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# Pre-Feasibility Study

## Garments Stitching Unit

### Polo T-Shirts Manufacturing



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**Ministry of Industries & Production**

**Government of Pakistan**

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**June 2017**

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## 1 DISCLAIMER

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### ***Document Control***

Document No.	PREF NO. 3
Revision	No. 4
Prepared by	SMEDA-Punjab
Revision Date	June, 2017
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## 2 EXECUTIVE SUMMARY

This particular pre-feasibility study is for setting up a **Polo T-Shirts Manufacturing Unit**. The proposed business venture should preferably be located in any of the major urban cities of Pakistan; to reduce initial capital investment, the proposed unit is to be established at rental premises.

The proposed machines can stitch 1,600 shirts per day. This unit will stitch 499,200 shirts in 312 working days with available machines on 8 operational hours per day, however, initial operational capacity is assumed at 60%, whereas, maximum operational capacity utilization is at 87%. This production capacity is estimated to be economically viable and justifies the capital as well as operational cost of the project. However, entrepreneur's knowledge, quality product, competitive pricing and strong linkage with suppliers and wholesalers network are factors for the success of this project.

The estimated total cost of the proposed unit is Rs. 21.93 million out of which Rs. 12.20 million is the capital cost and Rs. 9.73 million is for working capital. The project is to be financed through 50% debt and 50% equity. The project NPV is around Rs. 44.61 million, with an IRR of 45% and Payback Period of 2.94 years. The project will provide employment opportunities to 96 individuals including owner / manager. 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 development of Small and Medium Enterprises (SMEs).

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

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

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

## 4 PURPOSE OF THE DOCUMENT

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

The purpose of this document is to facilitate potential investors in **Polo T-Shirts Manufacturing Unit** by providing them with a general understanding of the business with the intention of supporting potential investors in crucial investment decisions.

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

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

## 5 BRIEF DESCRIPTION OF PROJECT & PRODUCT

The project describes setting up a Polo T-Shirts Manufacturing Unit in any big city of Pakistan. This study provides details about the investment opportunity in a stitching unit for knitted garments. Mainly the production of this unit will be for export purpose, and hence will contribute in the earning of foreign exchange for the country. Therefore, all the calculations and financial workings have been done while treating this as an export based project.

Following key parameters must be addressed as per pre-feasibility study under preparation

- **Technology:** This proposed unit with modern processing machines including straight knife cutting machine, lockstitch machine with automatic thread trimmer, chain-stitch button sewing machine with thread trimmer, computer controlled high speed lockstitch button sewing machine, oil barrier, and fully automatic electric steam generator, etc will produce premium quality polo T-shirts.
- **Product:** The proposed project will be producing branded polo T-Shirts in small, medium, large, and extra-large sizes.

- **Employment Generation:** The proposed project will provide direct employment to 96 people. Financial analysis shows the unit shall be profitable from the very first year of operation

## 5.1 Production process flow

Making T-shirts is a fairly simple and largely automated process. Specially designed machines integrate cutting, assembling, and stitching for the most efficient operations. The most commonly used seams for T-shirts are narrow, superimposed seams, which are usually made by placing one piece of fabric onto another and lining up the seam edges. These seams are frequently stitched with an over edge stitch, which requires one needle thread from above and two looper threads from below. This particular seam and stitch combination results in a flexible finished seam.

Another type of seam that may be used for T-shirts are bound seams, in which a narrow piece of fabric is folded around a seam, as at the neckline. These seams may be stitched together using a lock-stitch, chain-stitch, or over-edge stitch. Depending on the style of the T-shirt, the order in which the garment is assembled may vary slightly.

**Styling:** The T-shirt style is designed and the dimensions are transferred to patterns. Adjustments are made for size differences and stylistic preferences.

**Cutting:** The T-shirt sections are cut to the dimensions of the patterns. The pieces consist of a tubed body, or separate front and back sections, sleeves, perhaps pockets, and trim.

**Assembling the front and back:** For fabric that is not tubed, the separate pieces for the front and back sections must be stitched together at the sides. They are joined at the seam lines to form a simple, narrow, super-imposed seam and stitched together using an over-edge stitch. Care must be taken to avoid a needle cutting the yarn of the fabric, which can lead to tears in the garment.

**Assembling the sleeves:** The hems of sleeves are generally finished before they are fitted into the garment, since it is easier to hem the fabric while it is flat. An automated system moves the sleeves to the sewing head by conveyor. The edge may be finished by folding it over, forming the hem and stitching, or by applying a band. The band may be attached as a superimposed seam or folded over the edge as binding.

If the T-shirt body is tubular, the sleeve material is first sewn together, and then set into the garment. Alternatively, if the T-shirt is "cut and sewn," the un-seamed sleeve is set into place. Later during the final stage of sewing the shirt, the sleeve and side seams are sewn in one action.

**Stitching the hem:** The garment hem is commonly sewn with an over-edge stitch, resulting in a flexible hem. The tension of the stitch should be loose enough to allow stretching the garment without tearing the fabric. Alternative hem styles include a combination of edge finishing stitches.

**Adding pockets:** Pockets may be sewn onto T-shirts intended for casual wear. Higher quality T-shirts will insert an interlining into the pocket so that it maintains its shape. The interlining is inserted into the pocket as it is sewn onto the T-shirt front. Pockets may be attached to the garment with automated setters, so the operator only has to arrange the fabric pieces, and the mechanical setter positions the pocket and stitches the seam.

**Stitching the shoulder seams:** Generally, shoulder seams require a simple superimposed seam. Higher quality T-shirt manufacturers may reinforce seams with tape or elastic. Depending on the style of the T-shirt, the seams at the shoulder may be completed before or after the neckband is attached. For instance, if a tubular neckband is to be applied, the shoulder seams must first be closed.

**Attaching the neckband:** For crew neck shirts, the neck edge should be slightly shorter in circumference than the outer edge where it is attached to the garment. Thus, the neckband must be stretched just the right amount to prevent bulging. Tubular neckbands are applied manually. The bands are folded, wrong sides together, stretched slightly, and aligned with the neckline. The superimposed seam is stitched with an over-edge stitch.

Bound seams are finished with a cover stitch and are easy to achieve. Bound seams may be used on a variety of neckline styles. The process entails feeding ribbed fabric through machines which fold the fabric and apply tension to it.

Some neckbands on lower-priced shirts are attached separately to the front and back necklines of the garment. Thus when the shoulder seams are stitched, seams are visible on the neckband.

V-necks require the extra step of either lapping or mitering the neckband. In the former process, one side is folded over the other. A mitered seam is more complex, requiring an operator to overlap the band accurately and stitch the band at center front. An easier method for a V-neck look is to attach the band to the neckline and then sew a tuck to form a V.

**Finishing the neckline:** Necklines with superimposed seams may be taped, so that the shirt is stronger and more comfortable. Tape may be extended across the back and over the shoulder seams to reinforce this area as well and to flatten the seam. The seam is then cover stitched or top stitched.

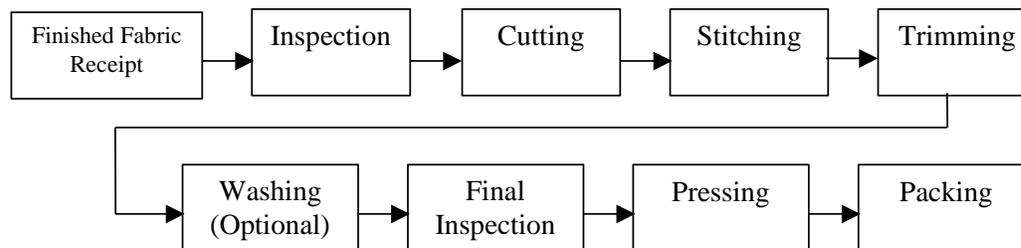
**Label setting:** One or more labels are usually attached at the back of the neckline. Labels provide information about the manufacturer, size, fabric content, and washing instructions.

**Optional features:** Some T-shirts will have trim or screen prints added for decorative purposes. Special T-shirts for infants have larger openings at the head. The shoulder seams are left open near the neck, and buttons or other fasteners are attached.

**Finishing operations:** T-shirts are inspected for flaws in the fabric, stitching, and thread.

High-quality T-shirts may be pressed through steam tunnels before they are packaged. Packaging depends on the type of T-shirt and the intended distribution outlet. For underwear, the shirts are folded and packaged in pre-printed bags, usually of clear plastic, that list information about the product. Shirts may be boarded, or folded around a piece of cardboard, so that they maintain their shape during shipping and on the shelf. Finally, they are placed into boxes by the dozen or half-dozen.

### 5.1.1 Process Flow Chart



### 5.1.2 Raw material required

The main raw materials used in the manufacturing of Polo T-shirts are listed below:

- Printed or dyed knitted fabric (may be 100% Cotton or Polyester/Cotton in different ratios)
- Buttons
- Threads
- Labels
- Packing material

### 5.1.3 Marketing

In view of the fact that main raw material and skilled manpower is available in Pakistan, scope for garment exports from Pakistan is unlimited. Effective marketing plays a very crucial role for making this business a success.

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

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 basis.

#### 5.1.4 Guidelines for Garments Export Business

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

- Ensure best quality at all costs. This is a basic key for a successful exporter in the garment exports.
- Commitments with buyers regarding quality, price and shipment are 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 with the buyers should be met very seriously.
- Sourcing of export orders, through several apparel buying houses based in Pakistan, can be a good startup point of marketing efforts. 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<sup>1</sup>.
- Many garment factories are considering it worthwhile setting up their overseas offices and warehouses in the potential markets. Overseas office cannot only assist in sales, but also keep the garment factory continuously informed about the latest design changes, buyers' 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.
- The professional marketing staff and owner(s) should regularly visit international clothing fairs, shows and exhibitions. Such events provide very promising opportunities to penetrate in the international markets, meeting new customers and negotiating orders<sup>2</sup>.
- In order to be successful in the market, it is very important to be active and quick in response to the customers. 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.
- Regular subscriptions with local and foreign textile trade and fashion magazines will ensure the flow of latest marketing and trade information to the exporter.

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<sup>1</sup> A list of apparel buying houses can be obtained separately.

<sup>2</sup> The calendar of such events can be obtained from EPB.

### 5.1.5 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.

### 5.2 Installed and operational capacities

Deciding the project capacity is a critical factor. After thorough market research, the production capacity of this particular pre-feasibility is decided to be 1,600 shirts per day on 8 hours basis. While maximum capacity utilization of the unit is assumed at 87%, are 1,392 shirts per day and 434,304 shirts annually. However, during 1st year operation unit will operate at 60% capacity and will stitch 299,520 shirts per year.

## 6 CRITICAL FACTORS

The total commercial viability of this proposed stitching unit depends on the regular supply of export orders, i.e. at least 300 days per year production. This requires very aggressive marketing efforts at the entrepreneur's end and the concerned management team.

Following are other key points that can be taken as the key success factors for any export based stitching unit:

- Assurance of high consistent quality
- Surety of on time delivery
- Competitive rates
- Cost efficiency
- Better services to the customer i.e. claim settlement etc.
- Better communication with the customers
- To run a garment manufacturing set-up is a full-time job, and requires continuous hard work and attention. Anyone who is not prepared to put best possible efforts, concentration and hard work, should not attempt to enter in this business.

### 6.1 Threats

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

Stitching expertise is not available at the very best possible level. This restricts the industry only to the production of basic garments and it cannot enter in the production of high quality or fashion garments.

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

Asia Pacific markets are emerging as new players in the world knitwear trade. Competition from China, Hong Kong, Vietnam, and Korea is likely to increase in the coming years. NAFTA (North American Free Trade Agreement) is also one of the threats.

## **7 GEOGRAPHICAL POTENTIAL FOR INVESTMENT**

According to the estimate given by the industry and machine sellers, there are hundreds of polo T-shirts manufacturing machines operational in Pakistan. Most of the manufacturing units are located in Karachi, Lahore, Faisalabad and Sialkot. A few factories are also located in Hyderabad, Multan and Rawalpindi.

Therefore, any of the above cities would be a suitable location for setting up a polo T-shirts manufacturing unit. Raw material and labor is also easily accessible in these cities.

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

Demand of Pakistani embroidery and polo shirts is gaining momentum globally. Orders are being placed from Saudi Arabia, United Arab Emirates, United Kingdom, United States, Belgium and Oman.

Pakistan has a great potential to compete in the global market, particularly in the Middle East markets. With little effort it can gain a reasonable share.

## **9 PROJECT COST SUMMARY**

A detailed financial model has been developed to analyze the commercial viability of the proposed Polo T-Shirts manufacturing unit. Various costs and revenue related assumptions along with results of the analysis are outlined in this section. The projected Income Statement, Cash Flow Statement and Balance Sheet are also attached as annexure.

### **9.1 Project Economics**

All the figures in this financial model have been calculated for estimated sales of Rs. 93.36 million in the year one. The capacity utilization during year one is worked out at 60% with 3% increase in subsequent years up to the maximum capacity utilization of 87%.

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

**Table 1: Project Economics**

Description	Details
Internal Rate of Return (IRR)	45%
Payback Period (yrs.)	2.94
Net Present Value (Rs.)	44,612,952

## 9.2 Project Financing

Following table provides details of the equity required and variables related to bank loan;

**Table 2: Project Financing**

Description	Details
Total Equity (50%)	Rs. 10,963,343
Bank Loan (50%)	Rs. 10,963,343
Markup to the Borrower (%age / annum)	14%
Tenure of the Loan (Years)	5 years

## 9.3 Project Cost

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

**Table 3: Project Cost**

Description	Amount Rs.
<b>Capital Cost</b>	
Plant and Machinery	8,488,690
Furniture & Fixture	740,000
Office Equipment	108,000
Office Vehicles	746,750
Pre-operating Cost	2,112,804
<b>Total Capital Cost</b>	<b>12,196,244</b>
<b>Working Capital</b>	
Equipment spare part inventory	13,000
Raw Material Inventory	4,400,793

Up-front Building Rent	2,592,000
Cash	2,724,649
<b>Total Working Capital</b>	<b>9,730,442</b>
<b>Total Project Cost</b>	<b>21,926,686</b>

#### 9.4 Space Requirement

The space requirement for the proposed Polo T-Shirts Manufacturing is estimated considering various facilities including management office, production hall, storage, open space, etc. Details of space requirement and cost related to land & building is given below;

**Table 4: Space Requirement**

Description	Estimated Area (Sqft)
Management Building	800
Cutting Room	1,200
Sampling Room	1,000
Stitching Room	2,500
Inspection Room	1,400
Packing Room	1,400
Finished Garments Store	1,000
Fabrics and Accessories inventory room	1,500
<b>Total</b>	<b>10,800</b>

- **Recommended Mode**

It is recommended that this project should be started in a rented building. This will reduce the initial capital cost of the project. An appropriate shed is normally available in many commercial/industrial areas of under mentioned clusters.

**Table: 5 Rent Cost**

Rent cost	Monthly rent (Rs.)	Annual rent (Rs.)
Building rent cost (@ Rs.20/= per sq. ft)	216,000	2,592,000

## 9.5 Machinery & Equipment Requirement

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

**Table 6: Machinery & Equipment**

Description	Quantity	Unit Cost (Rs.)	Total Cost (Rs.)
Straight knife cutting machine	2	165,000	330,000
Manual end cutting machine with long handle (cutting length max.90" by hand).	1	60,000	60,000
Direct drive, high speed, 1, needle, lockstitch machine with automatic thread trimmer (dry oil pan system).with original stand, and local table.	32	85,000	2,720,000
Single needle, chain stitch button sewing machine, with thread trimmer (1500rpm) with original table & stand & Thailand 300w Mitsubishi motor	2	245,000	490,000
Single needle, lockstitch straight button holing machine with an auto lubrication. (6.4-19.1mm knife width) (3600 rpm) with original table & stand 300W Mitsubishi motor.	2	405,000	810,000
2,needlefeed off the arm double chain stitch machine for lightweight materials (standard) semi-automatic lubrication (3500-4000 rpm) with original table & stand & ab 400 clutch motor	1	365,000	365,000
High speed,2,needle 5,thread,safetystitch for plain seaming on light to medium weight materials shirts (7000 rpm) with local table & stand & ab 400w clutch motor	3	110,000	330,000
Oil barrier type, 3, needle, 5, thread, cylinder bed interlock stitch machine. With new needle thread take up mechanism (6000spm) with local table & stand & ab 400w clutch	2	230,000	460,000
Fully automatic electric steam generator. (Heater capacity - 7.2 kw / single phase).	1	345,000	345,000
Electric steam iron (for all fabrics) (sole sized: 200 x 140mm).	2	60,000	120,000
Vacuum table without buck (1200 x 900 mm)	3	99,000	297,000
Compact press (fussing machine) (rotary strip-off device (ms) (heater output 4 kw/dimension width 1660 l x 880w x 490h mm) (max belt speed 8.7mm/min) (fusing width)	1	330,000	330,000

General sales tax (17%)			1,131,690
Generator (70 KVA)	1	700,000	700,000
<b>Total</b>			<b>8,488,690</b>

### 9.5.1 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 as compared to Chinese or Far Eastern machinery. Second hand machinery of different origins is also available from the local market.

### 9.6 Furniture & Fixtures Requirement

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

**Table 7: Furniture & Fixture**

Description	Quantity	Unit Cost (Rs.)	Total Cost (Rs.)
Furniture			500,000
Air Conditioners (1.5 ton)	4	60,000	240,000
<b>Total</b>			<b>740,000</b>

### 9.7 Office Equipment Requirement

Following office equipment will be required for Polo T-Shirts Manufacturing Unit

**Table 8: Office Equipment**

Description	Quantity	Unit Cost (Rs.)	Total Cost (Rs.)
Computers with UPS	2	45,000	90,000
Printer	1	15,000	15,000
Telephone Sets	2	1,500	3,000
<b>Total</b>			<b>108,000</b>

### 9.8 Human Resource Requirement

In order to run operations of Polo T-Shirts manufacturing smoothly, details of human resources required along with number of employees and monthly salary are recommended as under;

**Table 9: Human Resource Requirement**

Description	No. of Employees	Monthly Salary per person (Rs.)
CEO	1	60,000
Production Planning Officer	1	25,000
Production Manager	1	30,000
Cutting Helper	2	15,000
Stitching Supervisor	1	18,000
Sampling Stitcher	2	15,000
Rowing Inspector	2	18,000
Machine Operator	52	20,000
Helper (Machine Operator)	4	15,000
Clipper	6	15,000
Stain Remover	1	15,000
Spot Washer	1	18,000
Iron Presser	3	15,000
Rafo	1	15,000
Packing Staff	3	15,000
Final Table Inspector	7	10,000
Finishing Supervisor	1	15,000
Cutting Master	1	25,000
R/I Supervisor	1	15,000
Security Guard	2	15,000
Technician / Electrician	1	15,000
Commercial Manager	1	30,000
Account Officer	1	25,000
<b>Total</b>	<b>96</b>	<b>21,384,000</b>

### 9.9 Utilities and other costs

An essential cost to be borne by the project is the cost of electricity and Telephone. The electricity expenses are estimated to be around Rs. 277,068 per month, whereas, telephone expenses are estimated to be Rs. 36,000 / year. Furthermore, promotional expense being essential for marketing of Polo T-Shirts Manufacturing unit is estimated as Rs. 1.00 million during the first year.

## 9.10 Revenue Generation

Based on the capacity utilization of 98%, of polo T-shirts and 2% for wastage respectively, sales revenue during the first year of operations is estimated as under;

**Table 10: Revenue Generation – Year 1**

Description	No. of Units Produced (No.)	Finished Goods Inventory (No.)	Units available for Sale (No.)	Sale Price / unit (Rs.)	Sales Revenue (Rs.)
Polo T-Shirts	299,520	6,115	287,414	323.575	92,999,985
Wastage	5,990	-	5,990	60	359,400
<b>Total</b>					<b>93,359,385</b>

## 10 CONTACT DETAILS

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

### 10.1 Machinery Suppliers

Name of Supplier	Address	Phone	Fax	E-mail
Almurtaza Garments Machinery Co.	84/ J-1, Johar Town,	042- 35316171 - 73. 0334- 4244202.	042- 35316174.	amcl-l@almurtaza.com

### 10.2 Raw Material Suppliers

Name of Supplier	Address
Azam Cloth Market	Lahore
Rang Mahal	Lahore
Madina Market	Karachi
Ghanta ghar Chowk	Faisalabad
Hussain Agahi Bazar	Multan

## 11 USEFUL WEB LINKS

<b>Small &amp; Medium Enterprises Development Authority (SMEDA)</b>	<a href="http://www.smeda.org.pk">www.smeda.org.pk</a>
<b>Government of Pakistan</b>	<a href="http://www.pakistan.gov.pk">www.pakistan.gov.pk</a>
<b>Ministry of Industries &amp; Production</b>	<a href="http://www.moip.gov.pk">www.moip.gov.pk</a>
<b>Ministry of Education, Training &amp; Standards in Higher Education</b>	<a href="http://moptt.gov.pk">http://moptt.gov.pk</a>
<b>Government of Punjab</b>	<a href="http://www.punjab.gov.pk">www.punjab.gov.pk</a>
<b>Government of Sindh</b>	<a href="http://www.sindh.gov.pk">www.sindh.gov.pk</a>
<b>Government of Khyber Pakhtunkhwa</b>	<a href="http://www.khyberpakhtunkhwa.gov.pk">www.khyberpakhtunkhwa.gov.pk</a>
<b>Government of Balochistan</b>	<a href="http://www.balochistan.gov.pk">www.balochistan.gov.pk</a>
<b>Government of Gilgit Baltistan</b>	<a href="http://www.gilgitbaltistan.gov.pk">www.gilgitbaltistan.gov.pk</a>
<b>Government of Azad Jamu Kashmir</b>	<a href="http://www.ajk.gov.pk">www.ajk.gov.pk</a>
<b>Trade Development Authority of Pakistan (TDAP)</b>	<a href="http://www.tdap.gov.pk">www.tdap.gov.pk</a>
<b>Security Commission of Pakistan (SECP)</b>	<a href="http://www.secp.gov.pk">www.secp.gov.pk</a>
<b>Federation of Pakistan Chambers of Commerce and Industry (FPCCI)</b>	<a href="http://www.fpcci.com.pk">www.fpcci.com.pk</a>
<b>State Bank of Pakistan (SBP)</b>	<a href="http://www.sbp.org.pk">www.sbp.org.pk</a>
<b>Punjab Small Industries Corporation</b>	<a href="http://www.psic.gop.pk">www.psic.gop.pk</a>
<b>Sindh Small Industries Corporation</b>	<a href="http://www.ssic.gos.pk">www.ssic.gos.pk</a>
<b>Punjab Vocational Training Council (PVTC)</b>	<a href="http://www.pvtc.gop.pk">www.pvtc.gop.pk</a>
<b>Technical Education and Vocational Training Authority (TEVTA)</b>	<a href="http://www.tevta.org">www.tevta.org</a>
<b>Pakistan Readymade Garment Technical Training Institute</b>	<a href="http://www.prgmea.org/prgtti/">www.prgmea.org/prgtti/</a>
<b>Punjab Industrial Estates (PIE)</b>	<a href="http://www.pie.com.pk">www.pie.com.pk</a>
<b>Faisalabad Industrial Estate Development and Management Company (FIEDMC)</b>	<a href="http://www.fiedmc.com.pk">www.fiedmc.com.pk</a>

## 12 ANNEXURES

### 12.1 Income Statement

Income Statement										
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Revenue	93,359,538	103,909,166	115,388,655	127,871,610	141,437,120	156,170,153	172,161,977	189,510,606	208,321,289	228,707,015
<i>Cost of sales</i>										
Cost of goods sold 1	52,809,522	58,222,498	64,044,748	70,303,666	77,028,365	84,249,774	92,000,753	100,316,206	109,233,202	118,791,107
Operation costs 1 (direct labor)	18,504,605	20,306,239	22,283,284	24,452,816	26,833,576	29,446,131	32,313,048	35,459,092	38,911,440	42,699,912
Operating costs 2 (machinery maintenance)	624,000	686,400	755,040	830,544	913,598	1,004,958	1,105,454	1,215,999	1,337,599	1,471,359
Operating costs 3 (direct electricity)	3,324,816	3,657,297	4,023,027	4,425,330	4,867,863	5,354,649	5,890,114	6,479,125	7,127,038	7,839,742
Total cost of sales	75,262,943	82,872,435	91,106,098	100,012,356	109,643,402	120,055,512	131,309,369	143,470,423	156,609,279	170,802,120
Gross Profit	18,096,596	21,036,732	24,282,557	27,859,254	31,793,717	36,114,640	40,852,607	46,040,184	51,712,010	57,904,895
<i>General administration &amp; selling expenses</i>										
Administration expense	2,100,000	2,304,459	2,528,824	2,775,034	3,045,216	3,341,702	3,667,055	4,024,084	4,415,875	4,845,811
Administration benefits expense	210,000	230,446	252,882	277,503	304,522	334,170	366,705	402,408	441,588	484,581
Building rental expense	2,592,000	2,851,200	3,136,320	3,449,952	3,794,947	4,174,442	4,591,886	5,051,075	5,556,182	6,111,800
Electricity expense	2,481,567	2,729,723	3,002,696	3,302,965	3,633,262	3,996,588	4,396,247	4,835,572	5,319,459	5,851,405
Water expense	60,000	66,000	72,600	79,860	87,846	96,631	106,294	116,923	128,615	141,477
Gas expense	30,000	33,000	36,300	39,930	43,923	48,315	53,147	58,462	64,308	70,738
Travelling expense	210,000	230,446	252,882	277,503	304,522	334,170	366,705	402,408	441,588	484,581
Communications expense (phone, fax, mail, internet, etc.)	216,000	237,600	261,360	287,496	316,246	347,870	382,657	420,923	463,015	509,317
Office vehicles running expense	120,000	132,000	145,200	159,720	175,692	193,261	212,587	233,846	257,231	282,954
Office expenses (stationary, entertainment, janitorial services, etc.)	756,000	831,600	914,760	1,006,236	1,106,860	1,217,546	1,339,300	1,473,230	1,620,553	1,782,608
Promotional expense	1,000,000	800,000	640,000	512,000	409,600	327,680	262,144	209,715	167,772	134,218
Professional fees (legal, audit, consultants, etc.)	466,798	519,546	576,943	639,358	707,186	780,851	860,810	947,553	1,041,606	1,143,535
Depreciation expense	1,083,019	1,083,019	1,083,019	1,083,019	1,083,019	1,174,199	1,174,199	1,174,199	1,174,199	1,174,199
Amortization of pre-operating costs	422,561	422,561	422,561	422,561	422,561	-	-	-	-	-
Bad debt expense	933,595	1,039,092	1,153,887	1,278,716	1,414,371	1,561,702	1,721,620	1,895,106	2,083,213	2,287,070
Subtotal	12,681,540	13,510,692	14,480,235	15,591,854	16,849,771	17,929,126	19,501,356	21,245,804	23,175,203	25,304,294
Operating Income	5,415,056	7,526,040	9,802,322	12,267,400	14,943,947	18,185,514	21,351,251	24,794,379	28,536,807	32,600,601
Gain / (loss) on sale of office vehicles	-	-	-	-	298,700	-	-	-	-	-
Earnings Before Interest & Taxes	5,415,056	7,526,040	9,802,322	12,267,400	15,242,647	18,185,514	21,351,251	24,794,379	28,536,807	32,600,601
Interest on short term debt	-	-	-	-	-	-	-	-	-	-
Interest expense on long term debt (Project Loan)	853,737	724,581	577,342	409,491	218,140	-	-	-	-	-
Interest expense on long term debt (Working Capital Loan)	404,299	-	-	-	-	-	-	-	-	-
Subtotal	1,258,036	724,581	577,342	409,491	218,140	-	-	-	-	-
Earnings Before Tax	4,157,020	6,801,459	9,224,980	11,857,909	15,024,507	18,185,514	21,351,251	24,794,379	28,536,807	32,600,601
Tax	-	-	-	-	-	-	-	-	-	-
<b>NET PROFIT/(LOSS) AFTER TAX</b>	<b>4,157,020</b>	<b>6,801,459</b>	<b>9,224,980</b>	<b>11,857,909</b>	<b>15,024,507</b>	<b>18,185,514</b>	<b>21,351,251</b>	<b>24,794,379</b>	<b>28,536,807</b>	<b>32,600,601</b>

## 12.2 Balance Sheet

<b>Balance Sheet</b>											
	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	2,724,649	795,659	6,806,430	14,648,430	24,667,319	36,121,126	52,769,630	72,120,094	94,370,103	119,725,377	180,768,236
Accounts receivable		3,836,693	4,053,467	4,506,120	4,998,499	5,533,741	6,115,218	6,746,551	7,431,628	8,174,628	8,980,034
Finished goods inventory		1,601,339	1,763,243	1,938,428	2,127,922	2,332,838	2,554,373	2,793,816	3,052,562	3,332,112	3,634,088
Equipment spare part inventory	13,000	15,015	17,342	20,030	23,135	26,721	30,863	35,647	41,172	47,553	-
Raw material inventory	4,400,793	5,337,062	6,457,845	7,797,848	9,398,102	11,307,092	13,582,079	16,290,659	19,512,589	23,341,935	-
Pre-paid building rent	2,592,000	2,851,200	3,136,320	3,449,952	3,794,947	4,174,442	4,591,886	5,051,075	5,556,182	6,111,800	-
<b>Total Current Assets</b>	<b>9,730,442</b>	<b>14,436,969</b>	<b>22,234,648</b>	<b>32,360,808</b>	<b>45,009,925</b>	<b>59,495,960</b>	<b>79,644,048</b>	<b>103,037,841</b>	<b>129,964,237</b>	<b>160,733,406</b>	<b>193,382,357</b>
<i>Fixed assets</i>											
Machinery & equipment	8,488,690	7,639,821	6,790,952	5,942,083	5,093,214	4,244,345	3,395,476	2,546,607	1,697,738	848,869	-
Furniture & fixtures	740,000	666,000	592,000	518,000	444,000	370,000	296,000	222,000	148,000	74,000	-
Office vehicles	746,750	597,400	448,050	298,700	149,350	1,202,648	962,119	721,589	481,059	240,530	-
Office equipment	108,000	97,200	86,400	75,600	64,800	54,000	43,200	32,400	21,600	10,800	-
<b>Total Fixed Assets</b>	<b>10,083,440</b>	<b>9,000,421</b>	<b>7,917,402</b>	<b>6,834,383</b>	<b>5,751,364</b>	<b>5,870,993</b>	<b>4,696,795</b>	<b>3,522,596</b>	<b>2,348,397</b>	<b>1,174,199</b>	<b>-</b>
<i>Intangible assets</i>											
Pre-operation costs	2,112,804	1,690,243	1,267,683	845,122	422,561	-	-	-	-	-	-
<b>Total Intangible Assets</b>	<b>2,112,804</b>	<b>1,690,243</b>	<b>1,267,683</b>	<b>845,122</b>	<b>422,561</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>TOTAL ASSETS</b>	<b>21,926,686</b>	<b>25,127,633</b>	<b>31,419,732</b>	<b>40,040,312</b>	<b>51,183,850</b>	<b>65,366,953</b>	<b>84,340,843</b>	<b>106,560,437</b>	<b>132,312,634</b>	<b>161,907,605</b>	<b>193,382,357</b>
<b>Liabilities &amp; Shareholders' Equity</b>											
<i>Current liabilities</i>											
Accounts payable		4,831,693	5,374,034	5,968,575	6,620,996	7,337,735	8,126,110	8,994,453	9,952,271	11,010,435	9,884,586
<b>Total Current Liabilities</b>	<b>-</b>	<b>4,831,693</b>	<b>5,374,034</b>	<b>5,968,575</b>	<b>6,620,996</b>	<b>7,337,735</b>	<b>8,126,110</b>	<b>8,994,453</b>	<b>9,952,271</b>	<b>11,010,435</b>	<b>9,884,586</b>
<i>Other liabilities</i>											
Long term debt (Project Loan)	6,098,122	5,175,577	4,123,875	2,924,934	1,558,143	-	-	-	-	-	-
Long term debt (Working Capital Loan)	4,865,221	-	-	-	-	-	-	-	-	-	-
<b>Total Long Term Liabilities</b>	<b>10,963,343</b>	<b>5,175,577</b>	<b>4,123,875</b>	<b>2,924,934</b>	<b>1,558,143</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
<i>Shareholders' equity</i>											
Paid-up capital	10,963,343	10,963,343	10,963,343	10,963,343	10,963,343	10,963,343	10,963,343	10,963,343	10,963,343	10,963,343	10,963,343
Retained earnings		4,157,020	10,958,480	20,183,459	32,041,368	47,065,875	65,251,389	86,602,640	111,397,020	139,933,827	172,534,428
<b>Total Equity</b>	<b>10,963,343</b>	<b>15,120,364</b>	<b>21,921,823</b>	<b>31,146,803</b>	<b>43,004,711</b>	<b>58,029,218</b>	<b>76,214,733</b>	<b>97,565,984</b>	<b>122,360,363</b>	<b>150,897,170</b>	<b>183,497,771</b>
<b>TOTAL CAPITAL AND LIABILITIES</b>	<b>21,926,686</b>	<b>25,127,633</b>	<b>31,419,732</b>	<b>40,040,312</b>	<b>51,183,850</b>	<b>65,366,953</b>	<b>84,340,843</b>	<b>106,560,437</b>	<b>132,312,634</b>	<b>161,907,605</b>	<b>193,382,357</b>

### 12.3 Cash Flow Statement

<b>Cash Flow Statement</b>											
	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		4,157,020	6,801,459	9,224,980	11,857,909	15,024,507	18,185,514	21,351,251	24,794,379	28,536,807	32,600,601
Add: depreciation expense		1,083,019	1,083,019	1,083,019	1,083,019	1,083,019	1,174,199	1,174,199	1,174,199	1,174,199	1,174,199
amortization of pre-operating costs		422,561	422,561	422,561	422,561	422,561	-	-	-	-	-
Accounts receivable		(3,836,693)	(216,773)	(452,653)	(492,379)	(535,242)	(581,477)	(631,333)	(685,078)	(743,000)	(805,406)
Finished goods inventory		(1,601,339)	(161,904)	(175,184)	(189,495)	(204,916)	(221,534)	(239,444)	(258,746)	(279,550)	(301,975)
Equipment inventory	(13,000)	(2,015)	(2,327)	(2,688)	(3,105)	(3,586)	(4,142)	(4,784)	(5,525)	(6,382)	47,553
Raw material inventory	(4,400,793)	(936,269)	(1,120,783)	(1,340,003)	(1,600,254)	(1,908,990)	(2,274,987)	(2,708,580)	(3,221,930)	(3,829,346)	23,341,935
Pre-paid building rent	(2,592,000)	(259,200)	(285,120)	(313,632)	(344,995)	(379,495)	(417,444)	(459,189)	(505,107)	(555,618)	6,111,800
Accounts payable		4,831,693	542,341	594,541	652,420	716,739	788,375	868,343	957,818	1,058,164	(1,125,848)
Cash provided by operations	(7,005,793)	3,858,777	7,062,473	9,040,940	11,385,681	14,214,598	16,648,504	19,350,464	22,250,010	25,355,274	61,042,858
<i>Financing activities</i>											
Project Loan - principal repayment		(922,546)	(1,051,702)	(1,198,940)	(1,366,792)	(1,558,143)	-	-	-	-	-
Working Capital Loan - principal repayment		(4,865,221)	-	-	-	-	-	-	-	-	-
Additions to Project Loan	6,098,122	-	-	-	-	-	-	-	-	-	-
Additions to Working Capital Loan	4,865,221	-	-	-	-	-	-	-	-	-	-
Issuance of shares	10,963,343	-	-	-	-	-	-	-	-	-	-
Cash provided by / (used for) financing activities	21,926,686	(5,787,767)	(1,051,702)	(1,198,940)	(1,366,792)	(1,558,143)	-	-	-	-	-
<i>Investing activities</i>											
Capital expenditure	(12,196,244)	-	-	-	-	(1,202,648)	-	-	-	-	-
Cash (used for) / provided by investing activities	(12,196,244)	-	-	-	-	(1,202,648)	-	-	-	-	-
<b>NET CASH</b>	<b>2,724,649</b>	<b>(1,928,990)</b>	<b>6,010,771</b>	<b>7,842,000</b>	<b>10,018,889</b>	<b>11,453,807</b>	<b>16,648,504</b>	<b>19,350,464</b>	<b>22,250,010</b>	<b>25,355,274</b>	<b>61,042,858</b>

## 13 KEY ASSUMPTIONS

### 13.1 Operating Assumptions

Description	Details
Hours operational per day	8
Days operational per month	26
Days operational per year	312

### 13.2 Production Assumptions

Description	Details
Maximum Capacity Utilization	87%
Initial Year Capacity Utilization	60%
Capacity Utilization growth rate	3%
Average raw material cost / garment (Rs.)	184
Total Production per day (garments)	1600
Defective garment (% of total finished garments)	2%
Annual Production Capacity (garments)	499,200
Total production of defective garments	73,382

### 13.3 Revenue Assumptions

Description	Details
Production of the unit during first year	299,520
Sale price per garment in year 1 (Rs./garment)	323.575
Export Sales Share	100%
Sale price of defective garments (Rs/garment)	60
Sale price growth rate	6%

### 13.4 Financial Assumptions

Description	Details
Project life (years)	10 years
Debt	50%
Equity	50%

Interest rate on long-term debt	14%
Interest rate on short term debt	15%
Debt tenure	5 years
Debt payments per year	12

### 13.5 Economy-Related Assumptions

Description	Details
Electricity growth rate	10%
Wage growth rate	10%
Office equipment price growth rate	5%
Office vehicles price growth rate	10%

### 13.6 Cash Flow Assumptions

Description	Details
Accounts receivable cycle (in days)	15
Accounts payable cycle (in days)	30
Raw material inventory (in days)	30
Equipment spare part inventory (in days)	7