

PROJECT REPORT

Of

PERSONAL WEIGHING MACHINE

PURPOSE OF THE DOCUMENT

This particular pre-feasibility is regarding Personal Weighing Machine Manufacturing unit.

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 : xxxxxxxxxxxx
- 2 Constitution (legal Status) : xxxxxxxxxxxx
- 3 Father / Spouse Name : xxxxxxxxxxxxxx
- 4 Unit Address : xxxxxxxxxxxxxxxxxxxxxxxxx
- District : xxxxxxxx
- Pin: xxxxxxxx State: xxxxx
- Mobile xxxxxxxx
- 5 Product and By Product : **PERSONAL WEIGHING MACHINE**
- 6 Name of the project / business activity proposed : **PERSONAL WEIGHING MACHINE
MANUFACTURING UNIT**
- 7 Cost of Project : Rs.24.86 Lakhs
- 8 Means of Finance
- Term Loan Rs.13.97 Lakhs
- Own Capital Rs.2.49 Lakhs
- Working Capital Rs.8.4 Lakhs
- 9 Debt Service Coverage Ratio : 2.58
- 10 Pay Back Period : 5 Years
- 11 Project Implementation Period : 5-6 Months
- 12 Break Even Point : 34%
- 13 Employment : 12 Persons
- 14 Power Requirement : 20.00 HP
- 15 Major Raw materials : Load cell, electronic circuit, display unit, weighing pan and other materials
- 16 Estimated Annual Sales Turnover (Max Capacity) : 181.76 Lakhs
- 17 Detailed Cost of Project & Means of Finance

COST OF PROJECT

(Rs. In Lakhs)

Particulars	Amount
Land	Own/Rented
Plant & Machinery	15.02
Furniture & Fixtures	0.50
Working Capital	9.34
Total	24.86

MEANS OF FINANCE

Particulars	Amount
Own Contribution	2.49
Working Capital(Finance)	8.40
Term Loan	13.97
Total	24.86

PERSONAL WEIGHING MACHINE

MANUFACTURING UNIT

Introduction:

A weighing scale is one of the most important accessories one should possess if he/she is health conscious. We all know the fact that “A healthy mind in a healthy body”. We have to keep our body healthy to have a healthy mind. But, during the past few years, people are more careless about their health and they don't prefer keeping their body mass in check. One of the main reasons is because they do not have any time to spare and they are not ready to sacrifice their time or control their diet. According to many experts, a weighing machine at home can make a user-health conscious; he/she can frequently check their weight and do a self-assessment. There are many people who have changed their lifestyle and have escaped diseases and obesity just because they did a self-assessment on the basis of their body weight readings. The main advantages of an electronic weighing system when compared with mechanical weighing systems are: (a) Compactness and small size independent of capacity. (b) Ruggedness and high dependability. (c) High speed of response and rapid weighing. (d) Good accuracy. (e) Excellent flexibility to monitor multiple loads. (f) Analog and digital with printout facility remote indication and parallel display. (g) Online processing through computer. The electronic weighing system comprises the basic load cell, suitable signal conditioners and output recorders/indicators giving both the analog and digital output for further processing. The signals from the load cell are amplified and fed to analog/digital converter, which provide an output in the digital format for display/ printing/processing etc.



Uses & Market Potential:

Need and Benefits of Personal Weighing Scales : The people are taking interest in how to remain healthy and how to lose weight. Weighing Scales are very handy can There is a variety of scales and these scales help to reach goal. These scales are also termed as personal scales and they come a long way and are equipped with many features that are easy to use. The digital Wi-Fi personal scale is an improvement in the area of weight measurement. Electronic weighing scales find use across several applications such as retail, healthcare, veterinary, laboratories, jewellery, and other industrial applications. Among the various application segments in the global electronic weighing scale market, the industrial scales segment accounts for comparatively higher revenue share of almost 33% and is expected to remain dominant during the forecast period. The health scales segment is expected to register high Y-o-Y growth rates throughout the forecast period while the veterinary scales segment is anticipated to increase 1.4X between 2017 and 2025. The health scales segment is projected to witness a CAGR of 5.2% during the forecast period while the gem and jewellery scales segment is expected to be a close second at 5.1%. The retail scales segment is expected to be the second largest segment, with a market value share of 24.0% during the period of assessment.

Product:

Personal Weighing Scale

Raw Material:

Weighing scale of electronic /digital type are considered for project. The main components are load cell, electronic circuit, display unit, weighing pan, weight balancing mechanism and housing. The unit can procure load cells and all electronic components from market, for assembly as per design, while body and pan are produced in house. For housing and pan, raw materials required are plastic molding and steel sheets of various gauges.

Manufacturing Process:

The manufacturing process mainly consists of assembly.

- Load cells are selected and sourced from reputed manufacturers offering reliability and durability. As per the weighing capacity of final machines, different type and design of load cells are used.
- These load cells are connected with weighing pan through levers to equalize the load.
- Load cell is connected with electronic circuit and display and/ or printer unit. The whole assembly is mounted in the housing or body of machine.
- The machines are then powered up and the adjustments of load cell are carried out. The circuit adjustments of output are calibrated as per the accuracy range and weighing range specified for machine as per the prescribed process.

- The adjustments are sealed with temper proof seals and certified as calibrated scale.
- These weighing scales are then inspected / checked for accuracy for full range of weights in the range specified for machine before packing and dispatch.

Area:

The industrial setup requires space for Inventory, workshop or manufacturing area, space for power supply utilities and polishing area. Also, some of the area of building is required for office staff facilities, office furniture, etc. Thus, the approximate total area required for complete industrial setup is 1500-2000Sqft.

Cost of Machines:

S No	Particulars	Quantit y	Rate	Total Value
1	Incoming Inspection unit	1	25000	25000
2	Load cell testing Station	1	40000	40000
3	Circuit Component Assembly	1	60000	60000
4	PCB Test Station	1	30000	30000
5	Load cell circuit assembly and testing	1	65000	65000
6	Assembly line for PCB	1	35000	35000
7	Weighing pan mechanism	1	75000	75000

	Station			
8	Display and printer mounting	1	15000	15000
9	Assembly Line of Final product	1	30000	30000
10	Calibration testing of Scales	1	15000 0	150000
11	Packing Labeling Station	1	40000	40000
12	Oscilloscope single/ dual waves	1	13000 0	130000
13	Manual Shear machines	1	12000	12000
14	Sheet bending machine	2	75000	150000
15	Power press	2	25000	50000
16	Curling machine	1	10000 0	100000
17	Sand Blasting Station	1	75000	75000
17	Spray/ Powder painting Plant	1	25000 0	250000
18	Buffing/ Polishing machine	2	25000	50000
19	DC power supply	2	40000	80000
20	Final Product test and calibration Unit	1	40000	40000
	Total Amount			1502000

Power Requirement- The estimated Power requirement is taken at 20 HP.

Manpower Requirement– Following manpower is required:

- Machine operator-2
- Skilled/unskilled worker-3
- Helper-4
- Manager cum Accountant-1
- Sales Personnel-2

FINANCIALS

PROJECTED BALANCE SHEET

PARTICULARS	I	II	III	IV	V
<u>SOURCES OF FUND</u>					
<u>Capital Account</u>					
Opening Balance	-	3.67	5.43	7.94	11.26
Add: Additions	2.49	-	-	-	-
Add: Net Profit	4.48	5.57	6.80	8.12	9.43
Less: Drawings	3.30	3.80	4.30	4.80	5.50
Closing Balance	3.67	5.43	7.94	11.26	15.19
CC Limit	8.40	8.40	8.40	8.40	8.40
Term Loan	12.42	9.31	6.21	3.10	-
Sundry Creditors	3.60	4.13	4.68	5.25	5.85
TOTAL :	28.09	27.28	27.23	28.02	29.44
<u>APPLICATION OF FUND</u>					
Fixed Assets (Gross)	15.52	15.52	15.52	15.52	15.52
Gross Dep.	2.30	4.26	5.93	7.35	8.56
Net Fixed Assets	13.22	11.26	9.59	8.17	6.96
Current Assets					
Sundry Debtors	4.79	5.81	6.66	7.54	8.48
Stock in Hand	8.15	9.37	10.63	11.93	13.29
Cash and Bank	1.93	0.85	0.36	0.37	0.71
TOTAL :	28.09	27.28	27.23	28.02	29.44

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PROJECTED PROFITABILITY STATEMENT

PARTICULARS	I	II	III	IV	V
<u>A) SALES</u>					
Gross Sale	102.60	124.45	142.61	161.62	181.76
Total (A)	102.60	124.45	142.61	161.62	181.76
<u>B) COST OF SALES</u>					
Raw Material Consumed	72.00	82.62	93.64	105.06	116.90
Electricity Expenses	1.79	2.01	2.24	2.46	2.69
Repair & Maintenance	2.57	3.11	3.57	4.04	4.54
Labour & Wages	12.35	15.06	17.78	20.62	23.51
Depreciation	2.30	1.96	1.67	1.42	1.21
Cost of Production	91.01	104.77	118.88	133.60	148.85
Add: Opening Stock /WIP	-	4.55	5.24	5.94	6.68
Less: Closing Stock /WIP	4.55	5.24	5.94	6.68	7.44
Cost of Sales (B)	86.46	104.08	118.18	132.87	148.09
C) GROSS PROFIT (A-B)	16.14	20.37	24.43	28.76	33.67
	15.73%	16.37%	17.13%	17.79%	18.53%
D) Bank Interest i) (Term Loan)	1.52	1.24	0.90	0.55	0.21
ii) Interest On Working Capital	0.92	0.92	0.92	0.92	0.92
E) Salary to Staff	7.69	8.84	10.61	12.52	14.39
F) Selling & Adm Expenses Exp.	1.54	3.48	4.56	5.66	7.27
G) TOTAL (D+E+F)	11.66	14.49	16.99	19.65	22.80
H) NET PROFIT	4.48	5.88	7.44	9.10	10.87
	4.4%	4.7%	5.2%	5.6%	6.0%
I) Taxation	-	0.31	0.64	0.98	1.44
J) PROFIT (After Tax)	4.48	5.57	6.80	8.12	9.43

PROJECTED CASH FLOW STATEMENT

PARTICULARS	I	II	III	IV	V
<u>SOURCES OF FUND</u>					
Own Contribution	2.49	-	-	-	-
Reserve & Surplus	4.48	5.88	7.44	9.10	10.87
Depreciation & Exp. W/off	2.30	1.96	1.67	1.42	1.21
Increase In Cash Credit	8.40	-	-	-	-
Increase In Term Loan	13.97	-	-	-	-
Increase in Creditors	3.60	0.53	0.55	0.57	0.59
TOTAL :	35.24	8.37	9.66	11.10	12.67
<u>APPLICATION OF FUND</u>					
Increase in Fixed Assets	15.52	-	-	-	-
Increase in Stock	8.15	1.22	1.26	1.31	1.35
Increase in Debtors	4.79	1.02	0.85	0.89	0.94
Repayment of Term Loan	1.55	3.10	3.10	3.10	3.10
Taxation	-	0.31	0.64	0.98	1.44
Drawings	3.30	3.80	4.30	4.80	5.50
TOTAL :	33.31	9.46	10.15	11.08	12.34
Opening Cash & Bank Balance	-	1.93	0.85	0.36	0.37
Add : Surplus	1.93	- 1.08	- 0.49	0.01	0.33
Closing Cash & Bank Balance	1.93	0.85	0.36	0.37	0.71

COMPUTATION OF CLOSING STOCK & WORKING CAPITAL

PARTICULARS	I	II	III	IV	V
<u>Finished Goods</u>					
(15 Days requirement)	4.55	5.24	5.94	6.68	7.44
<u>Raw Material</u>					
(15 Days requirement)	3.60	4.13	4.68	5.25	5.85
Closing Stock	8.15	9.37	10.63	11.93	13.29

COMPUTATION OF WORKING CAPITAL REQUIREMENT

Particulars	Amount	Margin(10%)	Net Amount
Stock in Hand	8.15		
Less:			
Sundry Creditors	3.60		
Paid Stock	4.55	0.46	4.10
Sundry Debtors	4.79	0.48	4.31
Working Capital Requirement			8.40
Margin			0.93
MPBF			8.40
Working Capital Demand			8.40

REPAYMENT SCHEDULE OF TERM LOAN

11.0%

Year	Particulars	Amount	Addition	Total	Interest	Repayment	CI Balance
I	Opening Balance						
	Ist Quarter	-	13.97	13.97	0.38	-	13.97
	Iind Quarter	13.97	-	13.97	0.38	-	13.97
	IIIrd Quarter	13.97	-	13.97	0.38	0.78	13.19
	Ivth Quarter	13.19	-	13.19	0.36	0.78	12.42
					1.52	1.55	
II	Opening Balance						
	Ist Quarter	12.42	-	12.42	0.34	0.78	11.64
	Iind Quarter	11.64	-	11.64	0.32	0.78	10.86
	IIIrd Quarter	10.86	-	10.86	0.30	0.78	10.09
	Ivth Quarter	10.09		10.09	0.28	0.78	9.31
					1.24	3.10	
III	Opening Balance						
	Ist Quarter	9.31	-	9.31	0.26	0.78	8.54
	Iind Quarter	8.54	-	8.54	0.23	0.78	7.76
	IIIrd Quarter	7.76	-	7.76	0.21	0.78	6.98
	Ivth Quarter	6.98		6.98	0.19	0.78	6.21
					0.90	3.10	
IV	Opening Balance						
	Ist Quarter	6.21	-	6.21	0.17	0.78	5.43
	Iind Quarter	5.43	-	5.43	0.15	0.78	4.66
	IIIrd Quarter	4.66	-	4.66	0.13	0.78	3.88
	Ivth Quarter	3.88		3.88	0.11	0.78	3.10
					0.55	3.10	
V	Opening Balance						
	Ist Quarter	3.10	-	3.10	0.09	0.78	2.33
	Iind Quarter	2.33	-	2.33	0.06	0.78	1.55
	IIIrd Quarter	1.55	-	1.55	0.04	0.78	0.78
	Ivth Quarter	0.78		0.78	0.02	0.78	0.00
					0.21	3.10	

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
<u>CASH ACCRUALS</u>	6.78	7.53	8.47	9.54	10.64
Interest on Term Loan	1.52	1.24	0.90	0.55	0.21
Total	8.30	8.77	9.37	10.10	10.85
<u>REPAYMENT</u>					
Repayment of Term Loan	1.55	3.10	3.10	3.10	3.10
Interest on Term Loan	1.52	1.24	0.90	0.55	0.21
Total	3.07	4.34	4.00	3.66	3.32
DEBT SERVICE COVERAGE RATIO	2.71	2.02	2.34	2.76	3.27
AVERAGE D.S.C.R.			2.58		

Assumptions:

1. Production Capacity of Personal Weighing Machine Manufacturing unit is taken at 150 Pcs per day. First year, Capacity has been taken @ 40%.
2. Working shift of 10 hours per day has been considered.
3. Raw Material stock and Finished goods closing stock has been taken for 15 days.
4. Credit period to Sundry Debtors has been given for 14 days.
5. Credit period by the Sundry Creditors has been provided for 15 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 20 HP.
10. Selling Prices & Raw material costing has been increased by 3% & 2% respectively in the subsequent years.

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