Pre-Feasibility Study

GARMENTS STITCHING UNIT

(Work Wear)

Small and Medium Enterprises Development Authority

Ministry of Industries & Production

Government of Pakistan

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1 INTRODUCTION

1.1 Work Wear

Work wear is a category of textile garments that includes the garments specifically to be worn in the industrial working environment. In the international market, the term work wear includes a broad range of categories like industrial clothing, medical clothing, uniforms, as well as special clothing like safety clothing, protective clothing, etc. While in the domestic market, the categories of the work wear are known by the names like Boiler suits, bibs and braces, American overalls, dust coats, two piece working suits (jackets and trousers), work shirts, women's overalls, aprons, doctor's coat and nurse's coat. It also includes uniforms for hotels & catering establishments and garments for health care like several kinds of dresses, aprons, hospital uniforms and operation theatre clothing.

1.2 Opportunity Rationale

The business of industrial clothing has great potential in the export as well as in the local market. The sub sector of industrial clothing/professional clothing/work wear is an attractive investment opportunity as the imports of professional clothing have been strongly increasing during the recent years. Total world import of work wear in 2004 stood at US $ 4.56 billion. Annual growth in world imports on YoY basis was 8.63% and wrt 2000 19.22%. These figures show a vibrant opportunity in international market.

Following are some of the factors on the basis of which this project becomes an attractive investment opportunity.

- Decrease in domestic production of European countries.
- An increased awareness of safety on the work floor, simulated by the governments. Work wear/safety clothing is strongly recommended under this theme.
- Diversification towards high tech industries.
- Removal of quotas on textiles.

1.3 Project Brief

Most of the production of the subject project will be for export purpose and hence contribute in the earning of foreign exchange for the country. There is a vast range of work wear products as mentioned above. However, this project is based on the production of standard *Basic Overall*. Initially, for some time period this unit might be operating on CMT (Cut, Manufacture & Trim (commercial) basis), but ultimately this would be an export-oriented unit. Therefore, all the calculations and financial workings have been done while treating this as an export based project.

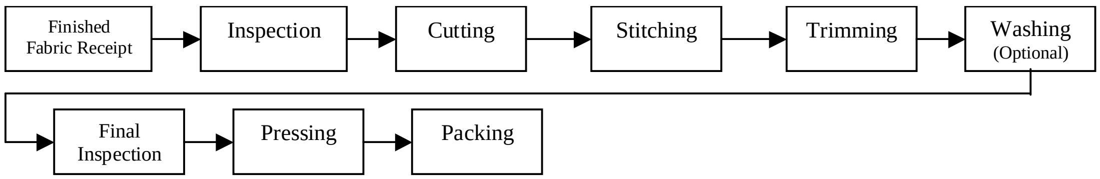
1.4 Proposed Capacity

400 Garments / Day (29 Stitching Machines)

1.5 Total Project Cost

Rs. 8.16 Million

1.6 Process flow



2 CURRENT INDUSTRY STRUCTURE

According to the figures of Pakistan Readymade Garments Manufacturers & Exporters Association (PRGMEA), the existing suppliers/manufacturers of work wear in the country are very less in number. There are about 90-100 establishments all over the country who are exclusively involved in the manufacturing and exporting of work wear. Out of these manufacturers/exporters, about 35% are based in Lahore, 50% in Karachi and 10% in Sialkot. Some other areas like Gujranwala, Kasur and Faisalabad also have some work wear stitching units. The share of Pakistan in total world exports (2004) was 1.13% which translated into US $ 49.60 million.

In spite of having a very strong textile base and huge market, work wear segment could not be developed effectively by our apparel industry during the past years. This is because that the concept of the work wear is relatively new in the international as well as in the local markets as compared to the traditional woven and knit-based garments. There is also a lack of awareness about this sub-sector of clothing in our country.

3 MARKETING

In view of the fact that main raw material and skilled manpower is available in Pakistan, scope for work wear exports from Pakistan is unlimited. However, marketing is a very vital aspect of the garment industry. Export orders can be generated either through local or foreign buying houses that have their presence in the country and source export orders for foreign customers from local industry. The other way to get export orders is through direct marketing in the international markets while initiating contacts with the potential customers directly and/or through participation in international trade fairs, exhibitions etc. In the absence of export orders, other factories that have excess export orders can also provide sub-contract work on CMT (cut, manufacture and trim) basis.

3.1 Market Size and Growth

In year 2004, USA was the largest importer (US $ 903 million) followed by Japan (US $ 632 million) and France (US $ 415 million). The potential consumers of work wear products are industrial workers in foreign and domestic markets, who are engaged in large scale and medium scale industries. The potential industries for work wear are heavy process industry, light industry, hotel sector, retail sector and public utilities. In most of industries, one person uses about three sets of industrial clothing per year. So one can easily estimate the use of work wear by potential consumers.

Table: 3-1 Major World Importers 2004 (US$ million)

Sr#	Importer	2004	Share
1	USA	903	19.82%
2	JAPAN	632	13.85%
3	FRANCE	415	9.10%
4	GERMANY	368	8.06%
5	UK	334	7.32%
6	ITALY	261	5.72%
7	BELGIUM	210	4.61%
8	SPAIN	187	4.10%
9	HONG KONG	186	4.09%
10	NETHERLANDS	120	2.64%

3.2 Competition in the Target Market

Total international exports of work wear during 2004 stood at US$ 4.40 billion. China dominated the international import market with US$ 1.50 billion exports in 2004, followed by France US$ 377 million and Hong Kong US $329 million.

Following table lists the exports of major competitors in the international market.

Table: 3-2 Major World Exporters 2004 (US$ million)

Sr#	Exporter	2004	Share
1	CHINA	1,500	34.20%
2	FRANCE	377	8.61%
3	HONG KONG	329	7.52%
4	BELGIUM	253	5.78%
5	TUNISIA	179	4.09%
6	ITALY	172	3.93%
7	MEXICO	145	3.30%
8	GERMANY	127	2.89%
9	MOROCCO	124	2.83%
10	USA	98	2.25%

3.3 Pakistan's position in International Market

Pakistan's exports during 2004 were US$ 49.6 million. On a YoY basis there was a growth rate of 4.75%. Pakistan's main partners were, USA (US $ 15.96 million), UK (US$ 6.19 million), Germany (US$ 4.19) and UAE (US$ 4.35 million). Pakistan's share in international export market is only 1.13%. This shows that Pakistan has a lot of potential in international market. The product mix shows that 88% of work wear are made of cotton and 12% of man made fabric, as against the world average of 32% and 68% respectively. These statistics also point towards an enormous opportunity for Pakistani exporters in work wear made of man made fabric.

Table 3.3 Pakistan's Major Partners (US$ million)

Sr#	Partner	2004
1	USA	15.97
2	UK	6.19
3	GERMANY	4.19
4	UAE	4.35
5	FRANCE	2.85
6	ITALY	3.00
7	SAUDI ARABIA	2.35
8	SPAIN	1.26
9	NETHERLANDS	1.55
10	BELGIUM	1.02

3.4 Guidelines for Garments Export Business

In order to enter in the export business of garments, following basic guidelines can provide help to any new comer in this business:

a.) Ensure best quality at all costs. This is a basic key for a successful exporter in the garment exports.

b.) Commitments with buyers regarding quality, price and shipment are the basic essentials to enter and grow in the export business. Pakistan has lost much business and goodwill due to this factor alone. Therefore, for any newcomer, commitments matter a lot.

c.) Sourcing of export orders through apparel buying houses based in Pakistan can be a good start on marketing front. The prices offered by these buying houses might be lower than those of direct orders, but at least they can be good entry point and learning experience for new exporters.

d.) Many garment factories are considering it worthwhile setting up their overseas offices and warehouses in the potential markets. Overseas office can not only assist in sales, but also keep the garment factory continuously informed about any changes in, buyer's requirements and market trends. Warehouses of supplier(s) in the customer's country make it convenient for the customer to make the purchase decisions effectively as in this case customer gets the required products on LDP (Landed Duty Paid) basis and without any hassle of being involved in shipment and import procedures.

e.) To be actively and quickly responsive to the customers is very important in successful marketing. Being flexible with buyers regarding their requests and requirements can help to develop mutual understandings with them. Many buyers themselves guide the manufacturer in correct designing, fabric and accessories selection and procurement, improvements in production and quality control etc.

f.) Regular subscriptions with local and foreign textile trade and fashion magazines will ensure the flow of latest marketing and trade information to the exporter.

3.5 Consumers Buying Behavior

As far as consumers buying behavior is concerned, only 10-15% of the employees of different industries buy their own clothing. Most of the work wear is bought by the industries themselves for their employees in bulk quantities.
The nature of distribution channels differs in the export and the local markets. Detail of some general trends is as follows:

- Heavy industry: Buys mainly directly from manufacturers (both in case of export and local market).
- Light industry: Bigger companies buy directly from manufacturers or from rental companies (only in the export market), the smaller companies buy through retail or wholesale markets.
- Hotels etc. Work mostly with rental companies (only in the export market) but many employees provide their own work wear (both in export and local market).
- Retail: The purchasing methods are dependent on the size of the organization, all channels are possible.
- Health sector: Buys directly from manufacturers or from retail companies (only in the case of export markets).
- Public Utilities: Buy mainly directly from manufacturers or via the National Purchasing Office (only in the case of export markets of Europe).

4 RAW MATERIAL

The basic raw material, for the manufacturing of work wear, is dyed woven fabric with different sort of finishes on it. The woven fabric that is used in the manufacturing of work wear is made of cotton or polyester/cotton blends. The weight of these fabrics normally varies from 200-240 grams/sq.m (for the light qualities of P/C 65:35 fabrics) and from 240-300 gram/sq.m (for the heavy qualities of P/C 65:35 fabrics). In case of 100% cotton, light quality fabric weight should be at least 180 grams/sq.m and heavy quality fabric weight should be 260-320 grams/sq.m. For the fabric of blended 50/50 polyester/cotton the weight varies from 100 grams/sq.m (for shirts) to 215 grams/sq.m (twill). The weight of the finish is not included in these figures.

Other raw materials that are used in the manufacturing of work wear are buttons, threads, labels, zippers and packing material.

5 HUMAN RESOURCE REQUIREMENTS

For a garment-stitching unit of 29 stitching machines, following manpower is required:

Table: 5-1 Human Resource Requirements

Production Staff (Permanent)	**No.**	**Salary**	**Salary Annual**
Technician/Electrician	**1**	1,500	18,000
Cutting Helper	**2**	2,500	60,000
Stitching Supervisor	**1**	8,000	96,000
Rowing Inspector	**2**	4,500	108,000
Helper (machine operator)	**3**	2,500	90,000
Clippers	**3**	3,500	126,000
Stain Remover	**1**	3,500	42,000
Packing Staff	**2**	3,500	84,000
Fnal table inspector	2	4500	108,000
Finishing Supervisor	1	5000	60,000
Total			**792000**
Production Staff (Piece Raters)			
Machines Operators	29		1920000
Iron Pressor And Cutters	2		336000
Total			**2256000**
Grand Total	**49**		**3,048,000**
Admin			
Chief executive	**1**	50,000	600,000
Production Manager	**1**	15,000	180,000
Cutting Master	**1**	8,000	96,000
Commercial Manager	**1**	15,000	180,000
Accounts officer	**1**	7,000	84,000
Security Guards	**2**	4,000	96,000
Total	**7**		**1,236,000**
Grand Total	**56**		**4,284,000**

6 MACHINERY DETAILS

6.1 Machinery List

Following combination of stitching machines is required for manufacturing 400 work wear garments per day. Approx. prices for Japanese origin machinery are given below:

Table: 6-1

PLANT AND MACHINERY			
Description	**No**	**Cost**	**Total Cost**
			Actuals
ALL Processess			
Cutting Machine	1	98,000	98,000
Lock Stitch (Single Needle)	15	34,500	517,500
Lock Stitch (Double Needle)	2	167,000	334,000
Safety Stitching Overlock (5 thread)	2	96,000	192,000
Bar Tacking	1	231,000	231,000
Feed Off Arm	2	341,000	682,000
Button Hole machine	1	85,000	85,000
Waist Belt machine	1	335,000	335,000
Snap Fastener	1	5,400	5,400
Button Stitching Machine	1	125,000	125,000
Loop Making Machine	1	256,000	256,000
Elastic Attaching	1	117,000	117,000
Other Equipment			
Steam Boiler	1	151,000	151,000
Factory fixture	1	90,000	90,000
Machine Installation & Electric wiring cost	@	0	-
Total macinery and other equipment cost	29		**3,218,900**

FURNITURE AND FIXTURE			
Description	**No**	**Rate**	**Total**
			Actuals
Furniture and Fixture			
Furniture and Fixture	1	100,000	100,000
Office Equipment			
Fax	1	4,500	4,500
Telephone	2	1,000	2,000
Computer	1	30,000	30,000
Printer	1	7,000	7,000
Total			**143,500**
Grand total			**3,362,400**

6.2 Other Options Available for Machinery

Garments stitching machinery is available in quite a diversified range of suppliers & origins i.e. Japanese, Italian, Chinese, Korean, Taiwanese and Hong Kong origin. However, there is a substantial difference between their prices. European and Japanese machinery is 2 to 3 times more expensive compared to Chinese or Far Eastern machinery. Second hand machinery of different origins is also available in the local market.

7 LAND & BUILDING

7.1 Total Land Required

For garments stitching unit having production of about 400 garments per day, approx. 3,300 square feet covered area is required.

7.2 Covered Area Requirement

The split of different sections and accordingly covered area requirements are as follows:

Table: 7-1 Covered Area requirement

BUILDING AND CIVIL WORKS	Area sq.ft	Rate Rs/sq.ft	Total Actuals
Main Factory Building			
Fabric & Accessories inventory room	700	450	315,000
Cutting Room	350	450	157,500
Stitching Room	700	450	315,000
Inspection Room	300	450	135,000
Packing Room	300	450	135,000
Finished Garment Store	650	450	292,500
Total	**3,000**		**1,350,000**
Office Block			
Management Building	300	650	195,000
Total	**300**		**195,000**
Total	**3,300**		**1,545,000**
Free Space	0%	0	
Total Land Sq.ft	**3,300**		
Kanals	1.00		
Rate Rs Per Kanal	2,000,000		
Total Cost of Land	**2,000,000**		

7.3 Recommended Mode

If an appropriate premise is available in any commercial/industrial areas of under mentioned clusters, it is recommended that this project should be started in a rented building as this will reduce the initial capital cost of the project. However, this feasibility calculates the initial capital cost with the assumption of a purchased/constructed building and land.

Table: 7-3 Rent Cost

Rent cost	Monthly rent (Rs.)	Annual rent (Rs.)
Building rent cost (@ Rs.10,000 per 4,500 sq. ft)	15,000	180,000

7.4 Suitable Locations

The clusters of garments stitching industry exist predominantly in Lahore, Karachi, Sialkot and Faisalabad. Most of the garment manufacturers are based in these major cities, so it is recommended that such unit should be started in these areas. However, the basic criteria for the selection of location within these clusters should be the accessibility of skilled manpower. Also, basic utilities like electricity, gas, water and public transport is a must for the establishment of such sort of unit.

7.5 Utilities Requirements

- Electricity
- Telephone
- Fax

8 PROJECT ECONOMICS

8.1 Project Costs

Table: 8-1 Project Cost/Capital Requirements

		Total Cost	%
Land		2,000,000	25%
Building and Civil Works		1,545,000	19%
Plant and Machinery		3,218,900	39%
Furniture/ Fixture & Equipment		143,500	2%
Pre-operational Expenses		248,000	3%
Vehicles		375,000	5%
Contingencies		0	0%
			0%
Total Fixed Cost		**7,530,400**	92%
Working Capital		630,300	8%
Total		**8,160,700**	100%

Table 8—1 Financing Plan

	Plan	%
Equity		
Sponsor's Contribution	**4,080,350**	50%
Debt	4,080,350	
Long-term Loan	3,450,050	
Running Finance	630,300	
Total	**4,080,350**	**50%**
Total Project Cost	**8,160,700**	**100%**

Table 8—3 Project Economics

IRR	55.30%
Pay Back	2
NPV	8,514,563
BREAK EVEN	5.26%

8.2 Estimated Time Frame for Project Completion

- 2 months for completion of initial formalities i.e. formation, registration of the company & other documents.
- 4 months for sanction of loan (In case, if financing has to be arranged through bank)
- 3-4 months for purchase, import and shipment of machinery and then installation and trial run.
- 2-3 months for furnishing and staff/labor appointments and trial production.
- The project can take-off within 6-8 months as some of the activities will be in progress simultaneously.

- In case of self financed project, and if the building is also rented and machinery is procured locally, then this setup can be started even within a few weeks time period.

9 KEY SUCCESS FACTORS

The total commercial viability of this proposed stitching unit depends on the regular supply of export orders. This requires very aggressive marketing efforts at the entrepreneur's end and the concerned management team.

Following are the other key points that are important for making this venture a success.

- Assurance of consistent quality
- Surety of on time delivery
- Competitive rates
- Cost efficiency
- Better services to the customer i.e. claim settlement etc.
- Better communication development with customers
- Although to be in the business of garments manufacturing/exports promises a good return on investment and reasonable profit potentials but this business requires regular and proper attention from entrepreneur. Running a garment manufacturing set-up is a full time job and requires continuous hard work and attention. Anyone who is not prepared to put his/her best possible efforts, concentration and hard working, should not attempt to enter in this business.

10 THREATS FOR THE BUSINESS

The major threat for this business is that it is a relatively new product as compared to other garments like denim or knitwear. So stitching expertise is not available at the desirable level.

The labor force at the lowest level i.e. skilled/semi skilled manpower, machine operators are quite unorganized. Their job behaviors and seriousness about the completion of any assigned job are always unpredictable.

In case of CMT based unit, the requirement of credit and/or delay of payments from the customer might cause disturbance in the cash cycles.

Asia pacific markets are emerging as new players in the world knitwear trade. China, Vietnam, India and Sri Lanka can give tough time in the coming years.

11 REGULATIONS

Being the export-based unit, tax exemptions are available on earnings and profits. Also, government offers re-finance facilities, incentives in terms of rebates, and duty free machinery imports etc.

12 FINANCIAL ANALYSIS

12.1 Projected Income Statement

		2005	2006	2007	2008	2009
Sales		**26,232,000**	**33,770,700**	**41,736,913**	**50,149,488**	**59,028,017**
Cost of goods sold						
Raw Material		18,648,000	24,475,500	30,839,130	37,777,934	45,333,521
Payroll (Production Staff permanent)		792,000	871,200	958,320	1,054,152	1,159,567
Payroll (Production Staff Piece Raters)		2,256,000	2,961,000	3,730,860	4,570,304	5,484,364
Machine Maintenance		417,600	451,008	487,089	526,056	568,140
Land Freight cost for export		91,200	114,000	136,800	159,600	182,400
Forwarding/clearing cost		136,800	171,000	205,200	239,400	273,600
Direct Electricity		242,878	267,166	293,883	323,271	355,598
Total		22,584,478	29,310,874	36,651,281	44,650,716	53,357,191
Gross Profit		**3,647,522**	**4,459,826**	**5,085,632**	**5,498,771**	**5,670,827**
Operating Expenses						
Payroll (Admin)		1,236,000	1,359,600	1,495,560	1,645,116	1,809,628
Payroll (Marketing and Sale)		0	0	0	0	0
Fixed electricity		67,016	73,718	81,090	89,199	98,119
Insurance expense		0	341,571	319,021	296,472	273,922
Office expenses		12,360	13,596	14,956	16,451	18,096
Administrative Overheads		196,740	253,280	313,027	376,121	442,710
Amortization (Pre-operational Expenses)	10%	24,800	24,800	24,800	24,800	24,800
Depreciation		450,990	450,990	450,990	450,990	450,990
Total		1,987,906	2,517,555	2,699,443	2,899,149	3,118,265
Operating Profit		**1,659,615**	**1,942,271**	**2,386,189**	**2,599,623**	**2,552,562**
Non-operating Expenses						
Financial Charges on Long-term Loan		483,007	409,936	326,635	231,672	123,414
Financial Charges on Running Finance		88,242	552,168	693,861	841,933	997,927
Land Lease		0	0	0	0	0
Building Rental		0	0	0	0	0
Total		571,249	962,104	1,020,496	1,073,605	1,121,341
Profit Before Tax		1,088,366	980,167	1,365,693	1,526,017	1,431,221
Tax		217,673	196,033	273,139	305,203	286,244
Profit After Tax		870,693	784,133	1,092,554	1,220,814	1,144,976
Retained Earnings beginning of year		0	870,693	1,654,826	2,747,381	3,968,194
Retained Earnings end of year		870,693	1,654,826	2,747,381	3,968,194	5,113,171

12.2 Projected Cash flow Statement

	Const. Year	2005	2006	2007	2008	2009
Operating activities						
Net profit		870,693	784,133	1,092,554	1,220,814	1,144,976
Amortization (Pre-operational Expenses)		24,800	24,800	24,800	24,800	24,800
Depreciation		450,990	450,990	450,990	450,990	450,990
Up-front insurance payment	0	(341,571)	22,550	22,550	22,550	22,550
Equipment and spare part inventory	(8,700)	(870)	(957)	(1,053)	(1,158)	(1,274)
Accounts receivable		(3,934,800)	(1,130,805)	(1,194,932)	(1,261,886)	(1,331,779)
Stocks-RM	(621,600)	0	(194,250)	(212,121)	(231,293)	(251,853)
Accounts payable		963,480	291,375	327,894	357,546	389,344
Cash provided by operations	(630,300)	(1,967,277)	247,836	510,682	582,362	447,754
Financing acivities						
Long term debt principal repayment		(521,936)	(595,007)	(678,308)	(773,271)	(881,529)
Add: buliding rent expense		0	0	0	0	0
Building rent payment	0	0	0	0	0	0
Addition to long term debt	3,450,050					
Addition to running finance	630,300	3,313,761	1,012,088	1,057,662	1,114,242	1,173,013
Issuance of share	4,080,350					
Cash provided by/ (used for) financing activities	8,160,700	2,791,825	417,081	379,354	340,971	291,484
Total	**7,530,400**	**824,547**	**664,917**	**890,036**	**923,333**	**739,238**
Investing activities						
Capital expenditure	(7,530,400)					
Cash (used for)/ provided by invetsing activities	(7,530,400)					
Net Cash	0	824,547	664,917	890,036	923,333	739,238
Cash balance brought forward	0	0	824,547	1,489,464	2,379,500	3,302,833
Cash carried forward	0	824,547	1,489,464	2,379,500	3,302,833	4,042,071

12.3 Projected Balance Sheet

	Const. Year	2005	2006	2007	2008	2009
Current Assets						
Cash	0	824,547	1,489,464	2,379,500	3,302,833	4,042,071
Stocks and Inventory	621,600	621,600	815,850	1,027,971	1,259,264	1,511,117
Receivable	0	3,934,800	5,065,605	6,260,537	7,522,423	8,854,203
Equipment and spare part inventory	8,700	9,570	10,527	11,580	12,738	14,011
Pre-paid insurnace payment	0	341,571	319,021	296,472	273,922	251,373
Pre-paid building rent	0	0	0	0	0	0
Total	630,300	5,732,088	7,700,467	9,976,059	12,371,180	14,672,775
Gross Fixed Assets	7,282,400	7,282,400	7,282,400	7,282,400	7,282,400	7,282,400
Less: Accumulated depreciation	0	450,990	901,980	1,352,970	1,803,960	2,254,950
Net Fixed Assets	7,282,400	6,831,410	6,380,420	5,929,430	5,478,440	5,027,450
Intangible Assets						
Pre-operational Expenses	248,000	223,200	198,400	173,600	148,800	124,000
Total	248,000	223,200	198,400	173,600	148,800	124,000
Total Assets	**8,160,700**	**12,786,698**	**14,279,287**	**16,079,089**	**17,998,420**	**19,824,225**
Current Liabilities						
Running Finance	630,300	3,944,061	4,956,148	6,013,810	7,128,052	8,301,065
Accounts payable		963,480	1,254,855	1,582,749	1,940,295	2,329,639
Total	630,300	4,907,541	6,211,003	7,596,559	9,068,347	10,630,704
Long-term liabilities						
Long-term Loan	3,450,050	2,928,114	2,333,107	1,654,800	881,529	0
Total	3,450,050	2,928,114	2,333,107	1,654,800	881,529	0
Equity						
Paid-up Capital	4,080,350	4,080,350	4,080,350	4,080,350	4,080,350	4,080,350
Retained Earnings	0	870,693	1,654,826	2,747,381	3,968,194	5,113,171
Total	4,080,350	4,951,043	5,735,176	6,827,731	8,048,544	9,193,521
Total Liabilities And Equity	**8,160,700**	**12,786,698**	**14,279,287**	**16,079,089**	**17,998,420**	**19,824,225**

12.4 Key Assumptions

Table 12—1 Machinery Assumptions

Number of Machines Installed	29
Maximum Capacity Utilization	100%
First year Capacity (Capacity Increasing by 5% Yearly)	40%
Defective garment	5%
Total Production of the unit per month(1st Year)	4,000
Total Production of the unit per year(1st Year)	45,600
Defected garments per year(1st Year)	2,400

Table 12—2 Operating Assumptions

Hours operational per day	8
Days operational per month	25
Days operational per year	300

Table 12—3 Economy-Related Assumptions

Electricity growth rate	10%
Wage growth rate	10%

Table 12—4 Cash Flow Assumptions

Accounts Receivable cycle (in days)	45
Accounts payable cycle (in days)	15
Raw material inventory (in day)	10
Equipment and spare part inventory (in days)	7

Table 12—5 Revenue Assumptions

Production capacity of the unit (100%)	400
Sale price per unit in year 1 (in Rs.)	570
Sale price growth rate	3%
Sales price per defected garment (in Rs)	100
Maximum capacity utilization	100%
Export sales	100%

Table 12—6 Raw Material Cost/Garment Assumptions

Raw Material	Rate (Rs)	Consumption	Total
Fabric (meters)	110	3.25	357.5
Thread (per meter)	0.02	250	5.0
Buttons & Accessories/garment	15	1	15
Elastic/garment	1	5	5.0
Packing Cost/garment	6	1	6
Stitching Charges/garment	40	1	40.0
Cutting /Pressing	7	1	7
Total Cost/garment(Rs)			**435.5**

Table 12—7 Expense Assumptions

Administrative overhead (% of Sales)	0.75%
Office expenses (stationery, entertainment etc)	1% of admin expense
Machine maintenance (per month)	Rs 1200 per machine
Machine maintenance growth rate	7%
Pre-paid insurance (months)	12
Insurance rate (% of net fixed assets)	5%
Spare part inventory growth rate	10%
Raw material price growth rate	7%
Textile quota (Rs per garment)	0
Land/truck freight cost (Rs per garment)	2
Forwarding & Clearing cost (Rs per garment)	3

Table 12—8 Financial Assumptions

Project life	10
Debt	50%
Equity	50%
Interest rate on long-term debt	14%
Interest rate on short term debt	14%
Debt tenure	5
Debt payments per year	1
Discount rate (weighted Avg. cost of capital for NPV)	17%