
Pre-Feasibility Study

COTTON TOWEL MANUFACTURING UNIT



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 the future is uncertain, and the actual results may differ substantially from the presented information. SMEDA, its employees, or agents do not assume any liability for any financial or other loss resulting from this memorandum in consequence of undertaking this activity. The contained information does not preclude any further professional advice to be obtained by the user. The prospective user of this memorandum is encouraged to carry out additional diligence and gather any information which is necessary for making an informed decision, including taking professional advice from a qualified consultant/technical expert before making any decision to act upon the information.

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2 EXECUTIVE SUMMARY

The towel is an important product used in everyday life. Towels and their allied products constitute an important sector of the textile industry. Towels are the second largest subsector of textile made ups in terms of production as well as exports.

This particular pre-feasibility study is for setting up a 'Cotton Towel Manufacturing Unit. The focus of the business would be to provide quality towels to cater for the needs of the local market. The unit will have an in-house weaving facility whereas the dyeing, stitching, finishing and packaging will be outsourced to reduce the initial capital investments. Towels are manufactured in various sizes, shapes and qualities depending upon customers' requirements. However, the proposed unit will produce standard towel of 4X2 ft. size. The produced towels will be sold to wholesalers and retailers in major cities. The major target customers includes, households, hotels, restaurants, gyms, and saloons customers.

The proposed business will have the capacity to produce 3.74 million towels per year. In the first year, the unit will operate at 70% capacity, and with an annual increase of 5%, a maximum capacity of 95% will be achieved in year 6. The selection of an appropriate location with easy accessibility of raw material, skilled manpower, infrastructure, allied services providers and access to the market is extremely vital for the success of this venture.

The total project cost is estimated at Rs. 306.47 million with a capital investment of Rs. 293.33 million and working capital Rs. 13.14 million. Based on an equity finance model, the project NPV is around Rs. 437.99 million, with an IRR of 39% and a Payback Period of 3.39 years. The project will provide employment opportunities to 51 people including the owner.

3 INTRODUCTION TO SMEDA

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

With a mission "to assist in employment generation and value addition to the national income, through the development of the SME sector, by helping increase the number, scale, and competitiveness of SMEs", SMEDA has carried out 'sectoral research' to identify policy, access to finance, business development services, strategic initiatives, and institutional collaboration and networking initiatives.

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

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

4 PURPOSE OF THE DOCUMENT

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

The purpose of this document is to facilitate potential investors in the **Cotton Towel Manufacturing** business, by providing them with a general understanding of the business to support 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

A towel is a piece of absorbent fabric used for drying or wiping a body or a surface. It draws moisture through direct contact, often using a blotting or a rubbing motion. Cotton is generally used in towel production, due to properties such as high-water absorbency, softness, colorfastness, and durability. The yarn used in the production of towels is 10/s and 16/s cotton. Polyester cotton yarn is also used to increase the strength of the product. There is a vast range of towel products such as, standard bathing towels, terry towels, warp pile fabric, dish cloth, wash cloth, floor cloth, bar mops, bathrobes, bath mats, dusters, kitchen towels etc.

The proposed project is for setting up a Cotton Towels Manufacturing Unit. This particular project will mainly produce standard cotton towels of 4X2 ft. size. The setting up of a vertical integrated towel manufacturing unit is very capital intensive. Therefore, the unit will have an in-house weaving facility for the production of grey cotton towel fabric whereas the process of dyeing, stitching, finishing and packaging

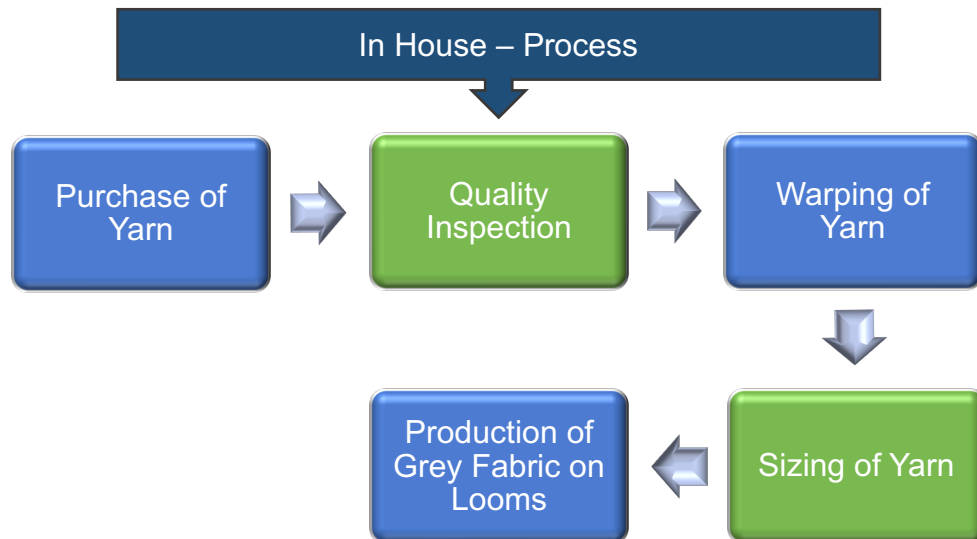
will be outsourced through subcontracting arrangements. This is a very common practice among the SMEs, mainly due to avoid the high initial capital investments.

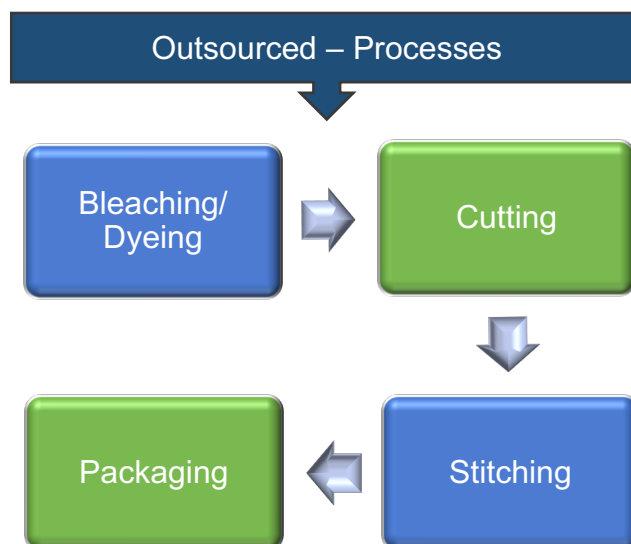
The unit will be equipped with 20 Ravier Looms, each of the loom having a capacity to produce 5.2 meter of grey towel fabric per hour. Looms will be imported whereas cotton yarn will be procured from the local market. The ideal location for the unit is any major industrial with textile industrial base to have easy access to required technical and infrastructure resources. The cost estimates and financial working are based on sales to the local market across Pakistan. The produce towels will be sold through wholesalers and retailers. The legal business status of this project is assumed to be 'Sole Proprietorship.'

5.1 Production Process

The In-house process will include the purchase of yarn, warping, sizing, and production of grey fabric on looms. The rest of the process from dyeing to packaging will be outsourced to cut down the initial cost of investment and to speed-up the production. The process flow diagram is provided in the following section.

Figure 1: Production Process Flow





5.2 Installed and Operational Capacities

The proposed manufacturing unit will have the installed capacity to produce 3.74 million standard sized cotton towels (4X2 ft. size) per annum. However, the initial operating capacity of the project will be 70% (i.e. 2.62 million towels) with an annual increase of 5% in subsequent years up to a maximum operational capacity of 95% in the 6th year of operations.

Table 1: Installed and Operational Capacity

Product Description	Total Installed Capacity (No.)	Operational Capacity 70% - Year 1 (No.)	Maximum Operational Capacity 95% - Year 6 (No.)
Cotton Towels (4X2 ft. size)	3,742,193	2,619,535	3,555,083

6 CRITICAL SUCCESS FACTORS

Following are critical success factors associated with this business:

- Technical know-how and relevant experience in the textile industry, especially weaving and made-ups production.
- 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.
- Conforming to the recognized standards of production to improve quality. ISO certification can be helpful in this regard.
- Long-term partnerships with buyers to grow and sustain the business.
- Ability to generate work orders through appropriate networking and direct marketing.
- Employing standard methods of training, which involves basic training for unskilled people to impart technical skills required for production.

7 GEOGRAPHICAL POTENTIAL FOR INVESTMENT

The clusters of towels industry exist predominantly in Karachi, Gujranwala, Faisalabad and Lahore. As most of the manufacturers are based in these major cities, therefore it is recommended that such units should be located in any of these cities. However, the basic criteria for the selection of location within these clusters should be the accessibility of raw material and skilled manpower.

Based on the investment strategy, it is recommended to find a location with easy and close access to other allied services units like dyeing, finishing, stitching and packaging. It is also important to find a location where utilities especially electricity and other infrastructure are conveniently available.

8 POTENTIAL TARGET CUSTOMERS / MARKETS

Potential target customers for the produced cotton towels will mainly comprise of the two main segments, i.e. General Household Consumers and Business Buyers (Hotels, Restaurants, Gyms, and Saloons etc.).

Since, majority of the target customer belongs to the general consumer segments, therefore both urban and semi urban cities will be the potential markets for the produced cotton towels. Customers will be targeted through wholesalers and retailers.

9 PROJECT COST SUMMARY

A detailed financial model has been developed to analyze the commercial viability of the cotton towel manufacturing unit. Various cost and revenue-related assumptions along with the results of the analysis are outlined in this section.

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

9.1 Project Economics

All the figures in this financial model have been calculated for estimated sales of Rs. 263.59 million in year one. The capacity utilization during year one is worked out at 70% with a 5% increase in subsequent years up to the maximum capacity utilization of 95% in year 6.

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

Table 2: Project Economics (Equity Financed)

Description	Details
Internal Rate of Return (IRR)	39%
Payback Period (Yrs.)	3.39
Net Present Value (Rs.)	437,997,402

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	81,883,641	78,725,067	76,722,473	75,537,328	75,064,959	73,999,321	74,944,317	76,423,246	78,433,298	80,986,863
Break-Even Units	779,844	681,602	603,876	540,498	488,289	437,598	402,896	373,497	348,473	327,108
Margin of Safety	69%	76%	80%	83%	85%	88%	89%	89%	90%	91%

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

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

Description	Details
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Internal Rate of Return (IRR)	40%
Payback Period (Yrs.)	3.30
Net Present Value (Rs.)	567,008,464

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
Debt Payment / Year	2

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

9.2 Project Cost

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

Table 5: Project Cost

Description	Amount Rs.
Capital Cost	
Land	160,000,000
Machinery and Equipment	67,800,491
Building / Infrastructure	54,769,081
Office Vehicles	5,230,237
Pre-Operating Costs	3,438,000
Furniture and Fixtures	1,183,700
Office Equipment	906,100
Total Capital Cost	293,327,609
Working Capital	
Cash	5,534,357

Raw Material Inventory	4,211,490
Upfront Insurance Payment	2,556,075
Equipment Spare Part Inventory	836,796
Total Working Capital	13,138,718
Total Project Cost	306,466,327

9.3 Land and Building Requirement

Approximately 8 Kanals of land would be required for the establishment of the proposed unit, it is recommended that required land should be procured in the industrial estates of identified city. The cost of land is estimated at the rate of Rs. 20 million per Kanal.

The infrastructural requirements of the project mainly comprise the construction of a production hall, warehouses for storage of raw materials and finished goods, admin block for offices of production and administration staff. The cost of construction of building for the proposed unit is provided in the table below.

Table 6: Infrastructure Requirement

Description	Area (Sq.ft.)	Unit Cost (Rs.)	Total Cost (Rs.)
Production Facility	21,000	1,500	31,500,000
Warehouse	9,650	1,500	14,475,000
Management Building	1,125	2,500	2,812,500
Quality Lab & Cafeteria	1,300	1,500	1,950,000
Mosque	450	2,500	1,125,000
Pavement / Driveway	1,350	150	202,500
Electric Room	80	1,500	120,000
Grounds	1,045	50	52,250
Boundary Wall & Main Gate	920 Running Ft.	1,300	1,196,000
Building Design and Consultancy Cost			1,335,831
Total Infrastructure			54,769,081

9.4 Machinery and Equipment Requirement

Machinery and equipment for the proposed project are stated below.

Table 7: Machinery and Equipment

Description	Quantity	Unit Cost (Rs.)	Total Cost (Rs.)
Rapier Looms (Imported)	20	1,848,676	36,973,520
Customs Duty, Sales Tax, Clearance Charges, etc.			25,673,601
Installation / Fabrication Cost	1	1,500,000	1,500,000
Generator (100 KVA, Diesel)	1	1,470,000	1,470,000
Transformer (100 KVA)	1	948,870	948,870
Lab Equipment	1	500,000	500,000
Industrial Exhaust Fans	10	38,650	386,500
Stacker	6	58,000	348,000
Total			67,800,491

9.5 Furniture and Fixtures Requirement

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

Table 8: Furniture and Fixture

Description	Quantity	Unit Cost (Rs.)	Total Cost (Rs.)
Air conditioners	4	83,000	332,000
Table	18	17,200	309,600
Sitting Chairs	27	6,700	180,900
Fans	31	4,500	139,500
Tube Lights	82	800	65,600
Carpeting	50	1,250	62,500
Wires and DB's	1	30,000	30,000
Exhaust Fans	9	3,000	27,000
Sofa Set	1	25,000	25,000
Guest Chairs	2	5,800	11,600
Total			1,183,700

9.6 Office Equipment Requirement

Following office equipment will be required for Cotton Towel Manufacturing Unit.

Table 9: Office Equipment

Description	Quantity	Unit Cost (Rs.)	Total Cost (Rs.)
Laptops	5	60,500	302,500
Computers for Staff	8	25,000	200,000
Fridge	2	51,500	103,000
UPS for Computers	1	95,000	95,000
Water Cooler	2	45,000	90,000
LED for Meeting Room	1	32,500	32,500
Computer printer (s)	2	13,200	26,400
Fire Extinguishers	5	4,500	22,500
Telephones	16	1,200	19,200
Microwave Oven	2	7,500	15,000
Total			906,100

9.7 Vehicles Requirement

Vehicles are required for transportation of raw material, semi-finished and finished goods. Two trucks are recommended to ensure smooth movement of semi-finished woven towels to the subcontractors providing finishing services i.e., dyeing, cutting, stitching, packaging etc. Details of the vehicles required for the project are given below.

Table 10: Vehicles Requirement

Description	Quantity	Unit Cost (Rs.)	Total Cost (Rs.)
Honda CD 70	1	77,900	77,900
Mazda Pickup Truck	2	2,500,000	5,000,000
Registration Charges			152,337
Total			5,230,237

9.8 Raw Material Requirement

The main raw material required for manufacturing cotton towels is yarn. Following are the details of raw material required.

Table 11: Cost of Raw Material (Year 1)

Description	Unit	Rate / Unit (Rs.)	Quantity Sold	Total Cost (Rs.)
Yarn	No. of Towels	27.06	2,510,388	67,931,099
Dying, Cutting & Stitching (Outsourced)	No. of Towels	8.21	2,510,388	20,610,285
Packing (Outsourced)	No. of Towels	5	2,510,388	12,551,940
Total		40.27		101,093,324

9.9 Human Resource Requirement

In order to run the operations of the cotton towel manufacturing unit smoothly, details of human resources required along with a number of employees and monthly salary are recommended as under:

Table 12: Human Resource Requirement

Description	No. of Employees	Monthly Salary Per Person (Rs.)
CEO	1	200,000
Master	2	150,000
Foreman	2	70,000
Finance Manager	1	60,000
Sales Manager	1	50,000
Weaver In charge	2	50,000
Quality Supervisor	2	50,000
Mechanic	2	35,000
Weavers	10	35,000
Procurement Manager	1	30,000
Admin / IT / HR Officer	3	30,000

Electrician	1	30,000
Warehouse In charge	2	30,000
Accounts Officer	4	25,000
Sales Officer	2	25,000
Driver	3	25,000
Assistant Store Keeper	4	20,000
Security Guard	6	18,000
Office Boy	2	18,000
Total	51	

9.10 Utilities and Other Costs

An essential cost to be borne by the project is the total electricity expense, which is calculated as direct electricity consumption in production and indirect electricity consumption other than production. Total electricity cost is estimated to be Rs. 8.23 million in year 1 with a 10% increase in subsequent years. Other expenses such as communication (Rs. 0.49 million), office expenses (Rs. 0.80 million) and traveling (Rs. 0.80 million) are estimated in year 1. Furthermore, promotional expense being essential for marketing of the proposed unit is estimated at Rs. 5.2 million.

9.11 Revenue Generation

Based on the operational capacity utilization of 70%, sales revenue during the first year of operations is provided in the table below.

Table 13: Revenue Generation (Year 1)

Description	Rate / Unit (Rs.)	No. of Units Sold*	Total Revenue (Rs.)
Cotton Towels	105	2,510,388	263,590,730

*15 days finished goods inventory is considered while calculating the number of towels sold during year 1.

10 CONTACT DETAILS

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

Name Of Supplier	Type of Supplies	Website/Email	Phone
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Alibaba	Machinery	www.alibaba.com	
Wood Pecker	Office Furniture	www.apnafurniture.pk	0331-8999222

11 USEFUL WEB LINKS

Small and Medium Enterprises Development Authority (SMEDA)	www.smeda.org.pk
Government of Pakistan	www.pakistan.gov.pk
Ministry of Industries and Production	www.moip.gov.pk
Government of Punjab	www.punjab.gov.pk
Government of Sindh	www.sindh.gov.pk
Government of Khyber Pakhtunkhwa	www.khyberpakhtunkhwa.gov.pk
Government of Balochistan	www.balochistan.gov.pk
Government of Gilgit Baltistan	www.gilgitbaltistan.gov.pk
Government of Azad Jammu Kashmir	www.ajk.gov.pk
State Bank of Pakistan (SBP)	www.sbp.org.pk
Federation of Pakistan Chambers of Commerce and Industry (FPCCI)	www.fpcci.com.pk
Security and Exchange Commission of Pakistan (SECP)	www.secp.gov.pk
Trade Development Authority of Pakistan (TDAP)	www.tdap.gov.pk
Technical Education and Vocational Training Authority (TEVTA)	www.tevta.org
All Pakistan Particleboards Manufacturers Association	www.appbma.org
Punjab Industrial Estates (PIE)	www.pie.com.pk
Punjab Small Industries Corporation	www.psic.gop.pk
Sindh Small Industries Corporation	www.ssic.gos.pk
Faisalabad Industrial Estate Development & Management Company	www.fiedmc.com.pk
Towel Manufacturer Association of Pakistan	www.towelassociation.com

12 ANNEXURES

12.1 Income Statement

Calculations										SMEDA
Income Statement										
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Revenue	263,590,730	323,267,017	379,366,001	443,452,111	516,561,783	599,858,869	661,294,964	727,424,461	800,166,907	880,183,597
<i>Cost of sales</i>										
Total COGS	88,523,815	103,630,596	116,086,474	129,528,863	144,025,275	159,647,507	167,998,299	176,398,214	185,218,125	194,479,031
Packing Cost	12,551,940	14,693,955	16,460,095	18,366,114	20,421,584	22,636,687	23,820,759	25,011,797	26,262,387	27,575,507
Operation costs 1 (direct labor)	13,800,000	15,796,000	17,378,625	19,119,424	21,034,237	23,140,486	25,510,478	28,061,526	30,867,679	33,954,447
Operating costs 2 (machinery maintenance)	20,083,103	22,838,605	24,852,728	26,938,281	29,097,314	31,331,934	32,028,811	32,669,388	33,322,775	33,989,231
Operating costs 3 (direct electricity)	7,737,156	9,223,236	11,076,485	13,360,411	16,184,686	19,686,084	22,854,851	26,684,745	31,314,171	36,910,557
Operating costs 4 (Carriage & Transportation)	5,648,373	6,612,280	7,407,043	8,264,751	9,189,713	10,186,509	10,719,342	11,255,309	11,818,074	12,408,978
Total cost of sales	148,344,386	172,794,672	193,261,450	215,577,843	239,952,809	266,629,206	282,932,541	300,080,980	318,803,212	339,317,750
Gross Profit	115,246,344	150,472,345	186,104,551	227,874,267	276,608,974	333,229,663	378,362,423	427,343,481	481,363,694	540,865,847
<i>General administration & selling expenses</i>										
Administration expense	9,948,000	10,942,800	12,037,080	13,240,788	14,564,867	16,021,353	17,623,489	19,385,838	21,324,421	23,456,864
Administration benefits expense	994,800	1,094,280	1,203,708	1,324,079	1,456,487	1,602,135	1,762,349	1,938,584	2,132,442	2,345,686
Electricity expense	495,348	544,883	599,371	659,308	725,239	797,763	877,539	965,293	1,061,822	1,168,005
Water expense	60,000	63,000	66,150	69,458	72,930	76,577	80,406	84,426	88,647	93,080
Gas expense	180,000	189,000	198,450	208,373	218,791	229,731	241,217	253,278	265,942	279,239
Travelling expense	795,840	875,424	962,966	1,059,263	1,165,189	1,281,708	1,409,879	1,550,867	1,705,954	1,876,549
Communications expense (phone, fax, mail, internet, etc.)	497,400	547,140	601,854	662,039	728,243	801,068	881,174	969,292	1,066,221	1,172,843
Office vehicles running expense	104,605	115,065	126,572	139,229	153,152	168,467	185,314	203,845	224,230	246,653
Office expenses (stationary, entertainment, janitorial services, etc.)	795,840	875,424	962,966	1,059,263	1,165,189	1,281,708	1,409,879	1,550,867	1,705,954	1,876,549
Promotional expense	5,271,815	5,008,224	4,757,813	4,519,922	4,293,926	4,079,230	3,875,268	3,681,505	3,497,430	3,322,558
Insurance expense	2,556,075	2,300,468	2,044,860	1,789,253	1,533,645	1,278,038	1,022,430	766,823	511,215	255,608
Professional fees (legal, audit, consultants, etc.)	527,181	646,534	758,732	886,904	1,033,124	1,199,718	1,322,590	1,454,849	1,600,334	1,760,367
Depreciation expense	10,250,507	10,250,507	10,250,507	10,250,507	10,250,507	10,250,507	10,250,507	10,250,507	10,250,507	10,250,507
Amortization of pre-operating costs	687,600	687,600	687,600	687,600	687,600	-	-	-	-	-
Bad debt expense	2,635,907	2,504,112	2,378,906	2,259,961	2,146,963	2,039,615	1,937,634	1,840,752	1,748,715	1,661,279
Subtotal	35,800,918	36,644,461	37,637,536	38,815,946	40,195,852	41,107,617	42,879,675	44,896,725	47,183,833	49,765,786
Operating Income	79,445,426	113,827,884	148,467,015	189,058,321	236,413,121	292,122,046	335,482,747	382,446,756	434,179,861	491,100,061
Other income (interest on cash)	784,137	2,352,844	4,376,010	6,790,086	9,660,907	13,055,699	16,904,495	21,110,395	25,700,227	30,881,749
Earnings Before Interest & Taxes	80,229,563	116,180,729	152,843,024	195,848,407	246,074,029	305,177,744	352,387,242	403,557,151	459,880,088	521,981,809
Tax	27,200,347	39,783,255	52,615,058	67,666,942	85,245,910	105,932,210	122,455,534	140,365,003	160,078,030	181,813,633
NET PROFIT/(LOSS) AFTER TAX	53,029,216	76,397,474	100,227,966	128,181,465	160,828,119	199,245,534	229,931,708	263,192,149	299,802,057	340,168,176

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	5,534,357	57,196,605	131,030,937	219,049,830	324,157,031	448,715,548	595,740,341	756,619,235	932,212,395	1,123,805,757	1,346,734,131
Accounts receivable		5,055,165	5,627,403	6,737,577	7,890,037	9,205,613	10,705,404	12,093,256	13,316,488	14,648,136	16,112,950
Finished goods inventory		6,449,756	7,219,833	8,073,585	9,004,480	10,021,231	11,133,967	11,788,856	12,503,374	13,283,467	14,138,240
Equipment spare part inventory	836,796	999,189	1,141,672	1,299,351	1,473,665	1,666,182	1,788,403	1,915,380	2,051,371	2,197,019	-
Raw material inventory	4,211,490	5,028,793	5,745,894	6,539,472	7,416,774	8,385,687	9,000,809	9,639,866	10,324,297	11,057,322	-
Pre-paid insurance	2,556,075	2,300,468	2,044,860	1,789,253	1,533,645	1,278,038	1,022,430	766,823	511,215	255,608	-
Total Current Assets	13,138,718	77,029,976	152,810,599	243,489,068	351,475,632	479,272,298	629,391,354	792,823,415	970,919,141	1,165,247,309	1,376,985,321
<i>Fixed assets</i>											
Land	160,000,000	160,000,000	160,000,000	160,000,000	160,000,000	160,000,000	160,000,000	160,000,000	160,000,000	160,000,000	160,000,000
Building/Infrastructure	54,769,081	52,030,627	49,292,173	46,553,719	43,815,265	41,076,811	38,338,357	35,599,903	32,861,449	30,122,995	27,384,541
Machinery & equipment	67,800,491	61,020,442	54,240,393	47,460,343	40,680,294	33,900,245	27,120,196	20,340,147	13,560,098	6,780,049	-
Furniture & fixtures	1,183,700	1,065,330	946,960	828,590	710,220	591,850	473,480	355,110	236,740	118,370	-
Office vehicles	5,230,237	4,707,213	4,184,190	3,661,166	3,138,142	2,615,119	2,092,095	1,569,071	1,046,047	523,024	-
Office equipment	906,100	815,490	724,880	634,270	543,660	453,050	362,440	271,830	181,220	90,610	-
Total Fixed Assets	289,889,609	279,639,102	269,388,595	259,138,088	248,887,582	238,637,075	228,386,568	218,136,061	207,885,554	197,635,047	187,384,541
<i>Intangible assets</i>											
Pre-operation costs	3,438,000	2,750,400	2,062,800	1,375,200	687,600	-	-	-	-	-	-
Total Intangible Assets	3,438,000	2,750,400	2,062,800	1,375,200	687,600	-	-	-	-	-	-
TOTAL ASSETS	306,466,327	359,419,478	424,261,995	504,002,357	601,050,814	717,909,373	857,777,922	1,010,959,476	1,178,804,695	1,362,882,356	1,564,369,862
Liabilities & Shareholders' Equity											
<i>Current liabilities</i>											
Accounts payable		5,226,856	6,084,276	6,790,608	7,550,289	8,366,961	9,222,137	9,674,101	10,128,290	10,605,108	10,522,347
Total Current Liabilities	-	5,226,856	6,084,276	6,790,608	7,550,289	8,366,961	9,222,137	9,674,101	10,128,290	10,605,108	10,522,347
<i>Shareholders' equity</i>											
Paid-up capital	306,466,327	306,466,327	306,466,327	306,466,327	306,466,327	306,466,327	306,466,327	306,466,327	306,466,327	306,466,327	306,466,327
Retained earnings		47,726,295	111,711,392	190,745,422	287,034,198	403,076,086	542,089,458	694,819,049	862,210,078	1,045,810,922	1,247,381,188
Total Equity	306,466,327	354,192,621	418,177,718	497,211,749	593,500,525	709,542,412	848,555,784	1,001,285,376	1,168,676,404	1,352,277,248	1,553,847,515
TOTAL CAPITAL AND LIABILITIES	306,466,327	359,419,478	424,261,995	504,002,357	601,050,814	717,909,373	857,777,922	1,010,959,476	1,178,804,695	1,362,882,356	1,564,369,862

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		53,029,216	76,397,474	100,227,966	128,181,465	160,828,119	199,245,534	229,931,708	263,192,149	299,802,057	340,168,176
Add: depreciation expense		10,250,507	10,250,507	10,250,507	10,250,507	10,250,507	10,250,507	10,250,507	10,250,507	10,250,507	10,250,507
amortization of pre-operating costs		687,600	687,600	687,600	687,600	687,600	-	-	-	-	-
Accounts receivable		(5,055,165)	(572,238)	(1,110,174)	(1,152,460)	(1,315,576)	(1,499,791)	(1,387,852)	(1,223,232)	(1,331,649)	(1,464,814)
Finished goods inventory		(6,449,756)	(770,077)	(853,752)	(930,895)	(1,016,751)	(1,112,736)	(654,889)	(714,518)	(780,093)	(854,772)
Equipment inventory	(836,796)	(162,393)	(142,483)	(157,679)	(174,314)	(192,517)	(122,221)	(126,977)	(135,992)	(145,647)	2,197,019
Raw material inventory	(4,211,490)	(817,304)	(717,100)	(793,578)	(877,302)	(968,913)	(615,122)	(639,057)	(684,431)	(733,025)	11,057,322
Advance insurance premium	(2,556,075)	255,608	255,608	255,608	255,608	255,608	255,608	255,608	255,608	255,608	255,608
Accounts payable		5,226,856	857,420	706,331	759,681	816,672	855,177	451,963	454,190	476,818	(82,761)
Cash provided by operations	(7,604,361)	56,965,170	86,246,709	109,212,829	136,999,890	169,344,748	207,256,955	238,081,010	271,394,280	307,794,575	361,526,284
<i>Financing activities</i>											
Issuance of shares	306,466,327	-	-	-	-	-	-	-	-	-	-
Purchase of (treasury) shares											
Cash provided by / (used for) financing activities	306,466,327	-	-	-	-	-	-	-	-	-	-
<i>Investing activities</i>											
Capital expenditure	(293,327,609)	-	-	-	-	-	-	-	-	-	-
Acquisitions											
Cash (used for) / provided by investing activities	(293,327,609)	-	-	-	-	-	-	-	-	-	-
NET CASH	5,534,357	56,965,170	86,246,709	109,212,829	136,999,890	169,344,748	207,256,955	238,081,010	271,394,280	307,794,575	361,526,284

13 KEY ASSUMPTIONS

13.1 Operating Cost Assumptions

Description	Details
Administration Benefits Expense	10.0% of Admin Expense
Traveling Expense	8.0% of Admin Expense
Communication Expense	5.0% of Admin Expense
Office Expenses (Stationary, Entertainment, Janitorial Services, Etc.)	8.0% of Admin Expense
Office Vehicles Running Expense	2.0% of Revenue
Promotional Expense	2.0% of Revenue
Professional Fees (Legal, Audit, Consultants, Etc.)	0.2% of Revenue
Bad Debt Expense	1.0% of Revenue
Machinery and Equipment Insurance Rate	3.5%
Office Vehicles Insurance Rate	3.5%
Depreciation Method	Straight Line
Depreciation Rate	10%
Inflation Rate	10%
Electricity Growth Rate	10%
Wage Growth Rate	10%

13.2 Production Cost Assumptions

Description	Details
Raw Material -Yarn	Rs.27.06 Per Towel
Bleaching/ Dyeing	Rs 3.21 Per Towel
Waste	Rs 2.00 Per Towel
Stitching	Rs 1.50 Per Towel
Cutting	Rs 1.50 Per Towel
Packaging	Rs. 5 Per Towel
Cost of Goods Sold Growth Rate	5.0%
Hours Operational / Day	24

No. of Shifts	2
Shift Length (Hours)	12

13.3 Revenue Assumptions

Description	Details
Production Capacity	3.7 Million Towels Per Year
Sale Price Per Unit in Year 1	Rs. 105 Per Towel
Per Loom Capacity	125 Meters Per 24 Hours
Operational Days in a Year	300
Sale Price Growth Rate	10%
Production Capacity Utilization	70%
Production Capacity Utilization Growth Rate	5%
Maximum Capacity Utilization	95%