

PROJECT REPORT

Of

WOOD CARVING

PURPOSE OF THE DOCUMENT

This particular pre-feasibility is regarding **Wood Carving**.

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 Entrepreneur : xxxxxxxxx
- 2 Constitution (legal Status) : xxxxxxxxx
- 3 Father / Spouse Name : xxxxxxxxx
- 4 Unit Address : xxxxxxxxxxxxxxxxxxxxxxxxx
- District : xxxxxxx
Pin: xxxxxxx State: xxxxxxx
Mobile xxxxxxx
- 5 Product and By Product : **WOOD CARVING PRODUCTS(PHOTO FRAMES)**
- 6 Name of the project / business activity proposed : **WOOD CARVING UNIT**
- 7 Cost of Project : Rs.24.43 Lakhs
- 8 Means of Finance
Term Loan Rs.19 Lakhs
Own Capital Rs.2.43 Lakhs
Working Capital Rs.3 Lakhs
- 9 Debt Service Coverage Ratio : 2.75
- 10 Pay Back Period : 5 Years
- 11 Project Implementation Period : 5-6 Months
- 12 Break Even Point : 23%
- 13 Employment : 7 Persons
- 14 Power Requirement : 40.00 HP
- 15 Major Raw materials : Natural wood, MDF, Paint, Thinner, Sealer
- 16 Estimated Annual Sales Turnover (Max Capacity) : 81.69 Lakhs
- 17 Detailed Cost of Project & Means of Finance

COST OF PROJECT

(Rs. In Lakhs)

Particulars	Amount
Land (1200-1500 sqft.)	Own/Rented
Plant & Machinery	20.10
Furniture & Fixtures	1.00
Working Capital	3.33
Total	24.43

MEANS OF FINANCE

Particulars	Amount
Own Contribution	2.43
Working Capital(Finance)	3.00
Term Loan	19.00
Total	24.43

WOOD CARVING

Introduction: Wood carving is a form of woodworking by means of a cutting tool (knife) in one hand or a chisel by two hands or with one hand on a chisel and one hand on a mallet, resulting in a wooden figure or figurine, or in the sculptural ornamentation of a wooden object. The phrase may also refer to the finished product, from individual sculptures to hand-worked mouldings composing part of a tracery. The making of sculpture in wood has been extremely widely practised, but survives much less well than the other main materials such as stone and bronze, as it is vulnerable to decay, insect damage, and fire. It therefore forms an important hidden element in the art history of many cultures.[1] Outdoor wood sculptures do not last long in most parts of the world, so it is still unknown how the totem pole tradition developed. Many of the most important sculptures of China and Japan, in particular, are in wood, and so are the great majority of African sculpture and that of Oceania and other regions. Wood is light and can take very fine detail so it is highly suitable for masks and other sculpture intended to be worn or carried. It is also much easier to work on than stone.



History of wood carving: Wood carving is one of the oldest arts of humankind. Wooden spears from the Middle Paleolithic, such as the Clacton Spear, reveal how humans have engaged in utilitarian woodwork for millennia. Indeed, the beginnings of the craft go so far back that, at least where timber is present, the use of wood exists as a universal in human culture as both a means to create or enhance technology and as a medium for artistry. The North American Indian carves his wooden fish-hook or his pipe stem just as the Polynesian works patterns on his paddle. The native of Guyana decorates his cassava grater with a well-conceived scheme of incised scrolls, while the native of Loango Bay distorts his spoon with a design of figures standing up in full relief carrying a hammock. Wood carving is also present in architecture.

Types of wood carving: Different types of wood carving techniques are as follows:

1. **Chip Carving:** Chip carving is also known as Kerbschnitt to the German people. This refers to the type of wood carving where the use of chisels is encouraged. The aim of the chisels is to remove or detach small chips of the materials that are to be carved. The material that is usually worked on is a surface and usually is in a single piece.
2. **Relief Carving:** This type of wood carving is usually done by carving figures into a panel of wood which is usually flat. The figures which are carved into it would then take up a slightly projected shape from the background which it has been carved into. There are two major categories of relief carving. They include the high relief carving and the medium relief carving.
3. **Chainsaw Carving:** This type of wood carving is the fastest growing art in the world. This is due to the fact that it combines beautiful art with the use of modern technology. This combination usually the key to amazing carvings.
4. **Treen Carving:** This type of carving refers to the carving of household items with wood. However, it is important to note that most Treen

carving would not include the likes of household furniture like chairs and cabinets.

5. **Whittling:** The act of whittling most times simply refers to using a tool to carve out figures or shapes from wood. The tool which is normally used is a knife or a chisel. It is however normally done with a small knife rather a long knife as this is much more effective. These knives would usually be made with big handles which would allow the users to have a firm grip.

Types and characteristics of wood: Methods and styles of wood carving include chip carving, relief carving, and Scandinavian flat-plane. Both softwoods and hardwoods are used, principally oak, mahogany, walnut, elm, limewood, chestnut, ebony, boxwood, cedar, cypress, olive, teak and pine. Wood has various advantages, because of its fibrous strength, it can be carved more thinly and precisely than stone or animal bone. For large compositions, two or more pieces of wood may be carved then joined. Softwoods are easier to shape, but less durable. No wood is as durable, weatherproof or insect-immune as stone, and thus is used mainly for indoor works. Lastly, whatever wood is used, it remains an anisotropic material (its properties differ when measured in different directions), and is strongest in the direction of the grain.

Wood carving Market Potential: Although wood carving tends to be an artistic pursuit, there are practical reasons to create utensils, bowls, and other daily-use items from the medium. Wood is more antibacterial than manmade objects, they won't scratch the coating on non-stick cookware, and simple mineral oils provide care for the product. In the developing world, the wood carving industry contributes a significant income for households. The wood carving industry in India provides \$65 million worth of revenues to the local economy each year. In Saharanpur, there are 50,000 people employed as wood carvers.

Machinery & equipments: Major machines & equipments are:

- 1. Wood Chemical Treatment Plant:** It is used for the long life preservation of wood, so that wood will remain safe from bacterial & fungal degradation.
- 2. Wood seasoning plant & boiler:** It is used for conditioning and drying of wood.
- 3. Band saw machine:** It's used to cut wood blocks as per requirement.
- 4. Planer machine:** It is used to plain the surface of wood.
- 5. Belt sander machine:** It's used for finishing of product.
- 6. Buffing machine:** It's used for polishing surfaces.
- 7. Wood Lathe machine:** It's used to provide shape to wood by tools.
- 8. Tools:** Chip carving knife, Palm tools, Chain saw, Drill press, etc.

Cost of Machines:

Name	Cost(Rs.)
Wood Chemical treatment Plant	350000
Seasoning machine	300000
Planer machine	550000
Joining machine	200000
Buffing machine	50000
Belt sander machine	150000
Wood Lathe machine	200000
Band saw machine	200000
Other tools & equipments	10000

Raw material: Basic raw material requirements are as follows:

S no.	Name	Cost
1.	Natural wood	Rs. 8 per kg
2.	MDF	Rs. 30 per sqft.
3.	Paint	Rs. 200 per kg
4.	Thinner	Rs 70 per kg
5.	Sealer	Rs. 150 per kg

Assuming raw material cost per piece to be 80 Rs. and selling price to be 150 Rs.

Manufacturing process:

- First of all design is prepared according to the type of product a person wants to prepare & wood is selected according to design.
- Soft wood is used for the carving of complicated designs, which is mostly used for the preparation of decorative items. On the other hand, hard wood is used for the preparation of furniture and other household items.
- In 20% wood MDF (medium density fibre) is attached according to the design & cutting is done according to the shape of the product.
- Then cutting and carving is done according to the design of products and Then all wooden parts are joined together.
- After joining of parts accessories can be added in the product according to the demand of the client.
- Then sealing and painting work is done.
- Final checking of the product.

Area:

The industrial setup requires space for Inventory, workshop or manufacturing area, space for power supply utilities and auxiliary like Generator setup. Also some of the area of building is required for office staff facilities, documentation, office furniture, etc. Thus, the approximate total area required for complete industrial setup is 1200 to 1500Sqft.

Power Requirement –The power consumption required to run all the machinery could be approximated as 40 hp.

Manpower Requirement- There are requirement of skilled machine operators to run the machine set. Experience quality engineers are required for desired quality control. Some helpers are also required to transfer the material from one work station to other. Office staffs are required to maintain the documentation. The approximate manpower required is 7 including 1 Plant operator, 1 unskilled worker, 1 Helper and 1 security Guard. 3 Skilled worker including Accountant, Manager and sales personal each.

Approvals & Registration Requirement:

Basic registration required in this project:

- GST Registration
- Udyog Aadhar Registration (Optional)
- Choice of a Brand Name of the product and secure the name with Trademark if require

Bank Term Loan: Rate of Interest is assumed to be at 11%

Depreciation: Depreciation has been calculated as per the Provisions of Income Tax Act, 1961

Implementation Schedule:

S No.	Activity	Time required
1.	Acquisition of premises	1-2 Months
2.	Procurement & installation of Plant & Machinery	1-2 Months
3.	Arrangement of Finance	1.5-2 Months
4.	Requirement of required Manpower	1 Month
5.	Commercial Trial Runs	1 Month
	Total time Required (some activities shall run concurrently)	5-6 Months

FINANCIALS

PROJECTED CASH FLOW STATEMENT					
PARTICULARS	I	II	III	IV	V
SOURCES OF FUND					
Own Contribution	2.43	-			
Reserve & Surplus	5.43	8.73	11.88	15.23	18.91
Depriciation & Exp. W/off	3.12	2.65	2.26	1.92	1.64
Increase In Cash Credit	3.00				
Increase In Term Loan	19.00	-	-	-	-
Increase in Creditors	0.72	0.13	0.14	0.15	0.16
TOTAL :	33.70	11.51	14.28	17.30	20.71
APPLICATION OF FUND					
Increase in Fixed Assets	21.10	-	-	-	-
Increase in Stock	1.66	0.29	0.32	0.34	0.36
Increase in Debtors	2.96	0.63	0.58	0.62	0.66
Repayment of Term Loan	2.11	4.22	4.22	4.22	4.22
Taxation	0.81	1.31	1.78	2.28	2.84
Drawings	4.00	4.50	6.00	8.00	10.00
TOTAL :	32.64	10.96	12.90	15.46	18.08
Opening Cash & Bank Balance	-	1.05	1.61	2.99	4.82
Add : Surplus	1.05	0.55	1.38	1.84	2.63
Closing Cash & Bank Balance	1.05	1.61	2.99	4.82	7.45

PROJECTED BALANCE SHEET					
PARTICULARS	I	II	III	IV	V
SOURCES OF FUND					
Capital Account					
Opening Balance	-	3.05	5.97	10.06	15.01
Add: Additions	2.43	-	-	-	-
Add: Net Profit	4.62	7.42	10.10	12.94	16.07
Less: Drawings	4.00	4.50	6.00	8.00	10.00
Closing Balance	3.05	5.97	10.06	15.01	21.08
CC Limit	3.00	3.00	3.00	3.00	3.00
Term Loan	16.89	12.67	8.44	4.22	-
Sundry Creditors	0.72	0.85	0.99	1.14	1.30
TOTAL :	23.66	22.48	22.50	23.37	25.38
APPLICATION OF FUND					
Fixed Assets (Gross)	21.10	21.10	21.10	21.10	21.10
Gross Dep.	3.12	5.77	8.03	9.95	11.59
Net Fixed Assets	17.99	15.33	13.07	11.15	9.51
Current Assets					
Sundry Debtors	2.96	3.59	4.17	4.79	5.45
Stock in Hand	1.66	1.96	2.27	2.61	2.97
Cash and Bank	1.05	1.61	2.99	4.82	7.45
TOTAL :	23.66	22.48	22.50	23.37	25.38

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PROJECTED PROFITABILITY STATEMENT					
PARTICULARS	I	II	III	IV	V
A) SALES					
Gross Sale	44.37	53.82	62.51	71.80	81.69
Total (A)	44.37	53.82	62.51	71.80	81.69
B) COST OF SALES					
Raw Material Consumed	21.60	25.50	29.70	34.20	39.00
Electricity Expenses	2.66	2.95	3.25	3.55	3.84
Repair & Maintenance	1.77	2.15	2.50	2.87	3.27
Labour & Wages	4.03	4.44	4.92	5.51	6.18
Depreciation	3.12	2.65	2.26	1.92	1.64
Cost of Production	33.18	37.70	42.63	48.06	53.92
Add: Opening Stock /WIP	-	1.30	1.53	1.78	2.04
Less: Closing Stock /WIP	1.30	1.53	1.78	2.04	2.32
Cost of Sales (B)	31.88	37.47	42.39	47.79	53.64
C) GROSS PROFIT (A-B)	12.49	16.35	20.12	24.01	28.05
	28.15%	30.39%	32.19%	33.44%	34.33%
D) Bank Interest (Term Loan)	2.06	1.68	1.22	0.75	0.29
ii) Interest On Working Capital	0.33	0.33	0.33	0.33	0.33
E) Salary to Staff	3.78	4.54	5.44	6.26	6.89
F) Selling & Adm Expenses Exp.	0.89	1.08	1.25	1.44	1.63
TOTAL (D+E)	7.06	7.63	8.24	8.78	9.14
H) NET PROFIT	5.43	8.73	11.88	15.23	18.91
	12.2%	16.2%	19.0%	21.2%	23.1%
I) Taxation	0.81	1.31	1.78	2.28	2.84
J) PROFIT (After Tax)	4.62	7.42	10.10	12.94	16.07
Raw Material Consumed	Capacity	Rate	Amount (Rs.)		
	Utilisation				
I	45%	80.00	21.60		
II	50%	85.00	25.50		
III	55%	90.00	29.70		
IV	60%	95.00	34.20		
V	65%	100.00	39.00		

COMPUTATION OF MAKING OF WOOD CARVING			
Item to be Manufactured	Wood carving(Photo frames)		
Manufacturing Capacity	per day	200	wooden photo frames
No. of Working Hour		8	
No of Working Days	per month	25	
No. of Working Day	per annum	300	
Total Production	per Annum	60,000	wooden photo frames
Total Production	per Annum	60,000	wooden photo frames
Year		Capacity	WOOD CARVING PRODUCTS(PHOTO FRAMES)
		Utilisation	
I		45%	27,000.00
II		50%	30,000.00
III		55%	33,000.00
IV		60%	36,000.00
V		65%	39,000.00

COMPUTATION OF SALE					
Particulars	I	II	III	IV	V
Op Stock	-	900.00	1,000.00	1,100.00	1,200.00
Production	27,000.00	30,000.00	33,000.00	36,000.00	39,000.00
	27,000.00	30,900.00	34,000.00	37,100.00	40,200.00
Less : Closing Stock(10 Days)	900.00	1,000.00	1,100.00	1,200.00	1,300.00
Net Sale	26,100.00	29,900.00	32,900.00	35,900.00	38,900.00
Sale Price per piece	170.00	180.00	190.00	200.00	210.00
Sale (in Lacs)	44.37	53.82	62.51	71.80	81.69

COMPUTATION OF CLOSING STOCK & WORKING CAPITAL					
PARTICULARS	I	II	III	IV	V
<u>Finished Goods</u> (10 Days requirement)	1.30	1.53	1.78	2.04	2.32
<u>Raw Material</u> (5 Days requirement)	0.36	0.43	0.50	0.57	0.65
Closing Stock	1.66	1.96	2.27	2.61	2.97

COMPUTATION OF WORKING CAPITAL REQUIREMENT			
Particulars	Amount	Margin(10%)	Net Amount
Stock in Hand	1.66		
Less:			
Sundry Creditors	0.72		
Paid Stock	0.94	0.09	0.85
Sundry Debtors	2.96	0.30	2.66
Working Capital Requirement			3.51
Margin			0.39
MPBF			3.51
Working Capital Demand			3.00

BREAK UP OF LABOUR				
Particulars		Wages Per Month	No of Employees	Total Salary
Plant Operator		10,000.00	1	10,000.00
Unskilled Worker		8,000.00	1	8,000.00
Helper		8,000.00	1	8,000.00
Security Guard		6,000.00	1	6,000.00
				32,000.00
Add: 5% Fringe Benefit				1,600.00
Total Labour Cost Per Month				33,600.00
Total Labour Cost for the year (In Rs. Lakhs)			4	4.03

BREAK UP OF SALARY				
Particulars		Salary Per Month	No of Employees	Total Salary
Manager		12,000.00	1	12,000.00
Accountant cum store keeper		10,000.00	1	10,000.00
Sales		8,000.00	1	8,000.00
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)			3	3.78

COMPUTATION OF DEPRECIATION				
Description	Land	Plant & Machinery	Furniture	TOTAL
Rate of Depreciation		15.00%	10.00%	
Opening Balance	Leased	-	-	-
Addition	-	20.10	1.00	21.10
	-	20.10	1.00	21.10
		-	-	
TOTAL		20.10	1.00	21.10
Less : Depreciation	-	3.02	0.10	3.12
WDV at end of Ist year	-	17.09	0.90	17.99
Additions During The Year	-	-	-	-
	-	17.09	0.90	17.99
Less : Depreciation	-	2.56	0.09	2.65
WDV at end of IIInd Year	-	14.52	0.81	15.33
Additions During The Year	-	-	-	-
	-	14.52	0.81	15.33
Less : Depreciation	-	2.18	0.08	2.26
WDV at end of IIIrd year	-	12.34	0.73	13.07
Additions During The Year	-	-	-	-
	-	12.34	0.73	13.07
Less : Depreciation	-	1.85	0.07	1.92
WDV at end of IV year	-	10.49	0.66	11.15
Additions During The Year	-	-	-	-
	-	10.49	0.66	11.15
Less : Depreciation	-	1.57	0.07	1.64
WDV at end of Vth year	-	8.92	0.59	9.51

REPAYMENT SCHEDULE OF TERM LOAN					11.0%		
Year	Particulars	Amount	Addition	Total	Interest	Repayment	CI Balance
I	Opening Balance						
	Ist Quarter	19.00	-	19.00	0.52	-	19.00
	IInd Quarter	19.00	-	19.00	0.52	-	19.00
	IIIrd Quarter	19.00	-	19.00	0.52	1.06	17.94
	Ivth Quarter	17.94	-	17.94	0.49	1.06	16.89
					2.06	2.11	
II	Opening Balance						
	Ist Quarter	16.89	-	16.89	0.46	1.06	15.83
	IInd Quarter	15.83	-	15.83	0.44	1.06	14.78
	IIIrd Quarter	14.78	-	14.78	0.41	1.06	13.72
	Ivth Quarter	13.72		13.72	0.38	1.06	12.67
					1.68	4.22	
III	Opening Balance						
	Ist Quarter	12.67	-	12.67	0.35	1.06	11.61
	IInd Quarter	11.61	-	11.61	0.32	1.06	10.56
	IIIrd Quarter	10.56	-	10.56	0.29	1.06	9.50
	Ivth Quarter	9.50		9.50	0.26	1.06	8.44
					1.22	4.22	
IV	Opening Balance						
	Ist Quarter	8.44	-	8.44	0.23	1.06	7.39
	IInd Quarter	7.39	-	7.39	0.20	1.06	6.33
	IIIrd Quarter	6.33	-	6.33	0.17	1.06	5.28
	Ivth Quarter	5.28		5.28	0.15	1.06	4.22
					0.75	4.22	
V	Opening Balance						
	Ist Quarter	4.22	-	4.22	0.12	1.06	3.17
	IInd Quarter	3.17	-	3.17	0.09	1.06	2.11
	IIIrd Quarter	2.11	-	2.11	0.06	1.06	1.06
	Ivth Quarter	1.06		1.06	0.03	1.06	-
					0.29	4.22	

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	7.73	10.07	12.36	14.87	17.71
Interest on Term Loan	2.06	1.68	1.22	0.75	0.29
Total	9.79	11.76	13.58	15.62	18.00
REPAYMENT					
Repayment of Term Loan	2.11	4.22	4.22	4.22	4.22
Interest on Term Loan	2.06	1.68	1.22	0.75	0.29
Total	4.17	5.91	5.44	4.98	4.51
DEBT SERVICE COVERAGE RATIO	2.35	1.99	2.50	3.14	3.99
AVERAGE D.S.C.R.			2.75		

COMPUTATION OF ELECTRICITY				
(A) POWER CONNECTION				
Total Working Hour per day		Hours	8	
Electric Load Required		HP	40	
Load Factor			0.7460	
Electricity Charges		per unit	7.50	
Total Working Days			300	
Electricity Charges				5,37,120.00
Add : Minimim Charges (@ 10%)				
(B) DG set				
No. of Working Days			300	days
No of Working Hours			0.3	Hour per day
Total no of Hour			90	
Diesel Consumption per Hour			8	
Total Consumption of Diesel			720	
Cost of Diesel			65.00	Rs. /Ltr
Total cost of Diesel			0.47	
Add : Lube Cost @15%			0.07	
Total			0.54	
Total cost of Power & Fuel at 100%				5.91
Year		Capacity		Amount
				(in Lacs)
I		45%		2.66
II		50%		2.95
III		55%		3.25
IV		60%		3.55
V		65%		3.84

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