PROJECT REPORT

Of

BABY CEREAL MILK FOOD

PURPOSE OF THE DOCUMENT

This particular pre-feasibility is regarding **Baby Cereal Milk Food**.

The objective of the pre-feasibility report is primarily to facilitate potential entrepreneurs in project identification for investment and in order to serve his objective; the document covers various aspects of the project concept development, start-up, marketing, finance and management.

[We can modify the project capacity and project cost as per your requirement. We can also prepare project report on any subject as per your requirement.]

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PROJECT AT A GLANCE

1	Name of the Entreprenuer		xxxxxxxxxx	
2	Constitution (legal Status)	:	xxxxxxxxxx	
3	Father / Spouse Name		xxxxxxxxxxxx	
4	Unit Address	:	xxxxxxxxxxxxxxxxxxxxxxx	
			District : xxxxxxx	
			Pin: xxxxxxx	State: xxxxxxxxxx
			Mobile xxxxxxx	
5	Product and By Product	:	**BABY CEREAL MILK FOOD**	
6	Name of the project / business activity proposed :		**BABY CEREAL MILK FOOD MANUFACTURING UNIT**	
7	Cost of Project	:	Rs.21.67 Lakhs	
8	Means of Finance			
	Term Loan		Rs.13.5 Lakhs	
	Own Capital		Rs.2.17 Lakhs	
	Working Capital		Rs.6 Lakhs	
9	Debt Service Coverage Ratio	:	2.40	
10	Pay Back Period	:	5	Years
11	Project Implementation Period	:	5-6	Months
12	Break Even Point	:	51%	
13	Employment	:	13	Persons
14	Power Requirement	:	25	HP
15	Major Raw materials	:	Milk,Rice,Wheat, Oats etc.	
16	Estimated Annual Sales Turnover (Max Utilized Capacity)	:	111.89	Lakhs
17	Detailed Cost of Project & Means of Finance			

COST OF PROJECT

(Rs. In Lakhs)

Particulars	Amount
Land	Own/Rented
Building /Shed 1500 Sq ft	Own/Rented
Plant & Machinery	13.85
Furniture & Fixtures	1.15
Working Capital	6.67
Total	**21.67**

MEANS OF FINANCE

Particulars	Amount
Own Contribution	2.17
Term Loan	13.50
Working Capital	6.00
Total	**21.67**

BABY CEREAL MILK POWDER

PRODUCT INTRODUCTION:

Baby cereal foods are rich in minerals and nutrients. They have required levels of nutrition which are helpful for babies to maintain their growth. Cereal is usually the first solid food that is given to babies and due to its convenience and has many advantages. Mainly, there are three forms of baby food which are liquid concentrate, powder, and ready to feed. Cereal powder is the least expensive form and it's used, by mixing it with water before feeding it to infants. Cereal foods are easily digestible by baby and it also helps in growth of the infant at initial stage of their life.

USES & MARKET POTENTIAL:

The infant cereal food provides soft diets to the babies. Baby cereal food are completely dissolvable in saliva. In many cases the baby cereal foods are also used by older children as it makes an excellent hot cereal and are also easily prepared. Cereals with milk are an excellent source of calcium.

Baby food is one of the fastest growing categories in baby care and overall FMCG industry of India. Baby cereal food have witnessed an excellent growth in the past few years. Baby food market size in 2014 was valued at 50.7 billion dollar and is expected to be 72.7 billion dollars by 2020. In old times babies were feeded with some home cooked food but in today's scenario things have changed, which resulted in increased demand of baby cereal food all over the country.

INFRASTRUCTURE REQUIREMENT:

1) Land around 1500-2000 sq. Ft.(approx.)

2) Office Furniture and fixtures

MACHINERY REQUIREMENT: Basic Machinery requirement are as follows:

1. **Milk Storage Tank**

In dairy and milk processing industry a bulk milk storage tank is a large storage tank for holding the milk at a cold temperature until it can be picked up by a milk hauler. It is made up of stainless steel and is used every day to store the raw milk on the farm in good condition.

2. **Baby Boiler**

Boilers are basically used in dairy industry for heating of milk and milk pasteurization. Milk boilers ensures good shelf life.

3. **Raw Material Bin**

These equipments are class of storage equipments which are specifically designed for dry raw material of small granule composition.

4. **Industrial Mixer Grinder**

This machine is used to mix various ingredients in appropriate quantities and help in the process of making baby cereal milk powder. It is a multipurpose machine used for various grains, rice, etc.

5. **Homogenizer**

This equipment is used in the production of liquid mixtures in which the said mixture, is forced through a small passage at high velocity. This machine reduces solute globule size to a very small size in order to prevent aggregate formation.

6. **Spray Drier with Atomizer**

Spray drier use some type of atomizer or spray nozzle to disperse the liquid or slurry into a controlled drop size spray. This machine helps in producing a dry powder from a liquid. It is used for products such as starch, rice, corn, etc.

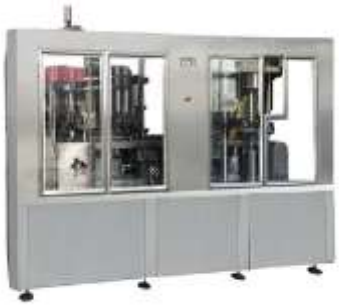
7. **Can Washing Machine**

Can Washing Machine be used to wash the tin containers and cans in which given product is to be stored and packed. Before packaging process takes place, the cans or tins are washed in can washing machine.

8. Sterilizer

This machine is simply composed of a storage tank, a heating mechanism and a temperature regulation system so as to sterilize given mixture.

9. Cereal Powder Packing Machine



This machine is used to fill the finished product in cans or tins of different sizes and the product is ready for sale in the market.

RAW MATERIAL:

Basic Raw Material requirement are as follows:

1. Milk
2. Rice
3. Wheat
4. Oats
5. Cans
6. Chemicals like Preservatives

MANUFACTURING PROCESS: The General procedure is as follow:

- **Mixing Ingredients**: The primary ingredients are blended in huge stainless-steel tanks and are mixed together along with milk at temperature of 60°C. Then other fat, minerals, nutrients are added. Some additional heating and mixing may be required to get proper consistency. When mixing process is completed then the mixed material is transported to pasteurization equipment.

- **Pasteurization**: This process is very helpful as it protects the mixture from getting spoiled, by removing or eliminating bacteria, yeast and molds. The mixture is quickly heated and then cooled under controlled conditions, in which micro-organism cannot survive. The heating temperature is around 85-95°C for approximately 30 seconds.

- **Homogenization**: This process enhances emulsion uniformly which helps in reducing the size of the fat and oil particles in the formula. This process is performed by a variety of mixing equipments which apply shear load at the product and this mixing breaks fat and other particles to a very small size.

- **Standardization**: This process is used to ensure that the key parameters like Ph, vitamins and mineral content are correct. If the level is insufficient the levels are reworked to make it adequate.

- **Sterilization**: The formula is heated to maintain its bacteriologic quality so that the product quality is not hampered. In this the formula is heated at a temperature of 118°C for 10-15 mins.

- **Dry Blending**: This process can be performed through spray dryers. In this process the ingredients are received in a dehydrated powdered form and are mixed together to achive a uniform blend of the macro and micro nutrients necessary for a complete infant formula product.

- **Packaging**: This process basically depends upon the equipments used but commonly the product is packed in different size of cans or small tins which can be easily sold in a retail market.

Process Flow Diagram:

PROJECTED BALANCE SHEET

PARTICULARS	I	II	III	IV	V
SOURCES OF FUND					
Capital Account					
Opening Balance	-	2.88	4.32	6.71	9.85
Add: Additions	2.17	-	-	-	-
Add: Net Profit	2.22	3.43	5.90	8.14	10.58
Less: Drawings	1.50	2.00	3.50	5.00	8.00
Closing Balance	2.88	4.32	6.71	9.85	12.43
CC Limit	6.00	6.00	6.00	6.00	6.00
Term Loan	12.00	9.00	6.00	3.00	-
Sundry Creditors	0.46	0.52	0.59	0.66	0.74
TOTAL :	**21.34**	**19.84**	**19.30**	**19.52**	**19.18**
APPLICATION OF FUND					
Fixed Assets (Gross)	15.00	15.00	15.00	15.00	15.00
Gross Dep.	2.19	4.06	5.66	7.02	8.18
Net Fixed Assets	12.81	10.94	9.34	7.98	6.82
Current Assets					
Sundry Debtors	4.45	5.23	5.92	6.66	7.46
Stock in Hand	2.73	3.02	3.38	3.77	4.19
Cash and Bank	1.36	0.66	0.66	1.11	0.70
TOTAL :	**21.34**	**19.84**	**19.30**	**19.52**	**19.18**
	-	-	-	-	-

PROJECTED PROFITABILITY STATEMENT

PARTICULARS	I	II	III	IV	V
A) SALES					
Gross Sale	66.82	78.42	88.83	99.86	111.89
Total (A)	**66.82**	**78.42**	**88.83**	**99.86**	**111.89**
B) COST OF SALES					
Raw Mateiral Consumed	27.48	31.26	35.35	39.78	44.54
Electricity Expenses	2.55	2.77	2.98	3.19	3.40
Repair & Maintenance	0.33	0.39	0.44	0.50	0.56
Labour & Wages	10.76	11.83	13.02	14.32	15.75
Depreciation	2.19	1.87	1.59	1.36	1.16
Cost of Production	43.31	48.12	53.38	59.15	65.42
Add: Opening Stock /WIP	-	1.44	1.56	1.73	1.91
Less: Closing Stock /WIP	1.44	1.56	1.73	1.91	2.11
Cost of Sales (B)	41.87	48.01	53.21	58.96	65.22
C) GROSS PROFIT (A-B)	24.95	30.41	35.62	40.90	46.68
	37.34%	**38.78%**	**40.10%**	**40.95%**	**41.72%**
D) Bank Interest (Term Loan)	1.46	1.20	0.87	0.54	0.21
ii) Interest On Working Capital	0.66	0.66	0.66	0.66	0.66
E) Salary to Staff	8.58	9.44	10.38	11.42	12.56
F) Selling & Adm Expenses Exp.	12.03	15.68	17.77	19.97	22.38
TOTAL (D+E)	**22.73**	**26.98**	**29.67**	**32.59**	**35.81**
H) NET PROFIT	2.22	3.43	5.94	8.31	10.87
	3.3%	**4.4%**	**6.7%**	**8.3%**	**9.7%**
I) Taxation	-	-	0.05	0.17	0.29
J) PROFIT (After Tax)	2.22	3.43	5.90	8.14	10.58

PROJECTED CASH FLOW STATEMENT

PARTICULARS	I	II	III	IV	V
SOURCES OF FUND					
Own Contribution	2.17	-			
Net Profit	2.22	3.43	5.94	8.31	10.87
Depreciation & Exp. W/off	2.19	1.87	1.59	1.36	1.16
Increase In Cash Credit	6.00				
Increase In Term Loan	13.50	-	-	-	-
Increase in Creditors	0.46	0.06	0.07	0.07	0.08
TOTAL :	**26.54**	**5.37**	**7.61**	**9.74**	**12.11**
APPLICATION OF FUND					
Increase in Fixed Assets	15.00	-	-	-	-
Increase in Stock	2.73	0.29	0.36	0.39	0.42
Increase in Debtors	4.45	0.77	0.69	0.74	0.80
Repayment of Term Loan	1.50	3.00	3.00	3.00	3.00
Taxation	-	-	0.05	0.17	0.29
Drawings	1.50	2.00	3.50	5.00	8.00
TOTAL :	**25.18**	**6.06**	**7.60**	**9.29**	**12.52**
Opening Cash & Bank Balance	-	1.36	0.66	0.66	1.11
Add : Surplus	1.36	- 0.70	0.00	0.45	- 0.41
Closing Cash & Bank Balance	**1.36**	**0.66**	**0.66**	**1.11**	**0.70**

COMPUTATION OF BABY CEREAL MILK FOOD MANUFACTURING UNIT

Items to be Manufactured BABY CEREAL MILK FOOD

Manufacturing Capacity per Day		80.00	kg
No. of Working Hour		8	
No of Working Days per month		25	
No. of Working Day per annum		300	
Total Production per Annum		24,000	kg
Total Production per Annum		48,000.00	Cans of 500gm
Year		Capacity Utilisation	BABY CEREAL MILK FOOD
I		60%	28,800
II		65%	31,200
III		70%	33,600
IV		75%	36,000
V		80%	38,400

COMPUTATION OF RAW MATERIAL

Item Name		Quantity of Raw Material	Unit	Unit Rate of	Total CostPer Annum (100%)
Milk		72,000	Ltr	28	2,016,000
Rice		11,040	Kgs	35	386,400
Wheat		9,600	Kgs	18	172,800
Oats		5,000	Kgs	190	950,000
Cans		48,000	Pieces	22	1,056,000
Total		**145,640.00**			**4,581,200.00**

Total Raw material in Rs lacs	at 100% Capacity		45.81
Cost per 500 gm Cans		(In Rs)	**95.40**

Raw Material Consumed	Capacity Utilisation	Rate	Amount (Rs.)
I	60%	95.40	27.48
II	65%	100.20	31.26
III	70%	105.20	35.35
IV	75%	110.50	39.78
V	80%	116.00	44.54

COMPUTATION OF SALE

Particulars	I	II	III	IV	V
Op Stock	-	960.00	1,040.00	1,120.00	1,200.00
Production	28,800.00	31,200.00	33,600.00	36,000.00	38,400.00
	28,800.00	32,160.00	34,640.00	37,120.00	39,600.00
Less : Closing Stock(10 Days)	960.00	1,040.00	1,120.00	1,200.00	1,280.00
Net Sale	27,840.00	31,120.00	33,520.00	35,920.00	38,320.00
Sale Price per 500gm Can	240.00	252.00	265.00	278.00	292.00
Sale (in Lacs)	**66.82**	**78.42**	**88.83**	**99.86**	**111.89**

COMPUTATION OF CLOSING STOCK & WORKING CAPITAL

PARTICULARS	I	II	III	IV	V
Finished Goods					
(10 Days requirement)	1.44	1.56	1.73	1.91	2.11
Raw Material					
(14 Days requirement)	1.28	1.46	1.65	1.86	2.08
Closing Stock	**2.73**	**3.02**	**3.38**	**3.77**	**4.19**

COMPUTATION OF WORKING CAPITAL REQUIREMENT

Particulars	Amount	Margin(10%)	Net Amount
Stock in Hand	2.73		
Less:			
Sundry Creditors	0.46		
Paid Stock	**2.27**	**0.23**	**2.04**
Sundry Debtors	4.45	0.45	4.01
Working Capital Requirement			**6.05**
Margin			0.67
MPBF			**6.05**
Working Capital Demand			**6.00**

BREAK UP OF LABOUR

Particulars		Wages Per Month	No of Employees	Total Salary
Supervisor		20,000.00	1	20,000.00
Plant Operator		15,000.00	1	15,000.00
Unskilled Worker		8,500.00	4	34,000.00
Helper		5,000.00	1	5,000.00
Security Guard		7,500.00	1	7,500.00
				81,500.00
Add: 10% Fringe Benefit				8,150.00
Total Labour Cost Per Month				89,650.00
Total Labour Cost for the year (In Rs. Lakhs)			8	10.76

BREAK UP OF SALARY

Particulars		Salary Per Month	No of Employees	Total Salary
Accountant cum store keeper		15,000.00	1	15,000.00
Administrative Staffs		12,500.00	4	50,000.00
Total Salary Per Month				65,000.00
Add: 10% Fringe Benefit				6,500.00
Total Salary for the month				71,500.00
Total Salary for the year (In Rs. Lakhs)			5	8.58

COMPUTATION OF DEPRECIATION

Description	Land	Building/shed	Plant & Machinery	Furniture	**TOTAL**
Rate of Depreciation			**15.00%**	**10.00%**	
Opening Balance	Own/Rented		-	-	-
Addition	-		13.85	1.15	15.00
	-		13.85	1.15	15.00
TOTAL		-	13.85	1.15	15.00
Less : Depreciation	-	-	2.08	0.12	2.19
WDV at end of Ist year	-	-	11.77	1.04	12.81
Additions During The Year	-	-	-	-	-
	-	-	11.77	1.04	12.81
Less : Depreciation	-	-	1.77	0.10	1.87
WDV at end of IInd Year	-	-	10.01	0.93	10.94
Additions During The Year	-	-	-	-	-
	-	-	10.01	0.93	10.94
Less : Depreciation	-	-	1.50	0.09	1.59
WDV at end of IIIrd year	-	-	8.51	0.84	9.34
Additions During The Year	-	-	-	-	-
	-	-	8.51	0.84	9.34
Less : Depreciation	-	-	1.28	0.08	1.36
WDV at end of IV year	-	-	7.23	0.75	7.98
Additions During The Year	-	-	-	-	-
	-	-	7.23	0.75	7.98
Less : Depreciation	-	-	1.08	0.08	1.16
WDV at end of Vth year	-	-	6.15	0.68	6.82

REPAYMENT SCHEDULE OF TERM LOAN 11.0%

Year	Particulars	Amount	Addition	Total	Interest	Repayment	Cl Balance
I	Opening Balance						
	Ist Quarter	-	13.50	13.50	0.37	-	13.50
	Iind Quarter	13.50	-	13.50	0.37	-	13.50
	IIIrd Quarter	13.50	-	13.50	0.37	0.75	12.75
	Ivth Quarter	12.75	-	12.75	0.35	0.75	12.00
					1.46	1.50	
II	Opening Balance						
	Ist Quarter	12.00	-	12.00	0.33	0.75	11.25
	Iind Quarter	11.25	-	11.25	0.31	0.75	10.50
	IIIrd Quarter	10.50	-	10.50	0.29	0.75	9.75
	Ivth Quarter	9.75		9.75	0.27	0.75	9.00
					1.20	3.00	
III	Opening Balance						
	Ist Quarter	9.00	-	9.00	0.25	0.75	8.25
	Iind Quarter	8.25	-	8.25	0.23	0.75	7.50
	IIIrd Quarter	7.50	-	7.50	0.21	0.75	6.75
	Ivth Quarter	6.75		6.75	0.19	0.75	6.00
					0.87	3.00	
IV	Opening Balance						
	Ist Quarter	6.00	-	6.00	0.17	0.75	5.25
	Iind Quarter	5.25	-	5.25	0.14	0.75	4.50
	IIIrd Quarter	4.50	-	4.50	0.12	0.75	3.75
	Ivth Quarter	3.75		3.75	0.10	0.75	3.00
					0.54	3.00	
V	Opening Balance						
	Ist Quarter	3.00	-	3.00	0.08	0.75	2.25
	Iind Quarter	2.25	-	2.25	0.06	0.75	1.50
	IIIrd Quarter	1.50	-	1.50	0.04	0.75	0.75
	Ivth Quarter	0.75		0.75	0.02	0.75	-
					0.21	3.00	

Door to Door Period	60	Months
Moratorium Period	6	Months
Repayment Period	54	Months

CALCULATION OF D.S.C.R

PARTICULARS	I	II	III	IV	V
CASH ACCRUALS	4.41	5.30	7.49	9.50	11.74
Interest on Term Loan	1.46	1.20	0.87	0.54	0.21
Total	5.87	6.50	8.36	10.04	11.94
REPAYMENT					
Repayment of Term Loan	1.50	3.00	3.00	3.00	3.00
Interest on Term Loan	1.46	1.20	0.87	0.54	0.21
Total	2.96	4.20	3.87	3.54	3.21
DEBT SERVICE COVERAGE RATI	**1.98**	**1.55**	**2.16**	**2.84**	**3.73**
AVERAGE D.S.C.R.			**2.40**		

COMPUTATION OF ELECTRICITY

(A) POWER CONNECTION				
Total Working Hour per day		Hours	8	
Electric Load Required		HP	25	
Load Factor			0.7460	
Electricity Charges		per unit	7.50	
Total Working Days			300	
Electricity Charges				3.36
Add : Minimim Charges (@ 10%)				
(B) DG set				
No. of Working Days			300	days
No of Working Hours			0.5	Hour per day
Total no of Hour			150	
Diesel Consumption per Hour			8	
Total Consumption of Diesel			1,200	
Cost of Diesel			65.00	Rs. /Ltr
Total cost of Diesel			0.78	
Add : Lube Cost @15%			0.12	
Total			**0.90**	
Total cost of Power & Fuel at 100%				4.25
Year		**Capacity**		**Amount**
				(in Lacs)
I		60%		2.55
II		65%		2.77
III		70%		2.98
IV		75%		3.19
V		80%		3.40

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