



MODEL PROJECT REPORT



PROJECT REPORT ON CAKE GEL

SWAVALAMBI BHARAT ABHIYAN

PROJECT AT GLANCE

1 Name of Proprietor/Director	XXXXXXXXXX
2 Firm Name	XXXXXXXXXX
3 Registered Address	XXXXXXXXXX
4 Nature of Activity	XXXXXXXXXX
5 Category of Applicant	XXXXXXXXXX
6 Location of Unit	XXXXXXXXXX
7 Cost of Project	23.00 Rs. In Lakhs
8 Means of Finance	
i) Own Contribution	2.30 Rs. In Lakhs
ii) Term Loan	16.20 Rs. In Lakhs
iii) Working Capital	4.50 Rs. In Lakhs
9 Debt Service Coverage Ratio	3.40
10 Break Even Point	0.28
11 Power Requirement	15 KW
12 Employment	9 Persons

13 Major Raw Materials

Soyabean oil,
Vanilla/corn flour,
emulsifiers, Citric acid,
Stabilizer (carboxy
methyl cellulose),
Xanthenes gum Etc.,

14 Details of Cost of Project & Means of Finance

Cost of Project

Particulars	Amount in Lacs
Land	Owned/Leased
Building & Civil Work	Owned/Leased
Plant & Machinery	5.70
Furniture & Fixture	0.25
Other Misc Assets	0.50
Working Capital Requirement	0.86
Total	7.30

Means of Finance

Particulars	Amount in Lacs
Own Contribution	0.73
Term Loan	5.81
Working capital Loan	0.77
Total	7.30

1. INTRODUCTION



Cake Gel is mainly used by the cake manufacturer in making of cakes. It is a cake improver, comprised of emulsifiers and humectants, which greatly improves volume through increased aeration and provides a more uniform crumb structure. It also improves the softness of a cake. A cake gel is a whipping active gel, consisting of mono-layers of water and stable whipping active emulsifiers, which has crystallized in the whipping active alpha-form. Cake gel works as an emulsifier and stabilizer mix and provides standardized quality in sponge cake, cake and roll production. It is easier to make mouth-filling cakes and sponge cakes with high volume and smooth pore structure. Cake gel is basically a different variety of organic chemical mix product formed, which is largely used for the better cake preparation in sense of flavour smell and taste. It is basically substitute product of baking powder. It will give much more better-quality product than baking powder. Baking powder basically mixed product of few inorganic and organic compounds. In case of baking powder preparation there is use of tartaric acid, ammonium sulfate, sodium bicarbonate etc. In case of cake gel preparation or cake improver there is maximum chemical compound used are SSL, GMS, DETEM, glycerine, soyabean oil, D.M. water etc. Mostly chemicals are organic chemical compound. Machineries are used stainless steel made reaction kettle, heating sources quality checking equipment's, weighing machine and packing machine.

2. PRODUCT DESCRIPTION

2.1 PRODUCT USES

- The use of cake gel effect on the whipping time can be shortened by 50% - 70%, greatly improving the production efficiency and shortening the production cycle.
- The use of cake gel improves the stability of cake batter and the uniformity of cake pores.
- Cake gel has good mechanical mixing stability and can maintain a stable cake batter proportion after a long time of mixing.

2.2 PRODUCT RAW MATERIAL

Cake gels are semi-liquid made up of water, vegetable oil corn Flour/vanilla, emulsifiers, stabilizer, solvents, and sugar. Raw materials such as soybean oil, vanilla/corn flour, emulsifiers (GMS (glycerol mono stearate)), stabilizer (CMC) (carboxy methyl cellulose) Xanthenes gum, citric Acid, etc. are generally used as basic ingredients.

2.3 MANUFACTURING PROCESS

This process can be broken down into the following steps-

- ✓ Raw material procurement
- ✓ Production Process
- ✓ **Raw Material Procurement:** Procurement is the connection process of purchasing and arranging in bound movement of all items, supplies, materials, parts, finished inventory and general support services from the suppliers into manufacturing process or assembly plants or warehouses.
- ✓ **Production Process**

Steps involved in the manufacturing of Cake gel Manufacturing unit:

1. **Making a semi liquid paste of corn flour & water:** The equal amount of corn flour and water are mixed together to prepare a semi liquid paste. Corn help in maintain the white colour of the cake. Vanilla is also used in the place of Corn Flour and proper heating of paste at 80° C is required followed by cooling process.
2. **Making a solution of soybean oil and citric acid:** The mixing of equal amount of soybean oil and citric acid is used to form cake gel. The citric acid is a natural preservative which helps in making of bakery product as a foaming.
- 3.**Adding of GMC and CNC on the solution:** Addition of GMS and CMC in mixture act as an emulsifier and stabilizer which avoid sinking of cake provide better smooth and increase the life of bakery product.
- 4: **Proper mixing of semi solid paste and solution:** Both the semi liquid solution and mixture are required to mix together through an electric mixer. The proper mixing needed for good quality of cake gel production.
5. **Packaging of the product:** The proper packaging of the cake gel is required with taking care of standard hygienic parameter .

3. PROJECT COMPONENTS

3.1 Land & Building

The land required for this manufacturing unit will be approx. around 3000- 3500 square feet. Land Purchase and Building Civil Work Cost have not been considered as part of the cost of project. It is expected that the premises will be on rental and approximate rentals assumed of the same will be Rs.20000 to Rs. 30000 per month.

Land and building requirement may vary depending on the size of project.

3.2 Plant & Machinery

This is a semi-automatic type of plant and the production capacity is set to be 720 Kg per day.

Machines-

- **Electric Oven:** The electric oven is used for heating a mixture of solvent and Corn Flour up to 80° C.



- **Mixer with electric beet:** The three in gradient i.e., soybean oil, GMC & CNC put into Mixer with a help of electric better so that proper mixing take place.



➤ **Automatic packaging machine:**

This packaging machine is used to pack cake gel with the measure of hygienic automation.



4 LICENSE & APPROVALS

Basic registration required in this project:

- Company registration
- GST registration
- Trade license
- Factory license.
- MSME Udyam registration
- BIS certification
- NOC from the Pollution Department

PROJECTED BALANCE SHEET					(in Lacs)
PARTICULARS	1st year	2nd year	3rd year	4th year	5th year
<u>Liabilities</u>					
Capital					
Opening balance		4.34	8.02	11.12	15.69
Add:- Own Capital	2.30				
Add:- Retained Profit	5.04	8.68	11.10	14.57	17.30
Less:- Drawings	3.00	5.00	8.00	10.00	13.00
Closing Balance	4.34	8.02	11.12	15.69	19.99
Term Loan	14.40	10.80	7.20	3.60	-
Working Capital Limit	4.50	4.50	4.50	4.50	4.50
Sundry Creditors	1.65	1.94	2.27	2.63	3.01
Provisions & Other Liability	0.40	0.48	0.58	0.80	0.96
TOTAL :	25.29	25.74	25.67	27.22	28.46
<u>Assets</u>					
Fixed Assets (Gross)					
Gross Dep.	2.70	5.00	6.95	8.60	10.01
Net Fixed Assets	15.30	13.01	11.05	9.40	7.99
Current Assets					
Sundry Debtors	3.28	3.97	4.64	5.35	6.14
Stock in Hand	3.66	4.27	4.96	5.69	6.50
Cash and Bank	1.54	1.49	1.52	2.28	2.84
Loans & Advances	1.50	3.00	3.50	4.50	5.00
TOTAL :	25.29	25.74	25.67	27.22	28.46

PROJECTED PROFITABILITY STATEMENT					(in Lacs)
PARTICULARS	1st year	2nd year	3rd year	4th year	5th year
Capacity Utilisation %	40%	45%	50%	55%	60%
<u>SALES</u>					
Gross Sale					
CAKE GEL MANUFACTURING UNIT	98.45	119.14	139.11	160.43	184.11
Total	98.45	119.14	139.11	160.43	184.11
<u>COST OF SALES</u>					
Raw Material Consumed	70.56	83.16	97.44	112.73	129.02
Electricity Expenses	1.15	1.49	1.66	1.82	1.99
Depreciation	2.70	2.30	1.95	1.66	1.41
Wages & labour	9.60	10.08	10.58	11.11	11.67
Repair & maintenance	1.48	1.79	2.09	2.41	3.68
Packaging	0.98	1.19	1.39	1.60	1.84
Cost of Production	86.47	100.00	115.11	131.33	149.61
Add: Opening Stock	-	2.02	2.33	2.69	3.06
Less: Closing Stock	2.02	2.33	2.69	3.06	3.49
Cost of Sales	84.46	99.69	114.76	130.95	149.19
GROSS PROFIT	13.99	19.45	24.36	29.48	34.92
GROSS PROFIT RATIO	14.21%	16.33%	17.51%	18.38%	18.97%
Salary to Staff	3.96	4.55	5.24	6.02	6.93
Interest on Term Loan	1.59	1.40	1.01	0.61	0.21
Interest on working Capital	0.50	0.50	0.50	0.50	0.50
Rent	2.40	2.76	3.17	3.65	4.38
Selling & Administrative Exp.	0.49	0.60	1.39	1.60	1.84
TOTAL	8.94	9.81	11.30	12.38	13.86
NET PROFIT	5.05	9.64	13.05	17.10	21.06
Taxation	0.01	0.97	1.95	2.53	3.76
PROFIT (After Tax)	5.04	8.68	11.10	14.57	17.30
NET PROFIT RATIO	5.12%	7.28%	7.98%	9.08%	9.40%

<u>PROJECTED CASH FLOW STATEMENT</u>					
(in Lacs)					
PARTICULARS	1st year	2nd year	3rd year	4th year	5th year
<u>SOURCES OF FUND</u>					
Own Margin	2.30				
Net Profit	5.05	9.64	13.05	17.10	21.06
Depreciation & Exp. W/off	2.70	2.30	1.95	1.66	1.41
Increase in Cash Credit	4.50	-	-	-	-
Increase In Term Loan	16.20	-	-	-	-
Increase in Creditors	1.65	0.29	0.33	0.36	0.38
Increase in Provisions & Oth labilities	0.40	0.08	0.10	0.22	0.16
-	-				
TOTAL :	32.80	12.31	15.43	19.34	23.01
<u>APPLICATION OF FUND</u>					
Increase in Fixed Assets	18.00				
Increase in Stock	3.66	0.61	0.69	0.74	0.81
Increase in Debtors	3.28	0.69	0.67	0.71	0.79
Repayment of Term Loan	1.80	3.60	3.60	3.60	3.60
Increase in Loans & Advances	1.50	1.50	0.50	1.00	0.50
Drawings	3.00	5.00	8.00	10.00	13.00
Taxation	0.01	0.97	1.95	2.53	3.76
TOTAL :	31.26	12.37	15.40	18.57	22.46
Opening Cash & Bank Balance	-	1.54	1.49	1.52	2.28
Add : Surplus	1.54	-0.05	0.03	0.77	0.55
Closing Cash & Bank Balance	1.54	1.49	1.52	2.28	2.84

<u>CALCULATION OF D.S.C.R</u>					
PARTICULARS	1st year	2nd year	3rd year	4th year	5th year
CASH ACCRUALS	7.74	10.97	13.05	16.23	18.71
Interest on Term Loan	1.59	1.40	1.01	0.61	0.21
Total	9.33	12.37	14.06	16.84	18.92
<u>REPAYMENT</u>					
Instalment of Term Loan	1.80	3.60	3.60	3.60	3.60
Interest on Term Loan	1.59	1.40	1.01	0.61	0.21
Total	3.39	5.00	4.61	4.21	3.81
DEBT SERVICE COVERAGE RATIO	2.75	2.47	3.05	4.00	4.96
AVERAGE D.S.C.R.	3.40				

REPAYMENT SCHEDULE OF TERM LOAN

Interest 11.00%

Year	Particulars	Amount	Addition	Total	Interest	Repayment	Closing Balance
1st	Opening Balance						
	1st month	-	16.20	16.20	-	-	16.20
	2nd month	16.20	-	16.20	0.15	-	16.20
	3rd month	16.20	-	16.20	0.15	-	16.20
	4th month	16.20	-	16.20	0.15		16.20
	5th month	16.20	-	16.20	0.15		16.20
	6th month	16.20	-	16.20	0.15		16.20
	7th month	16.20	-	16.20	0.15	0.30	15.90
	8th month	15.90	-	15.90	0.15	0.30	15.60
	9th month	15.60	-	15.60	0.14	0.30	15.30
	10th month	15.30	-	15.30	0.14	0.30	15.00
	11th month	15.00	-	15.00	0.14	0.30	14.70
	12th month	14.70	-	14.70	0.13	0.30	14.40
					1.59	1.80	
2nd	Opening Balance						
	1st month	14.40	-	14.40	0.13	0.30	14.10
	2nd month	14.10	-	14.10	0.13	0.30	13.80
	3rd month	13.80	-	13.80	0.13	0.30	13.50
	4th month	13.50	-	13.50	0.12	0.30	13.20
	5th month	13.20	-	13.20	0.12	0.30	12.90
	6th month	12.90	-	12.90	0.12	0.30	12.60
	7th month	12.60	-	12.60	0.12	0.30	12.30
	8th month	12.30	-	12.30	0.11	0.30	12.00
	9th month	12.00	-	12.00	0.11	0.30	11.70
	10th month	11.70	-	11.70	0.11	0.30	11.40
	11th month	11.40	-	11.40	0.10	0.30	11.10
	12th month	11.10	-	11.10	0.10	0.30	10.80
					1.40	3.60	
3rd	Opening Balance						
	1st month	10.80	-	10.80	0.10	0.30	10.50
	2nd month	10.50	-	10.50	0.10	0.30	10.20
	3rd month	10.20	-	10.20	0.09	0.30	9.90
	4th month	9.90	-	9.90	0.09	0.30	9.60
	5th month	9.60	-	9.60	0.09	0.30	9.30
	6th month	9.30	-	9.30	0.09	0.30	9.00
	7th month	9.00	-	9.00	0.08	0.30	8.70
	8th month	8.70	-	8.70	0.08	0.30	8.40
	9th month	8.40	-	8.40	0.08	0.30	8.10
	10th month	8.10	-	8.10	0.07	0.30	7.80
	11th month	7.80	-	7.80	0.07	0.30	7.50
	12th month	7.50	-	7.50	0.07	0.30	7.20
					1.01	3.60	

4th	Opening Balance						
	1st month	7.20	-	7.20	0.07	0.30	6.90
	2nd month	6.90	-	6.90	0.06	0.30	6.60
	3rd month	6.60	-	6.60	0.06	0.30	6.30
	4th month	6.30	-	6.30	0.06	0.30	6.00
	5th month	6.00	-	6.00	0.05	0.30	5.70
	6th month	5.70	-	5.70	0.05	0.30	5.40
	7th month	5.40	-	5.40	0.05	0.30	5.10
	8th month	5.10	-	5.10	0.05	0.30	4.80
	9th month	4.80	-	4.80	0.04	0.30	4.50
	10th month	4.50	-	4.50	0.04	0.30	4.20
	11th month	4.20	-	4.20	0.04	0.30	3.90
	12th month	3.90	-	3.90	0.04	0.30	3.60
				0.61	3.60		
5th	Opening Balance						
	1st month	3.60	-	3.60	0.03	0.30	3.30
	2nd month	3.30	-	3.30	0.03	0.30	3.00
	3rd month	3.00	-	3.00	0.03	0.30	2.70
	4th month	2.70	-	2.70	0.02	0.30	2.40
	5th month	2.40	-	2.40	0.02	0.30	2.10
	6th month	2.10	-	2.10	0.02	0.30	1.80
	7th month	1.80	-	1.80	0.02	0.30	1.50
	8th month	1.50	-	1.50	0.01	0.30	1.20
	9th month	1.20	-	1.20	0.01	0.30	0.90
	10th month	0.90	-	0.90	0.01	0.30	0.60
	11th month	0.60	-	0.60	0.01	0.30	0.30
	12th month	0.30	-	0.30	0.00	0.30	-
				0.21	3.60		
DOOR TO DOOR		60	MONTHS				
MORATORIUM PERIOD		6	MONTHS				
REPAYMENT PERIOD		54	MONTHS				