

1 COFFEE FLAVOURED MILK

1.1 Introduction

Since centuries, milk is used for making various products as well as for direct consumption. With the advent of new processing techniques, many products are added in this category. This phenomenal growth is on account of nutritional values present in milk and its acceptance as a "complete food". India has made commendable progress in milk production and is one of the largest producers along with the USA. Milk and Milk products are consumed round the year by people from all age and income groups. The overall market for flavoured milk in India grew 27 per cent in value terms in 2004-05. With increased lifestyle and health concerns flavoured milk market is expected grow at considerably high rate in near future. Flavoured milk has gained substantial popularity but somehow coffee flavoured milk is still not easily available even though consumption of coffee has steadily increased, thus has potential in the market.

1.2 Objective

The primary objective of the model report is to facilitate the entrepreneurs in understanding the importance of setting up unit of Coffee Flavored Milk, technology and financial parameters of various components for preparation and submission of project proposal to bank for sanction of long term loan. This model report will serve as guidance to the entrepreneurs on starting up such a new project and basic technical knowledge for setting up such a facility.

1.3 Raw Material Availability

Milk and the coffee powder are the major raw materials for the unit of coffee flavored milk.

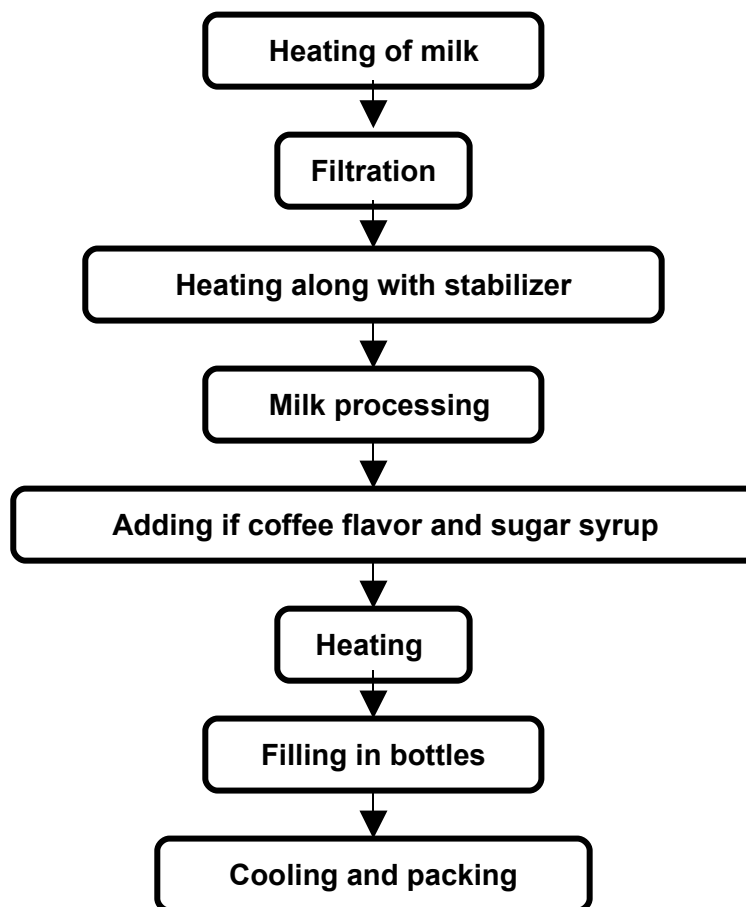
1.4 Market Opportunities

In the dairy sector, most of the processing is done by the unorganized sector. Though the share of organized sector is less than 15 per cent, it is expected to rise rapidly, especially in the urban regions. Among the milk products manufactured by the organized sector, some of the prominent ones are ghee, butter, cheese, ice creams, milk powders, malted milk food, condensed milk and infant foods. Addition of milk in tea or coffee is the most common and equally popular practice. Flavoured milk is yet another variant. Consumption of coffee is increasing steadily but availability of coffee flavoured milk is still not very comfortable. With increasing health awareness, many people are switching over to milk and coffee flavoured milk would be an attractive proposition. Railway stations, air-ports, bus-stands, tourist spots, picnic centres, cold drink stalls, hostels, restaurants, coffee bars or fast food restaurants, clubs, school canteens etc. could be the major outlets.

1.5 Project description

Process Description

Fresh milk is standardised according to fat contents and then heated at around 40OC and filtered. Filtered milk is again heated at about 60-65OC and stabilisers like DSHP or TSC are added in very small quantity. Milk is then processed in homogeniser. Simultaneously 5% concentrated coffee powder is mixed with water and filtered. Then homogenised milk, sugar syrup and coffee water are heated at around 80-85O C and sterilised for about half an hour and immediately bottled. The Process Flow Chart is as follows:



1.6 Availability of know how and compliances

Compliance with PFA Act is mandatory.

1.7 Capacity of Plant

The rated processing capacity of the coffee flavored milk unit is 302400 ltrs per year.

1.8 Project component and cost

Major components of the projects and their costs are described in the table hereunder:

1.9 Land and Building

PARTICULARS	Unit	Qty	Cost/unit	Total
LAND & BUILDING				14.00
Land	SqM	400	250.00	1.00
Land Development				
Land Area		400	500.00	2.00
Building				
Production Block				
Buildup Area	SqM	100	5,000.00	5.00
Misc Space	SqM	100	5,000.00	5.00
Contingencies		10%		1.00
PLANT & MACHINERY				12.30
Homogeniser		1	125,000.00	1.25
Plate Type Heat Exchanger		1	75,000.00	0.75
Milk Sterilisation Plant		1	100,000.00	1.00
Electrically operated boiler		1	75,000.00	0.75
Automatic Bottle washing, Filling and Corking		1	160,000.00	1.60
SS milk storage tank		3	20,000.00	0.60
Delivery van		1	200,000.00	2.00
Plastic crates	LS	1	200,000.00	2.00
Lab equipments, Weighing scale	LS	1	30,000.00	0.30
Contingencies		20%		2.05
MISCELLANEOUS FIXED ASSETS				6.00
Misc Assets	LS	1	500,000	5.00
Contingencies		20%		1.00
PRE-OPERATIVE EXPENSES				5.80
Establishment		1	290,000	2.90
Professional Charges		1	50,000	0.50
Security Deposits		1	240,000	2.40
TOTAL				38.10

1.10 Plant and Machinery

The total cost of the plant and machinery is Rs. 12.30 Lakhs.

1.11 Building

The main production block will cost around Rs. 11 lakhs.

1.12 Miscellaneous Assets

A provision of Rs. 6 lakhs would take care of all the requirements.

1.13 Preliminary & Pre-operative Expenses

A provision of Rs. 5.80 lakhs would take care of pre-production expenses like establishment, professional charges, security deposits etc.

1.14 Working capital assessment

ITEMS	Year 1	Year 3	Year 5
STOCK OF RAW MATERIAL & PACKING MATERIAL	2.70	3.60	3.60
SUNDRY DEBTORS	9.07	12.10	12.10
TOTAL	11.77	15.69	15.69
MARGIN	2.94	3.92	3.92
MPBF	8.83	11.77	11.77
INTEREST ON WC	0.97	1.29	1.29

1.15 Means of finance

EQUITY CAPITAL			25.00%	10.26
MOFPI SUBSIDY	25%	50.00	25.00%	10.26
TERM LOAN				
FINANANCIAL INSTITUTIONS		10.00%	50.00%	20.52
<i>-Payable half yearly Installments</i>	10	2.10		
TOTAL			100%	41.04

1.16 Cash flow statement

PARTICULARS	Year 1	Year 3	Year 5	Year 7
SOURCES OF FUNDS				
EQUITY CAPITAL	-	-	-	-
SUBSIDY				
NET PROFIT	2.26	8.54	7.04	5.52
(INTEREST ADDED BACK)				
DEPRECIATION	2.11	2.11	2.11	2.11
PRELIMINARY EXP.W/O	0.83	0.83	0.83	0.83
INCREASE IN TERM LOAN	-	-	-	-
INCREASE IN BANK BORROWINGS-WC	8.83	1.18	-	-
TOTAL	14.03	12.66	9.98	8.46

1.17 Projected balance sheet

PARTICULARS	Year 1	Year 3	Year 5	Year 7
LIABILITIES				
EQUITY CAPITAL	10.26	10.26	10.26	10.26
RESERVES & SURPLUS	9.50	18.16	28.97	38.12
TERM LOAN	18.42	10.02	1.62	0.00
BANK BORROWINGS-WC	8.83	11.77	11.77	11.77
TOTAL	47.01	50.21	52.62	60.15

1.18 Projected profit and loss account

Particulars	Year 1	Year 3	Year 5	Year 7
INCOME	90.72	120.96	120.96	120.96
EXPENDITURE	85.52	109.48	110.98	112.50
VARIABLE	64.78	84.43	84.43	84.43
FIXED	20.73	25.04	26.55	28.06
GROSS PROFIT	5.20	11.48	9.98	8.46
PROFIT BEFORE TAX	(0.76)	5.93	5.26	4.23
RETAINED PROFIT	(0.76)	5.93	5.26	4.23

1.19 Key indicators

NET PRESENT VALUE at current Inflation (Rs. in lakhs)	45.01
INTERNAL RATE OF RETURN %	25.27
AVERAGE DSCR	1.77
BREAK EVEN POINT %	88.43
PAY BACK PERIOD (YEARS)	4.54

1.20 Manpower Requirement

PARTICULARS	NO.
SUPERVISORY STAFF	
PRODUCTION SUPERVISORS	2
WORKERS	
PLANT OPERATOR	2
SKILLED WORKERS	3
HELPERS	6
SALESMAN	2

1.21 Assumptions

Project & Financing			
Contingencies on Building			10%
Contingencies on Equipment			20%
Term Loan			50%
Rate of Interest on Term Loan			10%
Subsidy Considered	Subject to ceiling		25%
Expected time of Installation	Months		10
Moratorium	Months		6
CAPACITY			
Rated Capacity Per Annum	90% of Installed capacity	TPA	302400
Number of Operational Days	DAYS		300
Working Hours Per day	Hrs		14
CAPACITY UTILIZATION			
Year I			75%
Year II			90%
Year III			100%
SALES PRICE			
W S Price			40
OTHER EXPENSE			
Commission			5.0%
Marketing Expenses			2.5%
POWER			
Connected Load	HP		60
DEPRICIATION AS PER COMPANY'S ACT			
BUILDING			3.34%
PLANT & MACHINERY			10.34%
MISC. FIXED ASSETS			7.07%
LAND & SITE DEVELOPMENT			1.63%
MAINTENANCE			
BUILDING			1.00%
PLANT & MACHINERY			3.00%
MISC. FIXED ASSETS			2.00%
LAND & SITE DEVELOPMENT			1.00%

1.22 Sources of technology

Technology of the project related material handling equipment is available with indigenous companies and could be set up at competitive prices. Major suppliers are understated –

- De Laval Pvt. Ltd., A-3, Abhimanshree Soc., Pashan Rd., Pune-411008. Tel No. 25675881/882/886
- Food and Biotech Engg. Pvt Ltd., 291, Sector 37, Faridabad-121002. Tel No. 2272011/2278058
- Indian Dairy Machinery Company Ltd., 124, GIDC Estate, Vithal Udyog Nagar, Anand-388121. Tel No. 229917/18
- B Sen Barry, 60/34, New Rohatak Rd., New Delhi-110005. Tel No. 25763541/56013312
- Process Masters, S-97, MIDC Estate, Bhosari, Pune-411026. Tel No. 27123448.

The actual cost of projects may deviate on change of any of the assumptions.