
Pre-Feasibility Study

HEAVY TRUCK REPAIR AND MAINTENANCE WORKSHOP



Small and Medium Enterprises Development Authority

**Ministry of Industries and Production
Government of Pakistan**

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February 2021

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1. DISCLAIMER

The objective of this information memorandum is to introduce the subject matter and provide a general idea and information on the said matter. 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 have been taken to compile this document, the contained information may vary due to any change in any of the concerned factors as the future is uncertain, 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 to be obtained by the user. 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 making any decision to act upon the information.

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Document Control

Document No.	PREF-NO 170
Prepared by	SMEDA Punjab - OS
Revision Date	February, 2021
For information	helpdesk.punjab@smeda.org.pk

2. EXECUTIVE SUMMARY

The truck is a heavy-duty vehicle that is widely used to transport goods from one place to another. A heavy truck repair and maintenance workshop is a service facility where mechanics repair trucks, provide basic and extensive heavy truck-related services as well as scheduled maintenances.

This particular pre-feasibility is about setting up a heavy truck repair and maintenance workshop that can take care of the varying repair and maintenance needs of trucks along with reliable, affordable, and quality service. The proposed business offers a good return on investment with a short payback period.

The workshop is proposed to operate for 12 hours every day. During the first year, 4,998 jobs will be carried out. Each year 5% growth is expected in customers / no. of jobs and in year 10 the workshop will reach to perform 7,759 jobs. The number of jobs completed depends on the total number of machinery and employees hired. Factors like skilled mechanics, quality service and, a suitable location on a busy main road or near to truck stands are critical for the success of the workshop.

The total project cost for setting up this workshop is estimated at Rs. 18.97 million with fixed investment Rs. 16.31 million and working capital Rs. 2.66 million. The project is financed through 100% equity. The project NPV is around Rs. 23.99 million, with an IRR of 40% and a payback period of 3.07 years. The project will provide employment opportunities to 42 people including the owner. The legal business status of this project is proposed as 'Sole Proprietorship'.

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 the development of Small and Medium Enterprises (SMEs).

With a mission "to assist in employment generation and value addition to the national income, through the 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 prefeasibility studies in key areas of investment have been a successful hallmark of SME facilitation by SMEDA.

Concurrent to the prefeasibility studies, a broad spectrum of business development services is also offered to the SMEs by SMEDA. These services include the 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. 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 **Heavy Truck Repair and Maintenance Workshop** business, by providing them with 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 the basis of an informed Investment Decision.

5. BRIEF DESCRIPTION OF PROJECT AND PRODUCT

Heavy truck repair and maintenance workshop is a service facility where trucks are repaired, overhauled and scheduled maintenance performed by mechanics and electricians. These repair and maintenance services ranges from various engine maintenance and repair services to gear and electrification problems etc. The workshops also offer paintwork, scratches repairs, dents and damage caused by collision and major accidents.

The proposed workshop will have eight service bays (a space designed and constructed for the placement of any motor vehicle for repair, service or maintenance). The workshop will have automatic and semi-automatic machine for repair and maintenance purposes, including Automatic Battery Charger, Press Machine, Lathe Machine, Drilling Machine, Chain Hoist and mechanical equipment including Bottle Jacks, Torque Wrench, Chain Hoist, Hammers, Engine Tools etc. With the stated available tool / equipment and technical staff, the proposed workshop can deliver around 7,759 repair and maintenance jobs per year for heavy trucks. Major broader categories of repair and maintenance services offered by the workshop mainly include, Mechanical Services, Body and Suspension Services and

Electrical Services. There are various kind of repair and maintenance job within the stated categories. According to the estimates, around 76% of the workshop revenue will be generated through Gearbox Repair, Leaf Spring Repair, Frame Repair and Accidental Repairs.

The proposed repair and maintenance workshop will be ideally located on main road having flow of goods transportation through heavy truck or nearby to truck stands to target maximum walk-in customers as well as customers coming in from contacts, referrals and companies. Therefore, major urban cities and nearby suburban towns of large cities should be ideal for executing the proposed venture. The legal status of the business is proposed to be 'Sole Proprietorship'.

5.1 Proposed Services Mix

The proposed business offers different types of services. Details of the services are as follows.

Table 1: Services Mix

Description	Percentage of jobs	No. of Jobs
Mechanical Services:		
Oil Change	12.00%	600
Leather Change	7.20%	360
Greasing	7.20%	360
Tire Change	2.60%	130
*Break Oil	32.01%	1,600
Wheel Alignment	8.00%	400
Hydraulics Pipe Change/Repair	2.60%	130
Engine Seize Repair	0.06%	3
Gear Box Repair	2.40%	120
Body and Suspension Services:		
Rim Repair	4.80%	240
Leaf Spring Repair	5.76%	288
Frame Repair/Alignment	0.48%	24
Accident Repair Work	0.40%	20
Minor Denting & Painting	0.80%	40
Hood Repair & Change	0.30%	15
Electrical Services:		
AC Repair	0.40%	20
Minor Electrical Work	12.00%	600
Battery Change	0.96%	48

Total	100.00%	4,998
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* According to market practices, no amount is charged for 'Break Oil'.

5.2 Process Flow

A thorough repair process is important to ensure the best results for customers. The repair and maintenance process includes the following steps:

Inspection

First, technicians inspect the truck to determine what type of impairment exists. With this information, an estimate is provided to the customer. Not all damages are seen while being inspected; normally the hidden damages are seen after the truck is disassembled.

Disassembly

During the disassembly process, the truck is prepared for repair. It is at this stage that hidden damages are often found and communicated to the customer.

Order Parts

The repair process can only begin when the workshop receives all the parts. At this stage, the availability of parts is checked, and parts are ordered on time so that repairs can begin on schedule. To ensure prompt availability, it has been proposed to set-up a spare parts shop within the premises of the workshop and will be rented out to a third party.

Structural, Body and Mechanical Repair

The structural damage that occurred must be repaired first. Technicians will use a pre-defined measurement system according to the truck models to analyze the frame of the truck to accurately return the vehicle to factory specifications. If needed, wheel alignment and other suspension repairs will be done. All mechanical and electrical repairs should be completed along with the structural repairs.

Paint

The paint preparation is a very important step in the refinishing process. During this step, paint specialists prepare the panels and then prime, paint, and seal to ensure the highest quality finish.

Reassembly

In the reassembly area, final moldings and detail pieces are put back on the truck. In this step, the vehicle is almost complete and ready for delivery.

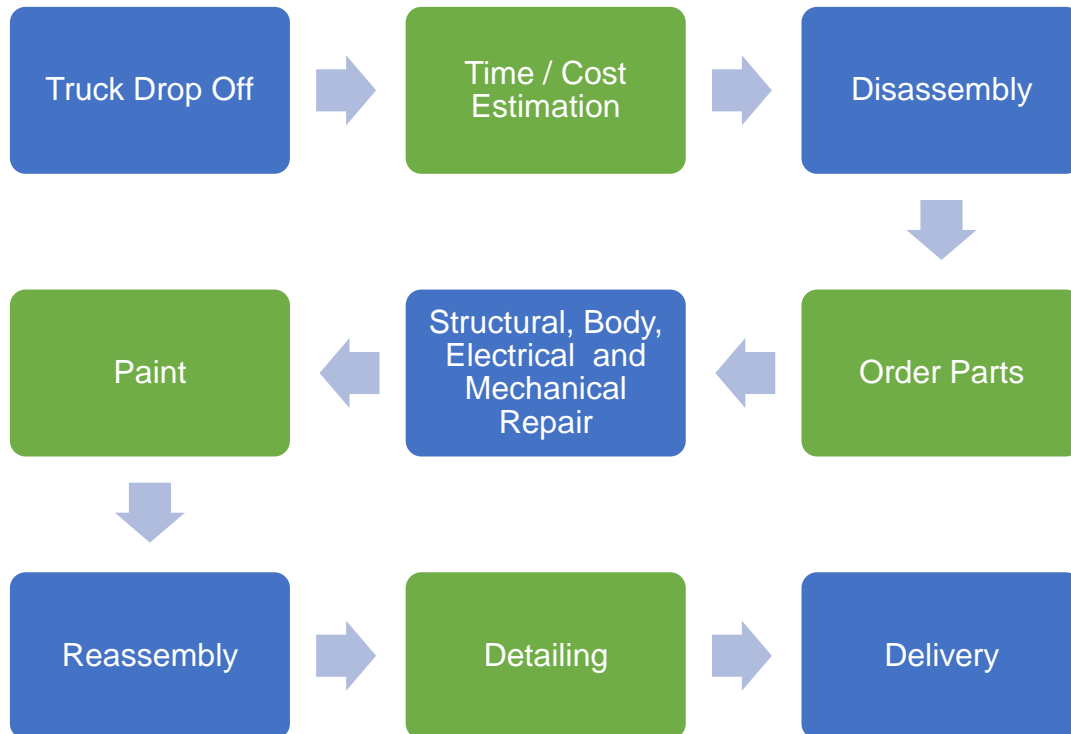
Detailing

During the detail process, the truck is thoroughly cleaned to remove any dust, dirt, etc.

Delivery

The truck is then road tested to ensure everything is working. The customer is contacted to collect the repaired truck.

Figure 1: Process Flow Diagram



5.3 Installed and Operational Capacities

The proposed workshop has the capacity to carry out 4,998 jobs in year 1. It is assumed that customers / No. of Jobs will increase at the rate of 5% in each year and achieve 7,759 jobs in the 10th year of operation.

6. CRITICAL SUCCESS FACTORS

Following are critical success factors associated with this business:

- Hiring certified and trained technicians otherwise absence of technical skills will result in loss of time, energy, and customer dissatisfaction.
- Setting up a competitive rate for the services being offered.
- Having sufficient tools and modern equipment to serve efficiently.
- Proper design and layout of the workshop to increase efficiency.

- Effective marketing skills to target potential customers and to maintain existing client base.
- An un-interrupted spare parts availability to give quick service and prevent any inconvenience to the customer.
- Suitable location on a busy main road or near to truck parking stations to attract maximum number of customers.

7. GEOGRAPHICAL POTENTIAL FOR INVESTMENT

A good location proves to be the key to a truck repairing and maintenance workshop. Therefore, the proposed workshop should be located in a high trafficking areas of heavy truck such as high ways, main roads or truck stands of major cities. The cities like Karachi, Lahore, Rawalpindi, Hyderabad, Faisalabad, Multan, Peshawar, Sialkot and Quetta etc. are the ideal locations.

8. POTENTIAL TARGET CUSTOMERS / MARKETS

Heavy Trucks are mainly used to provide cargo services, goods transportation, towing, garbage collection and dumping services, etc. The transportation services are provided to both general and industrial consumers for varying needs and requirements. The potential target customers will be individual truck drivers, corporate clients and insurance companies.

9. PROJECT COST SUMMARY

A detailed financial model has been developed to analyze the commercial viability of heavy truck repair and maintenance workshop. Various cost and revenue-related assumptions along with the results of the analysis are outlined in this section.

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

9.1 Project Economics

All the figures in this financial model have been calculated for estimated sales of Rs. 35.25 million in the year one. The capacity utilization during year one is worked out at 50% with 5% increase in subsequent years up to the maximum capacity utilization of 95%.

In order to financially appraise the project, a 100% Equity-Based Business Model has been assumed. The following table shows the Internal Rate of Return, Payback Period, and Net Present Value of the proposed venture:

Table 3: Project Economics (Equity Financed)

Description	Details
Internal Rate of Return (IRR)	40%
Payback Period (Yrs.)	3.07
Net Present Value (Rs.)	23,994,359

Calculation of break-even analysis is as follows:

Table 4: Breakeven (100% Equity-Based)

Break-Even Analysis	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Break-Even Revenue	27,136,996	29,111,151	31,304,481	33,710,638	35,317,613	37,467,298	40,702,777	44,099,232	47,452,496	51,577,363
Break-Even Units	2,616	2,653	2,701	2,752	2,626	2,645	2,728	2,793	2,806	2,888
Margin of Safety	23%	26%	28%	30%	37%	39%	40%	42%	44%	45%

However, for further explanation the Project Economics based on Debt:Equity (i.e., 50:50) Model has also been computed. On the basis of the Debt:Equity model the Internal Rate of Return, Payback Period, and Net Present Value of the proposed project are provided in the table below:

Table 5: Project Economics Based on Debt (50%): Equity (50%)

Description	Details
Internal Rate of Return (IRR)	40%
Payback Period (Yrs.)	3.02
Net Present Value (Rs.)	30,040,140

The financial assumptions for Debt: Equity is as follows:

Table 5.1: Financial Assumptions for Debt: Equity Model

Description	Details
Debt	50%
Equity	50%
Interest Rate on Debt	12%
Debt Tenure	5 years
Debt Payment / Year	2

The projected Income Statement, Balance Sheet, and Cash Flow Statement enclosed as annexures are based on a 100% Equity-Based Business Model.

9.2 Project Cost

Following fixed and working capital requirements have been identified for operations of the proposed business.

Table 6: Project Cost

Description	Amount Rs.
Capital Cost	
Machinery and Equipment	8,388,473
Building / Infrastructure	4,257,500
Pre-Operating Costs	2,405,500
Furniture and Fixtures	671,600
Office Equipment	507,500
Office Vehicle (Motor Cycle)	80,237
Total Capital Costs	16,310,810
Working Capital	
Cash	1,792,087
Upfront Building Rental	450,000
Upfront Insurance Payment	419,424
Total Working Capital	2,661,511
Total Project Cost	18,972,321

9.3 Space Requirement

In order to reduce the initial capital expenditure, the proposed heavy truck repair and maintenance workshop will be established on rental premises. The rent of the building will be 600,000 per month. An estimated area of 18,000 sq. ft. will be required for the proposed venture.

Though the land will be acquired on rental basis, however construction works will be required for getting a purpose-built facility to perform the required repair and maintenance services for heavy trucks. The building and infrastructure requirements for the proposed workshop mainly comprises of the following.

Table 7: Building and Infrastructure Requirement

Description	Area (Sq.ft)	Unit Cost (Rs.)	Total Cost (Rs.)
Shed- Bay	9,000	150	1,350,000
Management Building	500	1,500	750,000
Spare Parts Shop	500	1,500	750,000
Mosque	225	2,500	562,500
Shed	4,500	100	450,000
Parking Area	3,000	100	300,000
Washrooms	50	1,000	50,000
Waiting Area	225	200	45,000
Total Area	18,000		4,257,500

9.4 Machinery and Equipment Requirement

Machinery and equipment for the proposed project are stated below:

Table 8: Machinery and Equipment

Description	Quantity	Unit Cost (Rs.)	Total Cost (Rs.)
Lathe Machine-Large	1	1,566,275	1,566,275
Electric Drill Machine	1	577,356	577,356
Bottle Jacks	5	77,981	389,903
Engine Tools (Local)	5	52,000	260,000
Press Brake Machine	1	259,935	259,935
Lathe Machine-Small	1	183,288	183,288
Torque Wrench/Electric Nut Bolt Opener	1	173,290	173,290
Welding Plant	1	166,625	166,625
Manual Chain Hoist	1	85,340	85,340
Electrical Chain Hoist	1	72,649	72,649
Tanger Battery Charger	1	55,000	55,000
Electrician's Tools (Local)	1	45,000	45,000
Hammers	4	2,750	11,000
Custom Duty, Sale Tax, Clearance Charges			1,564,612

Machinery Installation Cost	1	1,500,000	1,500,000
Generator (JASCO 30 KVA)	1	900,000	900,000
Transformer (50 KVA)	1	458,200	458,200
Water Boring and Water Pump	1	120,000	120,000
Total			8,388,473

9.5 Furniture and Fixtures Requirement

Details of the furniture and fixture required for the project are given below:

Table 9: Furniture and Fixture

Description	Quantity	Unit Cost (Rs.)	Total Cost (Rs.)
Renovation		300,000	300,000
Sitting Chairs	21	11,190	235,000
Table	5	20,000	100,000
Sofa Set	1	25,000	25,000
Guest Chairs	2	5,800	11,600
Total			671,600

9.6 Office Equipment Requirement

Following office equipment will be required for heavy truck repair and maintenance workshop.

Table 10: Office Equipment

Description	Quantity	Unit Cost (Rs.)	Total Cost (Rs.)
Water Cooler	2	45,000	90,000
Air Conditioners	1	83,000	83,000
Poles, Wiring, and Meter	1	65,000	65,000
Fans	12	4,500	54,000
Fridge	1	51,500	51,500
Lights	55	800	44,000
LED	1	32,500	32,500
Computers	2	15,000	30,000

Wires and DB's	1	30,000	30,000
Printer	1	20,000	20,000
Microwave Oven	1	7,500	7,500
Total Office Equipment			507,500

9.7 Raw Material Requirement

Raw material required for workshop includes tools and spares, diesel, grease, oil, emery paper, painter brush and spry gun etc. which are easily available in the local markets anywhere in Pakistan. Job specific spare parts will be purchased as per customer requirement and repair needs.

9.8 Human Resource Requirement

In order to run the operations of heavy truck repair and maintenance smoothly, details of human resources required along with the number of employees and monthly salary are recommended as under:

Table 11: Human Resource Requirement

Description	No. Of Employees	Monthly Salary Per Person (Rs.)
CEO/Owner	1	100,000
Finance and Admin manager	1	55,000
Cashier	1	30,000
Account Officer	1	30,000
Foreman – Mechanical Services	1	55,000
Grease and Oil	2	45,000
Minor Work Expert	4	45,000
Engine Expert/Mechanic	2	45,000
Helper/Mechanic	8	20,000
Foreman – Body Repair and Suspension Services	1	55,000
Wheel/Rim Expert	2	45,000
Electrician	1	45,000
Tube Maker/Mechanic	2	45,000
Denter & Painter	1	45,000
Electrician	1	45,000

Helper/Mechanic	7	20,000
Foreman – Electrical Services	1	45,000
Electrician	1	45,000
Helper	1	20,000
Office Boy	1	20,000
Electrician (admin staff)	1	30,000
Guard	1	20,000
Total	42	

For this particular pre-feasibility, the total salary amount will be Rs. 1.37 million per month in Year 1.

9.9 Utilities and Other Costs

An essential cost to be borne by the project is the cost of electricity and diesel cost for the generator. The electricity expenses are estimated to be around Rs. 1.37 million during the first year, whereas generator's expenses are estimated to be Rs. 0.65 million in the first year.

9.10 Revenue Generation

Sales revenue during the first year of operations is provided in the table below.

Table 12: Revenue Generation (Year 1)

Description	No. of Jobs (Year 1)	Service Charges / Job (Rs.)	Revenue (Rs.)
Mechanical Services:			
Oil Change	600	300	180,000
Leather Change	360	2,000	720,000
Greasing	360	1,000	360,000
Tire Change	130	1,000	130,000
*Break Oil	1,600	-	-
Wheel Alignment	400	1,500	600,000
Hydraulics Pipe Change/Repair	130	6,000	780,000
Engine Seize Repair	3	350,000	1,050,000
Gear Box Repair	120	50,000	6,000,000
Body and Suspension Services:			
Rim Repair	240	5,000	1,200,000
Leaf Spring Repair	288	30,000	8,640,000

Frame Repair/Alignment	24	300,000	7,200,000
Accident Repair Work	20	250,000	5,000,000
Minor Denting & Painting	40	3,000	120,000
Hood Repair & Change	15	170,000	2,550,000
Electrical Services:			
AC Repair	20	5,000	100,000
Minor Electrical Work	600	1,000	600,000
Battery Change	48	500	24,000
Total	4,998		35,254,000

10. CONTACT DETAILS

In order to facilitate potential investors, contact details of private-sector vendors relevant to the proposed project are given below.

Name of Supplier	Type of Supplies	Website/Email	Phone
Tengzhou Hoton Machinery.Co.,Ltd, Add: Xu Village, Nanshahe Town, Tengzhou City, Shandong Province, China	Press Machine PBB1020- 3SH/ Drilling Machine	www.hotonmc.com	86-632-5633796
Jiangsu Hoston Machine Tools Co., Ltd.	Lathe Machine-Large C6251V-1000	http://www.hoston.c/c/vivian.zhang@hoston.cc	0086- 18082347552
Yuetai Chaosheng Electron Equipment Co.,Ltd	Welding Machine Standard	www.chinayuetai.com e-mail:yt4@rotay.cn	86-577- 62519701
ARY Sahulatbazar, 6TH Floor Madina City Mall Abdullah Haroon Road Karachi, Pakistan	Hyundai-Korea Diesel Generator 100 KVA / 80 KW, 3 Phase	www.arysahulatbazar.pk	0333-1666981 0345-7142371
Desertcart.Pk	Chain Hoist	www.desertcart.pk	

Daraz	Generator	www.daraz.pk	
Wood Pecker	Furniture	www.apnafurniture.pk/product/ace-office-table-or-workstation/	0331-8999222, 0331-7151566

11. USEFUL WEB LINKS

Small and Medium Enterprises Development Authority (SMEDA)	www.smeda.org.pk
Government of Pakistan	www.pakistan.gov.pk
Ministry of Industries and Production	www.moip.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 Jammu Kashmir	www.ajk.gov.pk
State Bank of Pakistan (SBP)	www.sbp.org.pk
Security and Exchange Commission of Pakistan (SECP)	www.secp.gov.pk
National Highways and Motorway Police	www.nhmp.gov.pk
Technical Education and Vocation Training Authority (TEVTA)	www.tevta.gov.pk
Punjab Goods Transport Association	www.pgtapunjab.com
Pakistan Automotive Manufacturers Association	www.pama.org.pk
Pakistan Association of Automotive Parts & Accessories Manufacturers	www.paapam.com

12. ANNEXURES

12.1 Income Statement

Calculations											SMEDA
Income Statement											
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	
Revenue	35,254,000	39,154,280	43,443,545	48,208,755	55,660,715	61,547,805	68,026,503	75,585,989	84,990,514	94,244,712	
<i>Cost of sales</i>											
Operation costs 1 (direct labor)	14,940,000	16,434,000	18,077,400	19,885,140	21,873,654	24,061,019	26,467,121	29,113,833	32,025,217	35,227,739	
Operating costs 2 (machinery maintenance)	21,168	22,226	23,338	24,505	25,730	27,016	28,367	29,786	31,275	32,839	
Operating costs 3 (direct electricity)	1,095,662	1,199,414	1,313,250	1,438,164	1,575,250	1,725,707	1,890,857	2,072,151	2,271,184	2,489,712	
Total cost of sales	16,056,830	17,655,640	19,413,987	21,347,809	23,474,634	25,813,743	28,386,346	31,215,770	34,327,676	37,750,289	
Gross Profit	19,197,170	21,498,640	24,029,557	26,860,946	32,186,082	35,734,062	39,640,157	44,370,220	50,662,838	56,494,422	
<i>General administration & selling expenses</i>											
Administration expense	2,940,000	3,234,000	3,557,400	3,913,140	4,304,454	4,734,899	5,208,389	5,729,228	6,302,151	6,932,366	
Administration benefits expense	588,000	646,800	711,480	782,628	860,891	946,980	1,041,678	1,145,846	1,260,430	1,386,473	
Building rental expense	7,200,000	7,920,000	8,712,000	9,583,200	10,541,520	11,595,672	12,755,239	14,030,763	15,433,839	16,977,223	
Electricity expense	271,341	284,908	299,153	314,111	329,817	346,308	363,623	381,804	400,894	420,939	
Generator	647,136	711,850	783,035	861,338	947,472	1,042,219	1,146,441	1,261,085	1,387,193	1,525,913	
Water expense	120,000	126,000	132,300	138,915	145,861	153,154	160,811	168,852	177,295	186,159	
Travelling expense	235,200	258,720	284,592	313,051	344,356	378,792	416,671	458,338	504,172	554,589	
Communications expense (phone, fax, mail, internet, etc.)	147,000	161,700	177,870	195,657	215,223	236,745	260,419	286,461	315,108	346,618	
Office expenses (stationary, entertainment, janitorial services, etc)	147,000	161,700	177,870	195,657	215,223	236,745	260,419	286,461	315,108	346,618	
Promotional expense	352,540	391,543	434,435	482,088	536,607	596,478	660,265	730,860	809,905	897,447	
Insurance expense	419,424	377,481	335,539	293,597	251,654	209,712	167,769	125,827	83,885	41,942	
Depreciation expense	1,228,406	1,228,406	1,228,406	1,228,406	1,228,406	1,256,449	1,256,449	1,256,449	1,256,449	1,256,449	
Amortization of pre-operating costs	481,100	481,100	481,100	481,100	481,100	-	-	-	-	-	
Subtotal	14,777,147	15,984,208	17,315,180	18,782,887	20,422,583	21,753,152	23,718,175	25,886,975	28,286,429	30,917,738	
Operating Income	4,420,024	5,514,432	6,714,377	8,078,058	11,763,499	13,980,910	15,921,982	18,483,245	22,376,409	25,576,684	
Other income (interest on cash)	68,122	183,038	299,510	418,258	548,005	691,591	840,495	995,131	1,166,969	1,415,447	
Rental Income	30,000	33,000	36,300	39,930	43,923	48,315	53,147	58,462	64,308	70,738	
Gain / (loss) on sale of office equipment	-	-	-	-	203,000	-	-	-	-	-	
Earnings Before Interest & Taxes	4,518,146	5,730,471	7,050,187	8,536,246	12,558,427	14,720,816	16,815,624	19,536,837	23,607,686	27,062,870	
Earnings Before Tax	4,518,146	5,730,471	7,050,187	8,536,246	12,558,427	14,720,816	16,815,624	19,536,837	23,607,686	27,062,870	
Tax	775,443	1,139,141	1,587,565	2,107,686	3,515,449	4,272,285	5,005,468	5,957,892	7,382,689	8,592,004	
NET PROFIT/(LOSS) AFTER TAX	3,742,702	4,591,330	5,462,622	6,428,561	9,042,978	10,448,531	11,810,156	13,578,945	16,224,996	18,470,866	

12.2 Balance Sheet

Calculations											SMEDA
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	442,087	5,007,698	9,635,377	14,325,445	19,135,199	24,705,240	30,622,056	36,617,519	42,992,934	50,364,555	62,871,209
Pre-paid building rent	1,800,000	1,980,000	2,178,000	2,395,800	2,635,380	2,898,918	3,188,810	3,507,691	3,858,460	4,244,306	-
Pre-paid insurance	419,424	377,481	335,539	293,597	251,654	209,712	167,769	125,827	83,885	41,942	-
Total Current Assets	2,661,511	7,365,179	12,148,916	17,014,841	22,022,234	27,813,870	33,978,635	40,251,037	46,935,279	54,650,804	62,871,209
<i>Fixed assets</i>											
Building/Infrastructure	4,257,500	4,044,625	3,831,750	3,618,875	3,406,000	3,193,125	2,980,250	2,767,375	2,554,500	2,341,625	2,128,750
Machinery & equipment	8,388,473	7,549,626	6,710,779	5,871,931	5,033,084	4,194,237	3,355,389	2,516,542	1,677,695	838,847	0
Furniture & fixtures	671,600	604,440	537,280	470,120	402,960	335,800	268,640	201,480	134,320	67,160	-
Office vehicles	80,237	72,213	64,190	56,166	48,142	40,119	32,095	24,071	16,047	8,024	0
Office equipment	507,500	406,000	304,500	203,000	101,500	647,713	518,170	388,628	259,085	129,543	-
Security Deposit (Refundable)	180,000	180,000	180,000	180,000	180,000	180,000	180,000	180,000	180,000	180,000	180,000
Total Fixed Assets	14,085,310	12,856,904	11,628,498	10,400,092	9,171,686	8,590,993	7,334,544	6,078,096	4,821,647	3,565,199	2,308,750
<i>Intangible assets</i>											
Pre-operation costs	2,405,500	1,924,400	1,443,300	962,200	481,100	-	-	-	-	-	-
Total Intangible Assets	2,405,500	1,924,400	1,443,300	962,200	481,100	-	-	-	-	-	-
TOTAL ASSETS	19,152,321	22,146,483	25,220,715	28,377,134	31,675,020	36,404,863	41,313,179	46,329,133	51,756,926	58,216,002	65,179,959
<i>Other liabilities</i>											
Security Deposit (Refundable)	180,000	180,000	180,000	180,000	180,000	180,000	180,000	180,000	180,000	180,000	180,000
Total Long Term Liabilities	180,000	180,000	180,000	180,000	180,000	180,000	180,000	180,000	180,000	180,000	180,000
<i>Shareholders' equity</i>											
Paid-up capital	18,972,321	18,972,321	18,972,321	18,972,321	18,972,321	18,972,321	18,972,321	18,972,321	18,972,321	18,972,321	18,972,321
Retained earnings		2,994,162	6,068,393	9,224,812	12,522,699	17,252,542	22,160,858	27,176,812	32,604,605	39,063,681	46,027,638
Total Equity	18,972,321	21,966,483	25,040,715	28,197,134	31,495,020	36,224,863	41,133,179	46,149,133	51,576,926	58,036,002	64,999,959
TOTAL CAPITAL AND LIABILITIES	19,152,321	22,146,483	25,220,715	28,377,134	31,675,020	36,404,863	41,313,179	46,329,133	51,756,926	58,216,002	65,179,959

12.3 Cash Flow Statement

Calculations											SMEDA
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		3,742,702	4,591,330	5,462,622	6,428,561	9,042,978	10,448,531	11,810,156	13,578,945	16,224,996	18,470,866
Add: depreciation expense		1,228,406	1,228,406	1,228,406	1,228,406	1,228,406	1,256,449	1,256,449	1,256,449	1,256,449	1,256,449
amortization of pre-operating costs		481,100	481,100	481,100	481,100	481,100	-	-	-	-	-
Pre-paid building rent	(1,800,000)	(180,000)	(198,000)	(217,800)	(239,580)	(263,538)	(289,892)	(318,881)	(350,769)	(385,846)	4,244,306
Advance insurance premium	(419,424)	41,942	41,942	41,942	41,942	41,942	41,942	41,942	41,942	41,942	41,942
Cash provided by operations	(2,219,424)	5,314,151	6,144,778	6,996,271	7,940,429	10,530,889	11,457,030	12,789,666	14,526,567	17,137,541	24,013,563
<i>Financing activities</i>											
Issuance of shares	18,972,321	-	-	-	-	-	-	-	-	-	-
Cash provided by / (used for) financing activities	18,972,321	-	-	-	-	-	-	-	-	-	-
<i>Investing activities</i>											
Capital expenditure	(16,310,810)	-	-	-	-	(647,713)	-	-	-	-	-
Cash (used for) / provided by investing activities	(16,310,810)	-	-	-	-	(647,713)	-	-	-	-	-
NET CASH	442,087	5,314,151	6,144,778	6,996,271	7,940,429	9,883,176	11,457,030	12,789,666	14,526,567	17,137,541	24,013,563

13. KEY ASSUMPTIONS

13.1 Operating Cost Assumptions

Description	Details
Operating Costs Growth Rate	5%
Admin Benefits	20.0% of Admin Expense
Traveling Expense	8.0% of Admin Expense
Communication Expense	5.0% of Admin Expense
Office Expenses (Stationary, Entertainment, Janitorial Services, Etc.)	5.0% of Admin Expense
Promotional Expense	1.0% of Revenue
Machinery & Equipment Insurance Rate	5%
Depreciation Method	Straight Line
Depreciation Rate	20%
Inflation Rate	10%
Electricity Growth Rate	10%

13.2 Production Cost Assumptions

Description	Details
Hours Operational / Day	12
Days Operational / Year	336

13.3 Revenue Assumptions

Description	Details
No. of Jobs (Year 1)	4,998
Growth in Jobs (Each Year)	5%
Sale Price Growth Rate	6%