



**Pre-feasibility Study**

# **RUBBER SOLE & INSOLE MANUFACTURING UNIT**

**May 2021**

*“The figures and financial projections are approximate due to fluctuations in exchange rates, energy costs, and fuel prices etc. Users are advised to focus on understanding essential elements such as production processes and capacities, space, machinery, human resources, and raw material etc. requirements. Project investment, operating costs, and revenues can change daily. For accurate financial calculations, utilize financial calculators on SMEDA’s website and consult financial experts to stay current with market conditions”*

**Small and Medium Enterprises Development Authority**  
Ministry of Industries and Production  
Government of Pakistan

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## 1. DISCLAIMER

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For information	helpdesk.punjab@smeda.org.pk

## 2. EXECUTIVE SUMMARY

Soles and insoles are the essential part of any shoe; therefore, the importance of this sector can never be ignored. Sole is the bottom of a shoe, which comes in contact with the ground. Sole may be made from leather or rubber. A rubber sole may be made from many materials; including Polyvinyl Chloride (PVC), natural rubber and polyurethane (PU). Insole or inner sole is the inner part of a shoe, which is made up of anti-slip materials. The most common and cheapest material for making insole is foam, since it provides longevity, durability, comfort, warmth and a better fit. It further reduces ground impact for the wearer and protects the shoe; resulting in its extended life.

The demand for shoes is directly linked to increase in human population. The demand for soles and insoles increases with increase in demand for shoes. There is a high potential in setting up a Rubber Sole & Insole Manufacturing unit as currently a very few and small scaled units are working to meet the demand of this sector. Critical factors highlighted in the document should be considered before investing in the project for favorable results.

This "Pre-feasibility Document" provides details for setting up a Rubber Sole and Insole Manufacturing Unit, which has a maximum capacity of producing 403,200 pairs of soles and 1,075,200 pairs of insoles in a year. The initial operational capacity in Year One is assumed to be 50%, which translates into production of 201,600 pairs of soles and 537,600 pairs of insoles.

The proposed unit shall be catering to the demands of shoe manufacturing units. Such units exist in all big cities of the country. However, Lahore, Karachi, Islamabad, Faisalabad, Multan, Peshawar, Hyderabad, Sahiwal, Gujranwala and Rawalpindi are more suitable locations for establishing this unit.

The business will be set up in a rented building with area of 4,500 square feet (1 Kanal). The project requires a total investment of PKR 11.15 million. This includes capital investment of PKR 8.12million and working capital of PKR 3.03 million. It is proposed that the project shall be financed through 100% equity. The Net Present Value (NPV) of project is PKR 73.5 million with an Internal Rate of Return (IRR) of 82% and a Payback period of 1.61 years. Further, this project is expected to generate Gross Annual Revenues of PKR 40.51 million during first year, Gross Profit (GP) ratio ranging from 37% to 41% and Net Profit (NP) ratio ranging from 13% to 21% during the projection period of ten years. The proposed project will achieve its estimated breakeven point at capacity of 26% with 103,644 units of sole and 276,385 units of insole and breakeven revenue of PKR 14.82 million and 6.91 million respectively, totaling PKR 21.73 million.<sup>1</sup>

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<sup>1</sup> Breakeven revenues and units have been quoted separately for both soles and insoles as both are manufactured using different raw material and machinery. Fixed cost has been allocated based on respective contribution of soles and insoles.

The proposed project may also be established using leveraged financing. At 50% financing at a cost of KIBOR+3%, the proposed unit provides Net Present Value (NPV) of PKR 91.65 million, Internal Rate of Return (IRR) of 82% and Payback period of 1.61 years. Further, this project is expected to generate Net Profit (NP) ratio ranging from 11% to 21% during the projection period of ten years. The proposed project will achieve its estimated breakeven point at capacity of 28%, i.e. 112,540 units of sole and 300,108 units of insole, with breakeven revenue of PKR 23.59 million.

The project will require basic machinery for the production of soles and insoles; including Sole Making Machine (32 KW), Color Mixer (1.5 KW), Hydraulic Press (Clicker) - 25 Ton, Air Compressor (2 HP) and mold pairs.

The unit will provide employment opportunities to 18 people including the owner. High return on investment and steady growth of business is expected with the entrepreneur having some prior experience or education in the related field of business. The legal business status of this project is proposed as a company. Further, the proposed project would be established as a 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 'sectorial 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.

National Business Development Program for SMEs (NBDP) is a project of SMEDA, funded through Public Sector Development Program of Government of Pakistan.

The NBDP envisages provision of handholding support / business development services to SMEs to promote business startup, improvement of efficiencies in existing SME value chains to make them globally competitive and provide conducive business environment through evidence-based policy-assistance to the Government of Pakistan. The Project is objectively designed to support SMEDA's capacity of providing an effective handholding to SMEs. The proposed program aimed at facilitating around 314,000 SME beneficiaries over a period of five years.

### **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 establishing a "Rubber Sole & Insole Manufacturing" by providing them with a general understanding of the business with the intention of supporting potential investors in crucial and effective 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 & PRODUCTS

With the evolution of humankind, man has discovered and innovated many natural resources and is using those for making different products to make his life comfortable. Rubber is one of most important products extracted from rubber trees, which is widely used in manufacturing. With increase in demand and vast usage scientists have discovered scientific ways to provide substitutes of natural rubber.

Polyurethane is an important substitute material of natural rubber. It is used in manufacturing of many products including tires, tubes, clothes, balls, shoes, soles, etc.

Sole is the bottom part of a shoe that comes in contact with the ground. Over years, Polyurethane (PU) sole has gained popularity due its durability, softness, elasticity and comfortability. It also has lower density than other soles, which provides resistance to slip. Further it is a good shock absorber, has good chemical resistance and is environmental friendly. PU is proposed to be used as raw material for manufacturing soles. Figure 1 shows PU soles.

**Figure 1: PU Sole**



Insole is the inner side of a shoe that control odor and moisture, and absorb shock to give comfort and best fit while wearing shoes. Expensive shoes have insoles made up of leather, which is high-cost but durable and provides a comfortable feel to the wearer. Other materials used for making insoles include:

- Cork, which is a natural material with good isothermal capacity



- Felts, which are used to improve thermal capacity of shoes. Two types, polyester or wool felts may be used as insoles.
- Gel, which is a good shock absorber
- Insole boards, which are used to increase friction to improve grip between foot and shoe.
- Anti-slip materials, used for anti-slipping insoles
- Foam, which is the most common and cheapest material for making insoles, and is naturally shock absorbing, rigid and dependable

Figure 2 shows insoles made of foam.

**Figure 2: Insole**



This document provides details for setting up a medium sized “Rubber Sole & Insole Manufacturing Unit” serving the local footwear sector.

The proposed project will be established in a rented building in any major city such as Lahore, Islamabad, Karachi, Faisalabad, Multan, Peshawar, Hyderabad, Sahiwal, Gujranwala and Rawalpindi.

Total area required for the unit is estimated to be 4,500 Sq. ft. (1 Kanal). The business will provide employment to 15 to 20 persons.

### **5.1. The Process of Sole Manufacturing**

Brief description of process flow is as follows:

#### **Heating**

For sole making, initially raw materials, Polyurethane (PU) and Isocyanite (ISO) are heated, using separate containers in the electric oven of the sole making machine, to get it ready for addition of other materials. PU and ISO are heated in the ratio of 52% and 43% respectively; remaining 5% material is mixed in later stage.

**Figure 3: Electric Oven****Mixing**

After heating the Polyurethane (PU) and Isocyanite (ISO) at the desired temperature, color, hardener and catalyst is mixed with the heated PU in the same drum containing PU in ratio of 2%, 1% and 2% respectively. Normally a sole of size 6 requires 60 grams of mixture.

**Pouring**

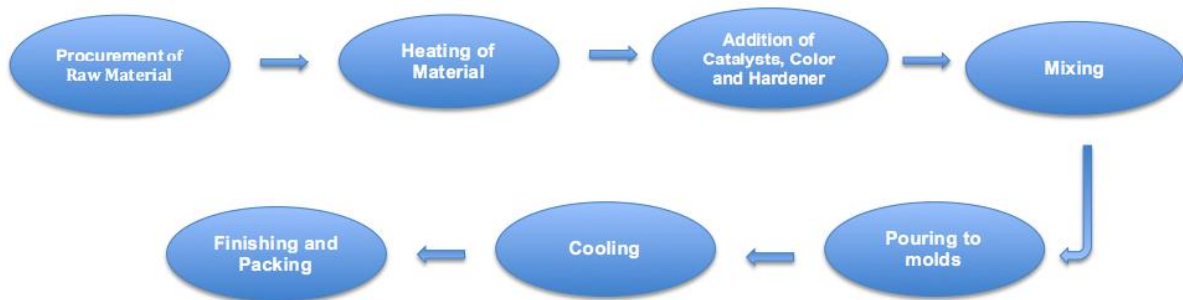
Both materials, mixed PU and ISO, are transferred through pipes to respective containers of sole making machine. Pairs of molds are fixed on an iron structure around the machine in a circular shape as shown in Figure 5. The number of molds ranges from 30 to 120 based on the scale of production. The molds may also be of same or different sizes. The machine is specifically automated to pour the amount of mixture to the targeted molds.

**Cooling**

After the mixtures are transferred to the molds, cooling the mold gives the desired sole shape.

**Finishing and Packing**

The product is inspected to identify defects. The soles qualifying the inspection are ready for packing. Table 4 shows the process flow and Figure 5 shows the image of a sole making machine.

**Figure 4: Rubber Sole Making Process Flow****Figure 5 Rubber Sole-Making Machine**

## 5.2. The Process of Insole Manufacturing

An insole for a shoe is prepared by using a hydraulic clicker, a die-cutting machine. The cloth sheet/ foam for making insole is placed on the machine and a die of desired size is placed on the cloth. The machine cuts the cloth in the shape of insole by applying pressure on the die. For making more insoles at a time the cloth is folded in many layers. The choice of material to be used for making insoles depends upon the type of activity and the type of shoe to be made from it; for example, sandals, joggers, formal shoes, slippers, etc. Figure 6 shows pair of dies used to cut insole and Figure 7 shows a person making insoles by using a hydraulic press (clicker machine).

**Figure 6: Insole Dies**

**Figure 7: Hydraulic Press (Clicker) Machine**

The insoles are printed for identification and beautification using traditional method of screen-printing as shown in Figure 8.

**Figure 8: Screen Printing**

### 5.3. Installed and Operational Capacity

#### 5.3.1. Capacity of Sole Production

The proposed unit assumes to operate with 30 pairs of molds (left and right side) per cycle. A mold is also called a station. It takes 10 minutes time to fill and extract sole from 60 stations, i.e. to complete one cycle. 6 cycles are completed in one hour, producing 180 pairs of soles. This translates into production of 1,440 pairs in 8-hour shift per day and 403,200 pairs in 280 operational days in year. Table 1 shows production capacity of soles.

**Table 1: Sole Production Capacity**

Sole	Number of Mold pairs	Time Required per Cycle of Mold (Minutes)	Production per Hour	Maximum Production per Day (8 hours)	Annual Production Capacity (Pairs) (280 days)
Production Capacity	30	10	180	1,440	403,200

### 5.3.2. Capacity of Insole Production

Insole manufacturing cycle includes folding and placing foam, cork gel or leather cloth according to the size of clicker machines' table surface, placing dies on cloth and pressing to cut insoles and clearing the table surface.

For insole production capacity, it is assumed that 40 pairs of insoles shall be produced per cycle, which will take approximately 5 minutes, which means production of 480 pairs in an hour. This translates into an annual production 1,075,200 pairs by operating the manufacturing units for 280 days in a year. Table 2 shows insole production capacity.

**Table 2: Insole Production Capacity**

Insole	Pairs Produced/ Cycle (A)	Time Required (Minutes/ cycle) (B)	Production per Hour $C = (A/B) \times 60$	Production per Day $D = (C \times 8)$ (8hours)	Annual Production Capacity (Pairs) $E = (D \times 280)$
Production Capacity- Press	40	5	480	3,840	1,075,200

### 5.4. Operational Capacity (Product Wise)

Initial year operational capacity of manufacturing unit is expected to reach 50% of installed capacity. Table 3 gives information on operational capacities of proposed units.

**Table 3: Operational Production Capacity**

Product	Annual Production Capacity (Pairs)	Operational Capacity	Annual Operational Capacity (Pairs)
Sole	403,200	50%	201,600
Insole	1,075,200	50%	537,600

## 6. CRITICAL FACTORS

Critical considerations for the success of this project are as follows:

- Development of attractive designs and good quality soles and insoles at competitive prices
- Development of strong linkages with suppliers for obtaining good quality materials at competitive prices
- Networking with shoes wholesaler / retailers for the sale of the product
- Efficient management of stock to keep inventory cost at the minimum
- Knowledge about the customized needs of the users
- Induction of efficient and trained production staff
- Controls over wastages
- Strict checks on quality standards

## 7. GEOGRAPHICAL POTENTIAL FOR INVESTMENT

Lahore is the footwear center of the country, followed by Karachi, Faisalabad, Multan, Peshawar, Hyderabad, Sahiwal, Gujranwala and Rawalpindi. All shoe-manufacturing units are established in these cities. Therefore, keeping in view the cluster of shoe manufacturing units it is recommended to set up a rubber sole & insole manufacturing units in any of the above-mentioned cities.

## 8. POTENTIAL TARGET MARKETS

Target customer for the proposed project would be shoe manufacturing factories; including large as well as small units. In addition to local markets, arrangements can be made to link the supply of the products to international buyers as well.

The production and sale of sole and insole is directly related to the sale of footwear. As per UN's Comtrade data, Pakistan exported 9.9 thousand tons of footwear products, worth US\$ 110.07 million in the year 2020 against HS code 64.. During the same period, the country imported 7.53 thousand tons of footwear products by spending US\$ 35.13 million. From 2019 to 2020, the exports increased by 11% in quantity and decreased by 8% in value. During the same period, the imports decreased by 44% in quantity and by 42% in value.



**Figure 9: Exports and Imports of Footwear**

According to the World Footwear Yearbook 2020, China is the leading country in producing and using footwear. China had 18.7% share of the total footwear use. Pakistan stood at 7<sup>th</sup> position accounting for 2.2% global footwear usage. Table 4 shows footwear usage during the year 2019.<sup>2</sup>

**Table 4: Footwear Consumers 2019**

Rank	Country	World Share
1	China	18.7%
2	India	11.6%
3	United States	10.9%
4	Indonesia	4.4%
5	Brazil	3.7%
6	Japan	3.3%
7	Pakistan	2.2%
8	Germany	2.0%
9	France	1.7%
10	UK	1.7%

According to the Export Potential Indicator (EPI), the market with the highest potential for Pakistan's footwear exports is the US, with the capacity to absorb additional exports of US\$ 34.6 million.

According to Pakistan Footwear Manufacturers Association (PFMA), the total footwear market of Pakistan was valued at PKR 250 billion in 2016<sup>3</sup>, of which footwear worth PKR 100 billion were imported from China. The share of domestic producers in the Pakistani market was PKR 150 billion of which only 20% was

<sup>2</sup> <https://www.worldfootwear.com/yearbook.html>

<sup>3</sup> <https://www.thenews.com.pk/print/172321-Pakistan-has-far-to-go-in-footwear-industry>

produced by the documented sector. The total requirement of footwear in Pakistan is around 600 million pairs per year. Women buy 4-6 and men 1-2 pairs of footwear per year. For children the average buying is 1-3 pairs per year. This usage is very low as the global average footwear usage is 8-10 pairs for women and 2-4 pairs for men per year. With gradual increase in purchasing power and improving lifestyle, the buying is expected to increase. To meet the requirements, new footwear units are also expected to be established that will generate demand for more sole and insole manufacturing units.

## 9. PROJECT COST SUMMARY

A detailed financial model has been developed to analyze the commercial viability of rubber sole & insole 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 after carefully taking into account the relevant assumptions and target market.

#### 9.1.1. Financial Feasibility Analysis

Table 5 provides the information regarding projected IRR, NPV and payback period of the study.

**Table 5: Financial Feasibility Analysis**

Description	Values
IRR	82%
NPV (PKR)	73,499,378
Payback Period (years)	1.61
Projection Years	10
Discount Rate used for NPV	15%



### 9.1.2. Financial Feasibility Analysis at 50% Debt

Table 6 provides information regarding projected IRR, NPV and payback period of the study as per (50:50) Debt: Equity Model.

**Table 6: Financial Feasibility Analysis at 50% Debt**

Description	Project
IRR	82%
NPV (PKR)	91,651,497
Payback Period (years)	1.61
Discount Rate used for NPV	12%

### 9.2. Project Cost

Total investment cost of the project has been estimated to be PKR 11.15million. The project will be financed through 100% Equity. Table 7 provides the detail of project cost estimated for the proposed manufacturing unit.

**Table 7: Initial Project Cost**

Cost Item	Cost (PKR)	References
Building / Infrastructure	170,000	9.2.2
Machinery & equipment	4,010,000	9.2.3
Furniture & fixtures	230,000	9.2.4
Office equipment	983,500	9.2.5
Office vehicles	1,595,800	9.2.6
Pre-operating costs	722,646	9.2.7
Security against building	405,000	9.2.8
<b>Total Capital Cost</b>	<b>8,116,946</b>	
<b>Working Capital</b>		
Equipment spare part inventory	11,512	
Raw material inventory	1,744,373	
Upfront building rent	135,000	
Upfront insurance payment	140,145	

Cash	1,000,000	
<b>Total Working Capital</b>	<b>3,031,030</b>	
<b>Total Project Cost</b>	<b>11,147,976</b>	

### 9.2.1. Land

The proposed unit will be established in a rented building to avoid the high cost of land. Suitable location for setting up of a unit like this can be easily found on rent. Therefore, no land cost has been added to the project cost. Total space requirement for the proposed unit has been estimated at 1 Kanal (4,500 sq. ft.). This space requirement has been calculated on the basis of proposed manpower, required machinery and equipment, raw material, etc. Breakup of required area is given in Table 8.

**Table 8: Breakup of Area**

<b>Break-up of Area</b>	<b>Area (Sq. Ft.)</b>
Admin Block	900
Manufacturing Area	2,070
Store	620
<b>Total Covered Area</b>	<b>3,590</b>
Parking, Pavement & Driveway	910
Total Uncovered Area	910
<b>Total Area</b>	<b>4,500</b>

### 9.2.2. Building / Civil Works

There will be no cost of building construction, as the proposed business will be started in a rented facility. Industrial electricity connection having load of up to 30-40 KW (B2a) is required for proposed project. There will be no cost of building construction; however, building renovation and interior decoration cost is included in the capital investment. Building rent is included in the operating cost. Detail of renovation cost is given in Table 9.

**Table 9: Renovation Cost**

Cost Item	Unit of Measurement	Total Liter / Area / Number	Cost/Unit/ Sq.feet (PKR)	Total Cost (PKR)
Paint Cost	Litre	90	500	45,000
Labour Cost	Feet	9,000	8	72,000
Wall Racks	Units	1	15,000	15,000
Curtains	Units	6	3,000	18,000
Blinds	Units	4	5,000	20,000
<b>Total</b>				<b>170,000</b>

### 9.2.3. Machinery and Equipment

Table 10 provides the detail of cost of machinery and equipment required for the proposed unit.

**Table 10: Machinery and Equipment**

Cost Item	Number of Items	Unit Cost (PKR)	Total Cost (PKR)
Sole Making Machine (25 KW) <sup>4</sup>	1	2,500,000	2,500,000
Color Mixer (1.5 KW)	1	200,000	200,000
Mold Pairs (Table 11)	30	30,000	900,000
Hydraulic Press Machine (Clicker) – 25 Ton	1	300,000	300,000
Air Compressor – 2 HP	1	50,000	50,000
Insole Patterns (Pairs) (Table 12)	24	2,500	60,000
<b>Total Cost (PKR)</b>			<b>4,010,000</b>

<sup>4</sup> Cost is inclusive of Electric Oven

**Table 11: Mold Pairs**

Mold Size	Quantity (Mold)	Average Cost per Mold Pair (PKR)	Total Cost (PKR)
6	8	30,000	240,000
7	8	30,000	240,000
8	8	30,000	240,000
9	6	30,000	180,000
<b>Total</b>	<b>30</b>		<b>900,000</b>

**Table 12: Insole Patterns**

Sole Size	Quantity (Pairs)	Average Cost per Pattern Pair (PKR)	Total Cost (PKR)
6	6	2,500	15,000
7	6	2,500	15,000
8	6	2,500	15,000
9	6	2,500	15,000
<b>Total</b>	<b>24</b>		<b>60,000</b>

**9.2.4. Furniture and Fixture**

Table 13 gives details of the furniture and fixture required for the project.

**Table 13: Furniture and Fixtures**

Cost Item	Number of Items	Unit Cost (PKR)	Total Cost (PKR)
Office Table	3	25,000	75,000
Executive Chairs	1	20,000	20,000
Office Chairs	4	10,000	40,000
Visitors Chairs	6	10,000	60,000
Sofa Set	1	35,000	35,000
<b>Total Cost</b>			<b>230,000</b>

### 9.2.5. Office Equipment

Table 14 presents details of required office equipment for the proposed unit.

**Table 14: Office Equipment**

Cost Item	No.	Unit Cost (PKR)	Total Cost (PKR)
Laptop Computers	3	80,000	240,000
Printers	1	40,000	40,000
Security Cameras – 2MP	8	2,000	16,000
Digital Video Recorder (DVR)	1	12,000	12,000
LED TV	1	40,000	40,000
Air Conditioners (1.5-ton inverter)	5	90,000	450,000
Lockers	1	50,000	50,000
Water Dispensers	2	20,000	40,000
Ceiling Fans	5	4,500	22,500
Bracket Fan	12	4,000	48,000
Wi-Fi / Internet Routers	1	5,000	5,000
Water Pump – 1.5 HP	2	10,000	20,000
<b>Total Cost</b>			<b>983,500</b>

### 9.2.6. Vehicle

Details of the vehicles required for the proposed project is provided in Table 15.

**Table 15: Vehicles Cost**

Cost Item	Number of Vehicles	Unit Cost (PKR)	Registration Charges @1%	Total Cost (PKR)
Car(998cc)	1	1,500,000	15,000	1,515,000
Motorcycle	1	80,000	800	80,800
<b>Total</b>				<b>1,595,800</b>

### 9.2.7. Pre-Operating Expense

Details of pre-operating costs are given in Table 16.

**Table 16: Pre-Operating Expenses**

Cost Item	Basis	No.	Unit Cost	Cost (PKR)
-----------	-------	-----	-----------	------------

			(PKR)	
Administration expense	Months	3	191,667	575,000
Utilities expense	Months	1	90,746	90,746
Incorporation charges				56,900
<b>Total</b>				<b>722,646</b>

Administrative expenses include salaries of persons hired before commencement of business and utilities have been estimated on the basis of annual electricity running expenses of initial year. Further incorporation charges have been calculated using fee calculator available on SECP's website.<sup>5</sup>

### 9.2.8. Security against Building Rent

Table 17 present the security against building rent detail.

**Table 17: Security against Building Rent**

Cost Item	Number	Monthly Rent	Total Cost (PKR)
Advance against security Rent.	3	135,000	405,000
<b>Total</b>			<b>405,000</b>

### 9.3. Breakeven Analysis

Calculation of break-even analysis is given in Table 18.

**Table 18: Breakeven Analysis**

Particulars	Sole	Insole
Sales (PKR)	27,627,600	12,880,000
Less: Variable cost of sales (PKR)	14,350,321	12,453,176
Contribution/(deficit)	13,277,279	426,824
Contribution Margin	48%	3%
Fixed Costs (PKR)	7,122,737	228,974
Annual Units Sold (Pairs)	193,200	515,200

<sup>5</sup> <https://www.secp.gov.pk/company-formation/fee-calculator/company-incorporation-fee-calculator/>

Contribution Margin per unit (PKR)	68.7	1
Breakeven Units (Pairs)	103,644	276,385
Sale Price (PKR/Pair)	143	25
Breakeven Revenue (PKR)	14,821,120	6,909,613
<b>Total Breakeven Revenue (Sole &amp; Insole)</b>	<b>21,730,732</b>	

#### 9.4. Revenue Generation

Based on the 50% capacity utilization of the unit, sales revenue during the first year of operations is estimated as under.

**Table 19: Details of Revenue Generation**

Product	Pairs Sold	Average Sales Price/ pair (PKR)	Revenue (PKR)
Sole	193,200	143	27,627,600
Insole	515,200	25	12,880,000
<b>Total Revenue</b>			<b>40,507,600</b>

##### 9.4.1. Variable Cost Estimate

Variable costs of the project have been provided in detail for both products (sole & Insole) in Table 20.

**Table 20: Variable Cost Estimate**

Cost	Sole (PKR)	Insole (PKR)	Total Cost (PKR)
Material Cost	11,079,277	9,853,200	20,932,477
Labor	1,320,200	1,545,600	2,865,800
Supervisor Salary	360,000	360,000	720,000
Utilities-Direct	708,945	43,132	752,077
Machinery maintenance cost	130,216	7,922	138,138
Travelling expense	38,250	38,250	76,500

Communications expense (phone, mail, internet, etc.)	230,761	122,400	353,161
Office vehicles running expense	76,500	76,500	153,000
Office expenses (stationery, entertainment, janitorial services, etc.)	153,000	153,000	306,000
Promotional expense	50,635	50,635	101,269
Bad debt expense	202,538	202,538	405,076
<b>Total</b>	<b>14,350,322</b>	<b>12,453,177</b>	<b>26,803,498</b>

For basis of expenses please refer to Table 29.

**Table 21: Material Cost - Sole (Year-1)**

Particulars	Volume (KGs)	Cost / KG (PKR)	Total Cost PKR	Initial Year Production (Pairs)	Cost / Pair (PKR)
Isocyanate (ISO)	43	470	20,391	700	29.13
Polyurethane (PU)	36.4	470	17,094	700	24.42
Hardener	1.8	145	268	700	0.38
Catalyst	0.6	220	122	700	0.17
Color	1.8	660	1,218	700	1.74
Packing Material - Polythene					1.50
<b>Total Cost per Pair (A)</b>					<b>57.35</b>
Quantity Sold (B)					193,200
<b>Material Cost (A*B)</b>					<b>11,079,277</b>



**Table 22: Material Cost - Insole (Year-1)**

Particulars	Length of Single Roll (Meters)	Cost / Meter (PKR)	Cost of Roll (PKR)	Initial Year Production of Insole Pairs per Roll	Cost / Pair (PKR)
Cloth Roll	25	300	7,500	480	15.63
Printing Cost-Ink and Other Consumables					2.00 <sup>6</sup>
Packing Material – Polythene					1.50 <sup>7</sup>
<b>Total Cost per Pair (A)</b>					<b>19.13</b>
<b>Quantity Sold (B)</b>					515,200
<b>Material Cost (PKR) (A*B)</b>					<b>9,853,200</b>

**Table 23: Labor - Sole**

Department	Rate / Dozen Pairs (PKR)	Cost / Pair (PKR)
Production	70	5.83
Packing	12	1.00
<b>Total (A)</b>		<b>6.83</b>
Quantity Sold (B)		193,200
<b>Labor Cost (PKR) (A*B)</b>		<b>1,320,200</b>

**Table 24: Labor Insole**

Department	Rate / Dozen Pairs (PKR)	Cost / Pair (PKR)
Press	12	1
Printing	12	1
Packing	12	1
<b>Total Cost (PKR) (A)</b>		<b>3</b>

<sup>6</sup> Cost of Printing Material is incorporated on the basis of response from the market search. (Survey)

<sup>7</sup> It has been assumed that packing will be in Polythene material which will be purchased at PKR. 300/KG. Each pair will require 5 grams of Polythene.

Quantity Sold (B)		515,200
<b>Labor Cost (PKR) (A*B)</b>		<b>1,545,600</b>

#### 9.4.2. Fixed Cost Details

Table 25 provides detail of fixed cost.

**Table 25: Fixed Cost Details**

Particulars	Amount (PKR)
Salaries and benefits	3,969,000
Building rental expense	1,620,000
Indirect utilities cost	336,873
Insurance expense	140,145
Professional fees (legal, audit, consultants, etc.)	101,269
Depreciation expense	1,039,895
Amortization of pre-operating costs	144,529
<b>Total</b>	<b>7,351,711</b>

Salaries include salary of production supervisor of PKR 720,000, admin staff salaries of PKR 3,060,000 and administrative benefits of PKR 189,000.

### 9.5. Human Resource

For the 1<sup>st</sup> year of operations, the Rubber Sole & Insole Manufacturing Unit shall require the workforce and the salary cost as projected in Table 26.

**Table 26: Human Resource**

Administration Staff	No of Staff	Monthly Salary (PKR)	Annual Salary (PKR)
CEO	1	120,000	1,440,000
Production Supervisor	1	60,000	720,000
Labour – Sole Making*	3		
Labour – Insole Making*	3		
Insole Printing staff	3		
Packing staff*	2		
Manager Accounts and Finance	1	40,000	480,000
Marketing Officer	1	35,000	420,000
Guard	2	20,000	480,000
Office boy	1	20,000	240,000

\*Labor is paid wages on the basis of production and packing instead of monthly wages / salaries. Piece rate Labor for production of sole is PKR 70 per dozen pairs and piece rate for insole making, printing and packing staff is PKR 1 per pair each totaling PKR 3. For further details please refer to Table 24.

## 10. CONTACT DETAILS

In order to facilitate the potential investors, contact details of some relevant vendors to the proposed project is given in Table 27.

**Table 27: Contact Details**

Machine Name	Contact	E-mail/ Website
Sole Making Machine (25 KW)	8615859753730 8618959856826	<a href="mailto:sale@kingkungtech.com">sale@kingkungtech.com</a>
Color Mixer (1.5 KW)	919623448889 912532316397	<a href="mailto:constroentp@gmail.com">constroentp@gmail.com</a>
Mold Pairs	8615859753730 8618959856826	<a href="mailto:sale@kingkungtech.com">sale@kingkungtech.com</a>
Hydraulic Press Machine (Clicker)- 25 Ton	8651588285080 8618951546760	<a href="http://www.zxj.com">www@zxj.com</a>
Air Compressor-2HP	862552275196 8613605168946	<a href="mailto:export@fixtectools.com">export@fixtectools.com</a>
Insole Patterns (Pairs)	86075527814906	<a href="mailto:sales@saviorheat.com">sales@saviorheat.com</a>
Sitara Chemical Industries Ltd. – Sheikhupura	041 4689141	<a href="http://www.sitara.com.pk">www.sitara.com.pk</a>
Bin Rasheed Color & Chemicals Mfg.Co (Pvt) Ltd. – Lahore	042 36296909	<a href="http://www.binrasheed.com">www.binrasheed.com</a>
ZR Engineering Works - Lahore	03008886121	<a href="http://www.zrengineering.com.pk">www.zrengineering.com.pk</a>
AZM Chemicals – Karachi	03343324542	-
SMS Chemical Industries (Pvt.) Ltd. - Hub Balochistan	021 36330563	-
Frontier Chemical Industries – Peshawar	091 823056	-

## 11. USEFUL LINKS

**Table 28: Useful Links**

Name	Weblink
Small & Medium Enterprises Development Authority (SMEDA)	<a href="http://www.smeda.org.pk">www.smeda.org.pk</a>
National Business Development Program for SMEs	<a href="http://www.nbdp.org.pk/">www.nbdp.org.pk/</a>
Government of Pakistan	<a href="http://www.pakistan.gov.pk">www.pakistan.gov.pk</a>
Pakistan Footwear Manufacturers Association (PFMA)	<a href="https://pakfootwear.org">https://pakfootwear.org</a>
Ministry of Industries & Production	<a href="http://www.moip.gov.pk">www.moip.gov.pk</a>
Government of Punjab	<a href="http://www.punjab.gov.pk">www.punjab.gov.pk</a>
Government of Sindh	<a href="http://www.sindh.gov.pk">www.sindh.gov.pk</a>
Government of Khyber Pakhtunkhwa	<a href="http://www.kp.gov.pk">http://www.kp.gov.pk</a>
Government of Balochistan	<a href="http://www.balochistan.gov.pk">www.balochistan.gov.pk</a>
Government of Gilgit Baltistan	<a href="https://gilgitbaltistan.gov.pk">https://gilgitbaltistan.gov.pk</a>
Government of Azad Jammu & Kashmir	<a href="https://ajk.gov.pk">https://ajk.gov.pk</a>
Trade Development Authority of Pakistan (TDAP)	<a href="http://www.tdap.gov.pk">www.tdap.gov.pk</a>
Security Commission of Pakistan (SECP)	<a href="http://www.secp.gov.pk">www.secp.gov.pk</a>
Punjab Small Industries Corporation (PSIC)	<a href="http://www.psic.gop.pk">www.psic.gop.pk</a>
Small Industries Development Board Government of Khyber Pakhtunkhwa	<a href="http://www.small_industries_de.kp.gov.pk">www.small_industries_de.kp.gov.pk</a>
Sindh Small Industries Corporation	<a href="http://www.ssic.gos.pk">www.ssic.gos.pk</a>
Industries and commerce- Government of Balochistan	<a href="http://www.balochistan.gov.pk/departments/industries-and-commerce">www.balochistan.gov.pk/departments/industries-and-commerce</a>
Technical Education and Vocational Training Authority (TEVTA)	<a href="http://www.tevta.org">www.tevta.org</a>
Better Shoes Foundation	<a href="http://www.bettershoes.org">www.bettershoes.org</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
<b>Revenue</b>	<b>40,507,600</b>	<b>54,101,951</b>	<b>70,251,383</b>	<b>89,359,759</b>	<b>111,889,588</b>	<b>124,533,112</b>	<b>138,605,353</b>	<b>154,267,758</b>	<b>171,700,015</b>	<b>191,102,116</b>
<i>Cost of sales</i>										
Material Cost - Sole	11,079,277	14,797,482	19,214,531	24,440,883	30,603,041	34,061,184	37,910,098	42,193,939	46,961,854	52,268,544
Material Cost - Insole	9,853,200	13,159,934	17,088,174	21,736,158	27,216,386	30,291,838	33,714,816	37,524,590	41,764,868	46,484,299
Labour Cost - Sole	1,320,200	1,699,890	2,127,978	2,609,509	3,150,004	3,379,954	3,626,691	3,891,440	4,175,515	4,480,327
Labour Cost - Insole	1,545,600	1,990,115	2,491,292	3,055,035	3,687,810	3,957,020	4,245,882	4,555,832	4,888,407	5,245,261
Production Supervisor Cost (Direct Labor)	720,000	772,560	1,657,914	1,778,941	1,908,804	2,048,147	2,197,662	2,358,091	2,530,232	2,714,938
Total Direct Material and labour Cost	24,518,277	32,419,980	42,579,889	53,620,527	66,566,045	73,738,143	81,695,149	90,523,891	100,320,876	111,193,369
Utilities - Direct	752,077	818,260	890,267	968,610	1,053,848	1,146,587	1,247,486	1,357,265	1,476,704	1,606,654
Machinery maintenance cost	138,138	184,497	239,570	304,732	381,563	424,680	472,668	526,080	585,527	651,692
Total cost of sales	25,408,492	33,422,737	43,709,725	54,893,870	68,001,456	75,309,410	83,415,303	92,407,236	102,383,108	113,451,715
Gross Profit	15,099,108	20,679,213	26,541,658	34,465,889	43,888,132	49,223,702	55,190,050	61,860,522	69,316,907	77,650,401
<i>General administration &amp; selling expenses</i>										
Administration expense	3,060,000	3,283,380	6,009,937	6,448,663	6,919,415	7,424,533	7,966,523	8,548,080	9,172,089	9,841,652
Administration benefits expense	189,000	202,797	383,393	411,380	441,411	473,634	508,209	545,309	585,116	627,830
Building rental expense	1,620,000	1,782,000	1,960,200	2,156,220	2,371,842	2,609,026	2,869,929	3,156,922	3,472,614	3,819,875
Indirect Utilities Cost	336,873	366,518	398,771	433,863	472,043	513,583	558,778	607,951	661,451	719,658
Travelling expense	76,500	82,085	150,248	161,217	172,985	185,613	199,163	213,702	229,302	246,041
Communications expense (phone, internet, etc.)	244,800	262,670	480,795	515,893	553,553	593,963	637,322	683,846	733,767	787,332
Office vehicles running expense	153,000	164,169	300,497	322,433	345,971	371,227	398,326	427,404	458,604	492,083
Office expenses (stationery, entertainment, janitori	306,000	328,338	600,994	644,866	691,942	742,453	796,652	854,808	917,209	984,165
Promotional expense	101,269	135,255	175,628	223,399	279,724	311,333	346,513	385,669	429,250	477,755
Insurance expense	140,145	119,123	98,102	77,080	56,058	35,036	14,015	253,085	215,122	177,159
Professional fees (legal, audit, consultants, etc.)	101,269	135,255	175,628	223,399	279,724	311,333	346,513	385,669	429,250	477,755
Depreciation expense	1,039,895	1,039,895	1,039,895	1,039,895	1,039,895	1,039,895	698,930	1,847,468	1,847,468	1,847,468
Amortization of pre-operating costs	144,529	144,529	144,529	144,529	144,529	-	-	-	-	-
Bad debt expense	405,076	541,020	702,514	893,598	1,118,896	1,245,331	1,386,054	1,542,678	1,717,000	1,911,021
Subtotal	7,918,356	8,587,033	12,621,132	13,696,436	14,887,988	15,856,960	16,726,928	19,452,591	20,868,243	22,409,796
Operating Income	7,180,752	12,092,180	13,920,526	20,769,453	29,000,144	33,366,742	38,463,122	42,407,931	48,448,664	55,240,606
Gain / (loss) on sale of machinery & equipment	-	-	-	-	-	-	1,002,500	-	-	-
Gain / (loss) on sale of office equipment	-	-	-	-	-	-	245,875	-	-	-
Gain / (loss) on sale of office vehicles	-	-	-	-	-	-	398,950	-	-	-
Earnings Before Interest & Taxes	7,180,752	12,092,180	13,920,526	20,769,453	29,000,144	33,366,742	40,110,447	42,407,931	48,448,664	55,240,606
Subtotal	-	-	-	-	-	-	-	-	-	-
Earnings Before Tax	7,180,752	12,092,180	13,920,526	20,769,453	29,000,144	33,366,742	40,110,447	42,407,931	48,448,664	55,240,606
Tax	2,093,263	3,517,577	4,047,797	6,033,986	8,711,611	9,977,925	11,834,719	12,335,814	14,087,627	16,057,290
<b>NET PROFIT/(LOSS) AFTER TAX</b>	<b>5,087,489</b>	<b>8,574,603</b>	<b>9,872,729</b>	<b>14,735,467</b>	<b>20,288,532</b>	<b>23,388,818</b>	<b>28,275,727</b>	<b>30,072,117</b>	<b>34,361,037</b>	<b>39,183,316</b>

## 12.2. Balance Sheet

Balance Sheet											
	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
<b>Assets</b>											
<i>Current assets</i>											
Cash & Bank	1,000,000	4,018,940	7,582,655	9,592,834	12,410,083	16,548,818	19,020,417	33,051,987	61,917,179	94,339,800	155,592,291
Accounts receivable		2,774,493	3,240,053	4,258,676	5,466,135	6,892,101	8,096,668	9,011,591	10,029,901	11,163,280	12,424,731
Finished goods inventory											
Sole		542,152	720,633	933,205	1,181,874	1,473,845	1,634,718	1,813,353	2,011,730	2,232,045	2,476,744
Insole		498,644	662,054	856,551	1,083,648	1,349,982	1,495,923	1,657,871	1,837,601	2,037,085	2,258,513
Total Finished goods inventory		1,040,795	1,382,687	1,789,756	2,265,522	2,823,828	3,130,640	3,471,225	3,849,331	4,269,130	4,735,256
Equipment spare part inventory	11,512	16,605	23,286	31,990	43,259	51,999	62,505	75,134	90,314	108,561	-
Raw material inventory	1,744,373	2,590,721	3,740,824	5,291,261	7,367,357	9,118,253	11,285,261	13,967,270	17,286,676	21,394,958	-
Pre-paid building rent	135,000	148,500	163,350	179,685	197,654	217,419	239,161	263,077	289,384	318,323	-
Pre-paid insurance	140,145	119,123	98,102	77,080	56,058	35,036	14,015	253,085	215,122	177,159	-
Total Current Assets	3,031,030	10,709,177	16,230,956	21,221,282	27,806,067	35,687,454	41,848,667	60,093,369	93,677,909	131,771,212	172,752,277
<i>Fixed assets</i>											
Land	-	-	-	-	-	-	-	-	-	-	-
Building / Infrastructure	170,000	153,000	136,000	119,000	102,000	85,000	68,000	51,000	34,000	17,000	-
Machinery & equipment	4,010,000	3,408,500	2,807,000	2,205,500	1,604,000	1,002,500	401,000	6,872,435	5,841,570	4,810,705	3,779,839
Furniture & fixtures	230,000	195,500	161,000	126,500	92,000	57,500	23,000	394,180	335,053	275,926	216,799
Office vehicles	1,595,800	1,356,430	1,117,060	877,690	638,320	398,950	159,580	3,250,961	2,763,317	2,275,673	1,788,029
Office equipment	983,500	835,975	688,450	540,925	393,400	245,875	98,350	1,685,546	1,432,714	1,179,882	927,050
Advance against building rent	405,000	405,000	405,000	405,000	405,000	405,000	405,000	405,000	405,000	405,000	405,000
Total Fixed Assets	7,394,300	6,354,405	5,314,510	4,274,615	3,234,720	2,194,825	1,154,930	12,659,122	10,811,654	8,964,186	7,116,717
<i>Intangible assets</i>											
Pre-operation costs	722,646	578,117	433,588	289,058	144,529	-	-	-	-	-	-
Legal, licensing, & training costs	-	-	-	-	-	-	-	-	-	-	-
Total Intangible Assets	722,646	578,117	433,588	289,058	144,529	-	-	-	-	-	-
<b>TOTAL ASSETS</b>	<b>11,147,976</b>	<b>17,641,699</b>	<b>21,979,054</b>	<b>25,784,955</b>	<b>31,185,316</b>	<b>37,882,279</b>	<b>43,003,597</b>	<b>72,752,491</b>	<b>104,489,563</b>	<b>140,735,397</b>	<b>179,868,995</b>
<b>Liabilities &amp; Shareholders' Equity</b>											
<i>Current liabilities</i>											
Accounts payable		3,949,979	5,271,905	6,921,028	8,811,632	10,977,183	12,282,652	13,755,819	15,420,773	17,305,571	17,255,853
Total Current Liabilities	-	3,949,979	5,271,905	6,921,028	8,811,632	10,977,183	12,282,652	13,755,819	15,420,773	17,305,571	17,255,853
<i>Shareholders' equity</i>											
Paid-up capital	11,147,976	11,147,976	11,147,976	11,147,976	11,147,976	11,147,976	11,147,976	11,147,976	11,147,976	11,147,976	11,147,976
Retained earnings		2,543,745	5,559,174	7,715,951	11,225,709	15,757,121	19,572,969	47,848,697	77,920,814	112,281,850	151,465,166
Total Equity	11,147,976	13,691,720	16,707,149	18,863,927	22,373,685	26,905,097	30,720,945	58,996,672	89,068,789	123,429,826	162,613,142
<b>TOTAL CAPITAL AND LIABILITIES</b>	<b>11,147,976</b>	<b>17,641,699</b>	<b>21,979,054</b>	<b>25,784,955</b>	<b>31,185,316</b>	<b>37,882,279</b>	<b>43,003,597</b>	<b>72,752,491</b>	<b>104,489,563</b>	<b>140,735,397</b>	<b>179,868,995</b>



### 12.3. Cash Flow Statement

Statement Summaries											SMEDA
Cash Flow Statement											
	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Rs. in actuals Year 10
<i>Operating activities</i>											
Net profit	-	5,087,489	8,574,603	9,872,729	14,735,467	20,288,532	23,388,818	28,275,727	30,072,117	34,361,037	39,183,316
Add: depreciation expense	-	1,039,895	1,039,895	1,039,895	1,039,895	1,039,895	1,039,895	698,930	1,847,468	1,847,468	1,847,468
amortization expense	-	144,529	144,529	144,529	144,529	144,529	-	-	-	-	-
Deferred income tax	-	-	-	-	-	-	-	-	-	-	-
Accounts receivable	-	(2,774,493)	(465,560)	(1,018,623)	(1,207,459)	(1,425,966)	(1,204,567)	(914,923)	(1,018,310)	(1,133,379)	(1,261,451)
Finished good inventory	-	(1,040,795)	(341,891)	(407,069)	(475,766)	(558,306)	(306,812)	(340,584)	(378,107)	(419,799)	(466,126)
Equipment inventory	(11,512)	(5,093)	(6,681)	(8,703)	(11,270)	(8,740)	(10,506)	(12,629)	(15,180)	(18,247)	108,561
Raw material inventory	(1,744,373)	(846,347)	(1,150,104)	(1,550,437)	(2,076,095)	(1,750,896)	(2,167,008)	(2,682,010)	(3,319,406)	(4,108,282)	21,394,958
Pre-paid building rent	(135,000)	(13,500)	(14,850)	(16,335)	(17,969)	(19,765)	(21,742)	(23,916)	(26,308)	(28,938)	318,323
Pre-paid lease interest	-	-	-	-	-	-	-	-	-	-	-
Advance insurance premium	(140,145)	21,022	21,022	21,022	21,022	21,022	21,022	(239,070)	37,963	37,963	177,159
Accounts payable	-	3,949,979	1,321,926	1,649,124	1,890,603	2,165,551	1,305,469	1,473,167	1,664,954	1,884,798	(49,718)
Other liabilities	-	-	-	-	-	-	-	-	-	-	-
Cash provided by operations	(2,031,030)	5,562,685	9,122,888	9,726,131	14,042,958	19,895,856	22,044,569	26,234,692	28,865,192	32,422,621	61,252,491
<i>Financing activities</i>											
Change in long term debt	-	-	-	-	-	-	-	-	-	-	-
Change in short term debt	-	-	-	-	-	-	-	-	-	-	-
Change in export re-finance facility	-	-	-	-	-	-	-	-	-	-	-
Add: land lease expense	-	-	-	-	-	-	-	-	-	-	-
Land lease payment	-	-	-	-	-	-	-	-	-	-	-
Change in lease financing	-	-	-	-	-	-	-	-	-	-	-
Issuance of shares	11,147,976	-	-	-	-	-	-	-	-	-	-
Purchase of (treasury) shares	-	-	-	-	-	-	-	-	-	-	-
Cash provided by / (used for) financ	11,147,976	-	-	-	-	-	-	-	-	-	-
<i>Investing activities</i>											
Capital expenditure	(8,116,946)	-	-	-	-	-	-	(12,203,122)	-	-	-
Acquisitions	-	-	-	-	-	-	-	-	-	-	-
Cash (used for) / provided by invest	(8,116,946)	-	-	-	-	-	-	(12,203,122)	-	-	-
NET CASH	1,000,000	5,562,685	9,122,888	9,726,131	14,042,958	19,895,856	22,044,569	14,031,570	28,865,192	32,422,621	61,252,491



## 13. KEY ASSUMPTION

### 13.1. Operating Cost Assumptions

**Table 29: Operating Cost Assumptions**

Description	Details
Furniture and fixture depreciation	15%
Vehicle depreciation	15%
Office equipment depreciation	15%
Inflation growth rate	8.3%
Wage growth rate	7.3%
Electricity Price Growth Rate	8.8%
Office equipment price growth rate	8.0%
Office vehicle price growth rate	10.7%
Machinery maintenance	0.5% of revenue from sole
Travelling expense	2.5% of administration expense
Professional fees (legal, audit, consultant etc.)	0.25% of revenue
Communication expense	8% of administration expense

### 13.2. Revenue Assumptions

**Table 30: Revenue Assumptions**

Description	Details
Sale Price Growth Rate	11.3%
Initial Capacity Utilization	50%
Capacity Growth Rate	10%
Maximum Capacity Utilization	90%

**13.3. Production Assumptions****Table 31: Production Assumption**

Sole Size	Production Ratio
6	10%
7	30%
8	50%
9	10%
<b>Total</b>	<b>100%</b>

**13.4. Financial Assumptions****Table 32: Financial Assumptions**

Description	Details
Project life (Years)	10
Debt: Equity	0:100
Discount Rate	15%

**13.5. Debt Related Assumptions****Table 33: Debt Related Assumptions**

Description of Cost	Details
Project Life (Years)	10
Debt: Equity	50:50
Discount Rate/Interest Rate	12%
Debt Tenure	5 years
Grace Period	1 Year
Interest Rate (KIBOR+3%)	11.3%

**13.6. Cash Flow Assumptions****Table 34: Cash Flow Assumptions**

Description	Details
Accounts receivable cycle (in days)	25
Accounts payable cycle (in days)	30



# Small and Medium Enterprises Development Authority

## HEAD OFFICE

4th Floor, Building No. 3, Aiwan-e-Iqbal Complex, Egerton Road, Lahore  
Tel: (92 42) 111 111 456, Fax: (92 42) 36304926-7

[www.smeda.org.pk](http://www.smeda.org.pk), [helpdesk@smeda.org.pk](mailto:helpdesk@smeda.org.pk)

REGIONAL OFFICE PUNJAB	REGIONAL OFFICE SINDH	REGIONAL OFFICE KPK	REGIONAL OFFICE BALOCHISTAN
3 <sup>rd</sup> Floor, Building No. 3, Aiwan-e-Iqbal Complex, Egerton Road Lahore, Tel: (042) 111-111-456 Fax: (042) 36304926-7 <a href="mailto:helpdesk.punjab@smeda.org.pk">helpdesk.punjab@smeda.org.pk</a>	5 <sup>TH</sup> Floor, Bahria Complex II, M.T. Khan Road, Karachi. Tel: (021) 111-111-456 Fax: (021) 5610572 <a href="mailto:helpdesk-khi@smeda.org.pk">helpdesk-khi@smeda.org.pk</a>	Ground Floor State Life Building The Mall, Peshawar. Tel: (091) 9213046-47 Fax: (091) 286908 <a href="mailto:helpdesk-pew@smeda.org.pk">helpdesk-pew@smeda.org.pk</a>	Bungalow No. 15-A Chaman Housing Scheme Airport Road, Quetta. Tel: (081) 831623, 831702 Fax: (081) 831922 <a href="mailto:helpdesk-qta@smeda.org.pk">helpdesk-qta@smeda.org.pk</a>