

READY-TO-EAT NOODLES



1.0 INTRODUCTION

Many fast food items have flooded the markets but noodles have emerged as the most popular item as it is cheaper, very easy to make and nutritious. Urban and semi-urban markets are controlled by Maggi and other players are Top Ramen and other brands. Maggi has revolutionised the concept and this product has gone to majority of the urban households. As an off-shoot of this development, noodles have become very popular in India. Good quality and cheaper product can be pushed in the market with systematic strategy and network.

2.0 PRODUCT

2.1 Applications

There are many pasta products like vermicelli, macaroni, instant noodles etc. They are wheat-based snack food items. They are extruded products and are meant for direct consumption. Preparation time is hardly few minutes and even children can make it. The product has good market in most of the metros and accordingly the location has to be selected.

2.2 Compliances and quality standards

Certification under the PFA Act is necessary. The BIS has specified standards vide 1485:1976.

3.0 MARKET POTENTIAL

3.1 Demand and Supply

There is a very large and growing market. Urban market is captured by some national brands as mentioned earlier. But there is a good scope in semi-urban and certain rural markets as the branded products which are sold at about Rs. 100/- per kg. are considered to

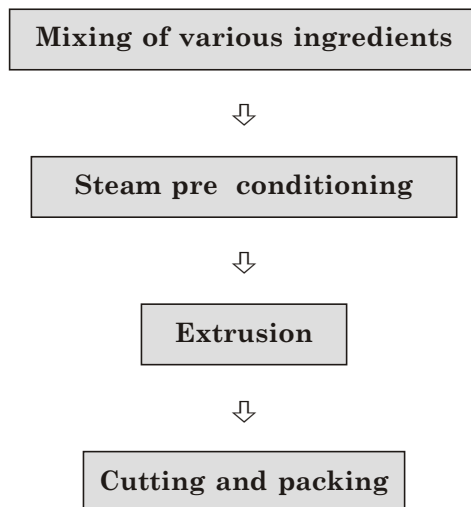
be costly. At the same time, these markets are familiar with noodles due to constant hammering by the established brands by way of advertisements. Thus, it will not amount to concept selling.

3.2 Marketing Strategy

A good product with attractive packaging and affordable price of around Rs.60-65 per kg. has good potential. Creation of proper distribution network and product advertisement through vernacular media is also necessary. In other words, good quality, affordable pricing and concentration on semi-urban and upcoming rural markets are the key factors.

4.0 MANUFACTURING PROCESS

Pre-weighed raw materials are mixed thoroughly followed by steam pre-conditioning in pre-conditioner. Passing of steam increases the temperature as well as moisture contents of the materials which help in thorough mixing of all the ingredients before extrusion. The pre-conditioned feed is again mixed with steam water in a mixer and edible oil is added. Feed is finally fed to the extruder and after processing in the machine, extruded product (noodles) comes out which is cut with the help of a rotating knife in the required size. The process flow chart is as under:



5.0 CAPITAL INPUTS

5.1 Land and Building

A plot of land of about 200 sq.mtrs. with built-up area of 100 sq.mtrs. is sufficient. Land would cost around Rs.60,000/- whereas cost of construction could be Rs.2.50 lacs. Main production area would occupy around 50 sq.mtrs. whereas packing room and storage area would occupy balance area.

5.2 Plant and Machinery

Marketing is the key success determinant and the production capacity has to be finalised accordingly. Keeping in mind the financial viability, the rated production capacity has to be 100 tonnes per year with 300 working days and 2 shifts per day.

This would necessitate installation of following machines:

Item	Qty.	Price (Rs)
Extrusion Machine	1	1,00,000
Pre-conditioner	1	80,000
Mixer (50 kgs capacity)	1	20,000
Pouch Packing and Sealing Machine	1	55,000
Weighing Scale	1	10,000
	Total	2,65,000

5.3 Miscellaneous Assets

Other assets like furniture and fixtures, storage facilities, working tables, SS utensils, etc. would call for expenditure of Rs. 50,000/-.

5.4 Utilities

Power requirement shall be 20 HP whereas per day water requirement would be 500-550 ltrs. Annual expenditure at full capacity utilisation will be Rs. 90,000/-.

5.5 Raw and Packing Materials

Noodles are made with the help of many ingredients with major input being wheat flour. Other materials required are corn and rice flour, protein isolates, salt, spices, edible oil, preservatives etc. All of them are easily available. Packing materials are equally important. Colourful and attractive pouches shall have to be printed and outer packing will be corrugated boxes.

6.0 MANPOWER REQUIREMENTS

Particulars	Nos.	Monthly Salary (Rs)	Total Monthly Salary (Rs)
Machine Operators	2	2,500	5,000
Semi-skilled Workers	2	1,500	3,000
Helpers	2	1,250	2,500
Salesman	1	2,500	2,500
		Total	13,000

7.0 TENTATIVE IMPLEMENTATION SCHEDULE

Activity	Period (in months)
Application and sanction of loan	2
Site selection and commencement of civil work	1
Completion of civil work and placement of orders for machinery	4
Erection, installation and trial runs	1

8.0 DETAILS OF THE PROPOSED PROJECT

8.1 Land and Building

Particulars	Area (Sq.Mtrs)	Cost (Rs.)
Land	200	60,000
Building	100	2,50,000
	Total	3,10,000

8.2 Machinery

As discussed earlier, the total cost of machinery is estimated to be Rs.2.65 lacs.

8.3 Miscellaneous Assets

A provision of Rs.50,000/- would be enough under this head.

8.4 Preliminary & Pre-operative Expenses

There will be certain pre-production expenses like registration, establishment & administrative, market survey expenditure, interest during implementation period, trial run expenses and so on. Estimated expenditure is Rs.60,000/-.

8.5 Working Capital Requirements

The plant is likely to operate at 60% of its rated capacity for which following working capital will be required:

(Rs. in lacs)

Particulars	Period	Margin	Total	Bank	Promoters
Stock of Raw Materials & Packing Materials	½ Month	30%	0.88	0.62	0.26
Stock of Finished Goods	½ Month	25%	1.20	0.90	0.30
Receivables	½ Month	25%	1.50	1.10	0.40
Working Expenses	1 Month	100%	0.40	--	0.40
		Total	3.98	2.62	1.36

8.6 Cost of the Project & Means of Financing (Rs. in lacs)

Item	Amount
Land and Building	3.10
Plant and Machinery	2.65
Miscellaneous Assets	0.50
P&P Expenses	0.60
Contingencies @ 10% on Land and Building & Plant & Machinery	0.60
Working Capital Margin	1.36
Total	8.81
Means of Finance	
Promoters' Contribution	2.64
Term Loan from Bank/FI	6.17
Total	8.81
Debt Equity Ratio	2.33 : 1
Promoters' Contribution	30%

Financial assistance in the form of grant is available from the Ministry of Food Processing Industries, Govt. of India, towards expenditure on technical civil works and plant and machinery for eligible projects subject to certain terms and conditions.

9.0 PROFITABILITY CALCULATIONS

9.1 Production Capacity & Build-up

As against the rated capacity of the plant of 100 tonnes per year, it is expected to run at 60% in the first year and thereafter at 75%.

9.2 Sales Revenue at 100%

Considering competitive selling price of Rs.60/- per kg, the annual income at 100% utilisation works out to Rs. 60.00 lacs.

9.3 Raw and Packing Materials at 100% (Rs. in lacs)

Product	Qty. (Tonnes)	Price/Ton (Rs.)	Value
Raw Material	100	30,000	30.00
Packing Material	@ Rs.5000/ Ton of Finished Goods		5.00
		Total	35.00

9.4 Utilities

As described earlier, the annual cost at 100% activity level would be Rs. 90,000/-.

9.5 Selling Expenses

Marketing will be a key element. Expenses shall have to be incurred on transportation, publicity in local media like newspapers, hoardings and TV scroll, selling commission, free sampling etc. A provision of 20% of sales value is made every year to take care of these expenses.

9.6 Interest

Interest on term loan of Rs. 6.17 lacs is calculated @ 12% per annum assuming repayment in 4 years including a moratorium period of 1 year whereas on bank assistance for working capital, it is taken at 14% per annum.

9.7 Depreciation

The method adopted is WDV and rates assumed are 10% on building and 20% on machinery and miscellaneous assets.

10.0 PROJECTED PROFITABILITY

(Rs. in lacs)

No.	Particulars	1st Year	2nd Year
A	Installed Capacity	---- 100 Tonnes ----	
	Capacity Utilisation	60%	75%
	Sales Realisation	36.00	45.00
B	Cost of Production		
	Raw and Packing Materials	21.00	26.25
	Utilities	0.54	0.68
	Salaries	1.56	1.80
	Stores and Spares	0.42	0.60
	Repairs & Maintenance	0.54	0.72
	Selling Expenses @ 20%	7.20	9.00
	Administrative Expenses	0.48	0.66
	Total	31.74	39.71
C	Profit before Interest & Depreciation	4.26	5.29
	Interest on Term Loan	0.67	0.44
	Interest on Working Capital	0.37	0.46
	Depreciation	0.88	0.73
	Profit before Tax	2.34	3.66
	Income-tax @ 20%	0.44	0.73
	Profit after Tax	1.90	2.93
	Cash Accruals	2.78	3.66
	Repayment of Term Loan	--	1.90

11.0 BREAK-EVEN ANALYSIS

(Rs. in lacs)

No	Particulars	Amount	
[A]	Sales		45.00
[B]	Variable Costs		
	Raw and Packing Materials	26.25	
	Utilities (60%)	0.48	
	Salaries (65%)	1.26	
	Stores & Spares	0.60	
	Selling Expenses (70%)	6.30	
	Admn Expenses (50%)	0.33	
	Interest on WC	0.46	35.68
[C]	Contribution [A] - [B]		9.32
[D]	Fixed Cost		5.66
[E]	Break-Even Point [D] ÷ [C]		61%

12.0 [A] LEVERAGES

Financial Leverage

$$\begin{aligned} &= \text{EBIT/EBT} \\ &= 3.38 \div 2.34 \\ &= 1.44 \end{aligned}$$

Operating Leverage

$$\begin{aligned} &= \text{Contribution/EBT} \\ &= 7.60 \div 2.34 \\ &= 3.25 \end{aligned}$$

Degree of Total Leverage

$$\begin{aligned} &= \text{FL/OL} \\ &= 1.44 \div 3.25 \\ &= 0.44 \end{aligned}$$

[B] Debt Service Coverage Ratio (DSCR)

(Rs. in lacs)

Particulars	1st Yr	2nd Yr	3rd Yr	4th Yr
Cash Accruals	2.78	3.66	3.06	2.56
Interest on TL	0.67	0.44	0.22	0.06
Total [A]	3.45	4.10	3.28	2.62
Interest on TL	0.67	0.44	0.22	0.06
Repayment of TL	--	2.05	2.05	2.07
Total [B]	0.67	2.49	2.27	2.13
DSCR [A] ÷ [B]	5.15	1.65	1.44	1.23
Average DSCR	----- 2.36 -----			

[C] Internal Rate of Return (IRR)

Cost of the project is Rs. 8.81 lacs.

(Rs. in lacs)

Year	Cash Accruals	16%	18%	20%
1	2.78	2.40	2.35	2.32
2	3.66	2.72	2.63	2.54
3	3.06	1.96	1.86	1.77
4	2.56	1.41	1.32	1.23
5	2.31	1.10	1.01	0.93
	14.37	9.59	9.17	8.79

The IRR is around 20%.

Some of the equipment and packing machinery suppliers are as under:

1. Raylons Metal Works, Pb. No. 17426, JB Nagar, Andheri (E), Mumbai 400059
2. Monarch Engg. Works, 13, Kharwa Lane, Kumbharwada, Mumbai 400004
3. Gurunanak Engg. And Foundry Works, 166 Focal Point, Mehta Rd., Amritsar 143039.
Tel No. 2583542/7943, Fax: 2587944
4. Sen and Barry, 60/34, New Rohatak Rd., New Delhi-110005. Tel No. 25763541
5. Universal Polypac, 2 Old ESI Rd., Ramapuram, Ambattur, Chennai-600053.
Tel No. 26358050/9707