



Pre-Feasibility Study (Engineering Workshop - Subcontracting)



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Note: All SMEDA Services / information related to PM's Youth Business Loan are Free of Cost

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1 DISCLAIMER

This information memorandum is to introduce the subject matter and provide a general idea and information on the subject. Although, the material included in this document is based on data / information gathered from various reliable sources; however, it is based upon certain assumptions which may differ from case to case. The information has been provided on 'as is where is' basis without any warranties or assertions as to the correctness or soundness thereof. Although, due care and diligence has been taken to compile this document, the contained information may vary due to any change in any of the concerned factors, and the actual results may differ substantially from the presented information. SMEDA, its employees or agents do not assume any liability for any financial or other loss resulting from this memorandum in consequence of undertaking this activity. The contained information does not preclude any further professional advice. The prospective user of this memorandum is encouraged to carry out additional diligence and gather any information which is necessary for making an informed decision, including taking professional advice from a qualified consultant / technical expert before taking any decision to act upon the information.

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2 PURPOSE OF THE DOCUMENT

The objective of the pre-feasibility study is primarily to facilitate potential entrepreneurs in project identification for investment. The project pre-feasibility may form the basis of an important investment decision and in order to serve this objective, the document / study covers various aspects of project concept development, start-up, production, marketing, finance and business management.

The purpose of this document is to facilitate potential investors in Engineering Workshop – Subcontracting, by providing them a general understanding of the business with the intention of supporting potential investors in crucial investment decisions.

The need to come up with pre-feasibility reports for undocumented or minimally documented sectors attains greater imminence, as the research that precedes such reports reveal certain thumb rules; best practices developed by existing enterprises by trial and error, and certain industrial norms that become a guiding source regarding various aspects of business set-up and its successful management.

Apart from carefully studying the whole document one must consider critical aspects provided later on, which form basis of any Investment Decision.

3 INTRODUCTION TO SMEDA

The Small and Medium Enterprises Development Authority (SMEDA) was established in October 1998 with an objective to provide fresh impetus to the economy through development of Small and Medium Enterprises (SMEs).

With a mission "to assist in employment generation and value addition to the national income, through development of the SME sector, by helping increase the number, scale and competitiveness of SMEs", SMEDA has carried out 'sectoral research' to identify policy, access to finance, business development services, strategic initiatives and institutional collaboration and networking initiatives.

Preparation and dissemination of pre-feasibility studies in key areas of investment has been a hallmark of SME facilitation by SMEDA.

Concurrent to the pre-feasibility studies, a broad spectrum of business development services is also offered to SMEs by SMEDA. These services include identification of experts and consultants and delivery of need based

capacity building programs of different types, in addition to business guidance through help desk services.

4 INTRODUCTION TO SCHEME

Prime Minister's 'Youth Business Loans' Programme, for young entrepreneurs, with an allocated budget of Rs. 5.0 Billion for the year 2013-14, is designed to provide subsidised financing at 8% mark-up per annum for one hundred thousand (100,000) beneficiaries, through designated financial institutions, initially by National Bank of Pakistan (NBP) and First Women Bank Ltd. (FWBL).

Loans from Rs. 0.1 million to Rs. 2.0 million with tenure up to 8 years inclusive of 1 year grace period, and a debt : equity of 90 : 10 will be disbursed to SME beneficiaries across Pakistan, covering; Punjab, Sindh, Khyber Pakhtunkhwa, Balochistan, Gilgit Baltistan, Azad Jammu & Kashmir and Federally Administered Tribal Areas (FATA).

5 EXECUTIVE SUMMARY

This particular pre-feasibility is for setting up an 'Engineering Workshop - Subcontracting' in any industrial cluster of any major city of Pakistan. Engineering Workshop – Subcontracting falls in the segment of light engineering sector. The workshop is proposed to cater to machining work on parts for electrical home appliances, pumps, and other engineering products. Most subcontracting workshops are part of small and medium scale industry and are operating in cities like Peshawar, Lahore, Gujranwala, Faisalabad, Karachi etc., as a service provider.

The workshop is proposed to operate 8 hours daily. The maximum jobs for the project are assumed to be 30,000 per year. The business will provide employment opportunity to 3 individuals including the owner manager.

The total project cost for setting up this workshop is estimated at Rs. 1.70 million out of which Rs 1.19 million is capital cost and Rs 0.51 million as working capital. The project is financed through 90% debt and 10% equity. The project NPV is around Rs. 3.06 million, with an IRR of 32% and payback period of 3.95 years. The legal status of this project is proposed as 'Sole Proprietorship'.

6 CRITICAL FACTORS

Following are the factors critical for success of this business venture:

- Technical know-how and relevant experience of entrepreneur.
- Availability of skilled labour having technical knowledge.

- Ability to generate work orders through industrial networking, direct marketing and negotiating long term contracts.
- Utilization of job costing and job card with technical specifications sheet.

7 BRIEF DESCRIPTION OF PROJECT & PRODUCT

Engineering Workshop – Subcontracting, will not manufacture its own products, instead it will provide job work facilities to the light engineering sector. This practice is prevalent in the majority of such workshops. The workshop will provide services to the manufacturers of electrical home appliances, pumps, textile sector, machinery repair shops, auto part makers, etc. This business activity is more suitable for an entrepreneur with mechanical technology background. The prospective entrepreneurs are also recommended to have previous workshop floor experience. Major capital investment is in the procurement and installation of lathe, shaper and cylindrical grinding machines.

The workshop will provide machining facility for engineering products such as washing machines, electric motor rotor shafts. A variety of machining services can be carried out on the machinery set proposed under this project, however, for the purpose of calculating cost and revenues, work equivalent to electric motor shaft L18" x D1½" has been taken as a standard item.

The workshop will require services of two machinists and one helper to carry out requisite job orders.

The business will be setup in rented premises, having covered area of 400 sqft.

8 INSTALLED & OPERATIONAL CAPACITIES

The installed capacity of the project is to perform 30,000 jobs per year. During the first year it will operate at 70% capacity and perform 21,000 jobs. The total human resource strength will be 3, including the entrepreneur / owner. The workshop will operate for 8 hours daily.

9 GEOGRAPHICAL POTENTIAL FOR INVESTMENT

The subcontracting workshop clusters are mostly being operated near industrial areas of Lahore, Peshawar, Quetta, Faisalabad, Karachi, Hyderabad and Gujranwala etc. The ideal location for the project may be outside municipal and cantonment limits, preferably in a small industrial cluster / estate. Other options could be near an industrial complex like large fertilizer, oil or power units off major highways.

10 POTENTIAL TARGET MARKETS / CITIES

The potential target markets are local clusters of home appliances manufacturers, and electrical pumps manufacturers. The suitable cities for marketing can be Gujranwala, Gujrat, Lahore, Faisalabad Karachi, Hyderabad, Peshawar, Gilgit and Quetta.

11 PROJECT COST SUMMARY

A detailed financial model has been developed to analyze the commercial viability of Engineering Workshop - Subcontracting under the Prime Minister's Youth Business Loan Scheme. Various cost and revenue related assumptions along with results of the analysis are outlined in this section.

The projected Income Statement, Cash Flow Statement and Balance Sheet are attached as appendices.

11.1 PROJECT ECONOMICS

All figures in this financial model have been calculated for the job work processing of 30,000 washing machines motor rotor shafts per year. During the first year of operations the facility will be working at 70% of its installed capacity.

The following table shows internal rate of return, payback period and net present value;

Table 1: Project Economics

Description	Details
Internal Rate of Return (IRR)	32%
Payback Period (yrs)	3.95
Net Present Value (NPV)	Rs. 3,058,137

Returns on the scheme and its profitability are dependent on getting regular work orders from the local industry and strict compliance to the technical specifications of finished products.

11.2 PROJECT FINANCING

Following table provides details of the equity required and variables related to bank loan;

Table 2: Project Financing

Description	Details
Total Equity (10%)	Rs.170,188
Bank Loan (90%.)	Rs.1,531,688
Markup to the Borrower (%age/annum)	8%

Tenure of the Loan (Years)	8
Grace Period (Years)	1

11.3 PROJECT COST

Following fixed and working capital requirements have been identified for operations of the proposed business. Additionally, rented premise has been recommended due to ease of availability and lower costs.

Table 3: Capital Investment for the Project

Capital Investment	Amount (Rs.)
Machinery	1,035,000
Furniture & Office equipment	77,500
Pre-operating Cost	75,000
Total Capital Cost	1,187,500
Initial Working Capital	514,376
Total Project Cost	1,701,876

11.4 SPACE REQUIREMENT

The workshop area has been calculated on the basis of space requirement for placement of machinery and holding incoming and outgoing jobs. However, normal workshops in the industry do not follow any set pattern or space standards. Following table shows calculations for project space requirement.

Table 4: Space Requirement

Space Requirement	Sq. ft.
Workshop area	400
Total Area	400

Premises will be obtained on rent @ Rs 20,000 per month having the required building structure along with 3 phase electricity connection.

11.5 MACHINERY AND EQUIPMENT

Following table provides list of machinery and equipment required for a typical subcontracting workshop facility;

Table 5: Machinery and Equipment

Description	Quantity	Cost Rs/unit	Total Rs.
Lathe Machine 5' (used)	1	300,000	300,000
Shaper 8" stroke (used)	1	200,000	200,000
Center grinding machine 3' (used)	1	450,000	450,000
Pedestal grinding machine ½" chuck	1	15,000	15,000
Tool grinder	1	10,000	10,000
Welding plant 100A	1	40,000	40,000
Fan and Lights for Workshop		20,000	20,000
Total	6		1,035,000

The workshop will take work orders for parts having cylindrical profiles, mostly the rotor shafts of electrical motors and pumps. Lathe machine will be used to bring the shaft to desired diameters, center grinding machine for fine machining and shaper machine to cut notches, etc. Other equipment will be used to support the main machines for finishing or facilitating work.

11.6 FURNITURE & OFFICE EQUIPMENT

Following furniture and office equipment fulfills the basic requirements, for this operation;

Table 6: Furniture & Office Equipment Costs

Description	Quantity	Cost	Amount
Chairs	3	4,000	12,000
Stools	4	2,500	10,000
Table	1	5,000	5,000
Steel cupboard	2	12,000	24,000
Metal working table	1	15,000	15,000
Measuring instruments set	1	10,000	10,000
Telephone	1	1,500	1,500
Total			77,500

11.7 RAW MATERIAL REQUIREMENTS

Significant amount of raw materials is not required. Since the job work involves metal forming operations, cost of tooling along with jigs and fixtures has been incorporated.

Table 7: Cost of Material

Description	Unit	Rate	Qty	Rs./Unit
Tooling	Number	10.00	1	10.00
Misc (jigs, fixtures, etc)	Number	7.14	1	7.14
Cost per Unit				17.14

11.8 HUMAN RESOURCE REQUIREMENT

Table 8: Human Resource Requirement

Description	No. of Employees	Salary per month
Owner Manager	1	20,000
Machinist	1	15,000
Helper	1	10,000
Total Staff	3	45,000

The table above provides details of human resource required to run such a business. The owner must be a trained machinist, preferably with vocational / technical education in mechanical technology. He will communicate with light engineering industries for order taking, operate the machines and take care of payments / receipts matters. A machinist will be hired to perform the work of operating the machines along with the owner. On an average the workshop can process 100 washing machine motor rotor shafts in a day. It is also capable of processing other similar jobs like motor bush, fan rotor shaft, pump shaft, etc.

11.9 REVENUE GENERATION

Table 9: Revenue Generation

Product	Unit	Sales Price (Rs./Unit)	First Year Production	First Year Sales Revenue (Rs)
Washing machine motor rotor shaft	No.	Rs 80	21,000	1,680,000
Total Sales Revenue				1,680,000

12 ANNEXURE

12.1 Income Statement

Income Statement										
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Revenue	1,680,000	1,927,200	2,207,040	2,523,576	2,881,349	3,285,440	3,741,537	4,255,998	4,835,936	5,376,121
<i>Cost of sales</i>										
Cost of goods sold 1	360,024	412,999	472,969	540,802	617,473	704,070	801,811	912,060	1,036,341	1,152,103
Operation costs 1 (direct labor)	300,000	330,000	363,000	399,300	439,230	483,153	531,468	584,615	643,077	707,384
Operating costs 2 (machinery maintenance)	52,500	62,963	75,383	90,112	107,564	128,224	152,662	181,546	215,661	250,649
Operating costs 3 (direct electricity)	78,268	89,784	102,821	117,568	134,236	153,062	174,311	198,278	225,296	250,462
Total cost of sales	790,792	895,746	1,014,173	1,147,782	1,298,503	1,468,509	1,660,252	1,876,500	2,120,375	2,360,598
Gross Profit	889,208	1,031,454	1,192,867	1,375,794	1,582,846	1,816,932	2,081,285	2,379,498	2,715,561	3,015,523
<i>General administration & selling expenses</i>										
Administration expense	240,000	264,000	290,400	319,440	351,384	386,522	425,175	467,692	514,461	565,907
Building rental expense	240,000	264,000	290,400	319,440	351,384	386,522	425,175	467,692	514,461	565,907
Electricity expense	18,148	19,963	21,959	24,155	26,570	29,227	32,150	35,365	38,902	42,792
Travelling expense	33,600	38,544	44,141	50,472	57,627	65,709	74,831	85,120	96,719	107,522
Communications expense (phone, fax, mail, internet, etc.)	8,400	1,320	1,452	1,597	1,757	1,933	2,126	2,338	2,572	2,830
Office expenses (stationary, entertainment, janitorial services, etc.)	2,400	2,640	2,904	3,194	3,514	3,865	4,252	4,677	5,145	5,659
Promotional expense	16,800	19,272	22,070	25,236	28,813	32,854	37,415	42,560	48,359	53,761
Depreciation expense	111,400	111,400	111,400	111,400	111,400	111,483	111,483	111,483	111,483	111,483
Amortization of pre-operating costs	7,500	7,500	7,500	7,500	7,500	7,500	7,500	7,500	7,500	7,500
Subtotal	678,248	728,639	792,226	862,434	939,950	1,025,616	1,120,106	1,224,428	1,339,602	1,463,362
Operating Income	210,960	302,816	400,641	513,360	642,896	791,315	961,179	1,155,070	1,375,959	1,552,161
Gain / (loss) on sale of office equipment	-	-	-	-	600	-	-	-	-	-
Earnings Before Interest & Taxes	210,960	302,816	400,641	513,360	643,496	791,315	961,179	1,155,070	1,375,959	1,552,161
Interest expense on long term debt (Project Loan)	127,129	116,388	102,271	86,982	70,423	52,491	33,070	12,037	-	-
Subtotal	127,129	116,388	102,271	86,982	70,423	52,491	33,070	12,037	-	-
Earnings Before Tax	83,831	186,427	298,370	426,378	573,073	738,824	928,108	1,143,033	1,375,959	1,552,161
Tax	-	-	-	2,638	17,307	33,882	61,716	93,955	128,894	157,932
NET PROFIT/(LOSS) AFTER TAX	83,831	186,427	298,370	423,740	555,765	704,942	866,392	1,049,078	1,247,065	1,394,229

S M E D A

12.2 Statement of Cash Flow

Cash Flow Statement											
	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
<i>Operating activities</i>											
Net profit		83,831	186,427	298,370	423,740	555,765	704,942	866,392	1,049,078	1,247,065	1,394,229
Add: depreciation expense		111,400	111,400	111,400	111,400	111,400	111,483	111,483	111,483	111,483	111,483
amortization of pre-operating costs		7,500	7,500	7,500	7,500	7,500	7,500	7,500	7,500	7,500	7,500
Deferred income tax		-	-	-	2,638	17,307	33,882	61,716	93,955	128,894	157,932
Accounts receivable		(69,041)	(5,079)	(10,830)	(12,254)	(13,856)	(15,655)	(17,675)	(19,943)	(22,488)	(23,016)
Equipment inventory	(4,375)	(1,134)	(1,417)	(1,767)	(2,202)	(2,742)	(3,411)	(4,239)	(5,265)	(5,851)	32,403
Raw material inventory	(15,001)	(4,789)	(6,273)	(8,208)	(10,728)	(14,007)	(18,271)	(23,811)	(31,004)	(36,782)	168,873
Pre-paid building rent	(120,000)	(12,000)	(13,200)	(14,520)	(15,972)	(17,569)	(19,326)	(21,259)	(23,385)	(25,723)	282,954
Accounts payable		11,995	1,949	2,257	2,616	3,038	3,533	4,116	4,806	5,508	(1,384)
Cash provided by operations	(139,376)	127,762	281,307	384,202	506,738	646,836	804,677	984,223	1,187,225	1,409,606	2,130,973
<i>Financing activities</i>											
Project Loan - principal repayment		-	(170,090)	(184,208)	(199,497)	(216,055)	(233,988)	(253,409)	(274,441)	-	-
Additions to Project Loan	1,531,688	-	-	-	-	-	-	-	-	-	-
Issuance of shares	170,188	-	-	-	-	1,914	-	-	-	-	-
Purchase of (treasury) shares											
Cash provided by / (used for) financing activities	1,701,876	-	(170,090)	(184,208)	(199,497)	(214,141)	(233,988)	(253,409)	(274,441)	-	-
<i>Investing activities</i>											
Capital expenditure	(1,187,500)	-	-	-	-	(1,914)	-	-	-	-	-
Acquisitions											
Cash (used for) / provided by investing activities	(1,187,500)	-	-	-	-	(1,914)	-	-	-	-	-
NET CASH	375,000	127,762	111,217	199,994	307,241	430,781	570,689	730,815	912,784	1,409,606	2,130,973



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12.3 Balance Sheet

Balance Sheet											
	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Assets											
<i>Current assets</i>											
Cash & Bank	375,000	502,762	613,979	813,973	1,121,214	1,551,995	2,122,684	2,853,499	3,766,283	5,175,889	7,306,862
Accounts receivable		69,041	74,121	84,950	97,204	111,060	126,715	144,390	164,333	186,821	209,837
Equipment spare part inventory	4,375	5,509	6,926	8,693	10,895	13,637	17,048	21,288	26,552	32,403	-
Raw material inventory	15,001	19,790	26,063	34,271	44,999	59,006	77,277	101,087	132,091	168,873	-
Pre-paid building rent	120,000	132,000	145,200	159,720	175,692	193,261	212,587	233,846	257,231	282,954	-
Total Current Assets	514,376	729,102	866,288	1,101,607	1,450,004	1,928,959	2,556,311	3,354,110	4,346,490	5,846,939	7,516,699
<i>Fixed assets</i>											
Land	-	-	-	-	-	-	-	-	-	-	-
Building/Infrastructure	-	-	-	-	-	-	-	-	-	-	-
Machinery & equipment	1,035,000	931,500	828,000	724,500	621,000	517,500	414,000	310,500	207,000	103,500	-
Furniture & fixtures	76,000	68,400	60,800	53,200	45,600	38,000	30,400	22,800	15,200	7,600	-
Office equipment	1,500	1,200	900	600	300	1,914	1,532	1,149	766	383	-
Total Fixed Assets	1,112,500	1,001,100	889,700	778,300	666,900	557,414	445,932	334,449	222,966	111,483	-
<i>Intangible assets</i>											
Pre-operation costs	75,000	67,500	60,000	52,500	45,000	37,500	30,000	22,500	15,000	7,500	-
Total Intangible Assets	75,000	67,500	60,000	52,500	45,000	37,500	30,000	22,500	15,000	7,500	-
TOTAL ASSETS	1,701,876	1,797,702	1,815,988	1,932,407	2,161,904	2,523,873	3,032,243	3,711,059	4,584,456	5,965,922	7,516,699
Liabilities & Shareholders' Equity											
<i>Current liabilities</i>											
Accounts payable		11,995	13,944	16,200	18,817	21,854	25,387	29,503	34,308	39,816	38,432
Total Current Liabilities	-	11,995	13,944	16,200	18,817	21,854	25,387	29,503	34,308	39,816	38,432
<i>Other liabilities</i>											
Deferred tax		-	-	-	2,638	19,945	53,828	115,544	209,498	338,392	496,324
Long term debt (Project Loan)	1,531,688	1,531,688	1,361,598	1,177,390	977,893	761,838	527,850	274,441	-	-	-
Total Long Term Liabilities	1,531,688	1,531,688	1,361,598	1,177,390	980,531	781,783	581,677	389,985	209,498	338,392	496,324
<i>Shareholders' equity</i>											
Paid-up capital	170,188	170,188	170,188	170,188	170,188	172,102	172,102	172,102	172,102	172,102	172,102
Retained earnings		83,831	270,258	568,629	992,369	1,548,134	2,253,076	3,119,469	4,168,547	5,415,612	6,809,841
Total Equity	170,188	254,019	440,446	738,816	1,162,557	1,720,236	2,425,178	3,291,571	4,340,649	5,587,714	6,981,943
TOTAL CAPITAL AND LIABILITIES	1,701,876	1,797,702	1,815,988	1,932,407	2,161,904	2,523,873	3,032,243	3,711,059	4,584,456	5,965,922	7,516,699

13 USEFUL PROJECT MANAGEMENT TIPS

Technology

- **Required Spare Parts & Consumables:** Inventory of cutting and grinding tools should be ensured.
- **Energy Requirement:** The use of generator is not recommended due to high operating costs.
- **Machinery Suppliers:** As per prevalent practices in industry, used machines have been recommended. In selecting the machinery multiple sources must be contacted and thorough inspections be carried out before purchasing the machinery.
- **Quality Assurance Equipment & Standards:** The tools must be regularly checked for dimensional accuracy and physical condition. Preventive maintenance of all machinery especially lathe, shaper and centre grinding machines should be done regularly. While booking job work orders from customers, all the production and inspection drawings must be obtained. Any confusion on the production or quality assurance parameters must be cleared beforehand. Utmost care should be exercised during machining and inspection processes as these items will form part of some other product. Strict quality control procedure will improve the credibility of the workshop.

Marketing

- **Sales & Distribution Network:** Owner's links within the industry and his technical expertise are key to the continuous flow of job work orders for the workshop.

Human Resources

Adequacy & Competencies: Skilled and experienced staff is necessary for the workshop. Only staff having shop floor experience should be considered.

14 USEFUL LINKS

- Prime Minister's Office, www.pmo.gov.pk
- Small and Medium Enterprise Development Authority, www.smeda.org.pk
- National Bank of Pakistan (NBP), www.nbp.com.pk
- First Women Bank Limited (FWBL), www.fwbl.com.pk
- Government of Pakistan, www.pakistan.gov.pk
- Ministry of Industries & Production, www.moip.gov.pk
- Ministry of Education, Training & Standards in Higher Education, <http://moptt.gov.pk>
- Government of Punjab, www.punjab.gov.pk
- Government of Sindh, www.sindh.gov.pk
- Government of Khyber Pakhtunkhwa, www.khyberpakhtunkhwa.gov.pk
- Government of Balochistan, www.balochistan.gov.pk
- Government of Gilgit Baltistan, www.gilgitbaltistan.gov.pk
- Government of Azad Jamu Kashmir, www.ajk.gov.pk
- Securities & Exchange Commission of Pakistan (SECP), www.secp.gov.pk
- Federation of Pakistan Chambers of Commerce and Industry (FPCCI) www.fpcci.com.pk
- State Bank of Pakistan (SBP), www.sbp.org.pk
- Gujranwala Tools Dies and Molds Center (GTDMC) www.gtdmc.org.pk
- Pakistan Industrial and Technical Assistance (PITAC) www.pitac.gov.pk

15 OPERATING AND FINANCIAL ASSUMPTIONS

Table 10: Operational Assumptions

Maximum number of job orders (Annually)	30,000
Number of job orders – Year 1	21,000
Hours operational per day	8
Days operational per year	300

Table 11: Economy-Related Assumptions

Electricity price growth rate per annum	10%
Wage growth rate per annum	10%

Table 12: Cash Flow Assumptions

Accounts Receivable cycle (in days)	15
Accounts payable cycle (in days)	10
Raw material inventory (in days)	15
Equipment spare part inventory (in days)	30

Table 13: Expense Assumptions

Cost of materials	Rs/Job
Tooling	10
Miscellaneous (jigs, fixtures, etc)	6.80
Material cost growth rate	10%
Electricity utilization in hours/day	8
Machinery maintenance (Rs. per Job)	2.50
Promotional expense (% of revenue)	1%
Communication expense (% of revenue)	0.5%

Table 14 Financial Assumptions

Project life (Years)	10
Debt	90%
Equity	10%
Debt payments per year	12

Table 15: Depreciation Rate Assumptions

Machinery and Equipment	10%
Office Equipment	20%
Furniture & Fixtures	10%