SALES	41.25	43.50	42.14	41.54	41.64

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