Pre-feasibility Study LAUNDRY & DRY CLEANING



Small and Medium Enterprises Development Authority

Ministry of Industries & Production Government of Pakistan

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1 DISCLAIMER

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Document Control

2 EXECUTIVE SUMMARY

The Importance of Laundry and Dry Cleaning is often under estimated by the business community of Pakistan. This business is service-oriented and carries large potential for investment in the metropolitan cities. The life style of people in Pakistan has changed over the years. Now a days, people are more conscious about their clothes and use more sophisticated measures for cleaning clothes. Beside households, commercial businesses such as hotel industry, restaurants and other offices also needs the services of laundry & dry cleaning on day-to-day basis.

This particular pre-feasibility is intended to provide general information for setting up an integrated laundry and dry cleaning unit. It provides a range of services relating to domestic and commercial sector customers. These services range from washing, drying and pressings of fabric wears to complex and more professional services like cleaning sensitive stuff, blankets, curtains, shirwanis and other home accessories.

The proposed "Laundry and Dry Cleaning" unit will have an installed capacity of washing and dry cleaning of 81,180 units per annum. However, initial operational capacity is assumed to be 70% during first year with a gradual increase of 10% in the subsequent years up to maximum capacity utilization of 90%. It is suggested to open the shop in a populated and developed area or nearby to newly developing housing societies.

Laundry and dry cleaning is not a capital-intensive business. The proposed business venture entails a total investment of about Rs. 3.55 million. This includes a capital investment of Rs. 2.67 million and a sum of Rs. 0.88 million as working capital. The project is financed through 50% debt and 50% equity. The project NPV is around Rs. 3.93 million, with an IRR of 35% and payback period of 3.67 years. 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 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 prefeasibility studies in key areas of investment has 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



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, and production, marketing, finance and business management.

The purpose of this document is to facilitate potential investors in **Laundry and Dry Cleaning** 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 it's successful management.

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

5 BRIEF DESCRIPTION OF PROJECT & PRODUCT

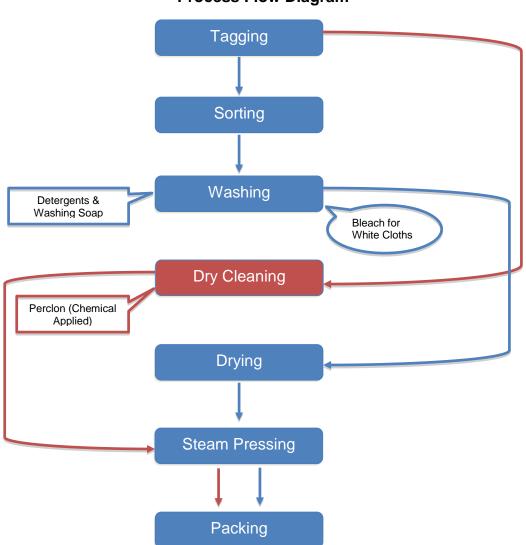
Due to growing number of working parents, changing life styles of urbanized population and busy schedules of daily life in metropolitan cities, families prefer to utilize outsourced dry cleaning and laundry services. Additionally, most of the winter clothes cannot be washed or cleaned inside home due to their stuff. Therefore, people prefer to get such clothes washed from dry cleaners. Beside households, commercial businesses also need the services of laundry & dry cleaning. Businesses like hotel industry, restaurants and other offices require laundry services on day-to-day basis. These factors have attributed significantly towards the growth of laundry and dry cleaning businesses in the country.

This pre-feasibility study focuses on establishing a laundry and dry cleaning unit in any metropolis of Pakistan. The proposed unit will provide a wide range of washing, dry cleaning and pressing services for fabric wears to complex and more professional services like cleaning sensitive stuff, blankets, curtains, shirwanis and other home accessories. Target customers of these services will comprise of both households and commercial consumers (i.e. hotels, restaurants, banquet halls, caterers, hostels, hospitals and others). Commercial customers will be playing a significant role in the success of proposed business.



5.1 Production Process Flow

Liquid solvent and small amount of water are added to the machine. The machine then stirs clothes in a manner similar to a domestic washing machine to remove dirt, oil, and stains. Once clean, the clothes are then manually transferred to a dryer (laundry procedure), then pressed and shaped.



Process Flow Diagram

The above diagram shows two separate processes; laundry and dry cleaning. Both processes are briefly explained below:

<u>*Tagging:*</u> The clothes are firstly tagged with a specific number, mentioned in the invoice given to customers. This procedure is used for identification of clothes for particular customers.

<u>Sorting</u>: After tagging the clothes are arranged in different sets. Some people sort by color, others sort by fabric type.

<u>*Washing:*</u> The clothes are washed in a washing machine using detergents, washing powders, soaps and etc. This procedure is only applied for laundry services.



<u>Dry Cleaning</u>: In this process, the sensitive, expensive and only dry clean recommended clothes are cleaned. For this purpose, a chemical is used to clean the clothes, which is known as Perclon.

Drying: The clothes washed in a laundry procedure are dried using dryers.

<u>Steam Pressing</u>: In this process, both the clothes either washed or dry-cleaned are pressed and shaped using steam press equipment.

<u>Packing</u>: Once pressed, the clothes are properly hanged and covered in the plastic wrap and then tagged so that they can be easily identified.

5.2 Installed and Operational Capacity

The proposed dry cleaning shop will have an installed capacity of processing around 248 kg (62 kg per bath) of clothes per day. Accordingly, the unit will have an overall installed capacity processing 81,180 units per annum. Maximum utilization of the unit is assumed to be 90%, whereas, capacity utilization during first year of operation is worked out at 70% with gradual increase of 10% annually up to 90% in 3rd year of operation. Details of the project capacity are as follow:

Description	Details
Working hours per day	8 hours
Operating shift per day	1
Working days per annum	330 days
Maximum clothes dry clean per day	246 units of clothes
Maximum weight of clothes per day	248 Kg
Maximum weight of clothes per batch	62 Kg
Hours utilized per batch (Laundry & Dry cleaning)	2 hours

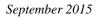
Table 1: Installed and Operational Capacities

5.2.1 Product Mix Wise Installed and Operational Capacity

Weight wise and unit wise distribution of product mix per day of the proposed laundry and dry cleaning shop is as follows:

Table 2: Weight / Unit Wise Distribution of Prod	uct Mix per Day
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Description	Average Weight Per Unit (Kg)	Average Number Of Units Per Day	Average Weight Per Day (Kg)
Trousers	0.35	30.00	10.50
Coats (all Kinds)(winter)	2.00	15.00	30.00
Shirts	0.18	40.00	07.20
Jackets / Sweater	2.25	15.00	33.75
Dupatta	0.05	20.00	1.00





Shalwar Qameez	0.45	40.00	18.00
Blankets	2.25	08.00	18.00
Bed sheets	0.35	20.00	07.00
Curtain	1.25	08.00	10.00
Others (Avg.)	2.25	50.00	112.50
Total	11.38	246.00	247.95

The proposed distribution of product mix is determined on average basis, which will be affected through seasonal variations.

Details of product mix wise operational and installed capacities are provided in the table below:

Items Description	% Of Total Production	Total Production Capacity In Units (Annually)	Operational Capacity 70 % (Year 1)	Maximum Operational Capacity 90 %
Fabric Wear				
Trouser	12.20	9,904	6,933	8,914
Coats (All Kinds)	6.10	4,952	3,466	4,457
Shirts	16.26	13,200	9,240	11,880
Jacket/Sweater	6.10	4,952	3,466	4,457
Dupatta	8.13	6,600	4,620	5,940
Shalwar Qameez	16.26	13,200	9,240	11,880
Home Accessories				
Blankets	3.25	2,638	1,847	2,375
Bed Sheets	8.13	6,600	4,620	5,940
Curtain	3.25	2,638	1,847	2,375
Others (Avg)	20.33	16,504	11,553	14,854
Total	100%	81,188	56,832	73,069

Table 3: Product Mix Wise Installed and Operational Capacity

6 CRITICAL FACTORS

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

- \Rightarrow Warranty of clothes from damages and any type of color fading.
- \Rightarrow Prime business location for proposed dry cleaning shop.
- \Rightarrow Reasonable and competitive charges, positioned against competitors.
- \Rightarrow On time delivery of clothes can leave good impression on the customers.
- \Rightarrow Technical and efficient labor.



- \Rightarrow Right product mix, proper inventory management, emphasis on customer services.
- \Rightarrow Employing and retaining skilled labor.
- \Rightarrow Advertisement on local cable and banners. Existing dry cleaners are not advertising for their services.

7 GEOGRAPHICAL POTENTIAL FOR INVESTMENT

The recommended location for setting up the proposed laundry and dry cleaning shop will be a commercial market of developed or developing housing societies having a considerable population concentration.

Considering that, major cities for instance Karachi, Lahore, Peshawar, Quetta, Rawalpindi, Islamabad, Multan, Sialkot, Faisalabad, Hyderabad and etc., with large urban base would be the potential investment areas for the proposed business.

8 POTENTIAL TARGET CUSTOMERS / MARKETS

The major target market for the dry cleaning services will depend on the location where dry cleaning business is situated. The target customers for proposed business will not only be general public but also the commercial sector i.e. hostels, catering companies, film industry and hospitals.

9 PROJECT COST SUMMARY

A detailed financial model has been developed to analyze the commercial viability of laundry and dry cleaning workshop and retailing. Various costs and revenue related assumptions along with results of the analysis are outlined in this section.

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

9.1 **Project Economics**

All the figures in this financial model have been calculated for estimated sales of Rs. 9.330 million in year one. The capacity utilization during year one is worked out at 70% with 10% increase in subsequent years up to the maximum capacity utilization of 90%.

The following table shows Internal Rate of Return, Payback Period and Net Present Value of the proposed venture:



Table 4: Project Economics

Description	Details
Internal Rate of Return (IRR)	35%
Payback Period (Yrs.)	3.67
Net Present Value (Rs.)	3,930,475

9.2 Project Financing

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

Table 5: Project Financing

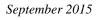
Description	Details
Total Equity (50%)	Rs. 1,776,000
Bank Loan (50%)	Rs. 1,776,000
Interest Rate	14%
Tenure of the Loan (Years)	5

9.3 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	1,575,000
Furniture and Fixture	737,800
Office Equipment	72,500
Pre-operating Cost	77,925
Security Deposit	210,000
Total Capital Cost	2,673,225
Equipment Spare Part Inventory	45,382
Raw Material Inventory	323,393
Up-front Building Rent	210,000
Cash	300,000
Total Working Capital	878,775
Total Project Cost	3,552,000





9.4 Space Requirement

In order to reduce the initial capital expenditure, the laundry and dry clean shop is proposed to be set-up on a rental premises. The space should be rented in a commercial market to ensure easy accessibility of customers.

For the proposed machinery, office, furniture & fixture and other equipment, approximately 1,000 square feet area is required. Following is the covered area requirement split into various sections. It is recommended that customer dealing office area should be separate from the machine and working area.

Table 7: Space Requirement

Sections	Total Area (sq. ft.)
Laundry Retail Shop	500
Workshop	500
Total Covered Area	1,000

9.5 Machinery and Equipment Requirement

Following tables provides list of machinery and equipment required for an average size laundry and dry cleaning shop:

Description	No.	Cost Per Unit (Rs.)	Total Cost (Rs.)
Washing Machine 42" x 60"	1	250,000	250,000
Hydro Extractor 24 x 12	1	75,000	75,000
Dryer Machine 48 x 42	1	125,000	125,000
Dry Clean Machine 30 x 18	1	550,000	550,000
Steam Press (Pangenetic)	1	50,000	50,000
Form Finisher Recondition	1	75,000	75,000
Cotton Press	1	200,000	200,000
Boiler	1	200,000	200,000
Steam Ironing Vacuums Table Boiler With Compressor	1	50,000	50,000
Total			1,575,000

Table 8: Machinery and Equipment Requirement

The required machinery and equipment is manufactured and easily available in Pakistan. These machines can also be imported from Italy, Germany, China and Japan. However, the prices of new imported machinery are 2 to 3 times higher than local machinery. The normal market trend is to use second hand imported machines,



which are easily available. The price of second hand imported machine and first hand local made machine is almost equal.

Accordingly, the machinery cost estimates in this pre-feasibility study are based on second hand imported machines.

9.6 Furniture & Fixtures Requirement

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

Description	Quantity	Unit Cost (Rs.)	Total Cost (Rs.)
Iron Racks(10/15 ft)	10	5,000	50,000
Sofa Set (2 Seater & 3 Seater)	1	20,000	20,000
Counter Table	2	8,000	16,000
Chairs	4	2,000	8,000
Stole	4	1,000	4,000
UPS with Battery	1	26,800	26,800
Generator	1	500,000	500,000
Fan	8	2,500	20,000
Exhaust Fan	2	2,500	5,000
Water Dispenser	1	8,000	8,000
Electric wiring & lighting	1	15,000	15,000
Air Conditioners (1.5 ton Split)	1	55,000	55,000
Air Cooler for Workshop	1	10,000	10,000
Total			737,800

 Table 9: Furniture & Fixtures Requirement

9.7 Office Equipment Requirement

Following office equipment will be required for proposed laundry and dry cleaning shop:

Table 10: Office	Equipment	Requirement
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Description	Quantity	Unit Cost (Rs.)	Total Cost (Rs.)
Laptop with Point of Sales Software	1	70,000	70,000
Telephone	1	2,500	2,500
Total			72,500



9.8 Raw Material Requirement

Raw material used for the purpose of dry cleaning of clothes is Perclon chemical. Perchloroethylene, or Perclon, is the dominant chemical solvent used in dry cleaning. Perclon (Perchloroethylene) is a liquid chemical that consists of 40% alcohol, 50% kerosene oil and 10% liquid used to save the color fading of clothes. Perclon (Perchloroethylene) is a clear, colorless liquid and evaporates quickly.

Bleach is also used especially for white clothes. Detergent is used for simple washing i.e. washing soap and surf. The main raw materials required along with their usage are listed below. The annual requirement of each raw material is based on an assumption of 100 kg fabric weight.

Description	Quantity Required per 100 KG	Rate Per Unit (Rs.)	Total Cost Per 100 KG (Rs.)
Perclon	20 Liter	270	5,400
Bleach	2 Liter	50	100
Tar Pine Oil	10 Liter	120	1,200
Soda Ash	1 Kg	70	70
Sulphuric Acid	3 Kg	100	300
Total			7,070

Table 7: Raw Material Requirement

9.9 Human Resource Requirement

In order to run operations of laundry and dry cleaning smoothly, details of human resources required along with number of employees and monthly salary are recommended as under:

Description	No. of Employees	Monthly Salary per Person (Rs.)
Shop Manager	1	35,000
Shop boy	1	13,000
Workshop Manager	1	35,000
Technical Staff (Machine Operator)	1	20,000
Helper (Machine Operator)	2	18,000
Press Operator	5	18,000
Packing Man	1	13,000
Total	12	

Table 8: Human Resource Requirment



9.10 Utilities and Other Costs

An essential cost to be borne by the business is the cost of electricity; a three-phase commercial electricity connection is required. The annual electricity expenses are estimated for workshop retail outlet is Rs. 520,560 and Rs. 126,000, respectively. This project also requires marketing and promotional activities for which approximately 0.5% of total revenues will be spent on marketing and promotion expenses annually for the first three years. Moreover, some miscellaneous office expenses occur every year, which includes (stationary expense, tea and entertainment expense for loyal customers and employees, commuting expense and other non-recurring expenses).

9.11 Revenue Generation

Based on the capacity utilization of laundry and dry cleaning, sales revenue during the first year of operations is estimated as under:

Description of Items	No. Of Units Processed	Finished Goods Inventory (No.)	Units Available For Sale (No.)	Sale Price / Unit (Rs.)	Sales Revenue (Rs.)
Fabric Wear					
Trouser	6,930	289	6,641	60	398,475
Coats (All Kinds)	3,465	144	3,321	280	929,775
Shirts	9,240	385	8,855	50	442,750
Jacket / Sweater	3,465	144	3,321	250	830,156
Dupatta	4,620	193	4,427	60	265,650
Shalwar Qameez	9,240	385	8,855	80	708,400
Home Accessories					
Blankets	1,848	77	1,771	350	619,850
Bed Sheets	4,620	193	4,427	280	1239,700
Curtain	1,848	77	1,771	200	354,200
Others (Avg.)	11,550	481	11,069	320	3,542,000
Total	56,826	2,368	54,458	-	9,330,956

Table 13: Revenue Generation – Year 1



10 CONTACT DETAILS

In order to facilitate potential investors, contact details of private sector service providers relevant to the proposed project be given.

10.1 Machinery Suppliers

In Lahore, there are approximately 5 to 6 manufactures of laundry and dry cleaning machines, as mentioned below:

Name of Supplier	Address	Phone
Abdul Waheed	Canal Park Gulberg	
Nirwana (Pvt) Ltd	Gulberg Arcade	
Mushtaq Engineering Works	Township	
786 Washing Lab & Research Centre	Nishtar Colony Ferozpur Road	
Usman Enterprises	Yateem Khana	0322-4553261



11 USEFUL WEB LINKS

Small & Medium Enterprises Development Authority (SMEDA)	www.smeda.org.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
Trade Development Authority of Pakistan (TDAP)	www.tdap.gov.pk
Security 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
Punjab Small Industries Corporation	www.psic.gop.pk
Sindh Small Industries Corporation	www.ssic.gos.pk
Pakistan Horticulture Development and Export Company (PHDEC)	www.phdec.org.pk
Punjab Vocational Training Council (PVTC)	www.pvtc.gop.pk
Technical Education and Vocational Training Authority (TEVTA)	www.tevta.org
Punjab Industrial Estates (PIE)	www.pie.com.pk
Faisalabad Industrial Estate Development and Management Company (FIEDMC)	www.fiedmc.com.pk
Equipment For Dry-Cleaners, Laundries	http://www.pk.all.biz/equipment- for-dry-cleaners-laundries- bgr1327
Pearl District Dry Cleaners	http://www.yelp.com/biz/pearl- district-dry-cleaners-portland



12 ANNEXURES

12.1 Income Statement

Calculations										SMEDA
Income Statement										
										Rs. in actuals
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Revenue	9,330,956	12,176,608	15,077,318	16,662,190	18,328,409	20,161,250	22,177,375	24,395,112	26,834,624	29,518,086
Cost of sales										
Cost of goods sold 1	3,880,718	5,064,217	6,270,614	6,929,757	7,622,733	8,385,006	9,223,507	10,145,858	11,160,444	12,276,488
Operation costs 1 (direct labor)	1,598,500	1,825,244	2,008,936	2,220,108	2,442,119	2,686,331	2,954,964	3,250,460	3,575,506	3,933,057
Operating costs 2 (machinery maintenance)	272,291	339,180	400,890	422,892	444,037	466,238	489,550	514,028	539,729	566,716
Operating costs 3 (direct electricity)	520,560	572,616	629,878	692,865	762,152	838,367	922,204	1,014,424	1,115,867	1,227,453
Operating costs 4 (direct water)	60,000	66,000	72,600	79,860	87,846	96,631	106,294	116,923	128,615	141,477
Operating costs 5 (direct gas)	180,000	198,000	217,800	239,580	263,538	289,892	318,881	350,769	385,846	424,431
Total cost of sales	6,512,069	8,065,257	9,600,717	10,585,063	11,622,424	12,762,465	14,015,400	15,392,462	16,906,007	18,569,621
Gross Profit	2,818,887	4,111,352	5,476,601	6,077,127	6,705,985	7,398,785	8,161,975	9,002,650	9,928,617	10,948,465
General administration & selling expenses										
Administration expense	1,236,000	1,359,600	1,495,560	1,645,116	1,809,628	1,990,590	2,189,649	2,408,614	2,649,476	2,914,423
Administration benefits expense	37,080	40,788	44,867	49,353	54,289	59,718	65,689	72,258	79,484	87,433
Building rental expense	840,000	924,000	1,016,400	1,118,040	1,229,844	1,352,828	1,488,111	1,636,922	1,800,615	1,980,676
Electricity expense	126,000	138,600	152,460	167,706	184,477	202,924	223,217	245,538	270,092	297,101
Travelling expense	61,800	67,980	74,778	82,256	90,481	99,530	109,482	120,431	132,474	145,721
Communications expense (phone, fax, mail, internet, etc.)	92,700	101,970	112,167	123,384	135,722	149,294	164,224	180,646	198,711	218,582
Office expenses (stationary, entertainment, janitorial services, etc.	123,600	135,960	149,556	164,512	180,963	199,059	218,965	240,861	264,948	291,442
Promotional expense	46,655	51,320	56,452	62,098	68,307	75,138	82,652	90,917	100,009	110,010
Depreciation expense	238,530	238,530	238,530	238,530	238,530	238,530	238,530	238,530	238,530	238,530
Amortization of pre-operating costs	15,585	15,585	15,585	15,585	15,585	-	-	-	-	-
Subtotal	2,817,950	3,074,333	3,356,355	3,666,579	4,007,826	4,367,612	4,780,520	5,234,719	5,734,338	6,283,918
Operating Income	937	1,037,018	2,120,246	2,410,548	2,698,159	3,031,173	3,381,456	3,767,932	4,194,279	4,664,547
Earnings Before Interest & Taxes	937	1,037,018	2,120,246	2,410,548	2,698,159	3,031,173	3,381,456	3,767,932	4,194,279	4,664,547
		-,	_,,	_,,	_,.,.,,	2,002,272	0,000,000	-,,	.,_, .,_,,	.,,.
Interest on short term debt	41,194	43,746	2,552	-	-	-	-	-	-	-
Interest expense on long term debt (Project Loan)	176,967	147,578	113,853	75,154	30,745	-	-	-	-	-
Interest expense on long term debt (Working Capital Loan)	57,432	47,687	36,487	23,614	8,818	-	-	-	-	-
Subtotal	275,593	239,012	152,893	98,768	39,564	-	-	-	-	-
Earnings Before Tax	(274,656)	798,007	1,967,353	2,311,780	2,658,595	3,031,173	3,381,456	3,767,932	4,194,279	4,664,547
Tax	-	42,201	240,970	309,856	387,149	480,293	567,864	664,483	780,783	921,864
NET PROFIT/(LOSS) AFTER TAX	(274,656)	755,806	1,726,383	2,001,924	2,271,447	2,550,880	2,813,592	3,103,449	3,413,496	3,742,683



12.2 Balance Sheet

Calculations											SMEDA
Balance Sheet											
											Rs. in actuals
	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Assets											
Current assets											
Cash & Bank	300,000	-	-	1,381,551	3,030,603	4,878,985	7,423,016	10,197,764	13,226,018	16,522,996	22,603,209
Accounts receivable		178,950	206,237	261,339	304,351	335,526	369,079	405,987	446,585	491,244	540,368
Finished goods inventory		283,133	337,812	401,890	441,044	484,268	531,769	583,975	641,353	704,417	773,73
Equipment spare part inventory	45,382	59,357	73,663	81,592	89,955	99,175	109,341	120,548	132,904	146,527	-
Raw material inventory	323,393	443,119	576,113	668,505	772,123	891,802	1,030,032	1,189,687	1,374,088	1,587,072	-
Pre-paid building rent	210,000	231,000	254,100	279,510	307,461	338,207	372,028	409,231	450,154	495,169	-
Total Current Assets	878,775	1,195,559	1,447,925	3,074,388	4,945,538	7,027,964	9,835,265	12,907,192	16,271,102	19,947,425	23,917,31
Fixed assets											
Security Deposit	210,000	210,000	210,000	210,000	210,000	210,000	210,000	210,000	210,000	210,000	210,000
Machinery & equipment	1,575,000	1,417,500	1,260,000	1,102,500	945,000	787,500	630,000	472,500	315,000	157,500	
Furniture & fixtures	737,800	664,020	590,240	516,460	442,680	368,900	295,120	221,340	147,560	73,780	-
Office equipment	72,500	65,250	58,000	50,750	43,500	36,250	29,000	21,750	14,500	7,250	-
Total Fixed Assets	2,595,300	2,356,770	2,118,240	1,879,710	1,641,180	1,402,650	1,164,120	925,590	687,060	448,530	210,000
Intangible assets											
Pre-operation costs	77,925	62,340	46,755	31,170	15,585	-	-	-	-	-	-
Total Intangible Assets	77,925	62,340	46,755	31,170	15,585	-	-	-	-	-	-
TOTAL ASSETS	3,552,000	3,614,669	3,612,920	4,985,268	6,602,303	8,430,614	10,999,385	13,832,782	16,958,162	20,395,955	24,127,312
Liabilities & Shareholders' Equity											
Current liabilities											
Accounts payable		89,283	116,088	142,332	157,543	173,710	191,601	211,406	233,337	257,634	246,30
Short term debt	-	512,510	31,752	-	-	-	-	-	-	-	-
Total Current Liabilities	-	601,793	147,840	142,332	157,543	173,710	191,601	211,406	233,337	257,634	246,30
Other liabilities											
Long term debt (Project Loan)	1,336,613	1,137,397	908,793	646,465	345,437						
Long term debt (Working Capital Loan)	439,388	374,135	299,137	212,938	113,867	-	-	-	-	-	-
Total Long Term Liabilities	1,776,000	1,511,532	1,207,930	859,403	459,303	-	-	-	-	-	-
Shareholders' equity											
Paid-up capital	1,776,000	1,776,000	1,776,000	1,776,000	1,776,000	1,776,000	1,776,000	1,776,000	1,776,000	1,776,000	1,776,00
Retained earnings		(274,656)	481,150	2,207,533	4,209,457	6,480,904	9,031,784	11,845,376	14,948,825	18,362,321	22,105,00
Total Equity	1,776,000	1,501,344	2,257,150	3,983,533	5,985,457	8,256,904	10,807,784	13,621,376	16,724,825	20,138,321	23,881,00
TOTAL CAPITAL AND LIABILITIES	3,552,000	3,614,669	3,612,920	4,985,268	6,602,303	8,430,614	10,999,385	13,832,782	16,958,162	20,395,955	24,127,312



12.3 Cash Flow Statement

Calculations											SMEDA
Cash Flow Statement											
											Rs. in actuals
	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Operating activities											
Net profit		(274,656)	755,806	1,726,383	2,001,924	2,271,447	2,550,880	2,813,592	3,103,449	3,413,496	3,742,683
Add: depreciation expense		238,530	238,530	238,530	238,530	238,530	238,530	238,530	238,530	238,530	238,530
amortization of pre-operating costs		15,585	15,585	15,585	15,585	15,585	-	-	-	-	-
Accounts receivable		(178,950)	(27,287)	(55,102)	(43,012)	(31,175)	(33,553)	(36,908)	(40,599)	(44,659)	(49,124
Finished goods inventory		(283,133)	(54,678)	(64,079)	(39,154)	(43,223)	(47,502)	(52,206)	(57,378)	(63,064)	(69,317)
Equipment inventory	(45,382)	(13,975)	(14,307)	(7,928)	(8,363)	(9,220)	(10,165)	(11,207)	(12,356)	(13,623)	146,527
Raw material inventory	(323,393)	(119,726)	(132,994)	(92,392)	(103,618)	(119,679)	(138,229)	(159,655)	(184,401)	(212,984)	1,587,072
Pre-paid building rent	(210,000)	(21,000)	(23,100)	(25,410)	(27,951)	(30,746)	(33,821)	(37,203)	(40,923)	(45,015)	495,169
Accounts payable		89,283	26,805	26,244	15,211	16,168	17,891	19,805	21,932	24,297	(11,326)
Cash provided by operations	(578,775)	(548,042)	784,360	1,761,830	2,049,151	2,307,685	2,544,031	2,774,748	3,028,254	3,296,978	6,080,213
Financing activities											
Project Loan - principal repayment		(199,215)	(228,604)	(262,329)	(301,028)	(345,437)	-	-	-	-	-
Working Capital Loan - principal repayment		(65,253)	(74,998)	(86,198)	(99,071)	(113,867)	-	-	-	-	-
Short term debt principal repayment		-	(512,510)	(31,752)	-	-	-	-	-	-	-
Additions to Project Loan	1,336,613	-	-	-	_	_	-	-	_	-	-
Additions to Working Capital Loan	439,388		_	_	_	-	-	-	_	-	
Issuance of shares	1,776,000	-	-	_	_	_	-	-	_	-	-
Purchase of (treasury) shares	1,770,000										
Cash provided by / (used for) financing activities	3,552,000	(264,468)	(816,112)	(380,279)	(400,099)	(459,303)	-	-	-	-	-
Investing activities											
Capital expenditure	(2,673,225)										
Acquisitions	(2,073,223)	-	-	-	-	-	-	-	-	-	-
Cash (used for) / provided by investing activities	(2,673,225)										-
cash (used 101)/ provided by investing activities	(2,073,223)	-	-	-	-	-	-	-	-	-	-
NET CASH	300,000	(812,510)	(31,752)	1,381,551	1,649,052	1,848,382	2,544,031	2,774,748	3,028,254	3,296,978	6,080,213

13 KEY ASSUMPTIONS

13.1 Operating Cost Assumptions

Description	Details
Administration Benefit Expenses	3% of Administration Expenses
Communication Expenses	7.5% of Administration Expenses
Office Expenses	10% of Administration Expenses
Promotional Expenses	0.5% of Revenues
Depreciation Method	Straight Line
Depreciation Rate	10% on Furniture & Fixtures 10% on Office Equipment
Operating Cost Growth Rate	5%

13.2 Production Cost Assumption

Description	Amount / Percentage
Cost Of Goods Sold Growth Rate	10%
Machinery Maintenance Per Unit	Rs. 5.00
Direct Water	Rs. 5,000 per month
Direct Gas	Rs. 15,000 per month

13.3 Revenue Assumptions

Description	Details
Growth in Sales Price	10%
Day Operational /Year	330
Production Capacity in First Year	70%
Percentage Increase in Production Capacity Every Year	10%
Maximum Production Capacity	90%

13.4 Financial Assumptions

Description	Details
Debt	50%
Equity	50%
Interest Rate on Debt	14%



Debt Tenure	5 years
Debt Payment / Year	4

