



Pre-feasibility Study

Printing Press

March 2024

“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, and revenues 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	DISCLAIMER.....	3
2	EXECUTIVE SUMMARY	4
3	INTRODUCTION TO SMEDA.....	4
4	PURPOSE OF THE DOCUMENT.....	5
5	BRIEF DESCRIPTION OF PROJECT & PRODUCT.....	5
5.1	PRODUCTION PROCESS FLOW	6
5.1.1	The Design / Creative Stage	7
5.1.2	The Prepress Stage	7
5.1.3	The Printing Stage	7
5.1.4	The Bindery Stage.....	8
5.2	INSTALLED AND OPERATIONAL CAPACITIES.....	8
6	CRITICAL FACTORS	9
7	GEOGRAPHICAL POTENTIAL FOR INVESTMENT	9
8	POTENTIAL TARGET CUSTOMERS / MARKETS.....	9
9	PROJECT COST SUMMARY.....	10
9.1	PROJECT ECONOMICS	10
9.2	PROJECT COST.....	11
9.3	SPACE REQUIREMENT	12
9.4	MACHINERY & EQUIPMENT REQUIREMENT.....	12
9.5	FURNITURE & FIXTURES REQUIREMENT.....	13
9.6	OFFICE EQUIPMENT REQUIREMENT	13
9.7	RAW MATERIAL REQUIREMENTS	14
9.8	HUMAN RESOURCE REQUIREMENT	14
9.9	UTILITIES AND OTHER COSTS	15
9.10	REVENUE GENERATION.....	15
10	CONTACT DETAILS.....	15
11	USEFUL WEB LINKS.....	16
12	ANNEXURES	18
12.1	INCOME STATEMENT	18
12.2	BALANCE SHEET.....	19
12.3	CASH FLOW STATEMENT	20
13	KEY ASSUMPTIONS.....	21
13.1	OPERATING COST ASSUMPTIONS	21
13.2	PRODUCTION ASSUMPTIONS.....	21
13.3	REVENUE ASSUMPTIONS	22

1 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 69
Revision	No. 5
Prepared by	SMEDA Punjab – OS
Revision Date	March, 2024
For information	helpdesk.punjab@smeda.org.pk

2 EXECUTIVE SUMMARY

The market for printed material in Pakistan has been developing steadily over the last decade. The proposed business venture is presumed to produce different types of printing material for a variety of client segments including business enterprises, educational sector and others. The printed materials produced by the unit mainly include promotional material (Brochures, Pamphlet, Voucher, Visiting Cards, Packing Mat, Invitation cards etc.), office stationery (Financial Report, letterheads, printed files, vouchers, invoices, inward / outward documents, etc.), published materials (literature and textbooks, etc.) and packing material printings.

The proposed capacity of the Printing Press is 36,000,000 impressions per annum. Initial capacity utilization is estimated at 50% per annum with a gradual increase of 5% in subsequent years to achieve the maximum operational capacity (i.e. 80%). This production capacity is estimated to be economically viable and justifies the capital as well as operational cost of the project. The proposed unit has an installed capacity of producing 15,000 impressions per hour, with Heidelberg72 Machine (7,000 / Hour), Heidelberg GTO52 Machine (6,500 / Hour) and Digital Printing (1,500 / Hour). The unit will operate on 8 hours single shift per day.

Currently in Pakistan, majority of printing presses are using Heidelberg 72 and Heidelberg GTO 52 machines, as they are easily available in local market at economical rates and cheap maintenance. Accordingly, in this Pre-feasibility study it is proposed to install two conventional machines (Heidelberg72 and Heidelberg GTO 52) along with one Digital Laser 4 Color Printer to cater for the needs of high-end quality-oriented customers. The potential of digital printing presses in local market is very huge and it is further increasing with changing market trends and technologies.

The total project cost for setting up this unit is estimated at Rs. 11.635 million out of which Rs. 10.453 million is capital cost and Rs. 1.182 million is working capital. Considering all the assumptions on which the pre-feasibility has been made, the IRR, Payback and Net Present Value of the project are 38%, 3.70 years and Rs. 4.702 million respectively based on 100% equity financed model. The project will provide employment opportunities to 15 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 **Printing Press 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 its successful management.

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

5 BRIEF DESCRIPTION OF PROJECT & PRODUCT

The importance of printing and graphic arts sector is often under-estimated. However, due to continual increase in advertisement and promotion trends vis-à-vis massive expansion of educational sector, the business of printing press is experiencing a large scale of turnover in Pakistan. Currently, print media is recognized as one of the most effective and economical mode of communication and promotion by all type of businesses.

There is huge variety of printing materials / products which are being produced by the printing presses mainly for business users of industrial as well as educational sector. Educational textbooks have the largest share in the local printing industry followed by the promotional materials.

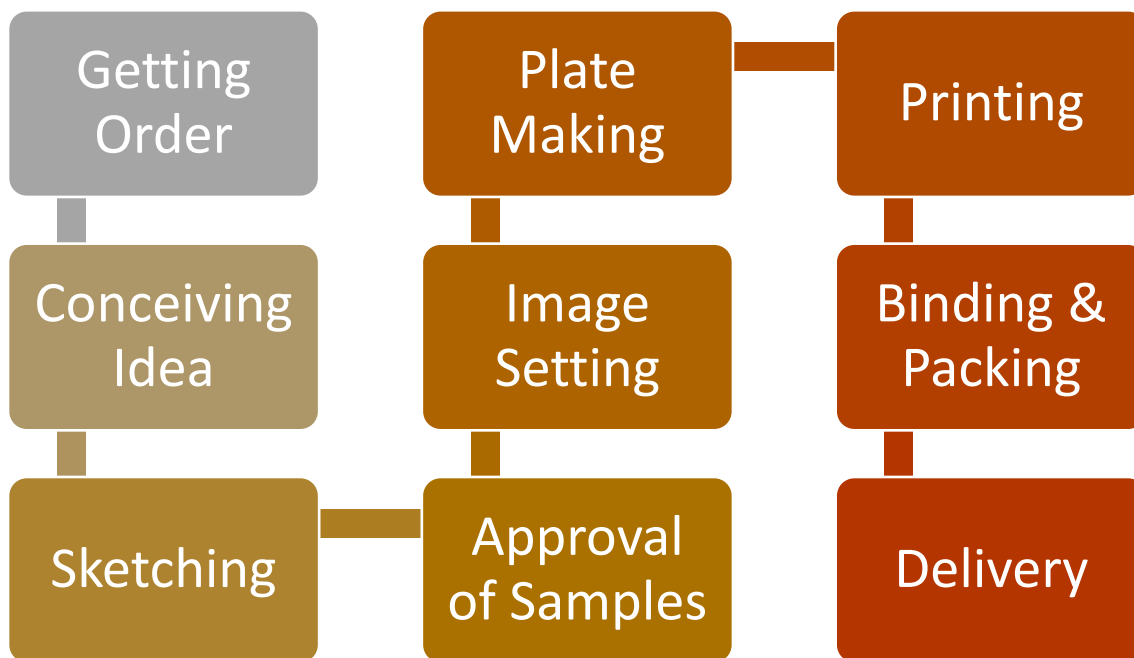
Accordingly, the proposed printing press would mainly cater for the printing requirements of following four business categories:

- ⇒ Promotional Material; Printing material such as, Brochures, Product Catalogues, Posters, Annual Reports, Calendars, Diaries, etc.
- ⇒ Office Stationery; Company Letter Heads, Files, Vouchers, Invoices, Visiting Cards, Book of Accounts, etc.
- ⇒ Publishing Material; Textbooks, Literature Books, etc.
- ⇒ Packaging Material; Printing of packing material of all kinds, such as, Boxes, Cartons, Shopping Bags, etc.

The project is proposed to be set up in any of the four provincial capitals or major urban city of Pakistan. The business legal status of the proposed project can either be sole proprietorship or partnership. However, this pre-feasibility assumes the legal status to be Sole Proprietorship.

5.1 Production Process Flow

Figure 1: Printing Process Flow



5.1.1 The Design / Creative Stage

In the Design Stage the designer prepares the design of the product taking into account the overall look and feel of the paper. Text to be printed is typed and graphics to be shown are created. Designing of graphics is of two types, halftone and line art. Halftone is the reproduction of continuous-tone artwork (such as a photograph) through the application of a screen that converts the image into dots of various sizes. Line art is the art that is made up of continuous lines such as pen & ink drawings or typefaces. There is no tonal difference from one area to another. After designing the designer sets page layout and the design is sent to the prepress department

5.1.2 The Prepress Stage

In the Pre-press Stage the artwork is taken from its delivered state (either reflective art or digital file) all the way to the press plates. In pre-press stage: The artwork is transformed to negative film either by imaging a digital file through an image setter, or by shooting reflective artwork with a copy camera. The pages are stripped together into a flat that reflects how the pages will be printed on the press sheet. The flat is burned onto a metal plate. After the flat is burned onto the plate, the plate is washed in the developing chemical. This developed plate is wrapped around the press cylinder. For the purpose of this Pre-feasibility, this process will be outsourced because of the high capital cost of machinery and equipment used in the process and the infrequent use of machinery.

5.1.3 The Printing Stage

The Printing Stage covers the transfer of an image to paper. Offset lithography is based upon the principle that, “the ink and water do not mix”. The paper is fed through the press from a pile of paper already cut to the size of the machine. Offset printing presses print at a high speed. When a printing plate is made, the printing image is rendered ink-receptive and water-repellent, while the non-printing areas are rendered water-receptive and ink-repellent. The ink is distributed to the plates through a series of rollers. On the press, the plates are dampened, first by water rollers, and then ink rollers.

The rollers distribute the ink from the ink fountain onto the plates. The image area of the plates picks up ink from the ink rollers. The water rollers keep the ink off of the non-image areas of the plate. Each plate then transfers its image to a rubber blanket that in turn transfers the image to paper. The plate itself does not actually touch the paper. All of this occurs at a high speed. During the process the machine man checks the blending of inks to maintain the color control. Print quality is checked frequently by the press operator.

5.1.4 The Bindery Stage

The Bindery Stage is when any trimming, folding, perforating, collating, stitching, or gluing is performed as required. Mostly, Printing Press performs the trimming and folding in-house, and works closely with an outside bindery on the collating, stitching and gluing.

5.2 Installed and Operational Capacities

The proposed printing press unit has an installed capacity of printing 15,000 impressions per hour with combination of three (03) machines (i.e. Heidelberg72, Heidelberg GTO52 and Digital Printing) having different printing technologies. The installed production capacities of Heidelberg72, Heidelberg GTO52 and Digital printing mainly comprises of 7,000 imp / hr, 6,500 imp / hr and 1,500 imp / hr, respectively.

The project would initially operate at 50% production capacity in year 1, and 5% capacity utilization growth is assumed in the subsequent years. The maximum capacity utilization of the unit is worked out at 80% of installed capacity, because of the wastage of time during cleaning and trial runs of the machines. The unit will operate on 8 hours single shift basis with 300 operational days in a year.

Details of operational and installed capacity according to product mix are provided in the table below.

Table 1: Installed and Operational Capacity

Description of Machine / Product Mix	Production Proportion	Total Capacity (Units)	Maximum Capacity Utilization in Year 10 (80%)	Capacity Utilization in Year 1 (50%)
Heidelberg GTO52		15,600,000	12,480,000	7,800,000
Voucher	40%	6,240,000	4,992,000	3,120,000
Visiting Cards	10%	1,560,000	1,248,000	780,000
Packing Mat	25%	3,900,000	3,120,000	1,950,000
Invitation Cards	25%	3,900,000	3,120,000	1,950,000
Heidelberg72		16,800,000	13,440,000	8,400,000
Financial Report	20%	3,360,000	2,688,000	1,680,000
Brochure	25%	4,200,000	3,360,000	2,100,000
Book	30%	5,040,000	4,032,000	2,520,000
Pamphlet	10%	1,680,000	1,344,000	840,000

Letterhead	15%	2,520,000	2,016,000	1,260,000
Laser 4 Colour Printer		3,600,000	2,880,000	1,800,000

6 CRITICAL FACTORS

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

- ⇒ Relations in business sector are important in success of a printing press, as it is an order-based business.
- ⇒ Technical skills are vital for effectively operating the business, as skilled workers can reduce wastage; insure lower machine maintenance cost, in-time delivery and quality finish of the product.
- ⇒ Order size is of a great importance for profitability of the business, as major cost of printing is the designing, image setting and plate making i.e. fixed costs. So, if the order size is large the cost per unit will be lower.
- ⇒ Well-organized company profile with client's information and nature of job done is very effective from marketing point of view. Normally Multi-National companies go through the profile of company before ordering any assignment.
- ⇒ Trained staff should be engaged and comprehensive staff training programs to be adopted for capacity building.
- ⇒ Careful selection of good location and purchase of land at competitive price.

7 GEOGRAPHICAL POTENTIAL FOR INVESTMENT

As the major customers of printing press are industrial buyers, so the unit can be established in any major city comprising of large industrial and educational sector bases. Therefore, cities like Karachi, Lahore, Peshawar, Quetta, Faisalabad, Sialkot, Multan, Rawalpindi and Hyderabad can be suitable locations for setting up printing press. Subsequently, availability of skilled labor, raw material and close customer proximity is extremely important for the success of this business. Concerning to that, Karachi, Lahore, Sialkot and Faisalabad are considered as the most appropriate location for the proposed venture.

8 POTENTIAL TARGET CUSTOMERS / MARKETS

Potential target customers for the produced printed material will mainly comprise of buyers from local business enterprises, educational institutions and other organizations. As majority of the target customer belongs to business segments, therefore, the business clients operating in major big cities, such as Lahore, Karachi,

Peshawar, Quetta, Faisalabad, Sialkot, Rawalpindi and Hyderabad 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 Printing press unit. Various costs 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 also attached as annexure.

9.1 Project Economics

All the figures in this financial model have been calculated for estimated revenue of Rs. 131.485 Million in the year one. The capacity utilization during year one is worked out at 50%.

The following table shows internal rate of return, payback period and net present value of the proposed venture.

Table 2: Project Economics

Description	Details
Internal Rate of Return (IRR)	38%
Payback Period (yrs.)	3.70
Net Present Value (@ 30%) (Rs.)	4,702,397

Calculation of break-even analysis is as follows:

Table 3: Breakeven (100% Equity Based)

	Break Even Revenue (Rs.)	Break Even Units	Margin of Safety
Year 1	127,317,758	4,665,343	3%
Year 2	137,934,951	4,594,902	13%
Year 3	150,263,565	4,550,539	21%
Year 4	164,163,602	4,519,531	28%
Year 5	179,032,591	4,480,804	34%
Year 6	194,509,941	4,425,608	39%
Year 7	212,860,631	4,402,849	43%
Year 8	232,555,138	4,372,922	43%
Year 9	254,183,972	4,345,115	44%
Year 10	278,420,421	4,326,747	44%

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 4: Project Economics Based on Debt (50%) : Equity (50%)

Description	Details
Internal Rate of Return (IRR)	36%
Payback Period (Yrs.)	3.94
Net Present Value (Rs.)	3,470,936

The financial assumptions for Debt:Equity are as follows:

Table 5: Financial Assumptions for Debt:Equity Model

Description	Details
Debt 50%	Rs. 5,864,166
Equity 50%	Rs. 5,864,166
Interest Rate on Debt	26%
Debt Tenure	5 Years
Debt Payment / Year	Annual

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 6: Project Cost

Description	Amount Rs.
Capital Cost	
Machinery & Equipment	6,805,000
Furniture & Fixture	2,284,100
Office equipment	675,000
Security Deposit	270,000
Pre-operating costs	512,577

Total Capital Cost	10,546,677
Equipment spare part inventory	20,238
Cash	516,093
Equipment spare parts	645,325
Total Working Capital	1,181,656
Total Project Cost	11,728,333

9.3 Space Requirement

The space requirement for the proposed Printing Press Unit is estimated considering various facilities including management office, printing and cutting halls, storage and open space, etc. In order to reduce the initial capital investment, it is recommended to start the project in a rented building. Monthly rent assumed for the project is Rs. 90,000, besides that three (3) months' rent Rs. 270,000 will be paid as security deposit. Detail of covered area requirement for the project is given in below table:

Table 7: Space Requirement

Description	Covered Area (Sq. Ft)
Owners Office	100
Accounts & Admin Office	170
Design Section	150
Printing Hall	750
Cutting Hall	180
Store	200
Total	1,550

9.4 Machinery & Equipment Requirement

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

Table 8: Machinery & Equipment

Description	Quantity	Unit Cost (Rs.)	Total Cost (Rs.)
Heidelberg 72 (Imp / Hour)	1	2,600,000	2,600,000
Heidelberg GTO 52 Machine (Above 93)	1	2,000,000	2,000,000

Generator Set (20 kva)	1	1,200,000	1,200,000
Laser 4 Color Printer HP (Print / Hour)	1	450,000	450,000
Cutting Machine (920mm)	1	275,000	275,000
Die Cutting Machine (660x930 mm)	1	280,000	280,000
Total			6,805,000

9.5 Furniture & Fixtures Requirement

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

Table 9: Furniture & Fixture

Description	Quantity	Unit Cost (Rs.)	Total Cost (Rs.)
Table & Chairs (Owner)	1	45,000	45,000
Visitor Chairs (Owner)	3	10,000	30,000
Sofas(owner)	2	30,000	60,000
Cupboard(owner)	1	20,000	20,000
Table & Chairs	3	20,000	60,000
Visitor & Office Chairs	10	70,000	700,000
Sofas	2	30,000	60,000
Cupboard	2	20,000	40,000
Air Conditioner (1 ton)	3	165,000	495,000
LED Bulbs	18	450	8,100
Fans	7	8,000	56,000
Fridge	1	100,000	100,000
Stools	7	30,000	210,000
Renovation	1	400,000	400,000
Total			2,284,100

9.6 Office Equipment Requirement

Following office equipment will be required for the project are given below.

Table 10: Office Equipment

Description	Quantity	Unit Cost (Rs.)	Total Cost (Rs.)
Laptop	1	125,000	125,000
Personal Computers	3	70,000	210,000

Computer Printer	2	45,000	90,000
Scanner- flat bed (BEN Q)	1	20,000	20,000
UPS	2	60,000	120,000
UPS BATTERIES	2	40,000	80,000
Water Dispenser	1	30,000	30,000
Total			675,000

9.7 Raw Material requirements

Papers, plates, and ink of different colors are the major raw material used for the printing purpose. Imported as well as local paper and board is being used by the industry. Imported paper is normally used in annual reports, brochures, catalogues, prospectus and visiting cards etc. Imported paper is also readily available in local markets. Majority of business is done on order basis therefore, raw material inventory is maintained on the nature and scope of ongoing orders. The list of different types of papers and other raw material required by the unit is provided in the following.

Table 11: Major Raw Material Required

Description	Unit	Unit Cost (Rs.)	Availability
Mat Art Paper 135 gram	Rim	8,655	Imported
Mat Art Paper 115 gram	Rim	6,300	Imported
Mat Art Card 310 gram	Rim	3,725	Imported
Offset Paper 100 gram	Rim	5,875	Imported
Art Card 310 gram	Rim	3,725	Imported
Flying Paper 68 gram	Rim	875	Local

9.8 Human Resource Requirement

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

Table 12: Human Resource Requirement

Description	No. of Employees	Monthly Salary per person (Rs.)
Owner/Manager	1	80,000
Graphic Designer	1	60,000
Accounts Officer	1	45,000

Machine Man	4	35,000
Composer	1	35,000
Helper	3	32,000
Cutting Master	1	32,000
Office Boy	1	32,000
Security Guards	2	35,000
Total	15	

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. 192,791 (Direct & In-direct) per month during 1st year of operations. Furthermore, promotional expense being essential for marketing of printing press unit is estimated as 0.75% of Revenue.

9.10 Revenue Generation

Based on the capacity utilization of 50%, sales revenue during the first year of operations is provided in the table below.

Table 13: Revenue Generation – Year 1

Description	No. of Units Produced (No.)	Sale Price / unit (Rs.)	Sales Revenue (Rs.)
Financial Report	15,272	319.34	4,877,028
Brochure	159,090	45.93	7,306,607
Book	17,355	252.92	4,389,498
Pamphlet	381,818	7.08	2,704,211
Letterhead	2,290,909	4.80	11,006,478
Voucher	5,672,727	10.09	57,248,877
Visiting Cards	1,418,181	1.98	2,812,640
Packing Mat	293,321	7.18	2,105,998
Invitation Cards	93,998	23.23	2,183,987
Digital Printing	1,800,000	20.47	36,850,140
Total			131,485,463

10 CONTACT DETAILS

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

Table 14: Machinery Suppliers

Name of Supplier	Address	Phone
Saleh Muhammad & Sohail Printers	18- Victoria Park, The Mall Lahore	0300-9426644
Jaffery Foundry Engineering Workshop	20/A, Abdali Road , Islampura, Lahore	0300 -4210068
Universal Engineering Works	Main Band Road Opposite Sandha Ptl Exchange Sandha Khurd, Service Road, Lahore, Punjab 54000	0324-9431198

Table 15: Raw Material Suppliers

Name of Supplier	Address	Phone
Abbasi paper & bleach Board Mart	Urdu Bazar Lahore	042-37351956-57
Hussnain Paper	Urdu Bazar Lahore	042-37244206 & 37352352
Bahu Traders	Urdu Bazar Lahore	042-37642990

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
Government of Punjab	www.punjab.gov.pk
Government of Sindh	www.sindh.gov.pk
Government of Khyber Pakhtunkhwa	www.khyberpakhtunkhwa.gov.pk
Government of Baluchistan	www.balochistan.gov.pk
Government of Gilgit Baltistan	www.gilgitbaltistan.gov.pk
Government of Azad Jammu 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
Printing Corporation of Pakistan	www.pcp.gov.pk/
All Pakistan Paper Merchant Association	www.appma.com.pk

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	131,485,463	159,097,187	190,917,119	227,509,304	269,511,080	317,637,760	372,695,668	409,965,234	450,961,758	496,057,934
<i>Cost of sales</i>										
Cost of goods sold	116,158,437	140,551,514	168,662,260	200,988,965	238,094,656	280,611,302	329,251,215	362,176,337	398,393,971	438,233,368
Operation costs (direct labor)	3,636,000	3,990,006.10	4,378,478.73	4,804,773.61	5,272,573.16	5,785,918	6,349,244	6,967,415	7,645,772	8,390,175
Operating costs (machinery maintenance)	485,707	512,873	615,447	733,408	868,806	1,023,950	1,201,435	1,321,578	1,453,736	1,599,109
Operating costs (direct electricity + Gen Expen)	1,856,400	2,042,040	2,246,244	2,470,868	2,717,955	2,989,751	3,288,726	3,617,598	3,979,358	4,377,294
Total cost of sales	122,136,544	147,096,433	175,902,429	208,998,015	246,953,990	290,410,921	340,090,619	374,082,928	411,472,837	452,599,947
Gross Profit	9,348,920	12,000,754	15,014,689	18,511,289	22,557,089	27,226,840	32,605,048	35,882,306	39,488,921	43,457,987
<i>General administration & selling expenses</i>										
Administration Salaries expense	3,444,000	3,779,313	4,147,272	4,551,056	4,994,153	5,480,391	6,013,970	6,599,499	7,242,035	7,947,130
Administration benefits expense	103,320	113,379.38	124,418.16	136,532	149,825	164,412	180,419	197,985	217,261	238,414
Building rental expense	1,080,000	1,188,000	1,306,800	1,437,480	1,581,228	1,739,351	1,913,286	2,104,614	2,315,076	2,546,584
Electricity expense	457,097	502,806	553,087	608,396	669,235	736,159	809,775	890,752	979,827	1,077,810
Water expense	78,000	85,800	94,380	103,818	114,200	125,620	138,182	152,000	167,200	183,920
Travelling expense	172,200	188,966	207,364	227,553	249,708	274,020	300,698	329,975	362,102	397,356
Communications expense (phone, fax, mail, internet, etc.)	72,000	79,200	87,120	95,832	105,415	115,957	127,552	140,308	154,338	169,772
Office expenses (stationary, entertainment, janitorial services, etc)	344,400	377,931	414,727	455,106	499,415	548,039	601,397	659,950	724,204	794,713
Promotional expense	986,141	1,193,229	1,431,878	1,706,320	2,021,333	2,382,283	2,795,218	3,074,739	3,382,213	3,720,435
Professional fees (legal, audit, consultants, etc.)	328,714	397,743	477,293	568,773	673,778	794,094	931,739	1,024,913	1,127,404	1,240,145
Depreciation expense	1,133,910	1,133,910	1,133,910	1,169,376	1,169,376	1,169,376	1,210,432	1,210,432	1,210,432	1,257,959
Amortization of pre-operating costs	83,800	83,800	83,800	83,800	83,800	-	-	-	-	-
Bad debt expense	657,427	795,486	954,586	1,137,547	1,347,555	1,588,189	1,863,478	2,049,826	2,254,809	2,480,290
Subtotal	8,941,009	9,919,563	11,016,635	12,281,587	13,659,021	15,117,890	16,886,146	18,434,992	20,136,901	22,054,527
Operating Income	407,911	2,081,191	3,998,055	6,229,702	8,898,068	12,108,950	15,718,902	17,447,314	19,352,020	21,403,460
Earnings Before Interest & Taxes	430,199	2,146,814	4,531,398	6,428,936	9,188,485	13,168,301	16,220,984	18,069,661	20,955,857	22,237,148
Subtotal	-	-	-	-	-	-	-	-	-	-
Earnings Before Tax	430,199	2,146,814	4,531,398	6,428,936	9,188,485	13,168,301	16,220,984	18,069,661	20,955,857	22,237,148
Tax	-	264,363	950,989	1,615,127	2,580,969	3,973,905	5,042,344	5,689,381	6,699,549	7,148,001
NET PROFIT/(LOSS) AFTER TAX	430,199	1,882,451	3,580,409	4,813,809	6,607,516	9,194,396	11,178,640	12,380,280	14,256,308	15,089,147

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	516,093	1,266,954	3,982,890	6,284,562	9,654,094	13,579,264	17,461,746	22,704,739	27,083,028	30,951,317	35,743,699
Accounts receivable		5,403,512.19	5,970,876	7,192,075	8,597,803	10,212,748	12,064,702	14,184,933	16,082,073	17,690,281	19,459,309
Finished goods inventory		-	-	-	-	-	-	-	-	-	-
Equipment spare part inventory	20,238	22,438	28,272	35,375	44,002	54,452	67,085	77,483	89,493	103,364	108,533
Raw material inventory	645,325	858,926	1,133,785	1,486,202	1,936,635	2,510,707	3,240,492	3,920,996	4,744,405	5,740,730	6,314,803
Total Current Assets	1,181,656	7,551,830	11,115,823	14,998,214	20,232,535	26,357,171	32,834,026	40,888,151	47,998,999	54,485,692	61,626,343
<i>Fixed assets</i>											
Land	-	-	-	-	-	-	-	-	-	-	-
Building/Infrastructure	-	-	-	-	-	-	-	-	-	-	-
Security Deposit	270,000	270,000	270,000	270,000	270,000	270,000	270,000	270,000	270,000	270,000	270,000
Machinery & equipment	6,805,000	6,124,500	5,444,000	4,763,500	4,083,000	3,402,500	2,722,000	2,041,500	1,361,000	680,500	-
Furniture & fixtures	2,284,100	2,055,690	1,827,280	1,598,870	1,370,460	1,142,050	913,640	685,230	456,820	228,410	-
Office vehicles	-	-	-	-	-	-	-	-	-	-	-
Office equipment	675,000	450,000	225,000	781,397	520,931	260,466	904,565	603,043	301,522	1,047,147	698,098
Total Fixed Assets	10,034,100	8,900,190	7,766,280	7,413,767	6,244,391	5,075,016	4,810,205	3,599,773	2,389,342	2,226,057	968,098
<i>Intangible assets</i>											
Pre-operation costs	419,000	335,200	251,400	167,600	83,800	-	-	-	-	-	-
Legal, licensing, & training costs	-	-	-	-	-	-	-	-	-	-	-
Total Intangible Assets	419,000	335,200	251,400	167,600	83,800	-	-	-	-	-	-
TOTAL ASSETS	11,634,756	16,787,220	19,133,503	22,579,580	26,560,726	31,432,187	37,644,230	44,487,924	50,388,341	56,711,748	62,594,441
Liabilities & Shareholders' Equity											
<i>Current liabilities</i>											
Accounts payable		4,829,815	5,844,922	7,019,149	8,371,357	9,925,834	11,709,979	13,744,567	15,136,924	16,672,266	18,339,280
Total Current Liabilities	-	4,829,815	5,844,922	7,019,149	8,371,357	9,925,834	11,709,979	13,744,567	15,136,924	16,672,266	18,339,280
<i>Other liabilities</i>											
Total Long Term Liabilities	-	-	-	-	-	-	-	-	-	-	-
<i>Shareholders' equity</i>											
Paid-up capital	11,634,756	11,634,756	11,634,756	11,634,756	11,634,756	11,634,756	11,634,756	11,634,756	11,634,756	11,634,756	11,634,756
Retained earnings		322,649	1,653,825	3,925,676	6,554,614	9,871,597	14,299,495	19,108,601	23,616,661	28,404,727	32,620,405
Total Equity	11,634,756	11,957,405	13,288,581	15,560,432	18,189,369	21,506,353	25,934,251	30,743,357	35,251,417	40,039,482	44,255,161
TOTAL CAPITAL AND LIABILITIES	11,634,756	16,787,220	19,133,503	22,579,580	26,560,726	31,432,187	37,644,230	44,487,924	50,388,341	56,711,748	62,594,441

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		430,199	1,882,451	3,580,409	4,813,809	6,607,516	9,194,396	11,178,640	12,380,280	14,256,308	15,089,147
Add: depreciation expense		1,133,910	1,133,910	1,133,910	1,169,376	1,169,376	1,169,376	1,210,432	1,210,432	1,210,432	1,257,959
amortization of pre-operating costs		83,800	83,800	83,800	83,800	83,800	-	-	-	-	-
Deferred income tax		-	-	-	-	-	-	-	-	-	-
Accounts receivable		(5,403,512)	(567,364)	(1,221,198)	(1,405,728)	(1,614,944)	(1,851,955)	(2,120,231)	(1,897,140)	(1,608,207)	(1,769,028)
Equipment inventory	(20,238)	(2,200)	(5,834)	(7,103)	(8,626)	(10,450)	(12,633)	(10,398)	(12,010)	(13,871)	(5,168)
Raw material inventory	(645,325)	(213,601)	(274,859)	(352,417)	(450,434)	(574,072)	(729,785)	(680,503)	(823,409)	(996,325)	(574,073)
Accounts payable		4,829,815	1,015,107	1,174,226	1,352,208	1,554,477	1,784,146	2,034,588	1,392,357	1,535,342	1,667,014
Cash provided by operations	(665,562)	858,411	3,267,211	4,391,627	5,554,404	7,215,702	9,553,545	11,612,526	12,250,510	14,383,678	15,665,851
Issuance of shares	11,634,756	-	-	-	-	-	-	-	-	-	-
Cash provided by / (used for) financing activities	11,634,756	-	-	-	-	-	-	-	-	-	-
<i>Investing activities</i>											
Capital expenditure	(10,453,100)	-	-	(781,397)	-	-	(904,565)	-	-	(1,047,147)	-
Cash (used for) / provided by investing activities	(10,453,100)	-	-	(781,397)	-	-	(904,565)	-	-	(1,047,147)	-
NET CASH	516,093	858,411	3,267,211	3,610,231	5,554,404	7,215,702	8,648,980	11,612,526	12,250,510	13,336,531	15,665,851

13 KEY ASSUMPTIONS

13.1 Operating Cost Assumptions

Description	Details
Machinery Maintenance	Rs. 0.04 per unit of Production
Office Expenses (Janitorial Services, Stationery, Entertainment etc)	10% of Administration expenses
Communication Expenses	Rs. 6,000 Per Month
Travelling Expenses	5% of Administration expenses
Promotional Expenses	0.75% of Revenues
Operating Expense Growth Rate	10%
Depreciation Method	Accelerated depreciation
Depreciation Rate for Furniture & Fixtures & Office Equipment	10% each
Inflation Growth Rate	10%
Electricity Price Growth Rate	10%
Salaries Growth Rate	10%
Water price growth rate	10%
Gas price growth rate	10%
Wage growth rate	10%

13.2 Production Assumptions

Description	Details
Days Operational / Year	300
Hours Operational / Day 8	8
No of Shifts 1 Shift	1 Shift
Installed Capacity of Printing Machines per hour	15,000
Production Capacity Utilization in First Year	50%
Percentage Increase in Production Capacity every year	5%
Maximum Production Capacity Utilization	80%
Cost of Goods Sold Growth Rate.	10%

13.3 Revenue Assumptions

Description	Details
Sale Growth Price	10%
Production Percentage for Heidelberg 72	
Financial Report	20%
Brochure	25%
Book	30%
Pamphlet	10%
Letterhead	15%
Production Percentage for Heidelberg GTO 52	
Voucher	40%
Visiting Cards	10%
Packing Mat	25%
Invitation Cards	25%