

Coffee Flavoured Milk

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Introduction

Coffee beverage imparts refreshing and stimulating effect and is extremely popular throughout the world. Almost entire consumption of coffee is in the form of beverages, with or without milk or cream, chilled or hot. Though the consumption of coffee is increasing dayby-day in the country, no attempt has so far been made to commercialize a ready-to serve coffee beverage on a large scale except limited efforts made by a few co-operative milk marketing societies in some States. The nonavailability of the cost of manufacture of this product appears to be one of the main reasons that the food industry has not taken up its production in organized way. This profile highlights the cost of manufacture for ready to serve coffee flavoured milk drink.

Market Potential

The availability of coffee flavoured milk in the market compared to its potential demand, is very small in volume. As the nutritional awareness has caught on among the consumers, the demand for such drinks is increasing. It is equally liked by all irrespective of age. It could register good sale at airports, bus stops, railway stations, restaurants, hotels, picnic spots, college canteens, etc. Hence the availability of market would not be a big challenge for such nutritional products.

Basis and Presumptions

- The scheme is based on 75% efficiency, 24 hrs. a day for 300 days a year.
- Time period required to achieve full capacity utilization is possibly 4-5 years.
- Labour wages is as per the rates prevailing in the area.
- Interest rate for total capital investment has been taken @14% per annum for both fixed and working capital.
- Margin money is 25% of total capital investment.
- Pay back period of the project is 7 years.
- Land cost and construction cost have been taken @ Rs. 10/sq ft. and Rs 300/sq. ft. respectively.

Implementation Schedule

- SSI Registration 1 Week
- Acquisition of land 1 Month
- Preparation of Project report 1 Month
- Financial assistance 3 Months (From State Financial Corporation, Bank)

- Building construction 3 Months
- Arrangement of power 1 Month
- Acquisition of machinery 2 Months
- Installation of Machinery 1 Month
- Appointment of Staff 15 Days and labour
- Trial production and 15 Days trouble shooting
- Commercial production 1 week
- Total time for the commencement of commercial production 1 Year

Technical Aspects

Process of Manufacture

The fresh cow and buffalo milk received is first standardized to its fat content. The milk is then heated to 40°C and filtered through a double muslin cloth. Then again heated to 60°C and stabilizers like TSC and DSHP added @ 0.002%. This milk is then passed to homogeniser for breaking the fat globules and make uniformity in the product. On the other side, the coffee powder of 5% concentration is added to hot water and filtered through a muslin cloth. Finally homogenized milk, hot coffee water and sugar syrup are mixed in proper proportion and heated to 85°C and then sterilized at 115°C for 30 minutes. The sterilized bottles are cooled at room temperature and then stored in wooden crates.

Quality Control and Standards

As per PFA Regulations.

Production Capacity (per annum)

- Quantity : 4,65,000 (crates of 24 bottles (200 ml))
- Value : Rs. 418.5 Lakhs.
- Motive Power 80 HP

Pollution Control

As per the State Govt. Pollution Control Board. Energy Conservation Proper insulation may be done to avoid heat loss in heating equipments.

Financial Aspects

Fixed Capital

Land and Building	Amount (In Rs.)
Land: 10,000 Sq. ft. @ Rs10/Sq. ft.	1,00,000
Building: Production Hall 40' x 50' = 2,000 Sq. ft.	
Store (R.M) 30' x 30' = 900 Sq. ft.	
Store (F.P) 30' x 30' = 900 Sq. ft.	
Laboratory 10' x 15' = 150 Sq. ft.	12,45,000
Office 10' x 15' = 150 Sq. ft.	
W.C and Bath 10' x 5' = 50 Sq. ft.	
4,150 Sq. ft. @ Rs. 300 per Sq. ft.	
Total	13,45,000

Machinery and Equipments

Sl. No.	Particulars	Qty.	Rate (In Rs.)	Total (In Rs.)
1.	Water Treatment unit	1 No.	50,000	50,000
2.	Boiler	1 No.	1,25,000	1,25,000
3.	S.S. Tank 1000 ltrs Cap	3 Nos	20,000	60,000
4.	Plate heat exchanger	1 Set	50,000	50,000
5.	Homogeniser (2000 ltrs/ Hr Cap.)	1 No.	1,50,000	1,50,000
6.	Bottling Plant (including bottle washer, filter, crown corking m/c and sterilizer of 100 Bottle/min)	1 set.	12,00,000	12,00,000
7.	Testing equipment	–	50,000	50,000
8.	Weighing balance	1 No.	5,000	5,000
Total				16,90,000
Erection and Electrification @ 10%				1,69,000
Glass bottle in wooden, 8000 crates @ Rs.90 per crate crates				7,20,000

Cost of office equipment, tables, etc.	30,000
Total	26,09,000
Pre-operative Expenses	30,000

Total Fixed Capital	Amount (In Rs.)
Land and Building	13,45,000
Machinery and Equipments	26,09,000
Pre-operative Expenses	30,000
Total	39,84,000

Financial Analysis

Cost of Production (per annum)	Amount (In Rs.)
Recurring expenses	3,52,12,200
Depreciation on building @ 5%	62,250
Depreciation on machinery @ 10%	1,88,900
Depreciation on bottles @ 20%	1,44,000
Interest on total capital investment @ 14%	13,79,378
Total	3,69,86,728

Turn over (per annum)

Item	Qty.	Rate (In Rs.)	Total (In Rs.)
Coffee flavoured milk in 200ml.	4,65,000 crates of Bottle 24 bottles	90/ Crate	4,18,50,000

- Net Profit (per annum) Turnover – Cost of Production Rs. 4,18,50,000 – Rs. 3,69,87,000 = Rs. 48,63,000
- Net Profit Ratio = $\frac{\text{Net Profit (p.a.)}}{\text{Turnover (p.a.)}} \times 100 = \frac{48,63,000}{4,18,50,000} \times 100 = 11.6\%$
- Rate of Return on Total Capital Investment = $\frac{\text{Net Profit (p.a.)}}{\text{Total Investment}} \times 100 = \frac{48,63,000}{98,52,700} \times 100 = 49.3\%$

Break-even Point

B.E.P = Annual Fixed Cost × 100 / Annual Fixed Cost + Annual Net Profit

Annual Fixed Cost	Amount (In Rs.)
40% Salaries	2,04,000
40% Utilities	1,34,400
40% Contingencies	1,83,360
Total Depreciation	3,95,150
Total Interest	13,79,378
Total	22,96,288

B.E.P = $22.96 \times 100 / 22.96 + 48.63 = 32\%$

Addresses of Machinery Suppliers

- M/s. Mistri Sant Singh and Sons 3794, Mori Gate, Delhi-110006
- M/s. Mildon and Co. Plot No. 101, Road No. B-16 MCD Chakala, Andheri, Mumbai-93.
- M/s. Larsen and Toubro Ltd. Ballard Estate, Douggel Road, Mumbai-110001 COFFEE FL AVOURED MILK 39
- M/s. Pioneer Mechanical Works G.T. Road, Ambala, Punjab.
- M/s. Rita Agencies No. 3, 1st Crescent Road, Park Road, Gandhi Nagar, Chennai-20.
- M/s. SSP Pvt Ltd. 19 DLF, Industrial Area-II COFFEE FL AVOURED MILK 13/4, Mathura Road, Faridabad-121003
- M/s. B.Sen Barry and Co. 65/11, New Rohtak Road, New Delhi-110005, E-mail: senbarry @ vsnl. Com

Source:

Ministry of Micro, Small & Medium Enterprises
Government of India
Nirman Bhavan, New Delhi - 110011

Contact for more information

Information
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Manager
Project