



Pre-feasibility Study

HEAT SUBLIMATION PRINTING UNIT

November 2020

The figures and financial projections are approximate due to fluctuations in exchange rates, energy costs, and fuel prices etc. Users are advised to focus on understanding essential elements such as production processes and capacities, space, machinery, human resources, and raw material etc. requirements. Project investment, operating costs, andrevenues can change daily. For accurate financial calculations, utilize financial calculators on SMEDA's website and consult financial experts to stay current with market conditions

Small and Medium Enterprises Development Authority Ministry of Industries and Production Government of Pakistan

TABLE OF CONTENTS

1	DISC	LAIMER	3
2	EXE	CUTIVE SUMMARY	4
3	INTR	ODUCTION TO SMEDA	4
4	PURI	POSE OF THE DOCUMENT	5
5	BRIE	F DESCRIPTION OF PROJECT & PRODUCT	5
	5.1	Production Process Flow	6
	5.2	Installed And Operational Capacities	7
6	CRIT	ICAL FACTORS	7
7	GEO	GRAPHICAL POTENTIAL FOR INVESTMENT	7
8	POTI	ENTIAL TARGET CUSTOMERS / MARKETS	8
9	PRO	JECT COST SUMMARY	8
	9.1	Project Economics	8
	9.2	Project Cost	
	9.3	Space Requirement	
	9.4	Machinery & Equipment Requirement	
	9.5	Furniture & Fixtures Requirement	
	9.6	Computer Equipment Requirement	
	9.7	Raw Material Requirement	
	9.8	Human Resource Requirement	
	9.9	Utilities and other costs	
	9.10	Revenue Generation	
1(0 CON	TACT DETAILS	14
1	1 USEI	FUL WEB LINKS	15
12	2 ANN	EXURES	16
	12.1	Income Statement	16
	12.2	Balance Sheet	
	12.3	Cash Flow Statement	18
1;	3 KEY	ASSUMPTIONS	19
	13.1	Operating Cost Assumptions	19
	13.2	Revenue Assumptions	19
	133	Canacity Utilization Assumptions	10



DISCLAIMER

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 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.

For more information on services offered by SMEDA, please contact our website: www.smeda.org.pk

Document Control

Document No.	PREF-NO 162
Prepared by	SMEDA Punjab - OS
Revision Date	November, 2020
For information	helpdesk.punjab@smeda.org.pk

November 2020 3



2 EXECUTIVE SUMMARY

Heat sublimation printing is an exciting new technique that allows people to custom design their fabrics and cloths by pasting the personalized, images, pictures and designs. It is a computer printing technique which uses heat to transfer images onto fabric as well as on other materials such as a plastic, card, paper, etc. The demand for heat sublimation printing is continually rising due to urbanized population and changing lifestyles. Therefore, setting-up a heat sublimation printing unit is an emerging potential investment venture in Pakistan.

This pre-feasibility study is for setting up a commercial heat sublimation printing services, primarily on fabrics and finished garments. The focus of the business would be to provide quality printing services, for instance customized images, personal pictures, promos, and expressions etc. The proposed services will be offered to textile manufacturers. The proposed business venture should preferably be located in any of the major textile industry hubs of Pakistan; to reduce initial capital investment, the proposed unit is to be established at rental premises.

The proposed capacity of Heat Sublimation Printing Unit is 1.470 million square feet of fabric per annum. Initial capacity utilization is estimated at 65% with a growth rate of 5% per annum. This production capacity is estimated to be economically viable and justifies the capital as well as operational cost of the project. However, entrepreneur's knowledge of the textile printing industry, experienced management, skilled and location of unit are key factors for the success of this project.

Total project cost is estimated as Rs. 5.595 million with capital investment of Rs. 5.039 million and working capital Rs. 0.556 million. Based on an equity finance model, the project NPV is around Rs. 10.320 million, with an IRR of 45% and Payback Period of 3.06 years. The project will provide employment opportunities to 5 people including the Owner. The legal business status of this project is assumed to be '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 **Heat Sublimation Printing Unit** 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

Sublimation is the process of transferring dye to a fabric using heat. The image is printed on special paper (i.e. known as sublimation paper) placed on the garment and heat is applied, allowing the ink to become part of the fabric. Sublimation printing can be done with modern processing machines including transfer machine and printing machine on countless materials such as Corporate Tees, Polyester Fabrics, Jersey, Sports Jerseys, Uniforms and Brand Promotion etc for both industrial / commercials and individual customers.

The proposed Heat Sublimation Printing Unit will mainly entail to provide printing services to the textile garment manufacturers. It will primarily operate as commercial printing services provider to textile industry. The printing services will be customised as per the requirements of customers. The unit will comprises of latest Transferring



and Printing machines along with Computer, Software Applications and others accessories.

The project is designed in such a way that it will be able to cater to the demands of those customers that desire an already created graphic image to be placed on their clothing item as well as the customers which prefer custom artwork to be placed on their selected material. Since, textile industry is predominantly located in Faisalabad, Karachi, Lahore and Sialkot etc. Therefore, the proposed unit is recommended to be executed in any of these major cities to closely associate with the target clients. Financial analysis shows the unit shall be profitable from the very first year of operation. The legal business status of this project is assumed to be 'Sole Proprietorship'.

5.1 Production Process Flow

The process of heat sublimation printing starts with creation of desired image to be printed. The possibilities are endless, there are no restriction of color or size, even one can get really fine details. Primarily images will be created through photographs or image creating software such as 'Adobe Photoshop'.

The design and images to be printed on the garments either will be provided by the clients or they choose from the available images / design at the facility. Once the image / design is selected it is then finalized in the computer software system. Afterwards, the image / design is printed on the sublimation paper and is then transferred onto the fabric or garment, through the Hengxin transfer machine by applying pressure at the required temperature. The effects of transferred image / design are permanent and less prone to fading, because the ink is embedded in the fabric. Afterwards, the sublimation paper is swiftly removed, and the fabric is let to cooldown to fix the print.

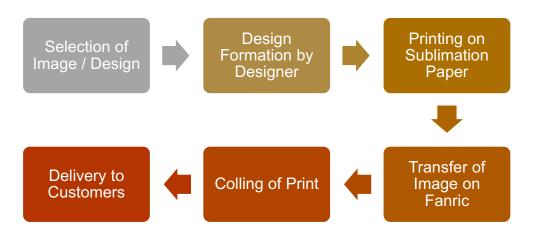


Figure 1: Process Flow Diagram



5.2 Installed And Operational Capacities

Total installed capacity of the project is assumed at printing of selected design or images on around 1.470 million square feet of fabric annually through the heat sublimation printing technique. However, initial operational capacity of the project for year one will be at 65% with an annual growth of 5% in subsequent years. Maximum capacity utilization of the project is assumed at 100% which will be achieved in 8th year of operations.

6 CRITICAL FACTORS

- ⇒ Background knowledge and related experience of the entrepreneur in textile printing operations.
- ⇒ Business location is the key to success, close proximity to textile garment manufacturers will ensure the regular and repeat orders.
- ⇒ Engagement of experienced and skilled workers / operators to ensure high quality, design consistency, smooth working and minimising wastage.
- ⇒ Exceed customer expectations by offering high quality products at reasonable prices with quick turnaround times.
- ⇒ Effective and timely marketing campaign for the business through different media like local newspapers, cable networks, billboards, transit posters and social media.
- ⇒ Employ careful financial and accounting analysis to ensure efficiency and proper controls.

7 GEOGRAPHICAL POTENTIAL FOR INVESTMENT

As the major customers of heat sublimation printings are industrial buyers, primarily garment manufacturers, so the unit can be established in any major city comprising of apparel or fashion industry bases. It is important to find a location preferably in an industrial cluster where utilities especially electricity and other infrastructure are conveniently available. Presently, Karachi, Lahore, Faisalabad, Sialkot, and Rawalpindi can be considered as most garment manufacturers are located in these cities, being close to large buyers may lead to consistent orders and referrals. Additionally, these cities have adequate availability of skilled labor, raw material sources and infrastructure.



8 POTENTIAL TARGET CUSTOMERS / MARKETS

The proposed unit will be offering direct supplies to its potential customers, predominantly readymade garment factories and leather garments makers. The printing will be made on Garments, Corporate Tees, Polyester Fabrics, Jersey, Sports Jerseys, Uniforms and Brand Promotion etc. for both industrial manufacturers and commercial traders.

As majority of the target customer belongs to business segments, therefore, the business clients operating in major big cities, such as Lahore, Karachi, Faisalabad and Sialkot will be key potential markets for the proposed venture.

9 PROJECT COST SUMMARY

A detailed financial model has been developed to analyze the commercial viability of Heat Sublimation Printing Unit. 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 annexures.

9.1 Project Economics

All the figures in this financial model have been calculated for estimated sales of Rs. 10.666 million in the year one. The capacity utilization during year one is worked out at 65% with 5% increase in subsequent years up to the maximum capacity utilization of 100%.

The following tables show Internal Rate of Return, Payback Period Net Present Value and Breakeven of the proposed venture:

Table 1: Project Economics (Equity Financed)

Description	Details
Internal Rate of Return (IRR)	45%
Payback Period (Yrs.)	3.06
Net Present Value (Rs.)	10,319,977

Calculation of break-even analysis is as follows:



Table 2: 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	7,827,229	8,155,328	8,403,268	9,444,695	10,448,836	11,327,062	13,381,566	15,277,066	16,281,385	18,216,344
Break-Even Units	701,282	664,253	622,225	635,762	639,413	630,142	676,761	702,386	680,510	692,168
Margin of Safety	27%	35%	44%	46%	49%	52%	52%	52%	54%	53%

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

Table 3: Project Economics Based on Debt (50%):Equity (50%)

Description	Details
Internal Rate of Return (IRR)	44%
Payback Period (Yrs.)	3.10
Net Present Value (Rs.)	12,296,383

The financial assumptions for Debt:Equity are as follows:

Table 4: Financial Assumptions for Debt: Equity Model

Description	Details
Debt (50%)	2,805,803
Equity (50%)	2,805,803
Interest Rate on Debt	12%
Debt Tenure	5 Years

The projected Income Statement, Cash Flow Statement and Balance Sheet enclosed as annexures are based on 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 5: Project Cost

Description	Amount (Rs.)
Capital Cost	
Machinery & Equipment	3,232,954
Furniture & Fixture	1,093,600
Computer equipment	387,500
Building Security Deposit	180,000
Pre-operating costs	80,000
Office equipment	65,000
Total Capital Cost	5,039,054
Working Capital	
Cash	350,000
Up-front Building Rent	180,000
Equipment spare parts	25,878
Total Working Capital	555,878
Total Project Cost	5,594,932

9.3 Space Requirement

An estimated covered area of 880 sq. ft. will be required for the proposed "Heat Sublimation". The space requirement for the proposed unit is mainly based Management Office, Design Office and Printing Area. In order to reduce the initial capital investment, it is recommended to start the project in a rented building.

The space may be acquired in close proximity to textile garment manufacturing or apparel industry clusters. The estimated monthly rent for the proposed project is Rs. 60,000. In addition to that three (3) months' rent i.e. Rs. 180,000 will be paid as initial security deposit.

November 2020 10



9.4 Machinery & Equipment Requirement

Plant, machinery and equipment for the proposed project are stated below.

Table 6: Machinery & Equipment

Description	Quantity	Unit Cost (Rs.)	Total Cost (Rs.)
Transfer Machine Hengxin HT-RCR1700	1	2,571,373	2,571,373
Printing Machine Epson e Jet v33 4720	1	636,582	636,582
Security Equipment's 4 CCTV Cameras	1	25,000	25,000
Total	3		3,232,955

9.5 Furniture & Fixtures Requirement

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

Table 7: Furniture & Fixture

Description	Quantity	Unit Cost (Rs.)	Total Cost (Rs.)
Interior Renovation	1	600,000	600,000
Air-conditioners (1 Ton Split)	3	60,000	180,000
Table & Chairs	2	35,000	70,000
Miscellaneous Furniture	1	50,000	50,000
Sofas	4	12,000	48,000
Visitor Chairs	4	8,000	32,000
Cupboard / Racks	2	12,000	24,000
Workstations	1	22,000	22,000
SMD Bulbs (24 Watts)	20	1,000	20,000
Bracket Fans	4	3,800	15,200
Cupboard	1	15,000	15,000
Visitor Chairs (Design and printing area)	2	6,500	13,000
Exhaust Fans	2	2,200	4,400



Total			1,093,600
-------	--	--	-----------

9.6 Computer Equipment Requirement

Following Computer equipment will be required for Heat Sublimation Printing Unit.

Table 8: Computer Equipment

Description	Quantity	Unit Cost (Rs.)	Total Cost (Rs.)
Laptops	2	70,000	140,000
PCs with High End Graphic Cards	1	125,000	125,000
Computer printer (s)	1	23,000	23,000
Scanner	1	9,500	9,500
UPS with Batteries	1	90,000	90,000
Total			387,500

9.7 Raw Material Requirement

Printing paper rolls and sublimation printing ink are the main raw materials for the proposed business, which will be procured directly from local market. The usage of these raw materials will vary for each job order as per the design and color requirements.

The following table provides the details for the average raw material requirements for first year of operations for the proposed heat sublimation printing unit.

Table 9: Raw Material Requirement

Description	Fabric Printing (Square Feet)	Average Cost Per Square Feet (Rs.)	Total Raw Material Cost (Rs.)
Paper Rolls	955,500	1.90	1,815,450
Sublimation Ink	955,500	2.80	2,675,400
Total			4,490,850



9.8 Human Resource Requirement

In order to run operations of Heat Sublimation Printing Unit smoothly, details of human resources required along with number of employees and monthly salary are recommended as under.

Table 10: Human Resource Requirment

Description	No. of Employees	Monthly Salary per person (Rs.)
CEO	1	80,000
Supervisor/Accountant	1	50,000
Designers	1	45,000
Transfer and Printing Machine Operator	1	35,000
Helpers	1	20,000
Total	5	

9.9 Utilities and other costs

An essential cost to be borne by the project is the cost of electricity. The electricity expenses are estimated to be around Rs. 31,950 per month, whereas water expenses are estimated to be Rs. 10,800 / year. Furthermore, promotional expense being essential for marketing of Heat Sublimation Printing Unit is estimated as 0.5% of revenue expenses.

9.10 Revenue Generation

Based on the capacity utilization of 65%, sales revenue during the first year of operations is estimated as under.

Table 11: Revenue Generation - Year 1

Description	Fabric Printing (Sq. ft.)	Average Unit / Sq. ft.	Sales Revenue (Rs.)
Image / Design Transferred on Fabric	955,500	11.16	10,665,879
Total	955,500		10,665,879



10 CONTACT DETAILS

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

Table 12: Machinery Suppliers

Name of Supplier	Address
Sabri Group of Companies	Ranjeet Park Mission Road Lahore. Tel: 042-36290001-4
MAS Digital Textile Pakistan	Commercial Zone, Pak Arab Housing Scheme, Ferozpur Road, Lahore. Tel: 0321-4444998, 0313-4114346



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
Punjab Vocational Training Council (PVTC)	www.pvtc.gop.pk
Technical Education and Vocational Training Authority (TEVTA)	www.tevta.org
Pakistan Readymade Garment Technical Training Institute	www.prgmea.org/prgtti/
Punjab Industrial Estates (PIE)	www.pie.com.pk
Faisalabad Industrial Estate Development and Management Company (FIEDMC)	www.fiedmc.com.pk



Pre-Feasibility Study Heat Sublimation Printing Unit

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	10,665,879	12,634,965	14,891,209	17,472,351	20,420,811	23,784,238	27,616,143	31,976,587	35,174,246	38,691,67
Cost of sales										
Printing Paper	1,815,450	2,150,610	2,534,648	2,973,986	3,475,847	4,048,339	4,700,571	5,442,767	5,987,044	6,585,748
Printing Ink	2,675,400	3,169,320	3,735,270	4,382,717	5,122,300	5,965,973	6,927,158	8,020,920	8,823,012	9,705,313
Direct labor	2,160,000	2,376,000	2,613,600	2,874,960	3,162,456	3,478,702	3,826,572	4,209,229	4,630,152	5,093,16
Machinery maintenance)	621,075	735,735	867,116	1,017,416	1,189,105	1,384,958	1,608,090	1,861,999	2,048,199	2,253,019
Direct electricity	263,952	290,347	319,382	351,320	386,452	425,097	467,607	514,368	565,805	622,385
Total cost of sales	7,535,877	8,722,012	10,070,016	11,600,400	13,336,160	15,303,069	17,529,998	20,049,282	22,054,211	24,259,632
Gross Profit	3,130,002	3,912,953	4,821,193	5,871,952	7,084,650	8,481,169	10,086,145	11,927,305	13,120,035	14,432,039
General administration & selling expenses										
Administration expense	600,000	660,000	726,000	798,600	878,460	966,306	1,062,937	1,169,230	1,286,153	1,414,769
Building rental expense	720,000	792,000	871,200	958,320	1,054,152	1,159,567	1,275,524	1,403,076	1,543,384	1,697,722
Electricity expense	119,451	131,396	144,535	158,989	174,888	192,377	211,614	232,776	256,053	281,659
Water expense	10,800	11,880	13,068	14,375	15,812	17,394	19,133	21,046	23,151	25,466
Travelling expense	30,000	33,000	36,300	39,930	43,923	48,315	53,147	58,462	64,308	70,738
Communications expense (phone, fax, mail, internet, etc.)	16,200	17,820	19,602	21,562	23,718	26,090	28,699	31,569	34,726	38,199
Office expenses (stationary, entertainment, janitorial services, etc.	21,600	23,760	26,136	28,750	31,625	34,787	38,266	42,092	46,302	50,932
Promotional expense	53,329	63,175	74,456	87,362	102,104	118,921	138,081	159,883	175,871	193,458
Professional fees (legal, audit, consultants, etc.)	106,659	126,350	148,912	174,724	204,208	237,842	276,161	319,766	351,742	386,917
Depreciation expense	567,030	567,030	567,030	591,062	587,187	587,187	615,006	610,520	610,520	642,724
Amortization of pre-operating costs	16,000	16,000	16,000	16,000	16,000	-	-	-	-	-
Miscellaneous expense 1	24,000	26,400	29,040	31,944	35,138	38,652	42,517	46,769	51,446	56,591
Subtotal	2,285,069	2,468,811	2,672,280	2,921,617	3,167,215	3,427,438	3,761,085	4,095,190	4,443,657	4,859,174
Operating Income	844,933	1,444,142	2,148,913	2,950,335	3,917,435	5,053,731	6,325,060	7,832,115	8,676,379	9,572,864
	2,299,146	2,527,930	2,723,258	3,176,468	3,627,390	4,041,691	4,889,745	5,701,004	6,075,921	6,795,391
Other income (interest on cash)	22,685	55,885	92,959	136,976	192,936	250,789	315,555	392,962	468,032	551,463
Other income 2										
Gain / (loss) on sale of computer equipment	-	-	96,875	-	-	209,020	-	-	338,842	270,513
Earnings Before Interest & Taxes	867,618	1,500,027	2,338,747	3,087,312	4,110,371	5,513,540	6,640,615	8,225,077	9,483,253	10,394,842
Tax	36,762	115,004	240,812	391,828	653,111	1,074,062	1,444,215	1,998,777	2,439,138	2,758,194
NET PROFIT/(LOSS) AFTER TAX	830,856	1,385,023	2,097,935	2,695,484	3,457,260	4,439,478	5,196,400	6,226,301	7,044,115	7,636,648





Pre-Feasibility Study Heat Sublimation Printing Unit

12.2 Balance Sheet

Calculations											SMEDA
Balance Sheet											
		••	** *	** *			** .		** 0	** 0	
	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 1
Assets											
Current assets	250.000	1.464.015	2 005 054	4 420 702	6 507 220	0.005.505		14.000.025	15 240 120	20.004.442	24.022.74
Cash & Bank	350,000	1,464,817	3,005,954	4,430,793	6,527,320	8,907,585	11,155,552	14,088,837	17,348,139	20,094,442	24,022,74
Accounts receivable		438,324	478,784	565,606	665,005	778,627	908,323	1,056,172	1,224,508	1,379,812	1,517,79
Equipment spare part inventory	25,878	32,188	39,833	49,074	60,224	73,650	89,791	109,167	126,088	145,632	-
Pre-paid building rent	180,000	198,000	217,800	239,580	263,538	289,892	318,881	350,769	385,846	424,431	<u>-</u>
Total Current Assets	555,878	2,133,329	3,742,372	5,285,054	7,516,086	10,049,754	12,472,547	15,604,946	19,084,582	22,044,316	25,540,53
Fixed assets											
Building Security	180,000	180,000	180,000	180,000	180,000	180,000	180,000	180,000	180,000	180,000	180,000
Machinery & equipment	3,232,954	2,909,659	2,586,363	2,263,068	1,939,773	1,616,477	1,293,182	969,886	646,591	323,295	100,000
Furniture & fixtures	1,093,600	984,240	2,380,303 874,880	765,520	656,160	546,800	437,440	328,080	218,720	109,360	-
Computer equipment	387,500	259,625	131,750	452,455	300,548	152,517	523,773	347,922	176,558	606,333	402,76
Office equipment	65,000	58,500	52,000	452,433	39,000	32,500	26,000	19,500	13,000	6,500	402,76
Total Fixed Assets	4,959,054	4,392,024	3,824,993	3,706,543	3,115,481	2,528,294	2,460,395	1,845,389	1,234,868	1,225,488	582,764
Total Fixed Assets	4,939,034	4,392,024	3,824,993	3,700,343	3,113,461	2,328,294	2,400,393	1,643,369	1,234,606	1,223,466	382,70
Intangible assets											
Pre-operation costs	80,000	64,000	48,000	32,000	16,000	-	-	_	-	-	-
Total Intangible Assets	80,000	64,000	48,000	32,000	16,000	-	-	-	-	-	-
TOTAL ASSETS	5,594,932	6,589,353	7,615,365	9,023,597	10,647,567	12,578,048	14,932,942	17,450,335	20,319,450	23,269,804	26,123,299
Liabilities & Shareholders' Equity											
Current liabilities											
		220.727	200 ((7	420 502	504 110	570 AOE	((2,721	750.050	965 602	052 449	1.041.114
Accounts payable Total Current Liabilities		329,736 329,736	380,667 380,667	438,503	504,119 504,119	578,495	662,731 662,731	758,059 758,059	865,603 865,603	952,448 952,448	1,041,110
Total Current Liabilities	-	329,/30	380,007	438,503	504,119	578,495	002,/31	/58,059	805,003	952,448	1,041,110
Shareholders' equity											
Paid-up capital	5,594,932	5,594,932	5,594,932	5,594,932	5,594,932	5,594,932	5,594,932	5,594,932	5,594,932	5,594,932	5,594,93
Retained earnings	3,071,732	664,685	1,639,766	2,990,161	4,548,516	6,404,621	8,675,279	11,097,343	13,858,915	16,722,424	19,487,25
Total Equity	5,594,932	6,259,617	7,234,699	8,585,093	10,143,448	11,999,553	14,270,211	16,692,275	19,453,847	22,317,356	25,082,18
TOTAL CAPITAL AND LIABILITIES	5,594,932	6,589,353	7,615,365	9.023.597	10,647,567	12,578,048	14.932.942	17,450,335	20,319,450	23,269,804	26,123,299



Pre-Feasibility Study Heat Sublimation Printing Unit

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
Operating activities											
Net profit		830,856	1,385,023	2,097,935	2,695,484	3,457,260	4,439,478	5,196,400	6,226,301	7,044,115	7,636,648
Add: depreciation expense		567,030	567,030	567,030	591,062	587,187	587,187	615,006	610,520	610,520	642,724
amortization of pre-operating costs		16,000	16,000	16,000	16,000	16,000	-	-	-	-	-
Accounts receivable		(438, 324)	(40,461)	(86,822)	(99,398)	(113,622)	(129,696)	(147,849)	(168,336)	(155,303)	(137,981)
Equipment inventory	(25,878)	(6,310)	(7,645)	(9,241)	(11,149)	(13,426)	(16,142)	(19,376)	(16,921)	(19,544)	145,632
Pre-paid building rent	(180,000)	(18,000)	(19,800)	(21,780)	(23,958)	(26,354)	(28,989)	(31,888)	(35,077)	(38,585)	424,431
Accounts payable		329,736	50,931	57,836	65,616	74,376	84,236	95,329	107,544	86,845	88,661
Cash provided by operations	(205,878)	1,280,988	1,951,079	2,620,959	3,233,656	3,981,420	4,936,073	5,707,621	6,724,031	7,528,048	8,800,115
Financing activities											
Issuance of shares	5,594,932	_	-	-	_	-	-	_	_	_	-
Cash provided by / (used for) financing activities	5,594,932	-	-	-	-	-	-	-	-	-	-
Investing activities											
Capital expenditure	(5,039,054)	_	-	(448,580)	_	-	(519,287)	_	_	(601,140)	-
Cash (used for) / provided by investing activities	(5,039,054)	-	-	(448,580)	-	-	(519,287)	-	-	(601,140)	-
NET CASH	350,000	1,280,988	1,951,079	2,172,379	3,233,656	3,981,420	4,416,786	5,707,621	6,724,031	6,926,909	8,800,115



13 KEY ASSUMPTIONS

13.1 Operating Cost Assumptions

Description	Details
Travelling Expenses	5% of Administration expenses
Promotional Expenses	0.5% of Revenue
Depreciation Method	Accelerated depreciation
Depreciation Rate	10% on Machinery 33% on Computer Equipment 10% on Furniture & Fixture
Inflation Growth Rate	10%
Electricity Price Growth Rate	10%
Salaries Growth Rate	10%

13.2 Revenue Assumptions

Description	Details
Sale Price Growth Rate	10%
Average Sales Price Per Sq, Feet Year One (Rs.)	11.6
Production Capacity Year 1 (Sq, Feet)	955,500
Days Operational Per Year	300
Hours Operational / Day	8
Shift Length (Hours)	8

13.3 Capacity Utilization Assumptions

Description	Details
Maximum Operational Capacity (Annually)	1.470 Million Sq. ft. of Fabric
Production Capacity Utilization	65%
Production Capacity Utilization Growth Rate	5%
Maximum Capacity Utilization	100%

SMEDA

Small and Medium Enterprises Development Authority HEAD OFFICE

4th Floor, Building No. 3, Aiwan-e-Iqbal Complex, Egerton Road, Lahore Tel: (92 42) 111 111 456, Fax: (92 42) 36304926-7

www.smeda.org.pk, helpdesk@smeda.org.pk

REGIONAL OFFICE	REGIONAL OFFICE	REGIONAL OFFICE	REGIONAL OFFICE
PUNJAB	SINDH	KPK	BALOCHISTAN
3 rd Floor, Building No. 3,	5 TH Floor, Bahria	Ground Floor State Life Building The Mall, Peshawar. Tel: (091) 9213046-47 Fax: (091) 286908 helpdesk-pew@smeda.org.pk	Bungalow No. 15-A
Aiwan-e-Iqbal Complex,	Complex II, M.T. Khan Road,		Chaman Housing Scheme
Egerton Road Lahore,	Karachi.		Airport Road, Quetta.
Tel: (042) 111-111-456	Tel: (021) 111-111-456		Tel: (081) 831623, 831702
Fax: (042) 36304926-7	Fax: (021) 5610572		Fax: (081) 831922
helpdesk.punjab@smeda.org.pk	helpdesk-khi@smeda.org.pk		helpdesk-qta@smeda.org.pk