



Model Detailed Project Report

COOKIES MANUFACTURING

Prepared by

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1. INTRODUCTION

COOKIES



A cookie is a baked or cooked food that is typically small, flat and sweet. It usually contains flour, sugar and some type of oil or fat. It may include other ingredients such as raisins, oats, chocolate chips, nuts, etc.

Cookies are often served with beverages such as milk, coffee or tea and sometimes "dunked", an approach which releases more flavour from confections by dissolving the sugars, while also softening their texture.

Cookies are most commonly baked until crisp or just long enough that they remain soft, but some kinds of cookies are not baked at all. Cookies are made in a wide variety of styles, using an array of ingredients including sugars, spices, chocolate, butter, peanut butter, nuts, or dried fruits. The softness of the cookie may depend on how long it is baked.

2. MARKET POTENTIAL:

India biscuit market stood at \$ 3.9 billion in 2016, and is projected to grow at a CAGR of 11.27%, in value terms, during 2017-2022, to reach \$ 7.25 billion

by 2022. Rising number of health-conscious consumers, expanding working population and increasing urbanization are boosting the country's biscuit market. Moreover, augmenting disposable income along with changing lifestyle, increasing awareness regarding healthy diet and change in food consumption pattern are some of the other factors expected to propel demand for biscuits over the course of next five years.

The global cookies market size was valued at USD 30.62 billion in 2018 and is projected to expand at a CAGR of 5.3% from 2019 to 2025. Growing product popularity, especially in emerging regions, is expected to be the key factor fueling the market growth. Moreover, high demand for chocolate cookies in developed economies like U.S., Germany, and U.K. will boost the market further. Bakery manufacturers attract customers with innovative packaging solutions and by launching new flavor variants, such as pineapple.

3. PRODUCT DESCRIPTION

3.1 Raw Material sources

Following raw material is required as the major raw material for the manufacturing of cookies.

S.N.	Description	Amount
1	Wheat flour	Rs. 30-40 Per KG
2	Sugar	Rs. 35 - 42 Per KG
3	Flavours	Rs.100- 300 Per Litre
4	Oil	Rs. 100-150 Per Litre
5	Chemicals	Rs. 150-300 Per KG

Average raw material (cost per KG): Rs. 60-65

4.1 MANUFACTURING PROCESS

- First of all, as a raw material bakery shortening is kept at a temperature of 8 degree Celsius to 10 degree Celsius to Colden its raw material, so that there will be no lumps issue arise at the time of mixing.
- After that sugar is grinded with the help of Sugar grinder.
- Then mix well the grinded sugar and bakery shortening together & for mixing use filtered water according to the season type.
- After preparation of mixture add refined wheat flour and flavours as required in it.
- Then keep ready mixture near dropping machine, where cookies are designed according to size, type by the operator.
- Trays are then loaded to the back of machine, in which cookies start coming on the conveyor drop by drop.
- After that these trays are loaded on trolley and cookies are kept in the open for baking process at 180 degree Celsius for 25 minutes.
- After baking process cookies are send to packaging department.


5. PROJECT COMPONENTS

5.1 Land

Land required 1200-1500 square feet approx.

Approximate rent for the same is Rs.50000-60000 per month.

5.2 Plant & Machinery

S.N.	Item Description	Image
1	Planetary mixture	

2	Baking Oven	
3	Dropping machine	
4	Sugar mixture	

Note: cost of the machinery is approx. Rs. 8,00,000 excluding GST and other transportation cost.

5.3 Misc. Assets

S.N.	Item Description	Rate
1	Electricity connection	50,000
2	Other equipment's & fixture	50,000

3	Storage tank etc.	20,000
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5.4 Power Requirement

The borrower shall require power load of 15 HP which shall be applied with Power Corporation. However, for standby power arrangement the borrower shall also purchase DG Set.

5.5 Manpower Requirement

6-7 Manpower are required for the Cookies Manufacturing unit.

Includes:

2 Skilled Labour

2 Unskilled Labour

1-2 Helper

1 Accountant

6. FINANCIALS

6.1 Cost of Project

COST OF PROJECT	
(in Lacs)	
PARTICULARS	Amount
Land & Building	Owned/rented
Plant & Machinery	8.00
Miscellaneous Assets	1.20
Working capital	4.44
Total	13.64

6.2 Means of Finance

MEANS OF FINANCE	
PARTICULARS	AMOUNT
Own Contribution (min 10%)	1.36
Subsidy @35%(Max. Rs 10 Lac)	3.22
Term Loan @ 55%	5.06
Working Capital (bank Finance)	4.00
Total	13.64

6.3 Projected Balance Sheet

(in Lacs)					
PROJECTED BALANCE SHEET					
PARTICULARS	1st year	2nd year	3rd year	4th year	5th year
<u>Liabilities</u>					
Capital					
opening balance		5.55	5.77	6.46	7.51
Add:- Own Capital	1.36				
Add:- Retained Profit	0.97	2.22	3.69	5.55	7.35
Less:- Drawings	-	2.00	3.00	4.50	6.00
Subsidy/grant	3.22				
Closing Balance	5.55	5.77	6.46	7.51	8.86
Term Loan	4.50	3.37	2.25	1.12	-
Working Capital Limit	4.00	4.00	4.00	4.00	4.00
Sundry Creditors	0.99	1.29	1.47	1.66	1.89
Provisions & Other Liab	0.40	0.50	0.60	0.72	0.86
TOTAL :	15.44	14.93	14.78	15.01	15.61
<u>Assets</u>					
Fixed Assets (Gross)	9.20	9.20	9.20	9.20	9.20
Gross Dep.	1.32	2.45	3.41	4.24	4.94
Net Fixed Assets	7.88	6.75	5.79	4.96	4.26
Current Assets					
Sundry Debtors	2.32	2.76	3.16	3.61	4.09
Stock in Hand	3.57	4.08	4.64	5.21	5.89
Cash and Bank	1.67	1.33	1.19	1.23	1.38
TOTAL :	15.44	14.93	14.78	15.01	15.61

6.4 Projected Cash Flow

(in Lacs)					
PROJECTED CASH FLOW STATEMENT					
PARTICULARS	1st year	2nd year	3rd year	4th year	5th year
<u>SOURCES OF FUND</u>					
Own Margin	1.36				
Net Profit	0.97	2.22	3.69	5.61	7.62
Depriciation & Exp. W/off	1.32	1.13	0.96	0.82	0.71
Increase in Cash Credit	4.00	-	-	-	-
Increase In Term Loan	5.06	-	-	-	-
Increase in Creditors	0.99	0.30	0.18	0.19	0.23
Increase in Provisions & Oth lib	0.40	0.10	0.10	0.12	0.14
Sunsidy/grant	3.22				
TOTAL :	17.32	3.74	4.94	6.75	8.70
<u>APPLICATION OF FUND</u>					
Increase in Fixed Assets	9.20				
Increase in Stock	3.57	0.51	0.56	0.57	0.67
Increase in Debtors	2.32	0.44	0.40	0.45	0.48
Repayment of Term Loan	0.56	1.12	1.12	1.12	1.12
Drawings	-	2.00	3.00	4.50	6.00
Taxation	-	-	-	0.06	0.27
TOTAL :	15.65	4.08	5.08	6.71	8.55
Opening Cash & Bank Balance	-	1.67	1.33	1.19	1.23
Add : Surplus	1.67	(0.34)	(0.14)	0.04	0.15
Closing Cash & Bank Balance	1.67	1.33	1.19	1.23	1.38

6.5 Projected Profitability

(in Lacs)					
PROJECTED PROFITABILITY STATEMENT					
PARTICULARS	1st year	2nd year	3rd year	4th year	5th year
Capacity Utilisation %	50%	55%	60%	65%	70%
<u>SALES</u>					
Gross Sale					
Cookies	58.00	69.09	78.98	90.25	102.24
Total	58.00	69.09	78.98	90.25	102.24
COST OF SALES					
Raw Material Consumed	37.20	42.90	48.96	55.38	63.00
Electricity Expenses	2.88	3.31	3.81	4.38	4.82
Depreciation	1.32	1.13	0.96	0.82	0.71
Wages & labour	5.40	5.94	6.53	7.19	7.91
Repair & maintenance	2.03	2.42	2.76	3.16	2.56
consumables	2.47	2.42	2.76	2.44	3.07
Cost of Production	51.30	58.12	65.80	73.37	82.05
Add: Opening Stock /WIP	-	1.71	1.94	2.19	2.45
Less: Closing Stock /WIP	1.71	1.94	2.19	2.45	2.74
Cost of Sales	49.59	57.89	65.54	73.11	81.76
GROSS PROFIT	8.41	11.20	13.44	17.13	20.47
Salary to Staff	2.64	2.90	3.19	3.51	3.87
Interest on Term Loan	0.50	0.44	0.31	0.19	0.07
Interest on working Capital	0.44	0.44	0.44	0.44	0.44

Rent	3.00	3.30	3.63	3.99	4.39
selling & adm exp	0.87	1.90	2.17	3.38	4.09
TOTAL	7.45	8.98	9.75	11.52	12.85
NET PROFIT	0.97	2.22	3.69	5.61	7.62
Taxation				0.06	0.27
PROFIT (After Tax)	0.97	2.22	3.69	5.55	7.35

6.6 Production and Yield

COMPUTATION OF PRODUCTION OF COOKIES

Items to be Manufactured

Cookies

Production capacity Taken	50	KG per hour
Total working Hours	8	
machine capacity per day	400	KG
working days in a month	25	Days
working days per annum	300	
machine capacity per annum	120000	KG

Production of Cookies

Production	Capacity	KG
1st year	50%	60,000
2nd year	55%	66,000
3rd year	60%	72,000
4th year	65%	78,000
5th year	70%	84,000

Raw Material Cost			
Year	Capacity Utilization	Rate (per KG)	Amount (Rs. in lacs)
1st year	50%	62.00	37.20
2nd year	55%	65.00	42.90
3rd year	60%	68.00	48.96
4th year	65%	71.00	55.38
5th year	70%	75.00	63.00

6.7 Sales Revenue

<u>COMPUTATION OF SALE</u>					
Particulars	1st year	2nd year	3rd year	4th year	5th year
Op Stock	-	2,000	2,200	2,400	2,600
Production	60,000	66,000	72,000	78,000	84,000
Less : Closing Stock	2,000	2,200	2,400	2,600	2,800
Net Sale	58,000	65,800	71,800	77,800	83,800
sale price per KG	100.00	105.00	110.00	116.00	122.00
Sales (in Lacs)	58.00	69.09	78.98	90.25	102.24

6.8 Working Capital Assessment

(in Lacs)					
COMPUTATION OF CLOSING STOCK & WORKING CAPITAL					
PARTICULARS	1st year	2nd year	3rd year	4th year	5th year
<u>Finished Goods</u>					
	1.71	1.94	2.19	2.45	2.74
<u>Raw Material</u>					
	1.86	2.15	2.45	2.77	3.15
Closing Stock	3.57	4.08	4.64	5.21	5.89

<u>COMPUTATION OF WORKING CAPITAL REQUIREMENT</u>					
TRADITIONAL METHOD					
(in Lacs)					
Particulars	Amount	Own Margin		Bank Finance	
Finished Goods & Raw Material	3.57				
Less : Creditors	0.99				
Paid stock	2.58	10%	0.26	90%	2.32
Sundry Debtors	2.32	10%	0.23	90%	2.09
	4.90		0.49		4.41
MPBF					4.41
WORKING CAPITAL LIMIT DEMAND (from Bank)					4.00
Working Capital Margin					0.44

6.9 Power, Salary & Wages Calculation

Utility Charges (per month)		
Particulars	value	Description
Power connection required	12	KWH
consumption per day	96	units
Consumption per month	2,400	units
Rate per Unit	10	Rs.
power Bill per month	24,000	Rs.

<u>BREAK UP OF LABOUR CHARGES</u>			
Particulars	Wages	No of	Total
	Rs. per Month	Employees	Salary
Skilled (in thousand rupees)	14,000	2	28,000
Unskilled (in thousand rupees)	8,500	2	17,000
Total salary per month			45,000
Total annual labour charges	(in lacs)		5.40

<u>BREAK UP OF Staff Salary CHARGES</u>			
Particulars	Salary	No of	Total
	Rs. per Month	Employees	Salary
helper	7,000	1	7,000
Accountant	15,000	1	15,000
Total salary per month			22,000
Total annual Staff charges	(in lacs)		2.64

6.10 Depreciation

			(in Lacs)
COMPUTATION OF DEPRECIATION			
Description	Plant & Machinery	Miss. Assets	TOTAL
Rate of Depreciation	15.00%	10.00%	
Opening Balance	-	-	-
Addition	8.00	1.20	9.20
Total	8.00	1.20	9.20
Less : Depreciation	1.20	0.12	1.32
WDV at end of Year	6.80	1.08	7.88
Additions During The Year	-	-	-
Total	6.80	1.08	7.88
Less : Depreciation	1.02	0.11	1.13
WDV at end of Year	5.78	0.97	6.75
Additions During The Year	-	-	-
Total	5.78	0.97	6.75
Less : Depreciation	0.87	0.10	0.96
WDV at end of Year	4.91	0.87	5.79
Additions During The Year	-	-	-
Total	4.91	0.87	5.79
Less : Depreciation	0.74	0.09	0.82
WDV at end of Year	4.18	0.79	4.96
Additions During The Year	-	-	-
Total	4.18	0.79	4.96
Less : Depreciation	0.63	0.08	0.71
WDV at end of Year	3.55	0.71	4.26

6.11 Repayment schedule

REPAYMENT SCHEDULE OF TERM LOAN							
						Interest	11.00%
Year	Particulars	Amount	Addition	Total	Interest	Repayment	Closing Balance
1st	Opening Balance						
	1st month	-	5.06	5.06	-	-	5.06
	2nd month	5.06	-	5.06	0.05	-	5.06
	3rd month	5.06	-	5.06	0.05	-	5.06
	4th month	5.06	-	5.06	0.05		5.06
	5th month	5.06	-	5.06	0.05		5.06
	6th month	5.06	-	5.06	0.05		5.06
	7th month	5.06	-	5.06	0.05	0.09	4.97
	8th month	4.97	-	4.97	0.05	0.09	4.87
	9th month	4.87	-	4.87	0.04	0.09	4.78
	10th month	4.78	-	4.78	0.04	0.09	4.69
	11th month	4.69	-	4.69	0.04	0.09	4.59
	12th month	4.59	-	4.59	0.04	0.09	4.50
					0.50	0.56	
2nd	Opening Balance						
	1st month	4.50	-	4.50	0.04	0.09	4.40
	2nd month	4.40	-	4.40	0.04	0.09	4.31
	3rd month	4.31	-	4.31	0.04	0.09	4.22
	4th month	4.22	-	4.22	0.04	0.09	4.12
	5th month	4.12	-	4.12	0.04	0.09	4.03
	6th month	4.03	-	4.03	0.04	0.09	3.94
	7th month	3.94	-	3.94	0.04	0.09	3.84
	8th month	3.84	-	3.84	0.04	0.09	3.75
	9th month	3.75	-	3.75	0.03	0.09	3.65
	10th month	3.65	-	3.65	0.03	0.09	3.56
	11th month	3.56	-	3.56	0.03	0.09	3.47
	12th month	3.47	-	3.47	0.03	0.09	3.37
					0.44	1.12	
3rd	Opening Balance						
	1st month	3.37	-	3.37	0.03	0.09	3.28
	2nd month	3.28	-	3.28	0.03	0.09	3.19
	3rd month	3.19	-	3.19	0.03	0.09	3.09
	4th month	3.09	-	3.09	0.03	0.09	3.00
	5th month	3.00	-	3.00	0.03	0.09	2.90
	6th month	2.90	-	2.90	0.03	0.09	2.81
	7th month	2.81	-	2.81	0.03	0.09	2.72
	8th month	2.72	-	2.72	0.02	0.09	2.62
	9th month	2.62	-	2.62	0.02	0.09	2.53

	10th month	2.53	-	2.53	0.02	0.09	2.44
	11th month	2.44	-	2.44	0.02	0.09	2.34
	12th month	2.34	-	2.34	0.02	0.09	2.25
					0.31	1.12	
4th	Opening Balance						
	1st month	2.25	-	2.25	0.02	0.09	2.16
	2nd month	2.16	-	2.16	0.02	0.09	2.06
	3rd month	2.06	-	2.06	0.02	0.09	1.97
	4th month	1.97	-	1.97	0.02	0.09	1.87
	5th month	1.87	-	1.87	0.02	0.09	1.78
	6th month	1.78	-	1.78	0.02	0.09	1.69
	7th month	1.69	-	1.69	0.02	0.09	1.59
	8th month	1.59	-	1.59	0.01	0.09	1.50
	9th month	1.50	-	1.50	0.01	0.09	1.41
	10th month	1.41	-	1.41	0.01	0.09	1.31
	11th month	1.31	-	1.31	0.01	0.09	1.22
	12th month	1.22	-	1.22	0.01	0.09	1.12
					0.19	1.12	
5th	Opening Balance						
	1st month	1.12	-	1.12	0.01	0.09	1.03
	2nd month	1.03	-	1.03	0.01	0.09	0.94
	3rd month	0.94	-	0.94	0.01	0.09	0.84
	4th month	0.84	-	0.84	0.01	0.09	0.75
	5th month	0.75	-	0.75	0.01	0.09	0.66
	6th month	0.66	-	0.66	0.01	0.09	0.56
	7th month	0.56	-	0.56	0.01	0.09	0.47
	8th month	0.47	-	0.47	0.00	0.09	0.37
	9th month	0.37	-	0.37	0.00	0.09	0.28
	10th month	0.28	-	0.28	0.00	0.09	0.19
	11th month	0.19	-	0.19	0.00	0.09	0.09
	12th month	0.09	-	0.09	0.00	0.09	-
					0.07	1.12	
	DOOR TO DOOR	60		MONTHS			
	MORATORIUM PERIOD	6		MONTHS			
	REPAYMENT PERIOD	12		MONTHS			

6.12 Financial Indicators

FINANCIAL INDICATORS					
PARTICULARS	1st year	2nd year	3rd year	4th year	5th year
TURNOVER	58.00	69.09	78.98	90.25	102.24
GROSS PROFIT	8.41	11.20	13.44	17.13	20.47
G.P. RATIO	14.51%	16.21%	17.02%	18.98%	20.03%
NET PROFIT	0.97	2.22	3.69	5.61	7.62
N.P. RATIO	1.67%	3.21%	4.67%	6.22%	7.45%
CURRENT ASSETS	7.56	8.18	8.99	10.05	11.35
CURRENT LIABILITIES	5.39	5.79	6.07	6.38	6.75
CURRENT RATIO	1.40	1.41	1.48	1.58	1.68
TERM LOAN	4.50	3.37	2.25	1.12	-
TOTAL NET WORTH	5.55	5.77	6.46	7.51	8.86
DEBT/EQUITY	0.81	0.58	0.35	0.15	-
TOTAL NET WORTH	5.55	5.77	6.46	7.51	8.86
TOTAL OUTSIDE LIABILITIES	9.89	9.16	8.32	7.51	6.75
TOL/TNW	1.78	1.59	1.29	1.00	0.76
PBDIT	3.22	4.23	5.41	7.07	8.83
INTEREST	0.94	0.88	0.75	0.63	0.51
INTEREST COVERAGE RATIO	3.44	4.81	7.17	11.20	17.42
WDV	7.88	6.75	5.79	4.96	4.26
TERM LOAN	4.50	3.37	2.25	1.12	-
FACR	1.75	2.00	2.57	4.41	-

6.13 DSCR

<u>CALCULATION OF D.S.C.R</u>					
PARTICULARS	1st year	2nd year	3rd year	4th year	5th year
CASH ACCRUALS	2.29	3.35	4.65	6.37	8.05
Interest on Term Loan	0.50	0.44	0.31	0.19	0.07
Total	2.78	3.79	4.97	6.56	8.12
<u>REPAYMENT</u>					
Instalment of Term Loan	0.56	1.12	1.12	1.12	1.12
Interest on Term Loan	0.50	0.44	0.31	0.19	0.07
Total	1.06	1.56	1.44	1.32	1.19
DEBT SERVICE COVERAGE RATIO	2.63	2.42	3.45	4.99	6.81
AVERAGE D.S.C.R.	4.06				

6.14 Break Even Point Analysis

BREAK EVEN POINT ANALYSIS					
Year	I	II	III	IV	V
Net Sales & Other Income	58.00	69.09	78.98	90.25	102.24
Less : Op. WIP Goods	-	1.71	1.94	2.19	2.45
Add : Cl. WIP Goods	1.71	1.94	2.19	2.45	2.74
Total Sales	59.71	69.32	79.24	90.50	102.53

Variable & Semi Variable Exp.					
Raw Material Consumed	37.20	42.90	48.96	55.38	63.00
Electricity Exp/Coal Consumption at 85%	2.45	2.82	3.24	3.72	4.10
Wages & Salary at 60%	4.82	5.31	5.84	6.42	7.06
Selling & administrative Expenses 80%	0.70	1.52	1.74	2.71	3.27
Interest on working Capital	0.44	0.44	0.44	0.44	0.44
Repair & maintenance	2.03	2.42	2.76	3.16	2.56
Packaging	2.47	2.42	2.76	2.44	3.07
Total Variable & Semi Variable Exp	50.10	57.82	65.74	74.27	83.49
Contribution	9.61	11.50	13.50	16.23	19.03
Fixed & Semi Fixed Expenses					
Electricity Exp/Coal Consumption at 15%	0.43	0.50	0.57	0.66	0.72
Wages & Salary at 40%	3.22	3.54	3.89	4.28	4.71
Interest on Term Loan	0.50	0.44	0.31	0.19	0.07
Depreciation	1.32	1.13	0.96	0.82	0.71
Selling & administrative Expenses 20%	0.17	0.38	0.43	0.68	0.82
Rent	3.00	3.30	3.63	3.99	4.39
Total Fixed Expenses	8.64	9.28	9.81	10.62	11.41
Capacity Utilization	50%	55%	60%	65%	70%
OPERATING PROFIT	0.97	2.22	3.69	5.61	7.62
BREAK EVEN POINT	45%	44%	44%	43%	42%
BREAK EVEN SALES	53.70	55.94	57.57	59.22	61.48

7. LICENSE & APPROVALS

- Obtain the GST registration.
- Additionally, obtain the Udyog Aadhar registration Number.
- Fire/pollution license as required.
- FSSAI License
- Choice of a Brand Name of the product and secure the name with Trademark if required.

Implementation Schedule

S.N.	Activity	Time Required (in Months)
1	Acquisition Of premises	1-2
2	Procurement & installation of Plant & Machinery	1-2
3	Arrangement of Finance	1-2
4	Requirement of required Manpower	1
	Total time Required (some activities shall run concurrently)	5-6 Months

8. ASSUMPTIONS

1. Production Capacity of Cookies is 400 Kgs per day. First year, Capacity has been taken @ 50%.
2. Working shift of 8 hours per day has been considered.
3. Raw Material stock is for 15 days and Finished goods Closing Stock has been taken for 10 days.
4. Credit period to Sundry Debtors has been given for 10 days.
5. Credit period by the Sundry Creditors has been provided for 8 days.
6. Depreciation and Income tax has been taken as per the Income tax Act, 1961.
7. Interest on working Capital Loan and Term loan has been taken at 11%.
8. Salary and wages rates are taken as per the Current Market Scenario.
9. Power Consumption has been taken at 12 KW.
10. Selling Prices & Raw material costing has been increased by 5% & 5% respectively in the subsequent years.

Limitations of the Model DPR and Guidelines for Entrepreneurs

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.