



Model Detailed Project Report

MIXED VEGETABLE PICKLE UNIT

*Under the Formalization of Micro Food Processing Enterprises Scheme
(Ministry of Food Processing Industries, Government of India)*



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1. The Project at a Glance

1. Name of the proposed project	:	Mixed Vegetable Pickle Unit
2. Name of the entrepreneur/FPO/SHG/Cooperative	:	
3. Nature of proposed project	:	Proprietorship/Company/Partnership
4. Registered office	:	
5. Project site/location	:	
6. Names of Partner (if partnership)	:	
7. No of share holders (if company/FPC)	:	
8. Technical advisor	:	
9. Marketing advisor/partners	:	
10. Proposed project capacity	:	30000 kg/annum(60,65,70,75,&80% capacity utilization in 1 st to 5 th Year respectively)
11. Raw materials	:	Vegetables, Ingredients(Salt, red chilli, etc.), Packing bottles
12. Major product outputs	:	Vegetable Pickle
13. Total project cost	:	Rs. 11.46 Lakh
• Land development, building & civil construction	:	4 Lakh
• Machinery and equipments	:	Rs. 3.13 Lakh
• Other Fixed Assets	:	Rs. 2 Lakh
• Working capital margin	:	Rs. 1.42Lakh
• Contingencies	:	Rs. 0.91 Lakh
14. Working capital requirement		Rs. 4.27 Lakh
15. Means of Finance		
• Subsidy grant by MoFPI (max 10 lakhs)	:	Rs. 4.01 Lakh
• Promoter's contribution (min 20%)	:	Rs. 3.34 Lakh
• Term loan (45%)	:	Rs. 4.11 Lakh
16. Debt-equity ratio	:	0.98
17. Profit after Depreciation, Interest & Tax		
• 1 st year	:	1.07 Lakh
• 2 nd year	:	1.85 Lakh
• 3 rd year	:	2.62 Lakh
• 4 th year	:	3.61 Lakh
• 5 th year	:	4.59 Lakh
18. Average DSCR	:	3.95
19. Term loan repayment	:	5 Years with 6 months grace period

2. About of the Project

2.1. Mixed Vegetable Pickle Unit

Pickles are a delicacy that is made all around the world. Some people make it with fruits whereas some people use vegetables. Whatever the ingredients may be, it is a famous recipe and liked by all. For making pickles various equipments are required which includes one of the most important one, which is a pickle jar. Pickles have various importance:

- Helps digestion- Fermented pickles are full of good bacteria called pro-biotic, which are important for gut health.
- Fights diseases- Cucumbers are high in an antioxidant called beta-carotene, which your body turns into vitamin A.
- May ease muscle cramps.
- Curb sugar spikes.

2.2. Raw Material Requirements

Basic raw material that is used are mentioned below:

- Cauliflower, carrot, ginger, garlic, green chili, turnip, cucumber etc. are the primary raw material for the preparation of vegetables pickle.
- The secondary ingredients like salt, red chili powder, turmeric, black pepper, cardamom (large), cinnamon (powdered), cumin, aniseed powder, mustard, vinegar, and mustard oil are required.
- Good qualities of packaging bottle or plastic bags which are suitable for the packaging of pickles are required.

2.3. Technology

IIFPT has all the advanced technical know on dates processing & packaging with respect to specific parameters' for getting good quality standards. These technologies are available through consultancy.

2.4. Market Demand and Supply

According to a report published in March 2018, the global pickles and pickle products market is expected to register of CAGR of 3.2% during the forecast period, 2018 to 2023. There is a moderate level of competition in the global market as the industry is scattered. Pickles by regional players using local products are preferred in the market. It is relatively easy for new entrants due to the trend of customer shifting from one brand in India include Aachi Foods, MTR foods, NEO Foods & craft foods.

2.5. Marketing Strategy

The increasing urbanization and income offers huge scope for marketing of Pickles. Urban organized platforms such as departmental stores, malls, super markets can be attractive platforms to sell well packaged and branded dates. Processors can also have tie-up with hotels, caterers and restaurants for supply.

2.6. Manufacturing Process

- Fresh and healthy vegetables are selected for pickle processing.
- Washing, trimming, and peeling are done to remove rough and thick skins.
- Vegetables are cut into equal pieces of 1-1.5cm thickness.
- Blanch the cut pieces of vegetables in for 5 minutes, drain the water and dry in shade to remove moisture.

- Fry the spices in a little oil separately
- Mix the vegetable slices with spices and salts (9%) thoroughly.
- Fill in the jar and keep in sun for a week.
- Add oil after heating and cooling to keep the pickle for a longer time. Sodium benzoate @ 250 ppm can be added as a preservative (If required for long time preservation).
- Storage the pickles at ambient temperature.

Flow chart:



2.7. Basic Project Assumptions

Capacity of Handmade Pickle Unit: 30000 Kg/annum

Working hours per day : 8-10 hrs.

Working days per year : 300 days.

Interest on capital investment : 11% on term loan and working capital loan.

Repayment period : Five years with six months grace period is considered.

Utilization of capacity : 60% 1st year, 65% in 2nd year, 70% in 3rd year, 75% in 4th year & 80% 5th year onwards

Average prices of raw material : Rs. 90/Kg

Average sale price : Rs 185/Kg

2.8. Fixed Capital Investment

2.8.A. Land & Building

The DPR is for FME scheme to upgrade/formalize existing micro enterprises which already has land & built-up area. However, they can invest to expand the built-up area as required. So additional 1000 sq ft can be built in @ Rs. 400/sq ft. Therefore Civil work cost will be Rs 4 Lakhs (Approx.)

2.8.B. Machinery & Equipment: Rs. 3.13 Lakhs

Description	Rate	Unit	Amount
Spice Grinder	85000	1	85000
Vegetable Slicer	65000	2	130000
Material handling & other equipments(Trolley, bins, knife, etc.)	Lumsum		50000
Total Amount			265000
GST @18%			47700
Net Amount			312700

2.8.C. Other Fixed Assets:

i. Furniture and Fixtures	Rs. 2 Lakh
ii. Plastic trays capacity	
iii. Electrical fittings	

2.8.D. Total Fixed Capital Investment (A+B+C): Rs. 9.13 Lakhs

2.9. Working Capital Requirement

Working capital is critical input in dates processing & packaging unit as raw materials are seasonal and thus need to maintain high inventories.

COMPUTATION OF CLOSING STOCK & WORKING CAPITAL					
PARTICULARS	I	II	III	IV	V
Finished Goods					
(30 Days requirement)	3.33	3.78	4.28	4.82	5.40
Raw Material					
(30 Days requirement)	1.62	1.85	2.10	2.36	2.64
Closing Stock	4.95	5.64	6.38	7.18	8.04

COMPUTATION OF WORKING CAPITAL REQUIREMENT			
Particulars	Amount	Margin(25%)	Net Amount
Stock in Hand	4.95		
Less:			
Sundry Creditors	0.76		
Paid Stock	4.19	1.05	3.15
Sundry Debtors	1.50	0.37	1.12
Working Capital Requirement			4.27
Margin			1.42
MPBF			4.27
Working Capital Demand			4.27

2.10. Total Project Cost and Means of Finance

Particulars	Amount (Rs. in Lakhs)
i. Land and building	4.00
ii. Plant and machinery	3.13
iii. Other Fixed assets	2.00
iv. Working capital margin	1.42
v. Contingencies	0.91
Total project cost (i to v)	11.46
Means of finance	
i. Subsidy	4.01
ii. Promoter's contribution	3.34
iii. Term loan	4.11
Total Means of Finance(i to iii)	11.46

2.11. Manpower:

BREAK UP OF LABOUR				
Particulars	Wages Per Month	No of Employees	Total Salary	
				-
Machine Operator	13,000.00	1	13,000.00	
Skilled/Unskilled Worker	11,000.00	2	22,000.00	
Helper	8,000.00	2	16,000.00	
				-
				51,000.00
Add: 10% Fringe Benefit				5,100.00
Total Labour Cost Per Month				56,100.00
Total Labour Cost for the year (In Rs. Lakhs)		5		6.73

BREAK UP OF SALARY				
Particulars	Salary Per Month	No of Employees	Total Salary	
Accountant cum store keeper	16,000.00	1	16,000.00	
Sales	14,000.00	1	14,000.00	
Total Salary Per Month				30,000.00
Add: 5% Fringe Benefit				1,500.00
Total Salary for the month				31,500.00
Total Salary for the year (In Rs. Lakhs)		2		3.78

2.12. Financial Analysis

PROJECTED BALANCE SHEET					
PARTICULARS	I	II	III	IV	V
SOURCES OF FUND					
Capital Account					
Opening Balance	-	7.73	8.67	9.29	9.89
Add: Additions	3.34	-	-	-	-
Add: Net Profit	1.07	1.85	2.62	3.61	4.59
Less: Drawings	0.70	0.90	2.00	3.00	4.00
Subsidy/Grant	4.01	-	-	-	-
Closing Balance	7.73	8.67	9.29	9.89	10.48
CC Limit	4.27	4.27	4.27	4.27	4.27
Term Loan	3.65	2.74	1.83	0.91	-
Sundry Creditors	0.76	0.86	0.98	1.10	1.23
TOTAL :	16.40	16.54	16.36	16.18	15.98
APPLICATION OF FUND					
Fixed Assets (Gross)	9.13	9.13	9.13	9.13	9.13
Gross Dep.	0.90	2.03	3.30	4.74	6.35
Net Fixed Assets	8.23	7.10	5.83	4.39	2.78
Current Assets					
Sundry Debtors	1.50	1.88	2.13	2.39	2.68
Stock in Hand	4.95	5.64	6.38	7.18	8.04
Cash and Bank	1.73	1.93	2.03	2.22	2.48
TOTAL :	16.40	16.54	16.36	16.18	15.98

PROJECTED PROFITABILITY STATEMENT					
PARTICULARS	I	II	III	IV	V
A) SALES					
Gross Sale	29.97	37.54	42.53	47.83	53.66
Total (A)	29.97	37.54	42.53	47.83	53.66
B) COST OF SALES					
Raw Material Consumed	16.20	18.53	21.00	23.63	26.40
Electricity Expenses	0.81	0.87	0.94	1.01	1.07
Repair & Maintenance	1.23	1.31	1.70	1.91	2.15
Labour & Wages	6.73	6.80	7.14	7.50	7.87
Packing cost & other overheads	0.90	1.13	1.28	1.43	1.61
Cost of Production	25.87	28.64	32.06	35.48	39.10
Add: Opening Stock /WIP	-	3.33	3.78	4.28	4.82
Less: Closing Stock /WIP	3.33	3.78	4.28	4.82	5.40
Cost of Sales (B)	22.54	28.18	31.56	34.95	38.52
C) GROSS PROFIT (A-B)	7.43	9.35	10.98	12.88	15.15
	24.81%	24.92%	25.81%	26.94%	28.22%
D) Bank Interest (Term Loan)	0.45	0.36	0.26	0.16	0.06
ii) Interest On Working Capital	0.47	0.47	0.47	0.47	0.47
E) Salary to Staff	3.78	4.54	5.44	6.53	7.51
F) Selling & Adm Expenses Exp.	0.60	1.20	1.36	1.39	1.88
G) Depreciation as per Schedule	1.07	0.94	0.82	0.73	0.64
TOTAL (D+E+F+G)	6.36	7.51	8.36	9.28	10.56
H) NET PROFIT	1.07	1.85	2.62	3.61	4.59
	3.6%	4.9%	6.2%	7.5%	8.5%
I) Taxation	-	-	-	-	-
J) PROFIT (After Tax)	1.07	1.85	2.62	3.61	4.59

PROJECTED CASH FLOW STATEMENT					
PARTICULARS	I	II	III	IV	V
<u>SOURCES OF FUND</u>					
Own Contribution	3.34	-			
Reserve & Surplus	1.07	1.85	2.62	3.61	4.59
Depriciation & Exp. W/off	0.90	1.13	1.28	1.43	1.61
Increase In Cash Credit	4.27	-	-	-	-
Increase In Term Loan	4.11	-	-	-	-
Increase in Creditors	0.76	0.11	0.12	0.12	0.13
Subsidy/Grant	4.01	-	-	-	-
TOTAL :	18.46	3.08	4.01	5.16	6.32
<u>APPLICATION OF FUND</u>					
Increase in Fixed Assets	9.13	-	-	-	-
Increase in Stock	4.95	0.69	0.75	0.79	0.86
Increase in Debtors	1.50	0.38	0.25	0.26	0.29
Repayment of Term Loan	0.46	0.91	0.91	0.91	0.91
Taxation	-	-	-	-	-
Drawings	0.70	0.90	2.00	3.00	4.00
TOTAL :	16.73	2.88	3.91	4.97	6.07
Opening Cash & Bank Balance	-	1.73	1.93	2.03	2.22
Add : Surplus	1.73	0.20	0.10	0.19	0.26
Closing Cash & Bank Balance	1.73	1.93	2.03	2.22	2.48

2.13. Depreciation Schedule:

COMPUTATION OF DEPRECIATION					
Description	Land	Building(Civil Work)	Plant & Machinery	Other Assets	TOTAL
Rate of Depreciation		10.00%	15.00%	10.00%	
Opening Balance	Leased	-	-	-	-
Addition	-	4.00	3.13	2.00	9.13
	-	4.00	3.13	2.00	9.13
		-	-	-	-
TOTAL		4.00	3.13	2.00	9.13
Less : Depreciation	-	0.40	0.47	0.20	1.07
WDV at end of Ist year	-	3.60	2.66	1.80	8.06
Additions During The Year	-	-	-	-	-
	-	3.60	2.66	1.80	8.06
Less : Depreciation	-	0.36	0.40	0.18	0.94
WDV at end of IIInd Year	-	3.24	2.26	1.62	7.12
Additions During The Year	-	-	-	-	-
	-	3.24	2.26	1.62	7.12
Less : Depreciation	-	0.32	0.34	0.16	0.82
WDV at end of IIIrd year	-	2.92	1.92	1.46	6.29
Additions During The Year	-	-	-	-	-
	-	2.92	1.92	1.46	6.29
Less : Depreciation	-	0.29	0.29	0.15	0.73
WDV at end of IV year	-	2.62	1.63	1.31	5.57
Additions During The Year	-	-	-	-	-
	-	2.62	1.63	1.31	5.57
Less : Depreciation	-	0.26	0.24	0.13	0.64
WDV at end of Vth year	-	2.36	1.39	1.18	4.93

2.14. Repayment Schedule:

REPAYMENT SCHEDULE OF TERM LOAN						11.0%	
Year	Particulars	Amount	Addition	Total	Interest	Repayment	CI Balance
I	Opening Balance						
	Ist Quarter	-	4.11	4.11	0.11	-	4.11
	Iind Quarter	4.11	-	4.11	0.11	-	4.11
	IIIrd Quarter	4.11	-	4.11	0.11	0.23	3.88
	Ivth Quarter	3.88	-	3.88	0.11	0.23	3.65
					0.45	0.46	
II	Opening Balance						
	Ist Quarter	3.65	-	3.65	0.10	0.23	3.42
	Iind Quarter	3.42	-	3.42	0.09	0.23	3.19
	IIIrd Quarter	3.19	-	3.19	0.09	0.23	2.97
	Ivth Quarter	2.97		2.97	0.08	0.23	2.74
					0.36	0.91	
III	Opening Balance						
	Ist Quarter	2.74	-	2.74	0.08	0.23	2.51
	Iind Quarter	2.51	-	2.51	0.07	0.23	2.28
	IIIrd Quarter	2.28	-	2.28	0.06	0.23	2.05
	Ivth Quarter	2.05		2.05	0.06	0.23	1.83
					0.26	0.91	
IV	Opening Balance						
	Ist Quarter	1.83	-	1.83	0.05	0.23	1.60
	Iind Quarter	1.60	-	1.60	0.04	0.23	1.37
	IIIrd Quarter	1.37	-	1.37	0.04	0.23	1.14
	Ivth Quarter	1.14		1.14	0.03	0.23	0.91
					0.16	0.91	
V	Opening Balance						
	Ist Quarter	0.91	-	0.91	0.03	0.23	0.68
	Iind Quarter	0.68	-	0.68	0.02	0.23	0.46
	IIIrd Quarter	0.46	-	0.46	0.01	0.23	0.23
	Ivth Quarter	0.23		0.23	0.01	0.23	0.00
					0.06	0.91	

2.15. Financial Ratios:

FINANCIAL RATIOS					
	I	II	III	IV	V
TURNOVER	29.97	37.54	42.53	47.83	53.66
GROSS PROFIT	7.43	9.35	10.98	12.88	15.15
G.P. RATIO	24.81%	24.92%	25.81%	26.94%	28.22%
NET PROFIT	1.07	1.85	2.62	3.61	4.59
N.P. RATIO	3.6%	4.9%	6.2%	7.5%	8.5%
CURRENT ASSETS	8.17	9.44	10.54	11.79	13.20
CURRENT LIABILITIES	5.03	5.13	5.25	5.37	5.50
CURRENT RATIO	1.63	1.84	2.01	2.19	2.40
TERM LOAN	3.65	2.74	1.83	0.91	-
TOTAL NET WORTH	3.71	4.66	5.28	5.88	6.47
DEBT/EQUITY	0.98	0.59	0.35	0.16	-
TOTAL NET WORTH	3.71	4.66	5.28	5.88	6.47
TOTAL OUTSIDE LIABILITIES	8.68	7.87	7.07	6.28	5.50
TOL/TNW	2.34	1.69	1.34	1.07	0.85
PBDIT	2.89	3.81	4.63	5.67	6.73
INTEREST	0.92	0.83	0.73	0.63	0.53
INTEREST COVERAGE RATIO	3.15	4.56	6.31	8.97	12.64
WDV	8.23	7.10	5.83	4.39	2.78
TERM LOAN	3.65	2.74	1.83	0.91	-
FACR	2.25	2.59	3.19	4.81	-

2.16. Breakeven Point Analysis:

BREAK EVEN POINT ANALYSIS					
Year	I	II	III	IV	V
Net Sales & Other Income	29.97	37.54	42.53	47.83	53.66
Less : Op. WIP Goods	-	3.33	3.78	4.28	4.82
Add : Cl. WIP Goods	3.33	3.78	4.28	4.82	5.40
Total Sales	33.30	37.99	43.04	48.36	54.25
Variable & Semi Variable Exp.					
Raw Material	16.20	18.53	21.00	23.63	26.40
Electricity Exp/Coal Consumption at 85%	0.68	0.74	0.80	0.86	0.91
Wages & Salary at 60%	6.31	6.80	7.55	8.42	9.23
Selling & administrative Expenses 80%	0.48	0.96	1.09	1.11	1.50
ii) Interest On Working Capital	0.47	0.47	0.47	0.47	0.47
Repair & Maintenance	1.23	1.31	1.70	1.91	2.15
Packing cost & other overheads	0.90	1.13	1.28	1.43	1.61
Total Variable & Semi Variable Exp	26.27	29.94	33.88	37.83	42.27
Contribution	7.03	8.05	9.15	10.53	11.98
Fixed & Semi Fixed Expenses					
Electricity Exp/Coal Consumption at 15%	0.12	0.13	0.14	0.15	0.16
Wages & Salary at 40%	4.20	4.53	5.03	5.61	6.15
Interest on Term Loan	0.45	0.36	0.26	0.16	0.06
Depreciation	1.07	0.94	0.82	0.73	0.64
Selling & administrative Expenses 20%	0.12	0.24	0.27	0.28	0.38
Total Fixed Expenses	5.96	6.21	6.53	6.93	7.39
Capacity Utilization	60%	65%	70%	75%	80%
OPERATING PROFIT	1.07	1.85	2.62	3.61	4.59
BREAK EVEN POINT	51%	50%	50%	49%	49%
BREAK EVEN SALES	28.23	29.29	30.73	31.80	33.48

3. Limitations of the Model DPR and Guidelines for Entrepreneurs

3.1. Limitations of the Model DPR

- i. This model DPR has provided only the basic standard components and methodology to be adopted by an entrepreneur while submitting a proposal under the Formalization of Micro Food Processing Enterprises Scheme of MoFPI.
- ii. This is a model DPR made to provide general methodological structure not for specific entrepreneur/crops/location. Therefore, information on the entrepreneur, forms and structure (proprietorship/partnership/cooperative/ FPC/joint stock company) of his business, details of proposed DPR, project location, raw material base/contract sourcing, entrepreneurs own SWOT analysis, detailed market research, rationale of the project for specific location, community advantage/benefit from the project, employment generation and many more detailed aspects not included.
- iii. The present DPR is based on certain assumptions on cost, prices, interest, capacity utilization, output recovery rate and so on. However, these assumptions in reality may vary across places, markets and situations; thus the resultant calculations will also change accordingly.
- iv. This particular DPR is made on three components of means of finance i.e. grant, owner's contribution and loan/debt as followed in many central sector schemes. However, if the DPR is for credit linked subsidy then the calculation may slightly change without changes in the general structure and methodology adopted in the DPR.

3.2. Guidelines for the Entrepreneurs

- i. The success of any prospective food processing project depends on how closer the assumptions made in the initial stage are with the reality of the targeted market/place/situation. Therefore, the entrepreneurs must do its homework as realistic as possible on the assumed parameters.
- ii. This model DPR must be made more comprehensive by the entrepreneur by including information on the entrepreneur, forms and structure (proprietorship/partnership/cooperative/ FPC/joint stock company) of entrepreneur's business, project location, raw material base/contract sourcing, entrepreneurs own SWOT analysis, detailed market research, comprehensive dehydrated product mix based on demand, rationale of the project for specific location, community advantage/benefit from the project, employment generation, production/availability of the raw materials/crops in the targeted area/clusters and many more relevant aspects for acceptance and approval of the competent authority.
- iii. The entrepreneur must be efficient in managing the strategic, financial, operational,

material and marketing aspects of a business. In spite of the assumed parameter being closely realistic, a project may become unsustainable if the entrepreneur does not possess the required efficiency in managing different aspects of the business and respond effectively in changing situations.

- iv. The machineries should be purchased after thorough market research and satisfactory demonstration.
- v. The entrepreneur must ensure uninterrupted quality raw materials' supply and maintain optimum inventory levels for uninterrupted operations management.
- vi. The entrepreneur must possess a strategic look to steer the business in upward trajectory.
- vii. The entrepreneur must maintain optimum (not more or less) inventory, current assets. Selecting optimum source of finance, not too high debt-equity ratio, proper capital budgeting and judicious utilization of surplus profit for expansion is must.
- viii. The entrepreneur must explore prospective markets through extensive research, find innovative marketing strategy, and maintain quality, adjust product mix to demand.
- ix. The entrepreneur must provide required documents on land, financial transaction, balance sheet, further project analysis as required by the competent authority for approval.
- x. The entrepreneur must be hopeful and remain positive in attitude.

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