PROJECT REPORT

ON
FEATHER SHUTTLE COCK

PURPOSE OF THE DOCUMENT

This particular pre-feasibility is regarding 'Feather Shuttle cock'

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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INTRODUCTION

Badminton is played almost throughout the world by both men and women and also by the Children. This game is also very popular in our country and is being patronized by the Government and Non-Government agencies and clubs etc. With the increase in popularity of the badminton, the demand for good quality shuttle cocks is also increasing. The life of each shuttle cock is generally short after it is used in the game. Hence, the consumption pattern is quite frequent. The shuttle cock is one of the simplest items of sports goods manufacture with lesser investment of capital and can be produced in tiny and small-scale sector.

MARKET POTENTIAL

There exists a very good market potential for shuttle cock in the country and abroad. However, most of the shuttle cocks manufactured are used internally with the exports being very negligible due to poor quality and high per unit cost of production compared to the international standards. There exists a huge demand for shuttle cocks in Kerala, Karnataka, Tamilnadu, Andhra Pradesh, Maharashtra, MP, Delhi, Haryana, Punjab, UP, North-Eastern States and also in other States. The demand for the shuttle cocks in West Bengal is also quite good during the winter season.

Besides Jaduberia, Midnapore (West Bengal), the other major concentration of the shuttle cock manufacturing units are in the Northern part of India specially in Jalandhar, Meerut and Delhi. Some units in Kolkata are also manufacturing this item. The shuttle cocks with the duck feathers are in greater demand than that of the hen feathers.

BASIS AND PRESUMPTIONS

This project profile is prepared on the basis of the following presumptions :-

1. Working Hours 8 hours per day
2. No. of shifts 1 shift per day

3. No. of working 25 days days per month
4. Total working 300 days days
5. Total working 2400 hours hours per year
6. Working 60% efficiency with 10% increase PA
7. Labour charge As per the rates existing in the locality
8. Margin Money 25% of capital investment
9. Rate of interest 10% on Capital
10. All the rates and estimates have been provided on the basis of the prevailing market price.
11. It is envisaged that very good quality shuttle cocks of high standard would be produced
12. Payback period 5 year (approx.)

TECHNICAL ASPECTS

Process of Manufacture

The process of manufacture of the shuttle cock is very simple. The white duck feathers are generally used for the production of the shuttle cock. Sometimes hen feathers are also used for the cheaper variety of shuttle cocks.

The feathers are first of all sorted out for selection of good variety of feathers. Then the feathers are washed with detergent for 30 to 60 minutes. Then, they are treated with the ultramarine blue like robin blue or Ujala for giving the brightening effect. The washed feathers are then properly dried and cut to 3" size with the help of the scissors. The feathers are then rounded off and pruned at the top.

Then good quality cork bottom are taken. Altogether 16 nos. of bores are made on the flat surface of the wood cork with the help of cork boring machine. The feathers are then inserted into such bore and fixed with glue. Then 16 feathers thus inserted into the cork are knought with the Cotton thread. Gelatine is then smeared round over the knoughted thread. Then silk or cotton ribbon is attached at the Junction of the cork and feathers at the base of the shuttle cock. A brand sticker is also put round the cork and attached with the glue at base middle of the cork of the shuttle cock.

Finally, the shuttle cocks are weighed on a balance and the weight is adjusted with the help of the small steel pins. The shuttle cocks used for indoor games should have a weight range of 70 or 72 or 74 grains and those for the outdoor games 82 or 84 or 86 grains.

The shuttle cocks are then packed into the cylindrical card boxes fitted with the card board or metal lids with ten shuttle cocks in each box generally called in the trade as one roll. The shuttle cocks are then despatched for marketing.

QUALITY CONTROL AND STANDARDS

The BIS has recommended standard for manufacturing the shuttle cock. It is quite desirable that one should study
this standard specification before venturing into this project. Besides the BIS specification, the customers also lay down their own quality standards regarding the quality of feathers, cork, adhesives etc. and the quality standard of the ultimate product.

PRODUCTION CAPACITY

Production Volume (Per Annum): 12000 Rolls (Each roll contains ten pieces of shuttle cocks).

MOTIVE POWER

2 HP.

POLLUTION CONTROL

There is no pollution hazard from this type of industry either in air or in water.
Hence, there is no need of taking any pollution control measures.

ENERGY CONSERVATION

The scope for energy conservation in the shuttle cock manufacturing industry is very little, since most of the operations are carried out manually except few operations like boring etc. However, the workers and staff members should be trained properly to make optimum use of power like fuel, electricity etc. to save energy.

LABOUR REQUIREMENT:

7-8Manpower is required for shuttle cock masnufacturing Includes:

4skilled Labour
4 Unskilled Labour

IMPLEMENTATION SCHEDULE:

It is estimated that from conception of the project to commercial production it may take about six months including purchase of machines, installation, staff recruitment, all clearance from different agencies such as DIC and financial institutions etc.

FINANCIAL A SPECTS

PROJECT AT A GLANCE

Product and By Product	:	**Shuttle cock decript**	
Name of the project / business activity proposed :		**Shuttle cock decript**	
Cost of Project	:	Rs12.00lac	
Means of Finance			
Term Loan		Rs.5.66 Lacs	
KVIC Margin Money	-	As per Project Eligibility	
Own Capital		Rs.1.2 Lacs	
Working Capital		Rs.5.13 Lacs	
Debt Service Coverage Ratio	:	6.59	
Pay Back Period	:	5	Years
Project Implementation Period	:	8	Months
Break Even Point	:	27%	
Employment	:	11	Persons
Power Requirement	:	2.00	HP
Major Raw materials	:	White Duck Feathers Cork bottom White sheep skins crust for bottom cap	
Estimated Annual Sales Turnover	:	72.51	Lacs

COST OF PROJECT (Rs. In Lacs)

Particulars	Amount
Land	Rented/Owned
Building & Civil Work (1500 Sq Ft)	3.00
Plant & Machinery	2.04
Furniture & Fixtures	1.00
Pre-operative Expenses	0.26
Working Capital Requirement	5.70
Total	**12.00**

MEANS OF FINANCE

Particulars	Amount
Own Contribution @10%	1.20
Term Loan	5.67
Workign Capital Finance	5.13
Total	**12.00**

Beneficiary's Margin Monery (% of Project Cost)

Special	**General**
5%	10%

PLANT & MACHINERY

PARTICULARS	QTY.	RATE	AMOUNT IN RS.
1. Drill machine for boring the cork size: ¼ with 0.5 HP motor	1	7,500.00	7,500.00
Hand Press Double scissors feather cutting machine	2.00	10,000.00	20,000.00
Weighing balance	1.00	10,000.00	10,000.00
Tools and equipment	LS	3,000.00	3,000.00
Disc and Belt sand grinding Machine, 1200 mm x 150 mm with endless belt, titling type table and with 0.5 HP motor.	1.00	20,000.00	20,000.00
Pedestal grinder 200 mm wheel dia. with 0.5 HP motor.	1.00	10,000.00	10,000.00
Surface grinder, table size 550 mm x 200 mm with 1 HP motor.	1.00	65,000.00	65,000.00
Work bench, Vice, Hand tools, Dies, Punches, Measuring tools etc.	LS	50,000.00	50,000.00
Installation and Electrification @ 10% of the cost of Machines			18,550.00
Total			2,04,050.00

COMPUTATION OF MANUFACTURING OF FEATHER SHUTTLE COCK

Manufacturing Capacity per month (Each roll contains ten pieces of shuttle cocks).	-	1,000.00	Rolls
No. of Working Hour		8	
No of Working Days per month		25	
No. of Working months		12	
Total Production per Annum		12,000.00	Rolls
Year		Capacity	Rolls
		Utilisation	
IST YEAR		60%	7,200
IIND YEAR		65%	7,800
IIIRD YEAR		70%	8,400
IVTH YEAR		75%	9,000
VTH YEAR		80%	9,600

COMPUTATION OF RAW MATERIAL

Item Name		Quantity of	Unit Rate of	Total Cost
		Raw Material	Rs/	Per Annum (100%)
White Duck Feathers (16 feathers per shuttle cock	Nos	19,20,000.00	2.00	38,40,000.00
Cork bottom 1"x1"	Nos	1,20,000.00	3.00	3,60,000.00
White sheep skins crust for bottom cap	sqft	960.00	150.00	1,44,000.00
Glue, Gelatin, Cotton thread, robin blue, detergent etc	100%			12,000.00
Cylindrical packing box		12,000.00	15.00	1,80,000.00
			Total	45,36,000.00
Annual consumption cost			(Rounded off in lacs)	45.36

Raw Material Consumed	Capacity Utilisation	Amount (Rs.)
IST YEAR	60%	27.22
IIND YEAR	65%	29.48
IIIRD YEAR	70%	31.75
IVTH YEAR	75%	34.02
VTH YEAR	80%	36.29

COMPUTATION OF CLOSING STOCK & WORKING CAPITAL

PARTICULARS	**IST YEAR**	**IIND YEAR**	**IIIRD YEAR**	**IVTH YEAR**	**VTH YEAR**
Finished Goods					
(15 Days requirement)	2.02	2.23	2.45	2.67	2.91
Raw Material					
(30 Days requirement)	2.72	1.47	1.59	1.70	1.81
Closing Stock	**4.74**	**3.70**	**4.03**	**4.38**	**4.72**

COMPUTATION OF WORKING CAPITAL REQUIREMENT

Particulars		Total
		Amount
Stock in Hand		4.74
Sundry Debtors		1.60
	Total	6.33
Less:Sundry Creditors		0.64
Working Capital Requirement		**5.70**
Less:Margin		0.57
Working Capital Finance		**5.13**

COMPUTATION OF SALE

Particulars	IST YEAR	IIND YEAR	IIIRD YEAR	IVTH YEAR	VTH YEAR
Op Stock	-	360	390	420	450
Production	7,200	7,800	8,400	9,000	9,600
	7,200	8,160	8,790	9,420	10,050
Less : Closing Stock	360	390	420	450	480
Net Sale	6,840	7,770	8,370	8,970	9,570
Sale Price per Roll	700.00	714.00	728.28	742.85	757.70
Sale (in Lacs)	**47.88**	**55.48**	**60.96**	**66.63**	**72.51**

PROJECTED PROFITABILITY STATEMENT

PARTICULARS	IST YEAR	IIND YEAR	IIIRD YEAR	IVTH YEAR	VTH YEAR
A) SALES					
Gross Sale	47.88	55.48	60.96	66.63	72.51
Total (A)	**47.88**	**55.48**	**60.96**	**66.63**	**72.51**
B) COST OF SALES					
Raw Mateiral Consumed	27.22	29.48	31.75	34.02	36.29
Elecricity Expenses	0.17	0.19	0.20	0.21	0.23
Repair & Maintenance	-	0.55	0.61	0.67	0.73
Labour & Wages	6.86	7.55	8.31	9.14	10.05
Depriciation	0.66	0.63	0.55	0.48	0.43
Consumables and Other Expenses	0.96	1.11	1.22	1.33	1.45
Cost of Production	35.87	39.51	42.64	45.85	49.17
Add: Opening Stock /WIP	-	2.02	2.23	2.45	2.67
Less: Closing Stock /WIP	2.02	2.23	2.45	2.67	2.91
Cost of Sales (B)	33.85	39.30	42.42	45.63	48.93
C) GROSS PROFIT (A-B)	14.03	16.18	18.54	21.01	23.58
	29%	**29%**	**30%**	**32%**	**33%**
D) Bank Interest (Term Loan)	0.43	0.51	0.37	0.23	0.08
Bank Interest (C.C. Limit)	0.51	0.51	0.51	0.51	0.51
E) Salary to Staff	4.22	4.65	5.11	5.62	6.18
F) Selling & Adm Expenses Exp.	0.96	1.11	1.22	1.33	1.45
TOTAL (D+E)	**6.12**	**6.78**	**7.22**	**7.70**	**8.23**
H) NET PROFIT	7.91	9.40	11.32	13.31	15.35
I) Taxation			0.62	1.24	1.87
J) PROFIT (After Tax)	7.91	9.40	15.00	12.07	13.48

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