



**Pre-feasibility Study**

# **TISSUE PAPER MANUFACTURING UNIT**

**February 2021**

*“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

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## 1 DISCLAIMER

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

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### ***Document Control***

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## 2 EXECUTIVE SUMMARY

Tissue paper is soft, feathery, lightweight, highly absorbent, tear-resistant, a disposable product made from virgin or recycled paper pulp. It is used in our basic daily life for hygiene, cleanliness, and comfort. It is marvelously efficient at supporting hygiene by preventing the spread of dirt, germs, bacteria, viruses, and diseases. Bathroom tissue, paper towels, facial tissue, paper handkerchiefs, and table napkins are different variants. Their demand has been on the rise in the past several years because of factors like urbanization and increasing disposable incomes.

This particular pre-feasibility study is for setting up a tissue paper manufacturing unit with state-of-the-art machinery that can produce high-grade tissues. Tissue papers are proposed to be sold to wholesalers and retailers. Target end-users will be household, restaurants, large organizations, supermarkets etc. in major cities of Pakistan.

The business will have the capacity to produce 4.444 million tissue paper boxes (600,000 Kgs) per year based on 300 working days with 16 hours of operations per day. However, starting operational capacity is assumed at 50% (2.222 million boxes) and with an annual increase of 5%, it will attain a maximum capacity of 90% in year 9. This production capacity is estimated to be economically viable and justifies the capital as well as operational cost of the project. However, the entrepreneur's knowledge of the industry, competitive pricing and strong linkage with suppliers and wholesalers' network are key factors for the success of this business.

The total cost of the proposed tissue paper manufacturing unit' is estimated at Rs. 85.092 million out of which Rs. 78.370 million is the capital cost and Rs. 6.722 million is for working capital. The project is to be financed through 100% equity. The project NPV is around Rs. 176.226 million, with an IRR of 41% and Payback Period of 3.98 years. The project will provide employment opportunities to 40 individuals including the owner in year 1. The legal business status of this project is proposed as 'Sole Proprietorship'.

## 3 INTRODUCTION TO SMEDA

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

With a mission "to assist in employment generation and value addition to the national income, through the development of the SME sector, by helping increase

the number, scale and competitiveness of SMEs", SMEDA has carried out 'sectoral research' to identify policy, access to finance, business development services, strategic initiatives and institutional collaboration and networking initiatives.

Preparation and dissemination of prefeasibility studies in key areas of investment have been a successful hallmark of SME facilitation by SMEDA.

Concurrent to the prefeasibility studies, a broad spectrum of business development services is also offered to the SMEs by SMEDA. These services include identification of experts and consultants and delivery of need-based capacity building programs of different types in addition to business guidance through help desk services.

## 4 PURPOSE OF THE DOCUMENT

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

The purpose of this document is to facilitate potential investors in **Tissue Paper Manufacturing** business, by providing them with a general understanding of the business with the intention of supporting potential investors in crucial investment decisions.

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

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

## 5 BRIEF DESCRIPTION OF PROJECT AND PRODUCT

The tissue paper industry is emerging as a new sub-segment within the specialty paper market. Tissue papers are extensively used in our routine daily life, especially for hygiene, cleanliness and comfort. It is very useful for maintaining hygiene by preventing the spread of dirt, germs, bacteria, viruses, and diseases. There are different variants of tissue papers, most commonly are Facial Tissue, Paper Towels, Paper Handkerchiefs and Table Napkins. Tissue paper is produced on a paper machine that has a single large steam heated drying cylinder fitted with a hot air hood. The basic raw material is fiber pulp.

This particular pre-feasibility study is based on a fully automatic machine that can produce 4.44 million boxes of tissue paper. According to the proposed business model tissue paper will be sold to wholesalers and retailers. The unit will be able to process 125 kg / hour of paper pulp, producing 926 standard tissue paper box weighing 135 gm each.

The proposed unit will purchase raw material readily available in the market to produce tissue paper. About 4% of the total production is considered as wastage and is common in the tissue paper manufacturing process. The production in the first year will be 2.222 million boxes. The entire packaging services will be outsourced.

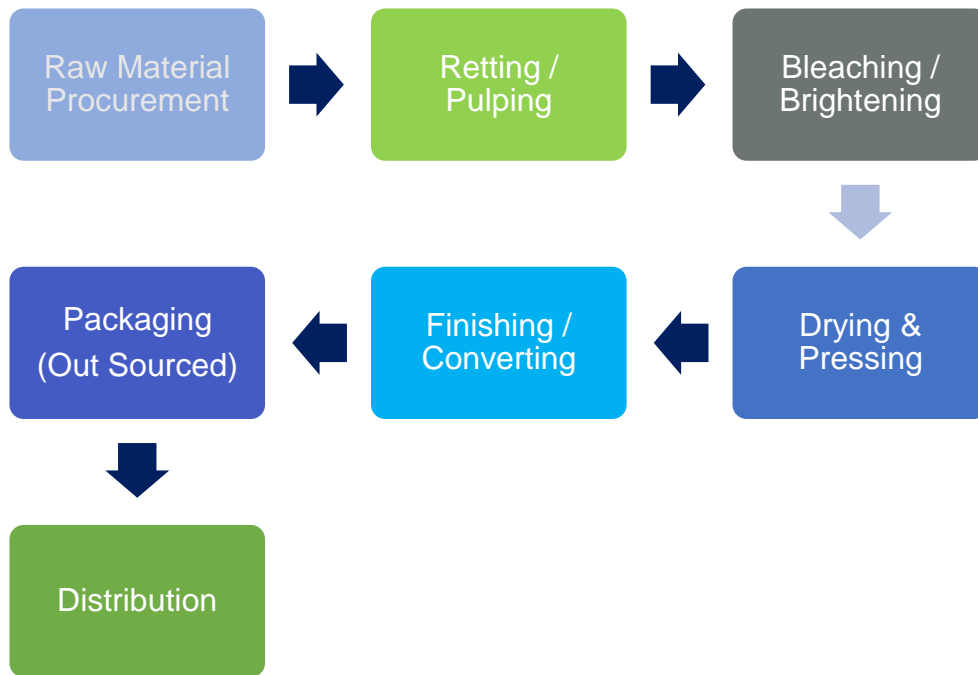
The ideal location for the proposed project is any major industrial city across Pakistan, however, it can also be established in other areas with availability of required infrastructural support, skilled labour and easy access to markets. The legal business status of this project is assumed to be 'Sole Proprietorship'.

### **5.1 Production Process Flow**

The production process flow of tissue paper manufacturing unit starts with the purchasing of fiber pulp from the market which is then mixed with water and chemicals to soften and straighten it. The prepared pulp is then poured uniformly and consistently over fast-moving belts made from highly porous materials that are driven over huge drums heated by steam. All the water leaks through the pores, leaving just the fiber on the belt in the form of a delicate fabric.

The fabric is then transferred on to a massive heated roller gas boiler whose heat makes the fabric dry almost instantly and turns it into a tissue paper. It is then transferred on to a core to form a large diameter roll, adjusting the speed of roll makes the tissue thicker or thinner. The tissue plies are split and passed through an embossing roller which softens the tissue to create decorative patterns. The plies are removed and held together with glue and the perforated by doctor blades, enabling the sheets to be easily pulled apart.

The tissue can then be made into either flat surfaces or wound around a cardboard tube to create a cylindrical roll. Many different roll sizes and sheet counts are produced on the winding machine and then cut into individual rolls by a huge rotating doctor blade system.

**Figure 1: Production Process Flow**

## 5.2 Installed and Operational Capacities

The operational capacity of the tissue paper manufacturing unit mainly depends upon the installed machinery.

This pre-feasibility study is based on a single tissue paper making machine that can process 125 kg / hour of paper pulp, producing 926 standard tissue paper box weighing 135 gm each. Accordingly, the proposed unit can produce 4.444 million boxes per annum on a double shift basis while maximum capacity utilization of the unit is assumed at 90%. However, for the first-year operation, the unit will operate at 50% capacity and will manufacture 2.222 million boxes.

**Table 1: Installed and Operational Capacity**

Description	Installed Capacity	Operational Capacity in year 1 @ 50%	Maximum Operational Capacity 90% (Year 9)
Tissue Boxes	4,444,444	2,222,222	4,000,000

## 6 CRITICAL SUCCESS FACTORS

Following are critical success factors associated with this business:

- ⇒ Prior knowledge and information about the tissue paper industry.

- ⇒ Selection of appropriate location with availability of required infrastructural support and easy access to markets.
- ⇒ Develop strong linkages with raw material suppliers for sourcing quality material on time at economical prices.
- ⇒ Induction of trained human resource for the handling of business operations especially in production and sales.
- ⇒ Stringent supervision of the production process at every level.
- ⇒ Produce quality tissue papers at affordable prices.
- ⇒ Come up with strategies that would differentiate from competitors.
- ⇒ Harness technology to optimize business and drive innovation.
- ⇒ Attract new customers while maintaining customer satisfaction.
- ⇒ Reduce costs and increase productivity levels.

## **7 GEOGRAPHICAL POTENTIAL FOR INVESTMENT**

Due to the existence of the potential target customers of tissue papers in metropolitan cities, it is recommended that the proposed venture be established in any major city. Therefore, cities like Lahore, Islamabad, Karachi, Rawalpindi, Peshawar, Quetta etc. are the most suitable locations for erecting the proposed tissue paper manufacturing unit.

## **8 POTENTIAL TARGET CUSTOMERS / MARKETS**

Volume-wise per capita consumption of tissue products in Pakistan is exceptionally low as household penetration of these products remains low and limited to urban middle- and upper-class consumers. The proposed tissue paper manufacturing unit will be selling its products to wholesalers and retailers. The end-users will include households, offices, hotels, hospitals, salons, laboratories, restaurants, cafes and caterings etc.

## **9 PROJECT COST SUMMARY**

A detailed financial model has been developed to analyze the commercial viability of the proposed tissue paper manufacturing unit. Various costs and revenue related assumptions along with the 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 sales of Rs. 180.602 million in the year one. The capacity utilization during year one is worked out at 50% with 5% increase in subsequent years up to the maximum capacity utilization of 90%.

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

**Table 2: Project Economics (Equity Financed)**

Description	Details
Internal Rate of Return (IRR)	41%
Payback Period (Yrs.)	3.98
Net Present Value (Rs.)	176,226,205

Calculation of break-even analysis is as follows:

**Table 3: 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	169,875,743	147,692,306	130,351,706	122,147,640	117,209,625	111,517,559	111,092,745	112,195,315	114,649,914	116,968,188
Break-Even Units	2,046,696	1,617,659	1,297,936	1,105,679	964,527	834,261	755,530	693,662	644,398	597,662
Margin of Safety	6%	34%	51%	62%	69%	75%	79%	82%	84%	85%

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

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

Description	Details
Internal Rate of Return (IRR)	39%
Payback Period (Yrs.)	4.07
Net Present Value (Rs.)	222,945,687

The financial assumptions for Debt: Equity is as follows:

**Table 4.1: Financial Assumptions for Debt: Equity Model**

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

The projected Income Statement, Balance Sheet and Cash Flow Statement 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.
<b>Capital Cost</b>	
Land	12,000,000
Building/Infrastructure	32,855,500
Machinery and Equipment	23,395,666
Pre-Operating Costs	5,257,561
Office Vehicles	2,654,207
Furniture and Fixtures	1,515,200
Office Equipment	642,200
Legal Licensing and Training Costs	50,000
<b>Total Capital Costs</b>	<b>78,370,334</b>
<b>Working Capital</b>	
Cash	3,061,575
Raw Material Inventory	2,730,279
Upfront Insurance Payment	911,746
Equipment Spare Part Inventory	18,353

<b>Total Working Capital</b>	<b>6,721,953</b>
<b>Total Project Cost</b>	<b>85,092,287</b>

### 9.3 Land and Building Requirement

Approximately four Kanal of land would be required for the establishment of the proposed manufacturing unit. It is recommended that the required land should be procured in the industrial estates of identified city / area. The cost of land is estimated at the rate of Rs. 3.0 million per Kanal.

The infrastructural requirements of the project mainly comprise the construction of Management Building, Warehouse and Store, Plant Area, Inspection Area, Electric Room and other facilities. The cost of construction of building for the proposed unit is provided in the table below:

**Table 6: Land and Building Requirement**

<b>Description</b>	<b>Estimated Area (sq. ft.)</b>	<b>Unit Cost (Rs.)</b>	<b>Total Cost (Rs.)</b>
Warehouse and Store	6,700	2,500	3,125,000
Plant Area	4,350	2,000	8,700,000
Pavement/Driveway	1,575	2,000	2,000,000
Grounds	1,350	2,000	13,400,000
Management Building	1,250	2,500	2,250,000
Inspection Area	1,000	2,500	1,687,500
Cafeteria	900	400	630,000
Masjid	675	2,500	200,000
Electric Room	80	100	135,000
Boundary Wall and Main Gate	560	1300	728,000
<b>Total Area</b>			<b>32,855,500</b>

### 9.4 Machinery and Equipment Requirement

Machinery and equipment for the proposed project are stated below:

**Table 7: Machinery and Equipment**

<b>Description</b>	<b>Qty</b>	<b>Unit Cost (Rs.)</b>	<b>Total Cost (Rs.)</b>
Plant and Machinery Cost *	1 set	10,730,650	10,730,650
Custom Duty, Sale Tax, Clearance Charges			6,641,116

Generator (200 KVA)	1	4,095,000	4,095,000
Transformer (200 KVA)	1	965,000	965,000
Installation Cost	1	500,000	500,000
Stacker	4	58,000	232,000
Industrial Exhaust Fans	6	38,650	231,900
<b>Total</b>			<b>23,395,666</b>

Detail of machinery is provided in Annexure 12.4.

### 9.5 Furniture and Fixtures Requirement

The detail of the required furniture and fixture for the proposed tissue paper manufacturing unit is provided in the following table:

**Table 8: Furniture and Fixture**

Description	Qty/Area	Unit Cost (Rs.)	Total Cost (Rs.)
Electric Wiring and Lighting		500,000	500,000
Air-Conditioners (1.5 Ton Split)	3	80,500	241,500
Table	12	20,000	240,000
Sitting Chairs	25	8,944	223,600
Fans	18	4,500	81,000
Carpeting	50 Sq. Ft.	1,250	62,500
Guest Chairs	10	5,800	58,000
Electric Wiring and DB's	1	35,000	35,000
Tube Lights	42	800	33,600
Sofa Set	1	25,000	25,000
Exhaust Fans	5	3,000	15,000
<b>Total</b>			<b>1,515,200</b>

### 9.6 Office Equipment Requirement

Following office equipment will be required for tissue paper manufacturing unit.

**Table 9: Office Equipment**

Description	Quantity	Unit Cost (Rs.)	Total Cost (Rs.)
Laptops	5	60,500	302,500
Water Cooler	2	45,000	90,000
Computers for Staff	6	15,000	90,000

Fridge	1	51,500	51,500
Fire Extinguishers	5	9,000	45,000
LED for Meeting Room	1	32,500	32,500
Computer Printer	1	16,000	16,000
Microwave Oven	1	7,500	7,500
Telephones	6	1,200	7,200
<b>Total</b>			<b>642,200</b>

### 9.7 Office Vehicle Requirement

For delivery of Tissues Papers in the market, a delivery vehicle worth Rs. 2,576,307 is taken in this Pre-feasibility study. Also, a bike worth Rs. 77,900 is taken for routine work.

### 9.8 Raw Material Requirement

The main raw material required for manufacturing tissue paper is fiber pulp and chemicals. Following are the details of raw material required for tissue paper:

**Table 10: Raw Material Requirement**

Description	Cost (Rs./Kg)
Fiber Pulp	274
Chemicals (P.E.O and dyes)	98

### 9.9 Human Resource Requirement

To run the operations of tissue paper manufacturing unit smoothly, details of human resources required along with the number of employees and monthly salary are recommended as under:

**Table 11: Human Resource Requirement\***

Description	No. of Employees	Monthly Salary per person (Rs.)
CEO	1	150,000
Production Manager	1	60,000
Finance Manager	1	60,000
Marketing/Sales Manager	1	50,000
Procurement Manager	1	40,000
Production Supervisor	2	35,000
Admin/IT Manager	1	30,000
HR Manager	1	30,000

Sales Officer	1	25,000
Accounts Officer	2	25,000
Security Guard	4	20,000
Office Boy	2	20,000
Daily Wagers	20	20,000
Driver	1	20,000
Electrician	1	20,000
<b>Total</b>	<b>40</b>	

\* The Human Resource is calculated on 2 shifts basis.

It is assumed that the owner would have prior experience or knowledge about the tissue paper manufacturing business. Salaries of all employees are estimated to increase by 10% annually.

### 9.10 Utilities and other costs

An essential cost to be borne by the business is the cost of electricity; the annual electricity expense is estimated as Rs. 8.567 million. This project also requires marketing and promotional activities; for which approximately Rs. 9.030 million will be spent in year 1. Similarly, during the 1st year of operation, communication and office expenses are estimated at Rs. 0.266 million and Rs. 0.333 million, respectively. The cost of maintenance of machinery is assumed at Rs. 0.881 million.

### 9.11 Revenue Generation

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

**Table 12: Revenue Generation (Year 1)**

Description	Rate per unit	Quantity produced	Quantity sold	Total Revenue (Rs.)
Tissue Box Production	83	2,222,222	2,175,926	180,601,834

## 10 CONTACT DETAILS

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

Supplier Name	Type of Supplies	Address	Phone
Qinyang City Shunfu Paper Making Machinery Co., Ltd.	Plant and Machinery	Shangnian Village, Baixiang Town, Qinyang City, Henan Province, China	+86-391-5939222

## 11 USEFUL WEB LINKS

Small and Medium Enterprises Development Authority (SMEDA)	<a href="http://www.smeda.org.pk">www.smeda.org.pk</a>
Government of Pakistan	<a href="http://www.pakistan.gov.pk">www.pakistan.gov.pk</a>
Ministry of Industries & Production	<a href="http://www.moip.gov.pk">www.moip.gov.pk</a>
Government of Punjab	<a href="http://www.punjab.gov.pk">www.punjab.gov.pk</a>
Government of Sindh	<a href="http://www.sindh.gov.pk">www.sindh.gov.pk</a>
Government of Khyber Pakhtunkhwa	<a href="http://www.khyberpakhtunkhwa.gov.pk">www.khyberpakhtunkhwa.gov.pk</a>
Government of Balochistan	<a href="http://www.balochistan.gov.pk">www.balochistan.gov.pk</a>
Government of Gilgit Baltistan	<a href="http://www.gilgitbaltistan.gov.pk">www.gilgitbaltistan.gov.pk</a>
Government of Azad Jammu Kashmir	<a href="http://www.ajk.gov.pk">www.ajk.gov.pk</a>
Security and Exchange Commission of Pakistan (SECP)	<a href="http://www.secp.gov.pk">www.secp.gov.pk</a>
State Bank of Pakistan (SBP)	<a href="http://www.sbp.org.pk">www.sbp.org.pk</a>
Trade Development Authority of Pakistan (TDAP)	<a href="http://www.tdap.gov.pk">www.tdap.gov.pk</a>
Technical Education and Vocational Training Authority (TEVTA)	<a href="http://www.tevta.org">www.tevta.org</a>
Sindh Small Industries Corporation	<a href="http://www.ssic.gos.pk">www.ssic.gos.pk</a>
All Pakistan Paper Merchants Association (APPMA)	<a href="http://www.appma.com.pk">www.appma.com.pk</a>

## 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	180,601,834	222,755,070	267,348,353	318,632,741	377,500,524	444,955,535	522,126,544	610,282,199	710,847,720	782,838,555
<i>Cost of sales</i>										
Fiber Pulp & Chemical	113,645,989	133,800,017	153,286,072	174,386,233	197,213,195	221,886,888	248,534,917	277,293,031	308,305,620	324,096,012
Packing	17,407,406	20,494,442	23,479,164	26,711,122	30,207,578	33,986,902	38,068,639	42,473,583	47,223,849	49,642,498
Operation costs 1 (direct labor)	3,348,750	4,130,363	4,957,219	5,908,143	6,999,679	8,250,441	9,681,359	11,315,957	13,180,660	14,515,526
Operating costs 2 (machinery maintenance)	880,942	1,037,168	1,188,217	1,351,777	1,528,724	1,719,985	1,926,551	2,149,473	2,389,871	2,512,272
Operating costs 3 (direct electricity)	8,230,050	9,942,471	11,915,076	14,182,777	16,784,867	19,765,548	23,174,516	27,067,622	31,507,604	34,658,365
Operating costs 4 (direct water)	720,000	756,000	793,800	833,490	875,165	918,923	964,869	1,013,112	1,063,768	1,116,956
Operating costs 5 (direct gas)	5,004,641	5,892,166	6,750,276	7,679,466	8,684,699	9,771,257	10,944,759	12,211,184	13,576,888	14,272,252
Total cost of sales	149,237,777	176,052,627	202,369,823	231,053,008	262,293,907	296,299,944	333,295,610	373,523,961	417,248,260	440,813,881
Gross Profit	31,364,057	46,702,444	64,978,530	87,579,733	115,206,617	148,655,592	188,830,935	236,758,238	293,599,460	342,024,674
<i>General administration &amp; selling expenses</i>										
Administration expense	6,660,000	7,326,000	8,058,600	8,864,460	9,750,906	10,725,997	11,798,596	12,978,456	14,276,301	15,703,932
Administration benefits expense	666,000	732,600	805,860	886,446	975,091	1,072,600	1,179,860	1,297,846	1,427,630	1,570,393
Electricity expense	337,050	370,755	407,831	448,614	493,475	542,822	597,105	656,815	722,497	794,746
Travelling expense	333,000	366,300	402,930	443,223	487,545	536,300	589,930	648,923	713,815	785,197
Communications expense (phone, fax, mail, internet, etc.)	266,400	293,040	322,344	354,578	390,036	429,040	471,944	519,138	571,052	628,157
Office vehicles running expense	928,972	1,021,870	1,124,057	1,236,462	1,360,109	1,496,119	1,645,731	1,810,304	1,991,335	2,190,468
Office expenses (stationary, entertainment, janitorial services, etc.)	333,000	366,300	402,930	443,223	487,545	536,300	589,930	648,923	713,815	785,197
Promotional expense	9,030,092	8,578,587	7,224,073	6,772,569	6,321,064	5,869,560	5,418,055	4,966,550	4,515,046	4,515,046
Insurance expense	911,746	820,571	729,396	638,222	547,047	455,873	364,698	273,524	182,349	91,175
Professional fees (legal, audit, consultants, etc.)	903,009	1,113,775	1,336,742	1,593,164	1,887,503	2,224,778	2,610,633	3,051,411	3,554,239	3,914,193
Depreciation expense	4,463,502	4,463,502	4,463,502	4,463,502	4,463,502	4,463,502	4,463,502	4,463,502	4,463,502	4,463,502
Amortization of pre-operating costs	1,051,512	1,051,512	1,051,512	1,051,512	1,051,512	-	-	-	-	-
Amortization of legal, licensing, and training costs	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000
Bad debt expense	3,612,037	4,455,101	5,346,967	6,372,655	7,550,010	8,899,111	10,442,531	12,205,644	14,216,954	15,656,771
Subtotal	29,501,320	30,964,914	31,681,744	33,573,630	35,770,346	37,257,001	40,177,514	43,526,036	47,353,536	51,103,777
Operating Income	1,862,737	15,737,530	33,296,785	54,006,103	79,436,271	111,398,591	148,653,420	193,232,202	246,245,924	290,920,898
Other income (interest on cash)	105,853	300,649	719,129	1,320,022	2,122,339	3,145,975	4,421,449	5,991,614	7,909,029	10,280,857
Earnings Before Interest & Taxes	1,968,590	16,038,178	34,015,914	55,326,125	81,558,610	114,544,567	153,074,869	199,223,816	254,154,953	301,201,755
Earnings Before Tax	1,968,590	16,038,178	34,015,914	55,326,125	81,558,610	114,544,567	153,074,869	199,223,816	254,154,953	301,201,755
Tax	185,289	4,733,362	11,025,570	18,484,144	27,665,513	39,210,598	52,696,204	68,848,335	88,074,233	104,540,614
<b>NET PROFIT/(LOSS) AFTER TAX</b>	<b>1,783,302</b>	<b>11,304,816</b>	<b>22,990,345</b>	<b>36,841,982</b>	<b>53,893,097</b>	<b>75,333,969</b>	<b>100,378,665</b>	<b>130,375,481</b>	<b>166,080,720</b>	<b>196,661,141</b>



## 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
<b>Assets</b>											
<i>Current assets</i>											
Cash & Bank	3,061,575	5,406,702	18,645,205	38,885,130	66,716,624	103,070,464	148,607,572	205,108,365	274,220,791	358,501,543	463,967,022
Accounts receivable		3,463,597	3,867,806	4,699,622	5,618,997	6,675,250	7,886,565	9,273,390	10,858,714	12,668,369	14,323,019
Finished goods inventory		3,175,272	3,674,723	4,223,370	4,821,331	5,472,600	6,181,501	6,952,712	7,791,297	8,702,745	9,183,623
Equipment spare part inventory	18,353	22,688	27,292	32,601	38,712	45,733	53,787	63,011	73,561	81,195	-
Raw material inventory	2,730,279	3,375,191	4,060,077	4,849,903	5,758,987	6,803,479	8,001,587	9,373,828	10,943,311	12,078,981	-
Pre-paid insurance	911,746	820,571	729,396	638,222	547,047	455,873	364,698	273,524	182,349	91,175	-
Total Current Assets	6,721,952	16,264,021	31,004,498	53,328,848	83,501,698	122,523,399	171,095,709	231,044,829	304,070,024	392,124,007	487,473,664
<i>Fixed assets</i>											
Land	12,000,000	12,000,000	12,000,000	12,000,000	12,000,000	12,000,000	12,000,000	12,000,000	12,000,000	12,000,000	12,000,000
Building/Infrastructure	32,855,500	31,212,725	29,569,950	27,927,175	26,284,400	24,641,625	22,998,850	21,356,075	19,713,300	18,070,525	16,427,750
Machinery & equipment	23,395,666	21,056,099	18,716,533	16,376,966	14,037,400	11,697,833	9,358,266	7,018,700	4,679,133	2,339,567	0
Furniture & fixtures	1,515,200	1,363,680	1,212,160	1,060,640	909,120	757,600	606,080	454,560	303,040	151,520	-
Office vehicles	2,654,207	2,388,786	2,123,366	1,857,945	1,592,524	1,327,104	1,061,683	796,262	530,841	265,421	-
Office equipment	642,200	577,980	513,760	449,540	385,320	321,100	256,880	192,660	128,440	64,220	-
Total Fixed Assets	73,062,773	68,599,271	64,135,768	59,672,266	55,208,764	50,745,261	46,281,759	41,818,257	37,354,755	32,891,252	28,427,750
<i>Intangible assets</i>											
Pre-operation costs	5,257,561	4,206,049	3,154,537	2,103,025	1,051,512	-	-	-	-	-	-
Legal, licensing, & training costs	50,000	45,000	40,000	35,000	30,000	25,000	20,000	15,000	10,000	5,000	-
Total Intangible Assets	5,307,561	4,251,049	3,194,537	2,138,025	1,081,512	25,000	20,000	15,000	10,000	5,000	-
<b>TOTAL ASSETS</b>	<b>85,092,287</b>	<b>89,114,340</b>	<b>98,334,803</b>	<b>115,139,138</b>	<b>139,791,974</b>	<b>173,293,661</b>	<b>217,397,468</b>	<b>272,878,086</b>	<b>341,434,779</b>	<b>425,020,259</b>	<b>515,901,414</b>
<b>Liabilities &amp; Shareholders' Equity</b>											
<i>Current liabilities</i>											
Accounts payable		2,595,412	3,057,351	3,506,443	3,993,775	4,522,167	5,094,641	5,714,435	6,385,016	7,097,415	7,215,768
Total Current Liabilities	-	2,595,412	3,057,351	3,506,443	3,993,775	4,522,167	5,094,641	5,714,435	6,385,016	7,097,415	7,215,768
<i>Other liabilities</i>											
Total Long Term Liabilities	-	-	-	-	-	-	-	-	-	-	-
<i>Shareholders' equity</i>											
Paid-up capital	85,092,287	85,092,287	85,092,287	85,092,287	85,092,287	85,092,287	85,092,287	85,092,287	85,092,287	85,092,287	85,092,287
Retained earnings		1,426,642	10,185,166	26,540,409	50,705,912	83,679,207	127,210,541	182,071,365	249,957,477	332,830,557	423,593,359
Total Equity	85,092,287	86,518,928	95,277,453	111,632,695	135,798,199	168,771,494	212,302,827	267,163,651	335,049,763	417,922,844	508,685,645
<b>TOTAL CAPITAL AND LIABILITIES</b>	<b>85,092,287</b>	<b>89,114,340</b>	<b>98,334,803</b>	<b>115,139,138</b>	<b>139,791,974</b>	<b>173,293,661</b>	<b>217,397,468</b>	<b>272,878,086</b>	<b>341,434,779</b>	<b>425,020,259</b>	<b>515,901,414</b>

## 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		1,783,302	11,304,816	22,990,345	36,841,982	53,893,097	75,333,969	100,378,665	130,375,481	166,080,720	196,661,141
Add: depreciation expense		4,463,502	4,463,502	4,463,502	4,463,502	4,463,502	4,463,502	4,463,502	4,463,502	4,463,502	4,463,502
amortization of pre-operating costs		1,051,512	1,051,512	1,051,512	1,051,512	1,051,512	-	-	-	-	-
amortization of training costs		5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000
Accounts receivable		(3,463,597)	(404,209)	(831,816)	(919,375)	(1,056,254)	(1,211,314)	(1,386,825)	(1,585,324)	(1,809,655)	(1,654,650)
Finished goods inventory		(3,175,272)	(499,451)	(548,647)	(597,961)	(651,269)	(708,901)	(771,211)	(838,586)	(911,447)	(480,878)
Equipment inventory	(18,353)	(4,335)	(4,604)	(5,309)	(6,111)	(7,021)	(8,054)	(9,224)	(10,550)	(7,634)	81,195
Raw material inventory	(2,730,279)	(644,912)	(684,885)	(789,826)	(909,084)	(1,044,492)	(1,198,108)	(1,372,241)	(1,569,484)	(1,135,670)	12,078,981
Advance insurance premium	(911,746)	91,175	91,175	91,175	91,175	91,175	91,175	91,175	91,175	91,175	91,175
Accounts payable		2,595,412	461,938	449,092	487,332	528,392	572,474	619,793	670,581	712,400	118,353
Other liabilities		-	-	-	-	-	-	-	-	-	-
Cash provided by operations	(3,660,378)	2,701,787	15,784,795	26,875,028	40,507,972	57,273,642	77,339,743	102,018,635	131,601,795	167,488,390	211,363,819
<i>Financing activities</i>											
Issuance of shares	85,092,287	-	-	-	-	-	-	-	-	-	-
Cash provided by / (used for) financing activities	85,092,287	-	-	-	-	-	-	-	-	-	-
<i>Investing activities</i>											
Capital expenditure	(78,370,334)	-	-	-	-	-	-	-	-	-	-
Acquisitions											
Cash (used for) / provided by investing activities	(78,370,334)	-	-	-	-	-	-	-	-	-	-
<b>NET CASH</b>	<b>3,061,575</b>	<b>2,701,787</b>	<b>15,784,795</b>	<b>26,875,028</b>	<b>40,507,972</b>	<b>57,273,642</b>	<b>77,339,743</b>	<b>102,018,635</b>	<b>131,601,795</b>	<b>167,488,390</b>	<b>211,363,819</b>

## 12.4 Machinery Details

Description	Required Quantity
Cylinder Mould Section	1
Dryer Section	1
Pope Reel Section	1
Main Machine With Electric Motor	1
Rolling Paper Section With Electric Motor	1
High Consistency Pulper	1
Vibrating Screen	1
Discs Refiner	1
Thruster	2
Bleaching Equipment	2
Pulp Pump (6 Inch)	1
Pulp Pump (4 Inch)	4
Pulp Pump (3 Inch)	1
Desander	4
Horizontal Mixer	2
Vacuum Pump	1
Suction Box	3
Centrifugal Screen Machine	1
Inclined Screen	2
Axial-Flow Fan	1
Exhaust Hood of Dryer (Double-Deck)	1
Air Compressor	1
Gas Boiler	1
Paper Convert Machine (Include Motor):	
Tissue Paper Slitting Rewinding Machine	1
Facial Tissue Paper Machine	1
Facial Tissue Paper Packing Machine for Plastic Bag	1

## 13 KEY ASSUMPTIONS

### 13.1 Operating Cost Assumptions

Description	Details
Administration Benefit Expense	10.0% of Admin Expense
Travelling Expense	5.0% of Admin Expense
Communication Expense	4.0% of Admin Expense
Office Vehicles Running Expense	35.0% of the Vehicle Cost
Office Expenses	5.0% of Admin Expense
Promotional Expense	5.0% of Revenue
Professional Fees (Legal, Audit, Consultants, Etc.)	0.5% of Revenue
Bad Debt Expense	2.0% of Revenue
Electricity Rate (Industrial)	Rs.20 /KWH
Diesel Consumption (Liters)	48 / Hour
Diesel Rate	Rs.107 /Litre
WAPDA Security Deposit (Rs. 2,010/ KWH)	Rs.402,000
SNGPL Security Deposit	Rs.2,555,561
WAPDA Connection Charges	Rs.200,000
SNGPL Connection Charges	Rs.200,000
Water Connection Charges	Rs.50,000
Product Legislation Cost	Rs.50,000
Depreciation Method	Straight Line
Depreciation Rate	10%
Inflation Rate	10%
Office Equipment Price Growth Rate	5%
Office Vehicles Price Growth Rate	10%

### 13.2 Production Cost Assumptions

Description	Details
Raw Material (135 Gram Box)	Fiber Pulp: Rs. 36.99 Chemical: Rs. 13.23 Waste: Rs. 2.01 Total: Rs.52.23 Per Box
Packaging	Rs.8 Per Box
Direct Gas	Rs.2.30 Per Box

Cost of Goods Sold Growth Rate	5.0%
Hours Operational / Day	16
Shift Length (Hours)	8
Days Operational / Year	300

### 13.3 Revenue Assumptions

Description	Details
Production Capacity Per Year (No. Of Boxes)	4,444,444
Production Capacity in Year 1	50%
Percentage Increase in Production Per Year	5%
Maximum Capacity Utilization	90%
Sale Price Growth Rate	10%

# Small and Medium Enterprises Development Authority

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