PROJECT REPORT

Of

CORN PUFF

PURPOSE OF THE DOCUMENT

This particular pre-feasibility is regarding **Corn Puff**.

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	:	**Corn Puff**	
6	Name of the project / business activity proposed :		**Corn Puff Manufacturing Unit**	
7	Cost of Project	:	Rs.23.66 Lakhs	
8	Means of Finance			
	Term Loan		Rs.14 Lakhs	
	Own Capital		Rs.2.37 Lakhs	
	Working Capital		Rs.7.3 Lakhs	
9	Debt Service Coverage Ratio	:	2.15	
10	Pay Back Period	:	5	Years
11	Project Implementation Period	:	5-6	Months
12	Break Even Point	:	44%	
13	Employment	:	13	Persons
14	Power Requirement	:	50	HP
15	Major Raw materials	:	Corn Grit, Edible Oil, Salt, Water etc	
16	Estimated Annual Sales Turnover (Max Utilized Capacity)	:	165.51	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	14.20
Furniture & Fixtures	1.35
Working Capital	8.11
Total	**23.66**

MEANS OF FINANCE

Particulars	Amount
Own Contribution	2.37
Term Loan	14.00
Working Capital	7.30
Total	**23.66**

CORN PUFF MAKING (FULLY AUTOMATIC)

WHAT IS CORN PUFF?

Puffcorn or Corn puffs are puffed or extruded corn snacks made with Corn meal and baked. Products by the name of puffcorn (instead of the more generic term corn puff) in particular can be made to look similar to popcorn, although the latter is made from whole grains.

Puffcorn is an extruded puffed corn snack which belongs in the snack group products made with corn grits, rice, wheat, or other cereals. Puffcorn is often flavored with cheese, oil, Chili, Onion or garlic powder, and many other spices. Types of puffcorn can vary between specific length, higher bulk density, lower lightness, higher redness, lower yellowness, higher hardness, and lower springiness, gumminess and chewiness when using different percentage of oat flour.

MANUFACTURING PROCESS

Puffcorn, much like other puffed products such as cereals and crispbreads are processed by Extrusion cooking through an extruder. This is a thermodynamic process where the dough is passed through a tube and heated under a certain amount of pressure. The puffcorn dough product is then forced through a narrow opening called a die, and as it gets released, the change in pressure and temperature causes the product to puff out, giving the texture and consistency of puffcorn.

The different shapes and textures of puffcorn are manipulated by the die at the end of the extruder and the type of extruder used. Specific types of grain size of the starch required during processing also depends on the snack type itself, for example; if the puffcorn snack requires a fine structure with small pores an extruder with smaller granulation should be used whereas crispier puffcorn would require larger granulation.

PACKAGING OF MANUFACTURED CORN PUFF

Factors that are considered to determine the packaging material of extruded snacks like puffcorn are Water Vapor transmission rate, Oxygen Transmission rate, optical density and Flavor/odor barriers property. The packaging of choice ultimately compromises between protective properties, shelf life of the product, aesthetic appeal, and cost. Given that deterioration of Puffcorn products is primarily attributed to loss of crispness, it is crucial that the packaging provides a barrier against water vapor. Oxygen barrier requirements for the packaging of puffcorn may be less stringent as extruded and puffed snacks can be less sensitive to oxygen in comparison with fried snack foods.

A variety of materials can be used in packaging of puffcorn, examples of which include Low Density Polyethylene, Laminated Pouches and Oriented Polypropylene.

ABOUT THE MARKET SCENARIO-PUFFED FOOD MARKET

Puffed food has a primary role in human consumption. Consumer demand is increasing for puffed food due to various health benefits such as weight loss, therefore increasing the market share of puffed food market. Increasing demand for flavor food products is expected to increase the puffed food market over the forecast period. Consumers believe in ready to eat products which have high nutrients like popcorns and Cheetos. The growing puffed market attributed to the shift in consumer demand for various flavors and nutritious food.

Puffed food is segmented by category type, application and region. By category, puffin comes in wheat, rice, sorghum and ragi. Puffed wheat is prepared by heating wheat grains under pressure and the rapidly releasing pressure when the superheated steam in the grain expands, then grain is puffed. It is good source of copper, protein and iron. Puffed rice used in breakfast cereal and snack foods served as popular food street food. It is made by heating rice kernels under high pressure in the presence of steam. Puffed food is segmented by applications as bakery Industry and Snack Industry.

MACHINERY REQUIREMENT

The Automatic Corn puff making unit consists of following machinery & equipment:

1. Batch Mixer with Screw feeder

2. Puff Extruder

3. Conveyor

4. Rotary roaster

5. Seasoning Machine

6. Automatic collar Type cup filler Packing Machine

7. Air Compressor

8. Nitrogen Generator

PROJECTED BALANCE SHEET

PARTICULARS	I	II	III	IV	V
SOURCES OF FUND					
Capital Account					
Opening Balance	-	3.31	4.70	6.82	10.37
Add: Additions	2.37	-	-	-	-
Add: Net Profit	0.94	2.65	4.12	7.54	11.44
Less: Drawings	-	1.25	2.00	4.00	8.00
Closing Balance	3.31	4.70	6.82	10.37	13.81
CC Limit	7.30	7.30	7.30	7.30	7.30
Term Loan	12.44	9.33	6.22	3.11	-
Sundry Creditors	1.10	1.27	1.44	1.63	1.82
TOTAL :	**24.15**	**22.60**	**21.78**	**22.40**	**22.92**
APPLICATION OF FUND					
Fixed Assets (Gross)	15.55	15.55	15.55	15.55	15.55
Gross Dep.	2.27	4.20	5.85	7.25	8.45
Net Fixed Assets	13.29	11.35	9.70	8.30	7.10
Current Assets					
Sundry Debtors	3.14	3.74	4.28	4.88	5.52
Stock in Hand	6.08	6.85	7.76	8.72	9.74
Cash and Bank	1.64	0.66	0.04	0.51	0.57
TOTAL :	**24.15**	**22.60**	**21.78**	**22.40**	**22.92**
	-	-	-	-	-

PROJECTED PROFITABILITY STATEMENT

PARTICULARS	I	II	III	IV	V
A) SALES					
Gross Sale	94.25	112.19	128.52	146.26	165.51
Total (A)	**94.25**	**112.19**	**128.52**	**146.26**	**165.51**
B) COST OF SALES					
Raw Mateiral Consumed	66.00	75.90	86.40	97.50	109.20
Electricity Expenses	3.81	4.19	4.57	4.95	5.33
Repair & Maintenance	0.47	0.56	0.64	0.73	0.83
Labour & Wages	10.76	11.83	13.02	14.32	15.75
Depreciation	2.27	1.93	1.65	1.41	1.20
Cost of Production	83.30	94.41	106.27	118.90	132.31
Add: Opening Stock /WIP	-	2.78	3.05	3.44	3.85
Less: Closing Stock /WIP	2.78	3.05	3.44	3.85	4.28
Cost of Sales (B)	80.52	94.13	105.89	118.50	131.87
C) GROSS PROFIT (A-B)	13.73	18.05	22.63	27.77	33.63
	14.56%	**16.09%**	**17.61%**	**18.98%**	**20.32%**
D) Bank Interest (Term Loan)	1.52	1.24	0.90	0.56	0.21
ii) Interest On Working Capital	0.80	0.80	0.80	0.80	0.80
E) Salary to Staff	8.58	9.44	10.38	11.42	12.56
F) Selling & Adm Expenses Exp.	1.89	3.93	6.43	7.31	8.28
TOTAL (D+E)	**12.79**	**15.41**	**18.51**	**20.09**	**21.85**
H) NET PROFIT	0.94	2.65	4.12	7.68	11.78
	1.0%	**2.4%**	**3.2%**	**5.2%**	**7.1%**
I) Taxation	-	-	-	0.13	0.34
J) PROFIT (After Tax)	0.94	2.65	4.12	7.54	11.44

PROJECTED CASH FLOW STATEMENT

PARTICULARS	I	II	III	IV	V
SOURCES OF FUND					
Own Contribution	2.37	-			
Net Profit	0.94	2.65	4.12	7.68	11.78
Depreciation & Exp. W/off	2.27	1.93	1.65	1.41	1.20
Increase In Cash Credit	7.30				
Increase In Term Loan	14.00	-	-	-	-
Increase in Creditors	1.10	0.17	0.18	0.19	0.20
TOTAL :	**27.97**	**4.74**	**5.94**	**9.27**	**13.17**
APPLICATION OF FUND					
Increase in Fixed Assets	15.55	-	-	-	-
Increase in Stock	6.08	0.77	0.91	0.96	1.02
Increase in Debtors	3.14	0.60	0.54	0.59	0.64
Repayment of Term Loan	1.56	3.11	3.11	3.11	3.11
Taxation	-	-	-	0.13	0.34
Drawings	-	1.25	2.00	4.00	8.00
TOTAL :	**26.32**	**5.73**	**6.56**	**8.80**	**13.11**
Opening Cash & Bank Balance	-	1.64	0.66	0.04	0.51
Add : Surplus/(Deficit)	1.64	- 0.99	- 0.62	0.47	0.06
Closing Cash & Bank Balance	**1.64**	**0.66**	**0.04**	**0.51**	**0.57**

COMPUTATION OF CORN PUFF MANUFACTURING UNIT

Items to be Manufactured Corn Puff

Manufacturing Capacity per Day		400.00	kgs
No. of Working Hour		8	
No of Working Days per month		25	
No. of Working Day per annum		300	
Total Production per Annum		120,000	kgs
Total Production per Annum		6,000,000.00	pouches of 25 gm
Year		Capacity	Corn Puff
		Utilisation	
I		50%	3,000,000
II		55%	3,300,000
III		60%	3,600,000
IV		65%	3,900,000
V		70%	4,200,000

COMPUTATION OF RAW MATERIAL

Item Name		**Quantity of Raw Material**	**Unit**	**Unit Rate of**	**Total CostPer Annum (100%)**
Raw Material Consumed		132,000.00	kgs	98.00	12,936,000.00
Total		**132,000.00**			**12,936,000.00**

Total Raw material in Rs lacs	at 100% Capacity		129.36
Cost per pouch of 25gm		(In Rs)	**2.20**

Raw Material Consumed	**Capacity Utilisation**	**Rate**	**Amount (Rs.)**
I	50%	2.20	66.00
II	55%	2.30	75.90
III	60%	2.40	86.40
IV	65%	2.50	97.50
V	70%	2.60	109.20

COMPUTATION OF SALE

Particulars	I	II	III	IV	V
Op Stock	-	100,000.00	110,000.00	120,000.00	130,000.00
Production	3,000,000.00	3,300,000.00	3,600,000.00	3,900,000.00	4,200,000.00
	3,000,000.00	3,400,000.00	3,710,000.00	4,020,000.00	4,330,000.00
Less : Closing Stock(10 Days)	100,000.00	110,000.00	120,000.00	130,000.00	140,000.00
Net Sale	2,900,000.00	3,290,000.00	3,590,000.00	3,890,000.00	4,190,000.00
Sale Price per pouch of 25 gm	3.25	3.41	3.58	3.76	3.95
Sale (in Lacs)	**94.25**	**112.19**	**128.52**	**146.26**	**165.51**

COMPUTATION OF CLOSING STOCK & WORKING CAPITAL

PARTICULARS	I	II	III	IV	V
Finished Goods					
(10 Days requirement)	2.78	3.05	3.44	3.85	4.28
Raw Material					
(15 Days requirement)	3.30	3.80	4.32	4.88	5.46
Closing Stock	**6.08**	**6.85**	**7.76**	**8.72**	**9.74**

COMPUTATION OF WORKING CAPITAL REQUIREMENT

Particulars	Amount	Margin(10%)	Net Amount
Stock in Hand	6.08		
Less:			
Sundry Creditors	1.10		
Paid Stock	**4.98**	**0.50**	**4.48**
Sundry Debtors	3.14	0.31	2.83
Working Capital Requirement			**7.31**
Margin			0.81
MPBF			**7.31**
Working Capital Demand			**7.30**

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	-		14.20	1.35	15.55
	-		14.20	1.35	15.55
TOTAL		-	14.20	1.35	15.55
Less : Depreciation	-	-	2.13	0.14	2.27
WDV at end of Ist year	-	-	12.07	1.22	13.29
Additions During The Year	-	-	-	-	-
	-	-	12.07	1.22	13.29
Less : Depreciation	-	-	1.81	0.12	1.93
WDV at end of IInd Year	-	-	10.26	1.09	11.35
Additions During The Year	-	-	-	-	-
	-	-	10.26	1.09	11.35
Less : Depreciation	-	-	1.54	0.11	1.65
WDV at end of IIIrd year	-	-	8.72	0.98	9.70
Additions During The Year	-	-	-	-	-
	-	-	8.72	0.98	9.70
Less : Depreciation	-	-	1.31	0.10	1.41
WDV at end of IV year	-	-	7.41	0.89	8.30
Additions During The Year	-	-	-	-	-
	-	-	7.41	0.89	8.30
Less : Depreciation	-	-	1.11	0.09	1.20
WDV at end of Vth year	-	-	6.30	0.80	7.10

REPAYMENT SCHEDULE OF TERM LOAN 11.0%

Year	Particulars	Amount	Addition	Total	Interest	Repayment	Cl Balance
I	Opening Balance						
	Ist Quarter	-	14.00	14.00	0.38	-	14.00
	Iind Quarter	14.00	-	14.00	0.38	-	14.00
	IIIrd Quarter	14.00	-	14.00	0.38	0.78	13.22
	Ivth Quarter	13.22	-	13.22	0.36	0.78	12.44
					1.52	1.56	
II	Opening Balance						
	Ist Quarter	12.44	-	12.44	0.34	0.78	11.66
	Iind Quarter	11.66	-	11.66	0.32	0.78	10.89
	IIIrd Quarter	10.89	-	10.89	0.30	0.78	10.11
	Ivth Quarter	10.11		10.11	0.28	0.78	9.33
					1.24	3.11	
III	Opening Balance						
	Ist Quarter	9.33	-	9.33	0.26	0.78	8.55
	Iind Quarter	8.55	-	8.55	0.24	0.78	7.78
	IIIrd Quarter	7.78	-	7.78	0.21	0.78	7.00
	Ivth Quarter	7.00		7.00	0.19	0.78	6.22
					0.90	3.11	
IV	Opening Balance						
	Ist Quarter	6.22	-	6.22	0.17	0.78	5.44
	Iind Quarter	5.44	-	5.44	0.15	0.78	4.67
	IIIrd Quarter	4.67	-	4.67	0.13	0.78	3.89
	Ivth Quarter	3.89		3.89	0.11	0.78	3.11
					0.56	3.11	
V	Opening Balance						
	Ist Quarter	3.11	-	3.11	0.09	0.78	2.33
	Iind Quarter	2.33	-	2.33	0.06	0.78	1.56
	IIIrd Quarter	1.56	-	1.56	0.04	0.78	0.78
	Ivth Quarter	0.78		0.78	0.02	0.78	0.00
					0.21	3.11	

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	3.21	4.58	5.77	8.95	12.64
Interest on Term Loan	1.52	1.24	0.90	0.56	0.21
Total	4.72	5.82	6.67	9.50	12.85
REPAYMENT					
Repayment of Term Loan	1.56	3.11	3.11	3.11	3.11
Interest on Term Loan	1.52	1.24	0.90	0.56	0.21
Total	3.07	4.35	4.01	3.67	3.32
DEBT SERVICE COVERAGE RATIO	**1.54**	**1.34**	**1.66**	**2.59**	**3.87**
AVERAGE D.S.C.R.			**2.15**		

COMPUTATION OF ELECTRICITY

(A) POWER CONNECTION				
Total Working Hour per day		Hours	8	
Electric Load Required		HP	50	
Load Factor			0.7460	
Electricity Charges		per unit	7.50	
Total Working Days			300	
Electricity Charges				6.71
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%				7.61
Year		**Capacity**		**Amount**
				(in Lacs)
I		50%		3.81
II		55%		4.19
III		60%		4.57
IV		65%		4.95
V		70%		5.33

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