

Pre-Feasibility Study

FABRIC WEAVING UNIT

(Auto Looms)



Small and Medium Enterprises Development Authority

Ministry of Industries & Production

Government of Pakistan

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August 2007

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1. INTRODUCTION

1.1 Textile Sector of Pakistan

Pakistan is amongst the leading producers of cotton in the world. To make full use of its abundant resources, the development of Textile Industry has been a priority area towards industrialization and export growth. Textile Industry is the major economic sector of Pakistan and for quite some time to come it will continue to be the main driving force in the industrial and agriculture area.

1.2 Textile contribution to Exports¹

Pakistan's textile industry ranks amongst the top in the world. Pakistan is world's fourth largest producer of cotton and the third largest consumer of the same. Cotton based textiles contribute over 60%¹ to the total exports which amounts to around 5.2 billion US dollars. In Asia, Pakistan is the 8th largest exporter of textile products. The industry contributes around 46% to the total output produced in the country. The availability of cheap labor and basic raw cotton as raw material for textile industry has played the principal role in the growth of the Cotton

1.3 Established Capacity²

The textile industry of Pakistan has a total established spinning capacity of 1550 million kgs of yarn, weaving capacity of 4368 million square meters of fabric and finishing capacity of 4000 million square meters. The industry has a production capacity of 670 million units of garments, 400 million units of knitwear and 53 million kgs of towels.

The industry has a total of 1221 units engaged in ginning and 442 units engaged in spinning. There are around 124 large units that undertake weaving and 425 small units. There are around 20600 power looms in operation in the industry. The industry also houses around 10 large finishing units and 625 small units. Pakistan's textile industry has about 50 large and 2500 small garment manufacturing units. Moreover, it also houses around 600 knitwear-producing units and 400 towel-producing units.

1.4 Contribution to GDP and employment²

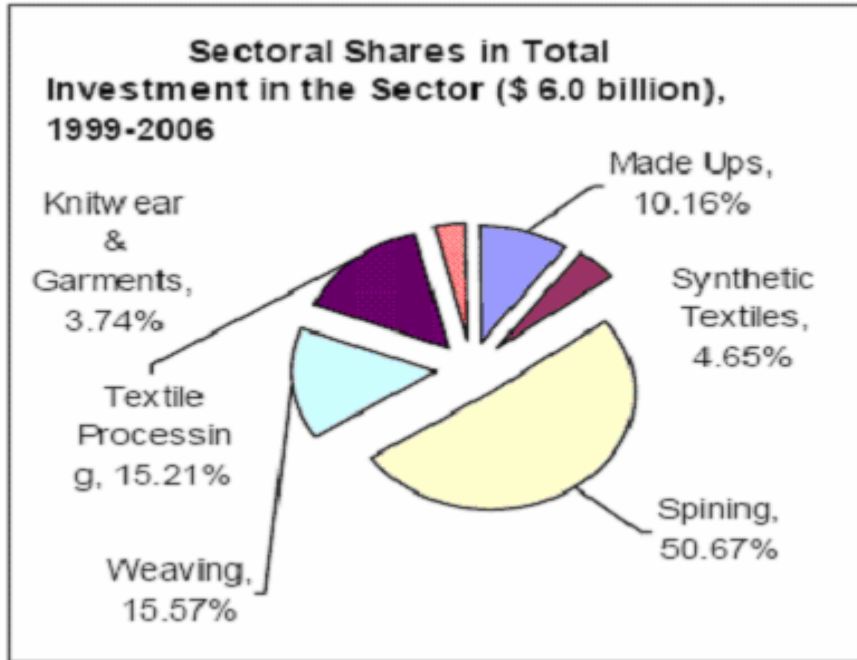
The contribution of this industry to the total GDP is 8.5%. It provides employment to 38% of the work force in the country, which amounts to a figure of 15 million. However, the proportion of skilled labor is very less as compared to that of unskilled labor.

¹ Source: Economic Survey of Pakistan 2006-07

² Source: Textile Information and Web Guide, www.textileinfo.net

1.5 Weaving Sector in Pakistan

Weaving sector is one of the most important textile sub-sectors. The exports of woven fabrics and other woven made ups comprise a major portion of textile exports from Pakistan.



Out of total world fabric trade of \$18 billion, Pakistan's share was about \$1.906⁴ billion in the year 2006-2007, which highlights the key position of Pakistan in the world textile trade. Other than direct fabric exports, Pakistan has also emerged as a leading exporter of woven made-ups with a value of more than \$1.922⁴ billion in the year 2006-2007.

1.6 Project Brief

This is a project of fabric weaving unit and is based on Auto Loom technology. The fabric quality produced on these looms is meant both for the local industry and for export purpose. This export can either be in the form of fabric or in the form of woven made-ups and hence will contribute in the earning of foreign exchange for the country.

The unit size as of 72 looms proves to be the best possible economically viable unit size as of this number of looms utilizes manpower most optimally. Therefore, a generic feasibility study has been prepared while taking 72 number of looms as a base figure. The complete project details of 72 wider width Auto Looms have been covered in this section.

³ Economic Survey 2006-07

⁴ Source: Federal Bureau of Statistics (FBS)

1.7 Opportunity Rationale

The world demand for textiles is rising at around 2.5%⁵, due to which there is a greater opportunity for rise in exports from Pakistan. Weaving sector is comprised of two types of setups. One is the organized mill sector and the other is the unorganized non-mill sector. The non-mill-weaving sector, which is also called the Auto/Power Loom sector, supplies the majority of the fabric in the country.

Pakistan exported about 2.211⁶ billion square meters of fabric in the year Jul – Jun 2006-07. Estimated share of Power Looms in fabric exports is about 60%, with a value of more than \$500 million. Besides exporting, this sector also supplies fabric to manufacturers and exporters of the garments/made-ups in the domestic market.

The Power Loom sector employ's low level of technology and hence has low productivity and quality. The fabric manufactured on Power Looms is of inferior quality and is unable to fetch high unit value in the international markets. Also, due to technical limitations (i.e. shorter width), it does not produce the specifications, which are required in the international market.

The diversification of the garments/made-ups sector is not possible without modernization of the non-mill-weaving sector. Installation of the modern looms is therefore, necessary to upgrade the product quality, reduce production cost, strengthen the competitiveness and stabilize the operations so as to be more profitable.

1.7.1 High Growth Rate in the Export of Made-Ups

Export of made-ups from Pakistan, basically comprises of bed sheets and pillow covers. The basic material used in these bed sheets/pillow covers is printed fabric and the primary source of supply of this fabric in raw form is the Auto Loom sector.

Table 1-1 Made-ups (Incl. Bed Wear) Exports from Pakistan (Value in Million \$)⁶

2001-02	2002-03	2003-04	2004-05	2005-06	2006-07
1,269	1,688	1,799	1,915	2,455	2,467

Above table shows the export value of made-ups over the period 2006-07. A fruitful growth rate can be seen in the export of made-ups. The average growth rate during this period is approximately 15% per year.

As the exports of textile made-ups directly relate to the fabric production of Auto Loom sector, we can forecast that high growth rate in the exports is a favorable market factor for this sector.

⁵ Source: Textile Information and Web Guide, www.textileinfo.net

⁶ Source: Export from Pakistan by TDAP (Trade Development Authority of Pakistan)

Through technology up-gradation of this sector, the quality of fabric will improve and it will allow for production of wider width fabric for made-ups in the export markets.

1.7.2 Quotas & Import Tariffs

According to WTO agreement, quotas are being phased out and import tariffs are being reduced in the major importing markets of textile items from Pakistan. By the year 2005, all quota restrictions were eliminated and tariffs were reduced to minimum limits.

The European Union has already increased the quota limits for Pakistan and reduced the import duties on textile products from Pakistan. This has shown a very positive impact on the textile exports of Pakistan, especially the textile fabrics and made-ups. This changing scenario of world trade is going to have a very positive impact on the exports of textile products from Pakistan, especially fabrics and made-ups.

Keeping in view the export growth rates of made-ups from Pakistan during the last few years, post quota years will be having a multiplier effect on the made-ups export from Pakistan. The Auto Loom sector is the major source of raw material of grey fabric to be converted into printed fabric and ultimately into bed sheets and pillow covers. It is expected that demand will increase for this sector in the coming days. If this sector is equipped with better technology and produce better quality products, it will certainly fetch better unit values and more value and quantity of exports.

1.7.3 Raw Material Mechanics

From mid 1990's and onward, the spinning industry of Pakistan has been facing hard times, mainly because of bad cotton crops during this time period. This raised the yarn prices in the local market and adversely affected the performance of the main consumer of that raw material i.e. Auto Loom sector.

However, since the year 2000 onward, the spinning industry in the country has got a positive shift. Most of the closed spinning units are functional again and heavy investment has been made for Balancing, Modernization & Rehabilitation (BMR) of the spinning industry during the year 2000-2001.

Because of this, it is forecasted that now the supply of yarn in the local market will be stable and the variations in the yarn prices will be limited.

1.8 Proposed Capacity

The proposed project size is 72 new wider width Auto Looms

1.9 Total Project Cost

The total cost of the project is about Rs. 17.921 million

2. INDUSTRY STRUCTURE

2.1 Current Structure of industry

Weaving sector of Pakistan is comprised of both the organized and the unorganized sectors. The organized sector⁷ has shuttle-less and Air-Jet looms. Shuttle-less looms are either the Projectile or Rapier type. The un-organized sector called "Power Loom" sector has about 225,000 looms. Major known Power Loom clusters are in Faisalabad, Gujranwala, Gujrat, Multan, Karachi, Kasur and Jhang. However, Faisalabad is the biggest cluster in Pakistan, having about 125,000 Power Looms.

Power Loom sector in Pakistan is highly fragmented and is based on cottage/small scale and unorganized manufacturing clusters. Out of 225,000 total looms in this sector, 90% consists of basic Power Looms units and 10% are equipped with an auto cop changer, which are called Auto Looms.

There are a substantial number of units in this sector, which have 50 to 100 looms in a single premise as one unit.

Historically, Power Looms industry started on a cottage scale in the country. Even in present days, major chunk of the industry is based on small home-based units. Mostly, the owners and their family members themselves are managing these units. However, eventually with the increase in the number of looms, these families have been multiplying the number of their units and looms. Under the existing set-up, same family can own a multiple of units but they keep the size of one unit as low as maximum of eight looms per unit. In this way, they try to get the benefit of tax and avoid formal documentation that may be required by different Government agencies.

There are two representative Associations of this sector. "Pakistan Small Units Power Looms Association" represents those units having up to eight looms and "All Pakistan Cotton Power Looms Association" represents those units having more than eight looms. Different clusters have their independent Associations as well.

Since the last 5 to 10 years, the numbers of independent loom units with 24 looms (or above) have been increasing. These units are comparatively more structured and have formal set-ups as compared to cottage units. It has been observed that a substantial number of units with 100 looms or above do exist in the main clusters as well.

It has also been observed that traditionally, there is no concept of formal bank financing in this sector to establish new projects or to expand an existing one. Most of the projects are based on 100% self-financing. Generally, most of the people own the land and building themselves and there are very few units, which are on rental premises.

There are two types of systems on which Auto Looms industry is operating. The units, which are comparatively structured and have a high number of looms, have good financial strength. These units procure their raw material with their own

⁷ According to an estimate by Textile Commissioner's Organization, there are 10,200 Projectile, 1,307 Rapier, 600 Water Jet and 4,033 Air Jet looms in the organized mill sector.

investment, go for their own production and earn good margins on the sale of fabric in the local market or by exporting it in the form of fabric or made-ups.

The other system operates on "conversion" basis. These units don't have the financial strength to procure raw material for themselves. The customers provide the main raw material that is yarn and these manufacturing units just take the conversion charges for converting yarn into fabric. In this case, the profit margins are limited.

2.2 Existing Technology & Industry Trends

The technology of Power Loom dates back to late eighteenth century. Most of the Power Looms installed are of shorter width (less than 76"), 10 to 15 years old (or even more) in poor physical condition.

The quality of cloth woven on these looms carries many inherent fabric faults that are normally not acceptable by quality conscious customers, especially in the export markets. The present production of existing looms and quality of fabric is catering mostly to the lower end of the export markets that is low quality, low price and hence is unable to fetch good unit prices.

Current split of the Power Looms industry is as follows:

- a). 60% Power Looms are more than 10 years old with widths 44" - 72"
- b). 20% Power Looms are 5 to 10 years old with widths 72" - 120"
- c). 20% Power Looms are 1 to 5 years old with widths 72" - 120"

For the past decade or so, the trend is shifting from shorter/medium width Power Looms (47" - 76") to wider width Auto and Shuttle-less looms (105" - 160"). The fabric manufactured on the shorter width looms mostly caters to the local market demand while the wider width looms take care of the quality conscious export market of made-ups. Subsequently, the yarn requirement for these two looms also differs owing to the difference in the expected quality of output. The quality of yarn that is used for fabric production for export purposes is better so that the fabric has fewer faults.

Derived by the demand for export markets, awareness is already increasing to replace the existing shorter width power looms with wider width auto or shuttle-less looms.

3. MACHINERY

3.1 Machinery Details

Following is the list of machinery and other equipment, required for a new unit of 72 wider width Auto Looms. It is recommended to install a humidifier plant in the premises because it keeps the humidity level in the manufacturing area high, which helps in reducing breakage of yarn. Folding machine helps in folding the cloth more efficiently.

Table 3-1 Machinery & Equipment List

Machine Description	No.	Cost/Machine (Rs.)	Total Cost (Rs.)
Auto Loom (108"/112" Width)	72	140,000	10,080,000
Humidifier Plant			
Winder			
Folding Machine			
Electric Wire			
Spare bean			
Clot roles			
Cone winder		40,000 / loom	2,880,000
A/C plant			
Healed frame			
Dropper			
Reed			
Healed wire			
Electric motor (720 rpm – 1 HP)			
Transformer (100 KW)	1	350,000	350,000
Total			13,310,000

**All prices are inclusive of installation costs.*

3.2 Machinery Suppliers

There are a number of manufacturers engaged in loom manufacturing in and around Faisalabad. They consist of two types of manufacturers, the established ones in the formal sector and temporary assemblers, who crop up whenever there is demand.

SIDDIQUE BROTHERS ENGINEERS

Chief Executive: Mr. Muhammad Ikram

Address: Banglow No. 3, Sheikhpura Road, Nishatabad, Faisalabad.

Tel: 041-751443

MUMTAZ FOUNDRY & ENGINEERING WORKS

M. Sultan

Address: Mumtaz Foundry & Engineering Works, Sheikhpura Road Nishatabad, Faisalabad.

Tel: 041-8751111-2

MORNING STAR

Zafar Iqbal Mirza

Address: Morning Star Foundry & Engineering, Nishatabad Main Bazaar, Faisalabad.

Tel: 041-8751287 / 8752687, 0300-8652487

The Major players of loom manufacturing in the private sector are as follows:

Table 3-2 Furniture & Fixtures List

Description	Quantity	Cost / Unit	Total Cost
Executive table & chair	1	30,000	30,000
Staff table & chair	2	25,000	50,000
Worker's table & chair	2	15,000	30,000
Carpeting	600	30	18,000
Split Air Conditioner-1.5 ton	3	30,000	90,000
Ceiling Fans	54	1,500	81,046
Tube Lights	132	550	72,806
Total Furniture & Fixture			371,852

Table 3-3 Office Vehicle

Description	Quantity	Cost / Unit	Total Cost
Suzuki pickup CNG	1	360,000	360,000
Registration Fee			7,200
Office Vehicle			367,200

Table 3-4 Office Equipment List

Description	Quantity	Cost / Unit	Total Cost
Computers	2	35,000	70,000
Computer printer (s)	1	15,000	15,000
UPS	2	5,000	10,000
Telephones	3	1,000	3,000
Fax machines	1	15,000	15,000
Total Office Equipment			113,000

4. MANPOWER REQUIREMENTS

4.1 Human Resource Requirements

For an Auto Loom unit of 72 looms, following manpower is required:

Figure 4-1 Human Resource Requirements

Title	Requirement	Salary/Month	Salary/Annum
Managing Director	1	40,000	480,000
GM Operations	1	30,000	360,000
Yarn purchase supervisor	1	10,000	120,000
Assistant Master	1	8,000	96,000
Weaver	36	6,000	2,592,000

Cloth inspector	3	6,000	216,000
Cloth folder	3	6,000	216,000
Foreman	1	20,000	240,000
Fitter / helper	3	7,000	252,000
Electrician	1	6,000	72,000
Oil man	1	4,500	54,000
Accounts officer	1	8,000	96,000
Store In charge	1	6,000	72,000
Security guards	2	6,000	144,000
Sweeper	2	4,500	108,000
Total	58		5,118,000

5. LAND & BUILDING

5.1 Land & Building

For a unit of 72 Auto Looms, the approximate land required would be 9,200 square feet. The split of different sections and accordingly, covered area requirements are as follows:

Figure 5-1 Covered Area Requirement

Description	Required Area (Sq. Ft)
Production Shed (185 sq. ft/Loom)	13,320
Inspection Room	688
Total Storage (yarn, fabric & spares)	424
Total Factory Area (sq. ft.)	14,432
Pavement/driveway	1,443
Grounds	1,443
Management Building	800
Total admin block area req. (sq. ft.)	3,686

Figure 5-2 Rent of Land and Building

Description	Area in Sq. Ft.	Rent per month (Rs.)
Total area requirement for 72 looms	18,118	60,000

6. PROJECT ECONOMICS

Figure 6-1 Project Cost/Capital Requirements

Fixed Capital Requirement	Total Cost Rs.
Land	-
Building/Infrastructure	-
Machinery & Equipment	13,310,000
Furniture & Fixture	371,852
Office vehicles	367,200
Office equipment	113,000
Pre-operating cost	457,522
Total Fixed Capital Cost	14,619,574
Working Capital	
Equipment spare part inventory	138,000
Raw material inventory	1,932,775
Upfront land lease rental	720,000
Upfront insurance payment	10,881
Cash	500,000
Total Working Capital	3,301,656
Total Investment in the Project (Rs.)	17,921,230

Figure 6-2 Financing plan

Description	
Equity	50%
Debt	50%
Interest Rate (per annum)	14%
Total Debt Tenure (years)	5
No. of installments (per annum)	4

Figure 6-3 Initial Financing

Description	
Equity	8,960,684
Debt	8,960,684

Figure 6-4 Project Returns

Internal Rate of Return			
Equity	40%		
Project	32%		
Pay back period (Years)			
Equity	3.98 Years		
Project	3.93 Years		
Ratios	Year 1	Year 2	Year 3
Gross profit margin on Sales	14%	16%	19%
Net profit margin on Sales	2%	4%	6%
ROI	4%	12%	17%
ROE	9%	19%	24%
Current ratio	2	4	6
Quick ratio	2	3	5
Times interest earned	1.97	3.98	7.95
Debt service coverage ratio	0.96	1.18	2.41

7. FINANCIAL ANALYSIS

7.1 Projected Income Statement

Statement Summaries Income Statement

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	Rs. in thousands									
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Revenue	59,310	62,275	65,389	68,658	72,091	75,696	79,481	83,455	87,627	92,009
Cost of goods sold	51,210	52,081	52,998	53,963	54,981	56,057	57,197	58,406	59,690	61,058
Gross Profit	8,100	10,194	12,391	14,696	17,110	19,639	22,284	25,049	27,937	30,951
<i>General administration & selling expenses</i>										
Administration expense	2,079	2,286	2,515	2,767	3,043	3,348	3,682	4,051	4,456	4,901
Rental expense	720	720	720	720	720	720	720	720	720	720
Utilities expense	1,138	1,252	1,377	1,515	1,666	1,833	2,016	2,217	2,439	2,683
Travelling & Comm. expense (phone, fax, etc.)	62	68	75	82	90	99	109	120	132	146
Office vehicles running expense	11	12	15	20	29	46	82	159	341	803
Office expenses (stationary, etc.)	21	23	25	27	30	33	36	40	44	49
Promotional expense	59	62	65	69	72	76	79	83	88	92
Insurance expense	11	10	9	8	7	6	4	3	2	1
Professional fees (legal, audit, etc.)	59	62	65	69	72	76	79	83	88	92
Depreciation expense	1,416	1,416	1,416	1,416	1,416	1,416	1,416	1,416	1,416	1,416
Amortization expense	46	46	46	46	46	46	46	46	46	46
Property tax expense	-	-	-	-	-	-	-	-	-	-
Subtotal	5,621	5,957	6,328	6,737	7,191	7,698	8,271	8,939	9,771	10,948
Operating Income	2,479	4,237	6,064	7,959	9,919	11,941	14,013	16,110	18,166	20,002
Other income	-	-	-	-	-	-	-	-	-	-
Earnings Before Interest & Taxes	2,479	4,237	6,064	7,959	9,919	11,941	14,013	16,110	18,166	20,002
Interest expense	1,262	1,065	763	504	206	-	-	-	-	-
Earnings Before Tax	1,217	3,172	5,300	7,455	9,713	11,941	14,013	16,110	18,166	20,002
Tax	304	793	1,325	1,864	2,428	2,985	3,503	4,027	4,541	5,001
NET PROFIT/(LOSS) AFTER TAX	913	2,379	3,975	5,591	7,285	8,956	10,510	12,082	13,624	15,002
Balance brought forward		913	3,292	7,267	12,858	20,143	29,099	39,609	51,691	65,315
Total profit available for appropriation	913	3,292	7,267	12,858	20,143	29,099	39,609	51,691	65,315	80,317
Dividend	-	-	-	-	-	-	-	-	-	-
Balance carried forward	913	3,292	7,267	12,858	20,143	29,099	39,609	51,691	65,315	80,317

7.2 Projected Balance Sheet

Statement Summaries
Balance Sheet

SMEDA

	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
	Rs. in thousands										
Assets											
<i>Current assets</i>											
Cash & Bank	500	-	1,180	4,689	9,546	15,791	25,995	37,743	51,054	65,897	85,379
Accounts receivable	-	2,437	2,498	2,623	2,754	2,892	3,037	3,189	3,348	3,515	3,691
Finished goods inventory	-	2,227	2,264	2,304	2,346	2,390	2,437	2,487	2,539	2,595	2,655
Equipment spare part inventory	138	146	155	165	175	185	196	208	221	234	-
Raw material inventory	1,933	1,972	2,011	2,052	2,093	2,135	2,178	2,222	2,266	2,312	-
Pre-paid insurance	11	10	9	8	7	6	4	3	2	1	-
Total Current Assets	3,302	7,512	8,838	12,560	17,641	24,119	34,567	46,572	60,151	75,274	91,725
<i>Fixed assets</i>											
Land	-	-	-	-	-	-	-	-	-	-	-
Building/Infrastructure	-	-	-	-	-	-	-	-	-	-	-
Machinery & equipment	13,310	11,979	10,648	9,317	7,986	6,655	5,324	3,993	2,662	1,331	(0)
Furniture & fixtures	372	335	297	260	223	186	149	112	74	37	-
Office vehicles	367	330	294	257	220	184	147	110	73	37	-
Office equipment	113	102	90	79	68	57	45	34	23	11	-
Total Fixed Assets	14,162	12,746	11,330	9,913	8,497	7,081	5,665	4,249	2,832	1,416	(0)
<i>Intangible assets</i>											
Pre-operation costs	458	412	366	320	275	229	183	137	92	46	(0)
Total Intangible Assets	458	412	366	320	275	229	183	137	92	46	(0)
TOTAL ASSETS	17,921	20,669	20,533	22,794	26,412	31,429	40,415	50,958	63,075	76,736	91,725
Liabilities & Shareholders' Equity											
<i>Current liabilities</i>											
Accounts payable	-	2,153	2,170	2,205	2,241	2,279	2,319	2,361	2,405	2,451	2,447
Short term debt	-	1,009	-	-	-	-	-	-	-	-	-
Total Current Liabilities	-	3,162	2,170	2,205	2,241	2,279	2,319	2,361	2,405	2,451	2,447
<i>Other liabilities</i>											
Deferred tax	-	9	18	28	37	46	37	28	18	9	(0)
Long term debt	8,961	7,625	6,093	4,334	2,316	-	-	-	-	-	-
Total Long Term Liabilities	8,961	7,634	6,111	4,361	2,353	46	37	28	18	9	(0)
<i>Shareholders' equity</i>											
Paid-up capital	8,961	8,961	8,961	8,961	8,961	8,961	8,961	8,961	8,961	8,961	8,961
Retained earnings	-	913	3,292	7,267	12,858	20,143	29,099	39,609	51,691	65,315	80,317
Total Equity	8,961	9,873	12,252	16,228	21,819	29,104	38,059	48,569	60,651	74,276	89,278
TOTAL CAPITAL AND LIABILITI	17,921	20,669	20,533	22,794	26,412	31,429	40,415	50,958	63,075	76,736	91,725

7.3 Projected Cash Flow Statement

Statement Summaries

Cash Flow Statement

SMEDA

	Rs. in thousands										
	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	-	913	2,379	3,975	5,591	7,285	8,956	10,510	12,082	13,624	15,002
Add: depreciation expense	-	1,416	1,416	1,416	1,416	1,416	1,416	1,416	1,416	1,416	1,416
amortization expense	-	46	46	46	46	46	46	46	46	46	46
Deferred income tax	-	9	9	9	9	9	(9)	(9)	(9)	(9)	(9)
Accounts receivable	-	(2,437)	(61)	(125)	(131)	(138)	(145)	(152)	(159)	(167)	(176)
Finished good inventory	-	(2,227)	(38)	(40)	(42)	(44)	(47)	(50)	(53)	(56)	(59)
Equipment inventory	(138)	(8)	(9)	(9)	(10)	(11)	(11)	(12)	(13)	(13)	234
Raw material inventory	(1,933)	(39)	(40)	(40)	(41)	(42)	(43)	(44)	(45)	(46)	2,312
Advance insurance premium	(11)	1	1	1	1	1	1	1	1	1	1
Accounts payable	-	2,153	17	35	36	38	40	42	44	46	(4)
Other liabilities	-	-	-	-	-	-	-	-	-	-	-
Cash provided by operations	(2,082)	(173)	3,721	5,268	6,875	8,561	10,204	11,749	13,311	14,843	18,762
<i>Financing activities</i>											
Change in long term debt	8,961	(1,336)	(1,533)	(1,759)	(2,018)	(2,316)	-	-	-	-	-
Change in short term debt	-	1,009	(1,009)	-	-	-	-	-	-	-	-
Issuance of shares	8,961	-	-	-	-	-	-	-	-	-	-
Cash provided by / (used for) financing :	17,201	(327)	(2,541)	(1,759)	(2,018)	(2,316)	-	-	-	-	720
<i>Investing activities</i>											
Capital expenditure	(14,620)	-	-	-	-	-	-	-	-	-	-
Cash (used for) / provided by investing :	(14,620)	-	-	-	-	-	-	-	-	-	-
NET CASH	500	(500)	1,180	3,509	4,857	6,245	10,204	11,749	13,311	14,843	19,482
Cash balance brought forward		500	-	1,180	4,689	9,546	15,791	25,995	37,743	51,054	65,897
Cash available for appropriation	500	(0)	1,180	4,689	9,546	15,791	25,995	37,743	51,054	65,897	85,379
Dividend	-	-	-	-	-	-	-	-	-	-	-
Cash carried forward	500	-	1,180	4,689	9,546	15,791	25,995	37,743	51,054	65,897	85,379

7.4 Ratio Analysis

Statement Summaries Key Financials for SBFC

SMEDA

Number of Looms	72
Total Investment	17,921,367
Equity IRR	40%
Equity Payback	3.98
Weighted average cost of capital (WACC)	18%

	Year 1	Year 2	Year 3
Gross profit margin	13.66%	16.37%	18.95%
Net profit margin	1.54%	3.82%	6.08%
ROI	4.42%	11.59%	17.44%
ROE	9.24%	19.42%	24.50%
Current ratio	2.38	4.07	5.70
Quick ratio	1.71	3.07	4.69
Times interest earned	1.96	3.98	7.94
Debt service coverage ratio	0.95	1.17	2.40

8. KEY ASSUMPTIONS

Table 8-1 Financial Assumptions

Description	Rate / Cost	Rationale
Debt	50%	
Equity	50%	
Interest rate	14%	
Debt tenure	5	
Debt payments/year	4	
Income Tax	25%	
Tax rate		Sole Proprietor Tax Rate
Project Life (Assumed life of Machinery & Equipment) (years)	10	

Table 8-2 Cash Flow Assumptions

Description	Rate / Cost	Rationale
Accounts receivable cycle (in days)	15	Based on present and past years' revenue
Accounts payable cycle (in days)	15	Based on present and past years' average COGS, Op. Costs (machinery maintenance), raw material inventory, & spare part inventory

Table 8-3 Revenue Assumptions

Description	Rate/Cost	Amount / Other	Rationale
Production capacity (per year)		1,302,912 meters	
Production (Meters)/Loom/Day		55	
Sale price of fabric in year 1		Rs. 50/Mtr.	
Sale price growth rate (Fabric Price/Year)	5%		
Production capacity utilization	95%		

Table 8-4 Inventory Assumptions

Description	Months
Equipment spare part inventory	2
Raw material inventory	0.5
Finished goods inventory	0.5

Table 8-5 Expense Assumptions

Description	Rate/Cost	Rationale
Cost of goods sold 1 (Yarn Cost)	38	Input price per unit of production
Cost of goods sold 2 (Sizing and Warping Cost)	1	Input price per unit of production
Cost of goods sold growth rate (Yarn price growth/year)	1%	On the basis of 10 years historical data
Operating costs 2 (machinery maintenance)	0.70	Machine maintenance per unit of production
Operating costs 3 (direct electricity)	0.79	Direct electricity cost per unit of production
Operating costs growth rate	1.0%	
Administration benefits expense	1.0%	% of administration expense
Traveling expense	1.0%	% of administration expense
Communication expense	2.0%	% of administration expense
Office vehicles running expense	3.0%	% of vehicles cost
Office expenses (stationery, entertainment, janitorial services, etc.)	1.0%	% of administration expense
Promotional expense	0.1%	% of revenue
Machinery & equipment insurance rate	0.0%	
Office vehicles insurance rate	3.0%	
Professional fees (legal, audit, consultants, etc.)	0.1%	% of revenue

Table 8-6 Depreciation Expense Assumptions

Description	
Land Book depreciation rate	0%
Building & infrastructure Book depreciation Rate	5%
Machinery & equipment Book depreciation Rate	10%
Office equipment Book depreciation rate	10%
Furniture & fixtures Book depreciation rate	10%
Office vehicles Book depreciation rate	10%

Table 8-7 Economy Related Assumptions

Description	Rate / Cost
Inflation rate	10%
Electricity growth rate	10%
Water price growth rate	10%
Gas price growth rate	10%
Wage growth rate	10%
Office equipment price growth rate	5%
Office vehicles price growth rate	10%

Table 8-8 Miscellaneous Assumptions

Description	Rate / Cost
Cash in hand	500,000
Minimum Initial cash Requirement	335,103
Cash required for working capital needs	
Starting cash	500,000
Cash to be maintained after startup	-
Shifts operational per day	3
Hours operational/day	24
Shift length (hours)	8
Days operational/year	312