JCRA SECURITY SYSTEMS LIMITED
(Garments Manufacturing Project)

Proposed Project for Establishing Facilities for Manufacture of Garments and Allied Products

A BUSINESS PLAN

Prepared for:
JCRA Security Systems Ltd
P.O. Box 491
Geita
TANZANIA

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TABLE OF CONTENTS

TABLES

ANNEXURE

APPENDICES

1.0 EXECUTIVE SUMMARY

1.1. Introduction

M/s JCRA Security Systems Limited (hereinafter referred to as JCRA) is a locally incorporated under The Companies Act, 2002 and assigned Certificate No. 158668858 dated the 31st day of October, 2022with the company Registered Office situated at Plot No. 50 Block "G" Nyamalembo Street, Mtakuja Ward in Geita. The new company envisages developing facilities for manufacture of garments (hereinafter referred to as JCRA Garments project) basically intended to cater for local demand. This is the second project by this company intended to be implemented simultaneously with another project known as JCRA (Security Services). Both projects are being sponsored by M/s Pro Mining Services Ltd

The holding company, JCRA Security Systems Ltd is formed by five shareholders. The brain behind this project is Ms. Chantel Nicoline Bezuidenhoutis (20% shares) who will be the overall in-charge of the daily garment project activities. Ms. Bezuidenhout is trained in budgeting and accounting with lots ofskills and experience in garments manufacturing. She is followed by Mr. Bezuidenhout (40%) is extensively experienced in the security profession.. The third one is Mr. J.C Coetzee (15%), a specialist in design and implementation of engineering drawings. The fouth is Mr. H.N. Coetsee (15%), a specialist in maintenance and engineering works.. The last one is Mr. F.Y Lukwaro (3%), a business consultant playing advisory and facilitation roles in trade and investment.

1.2 Project Concept

The project entails establishing facilities for the manufacture of quality clothing, focusing mainly in the production of work wear and uniforms particularly for the mining and manufacturing sectors. The immediate plan is to produce for public institutions and private sector, while in the long run more products will be added into the list. Project activities will involve procurement and inspection of raw material, laying and cutting of fabric/material, assembly of the product, finishing, packaging and distribution. The main objective of the company manufacturing of quality clothing which will be sold to clients and distributors for domestic and in future exported to international market and to develop its own brand of apparel products.

1.3 Business Plan Objectives

The objectives of this Project Plan are four-fold. The major focus of this Plan is to establish and ascertain the technical and commercial viability of establishing garments manufacturing project, mainly targeting work wear for the mining and manufacturing sectors in Tanzania.

The Second objective is to facilitate application for bank loan to finance initial working capital requirements. Third and fourth are to facilitate the application for Tanzania Investment Centre (TIC) Certificate of Incentives to access exemptions on duties, VAT deferments and other benefits and protections as statutorily provided for under Tanzania Investment Act (1997) for the Project; while lastly, it will be used by the company as the business plan to guide the project implementation and operational programme.

1.4 Sponsors

The new project, JCRA (Garments) is being sponsored by M/s Pro Mining Services Ltd, a well established company engaged in the provision of technical and engineering support services in Geita Gold Mine since its inception twenty (20) years ago. Pro Mining Services Limited is currently in diversification spree in which it has already entered into sponsoring agreement with other two affiliated projects in the recent past.: M/s Wellness Foods Tanzania Ltd (mixed farming), M/s JCRA Security Systems Ltd (security services provider), and now JCRA (Garments Manufacturing).

1.5. Location and Infrastructure

The project's registered office is situated in rented premises at Plot No: Plot No. 50 Block "G" Nyamalembo Street, Mtakuja Ward in Geita. The area is well established with water and electricity connections, as well as tarmac road.

1.6 Estimated Investment Cost and Proposed Financing

The total project cost is estimated at US$ 551,000- (including initial working capital of US$ 200,000-). The promoters local bankers will likewise be requested to extend an overdraft facility to finance the working capital requirements. Otherwise all the initial fixed cost investment amounting to US$ 351,000- will be financed by the sponsor, M/s Pro Mining Services Ltd of which the financing agreement is already in place.

TABLE 1.1: PROPOSED CAPITAL INVESTMENT STRUCTURE

(IN US$)

S/N	Item	Cost
1	Land and Buildings	25,000
2	Plant Machinery and Equipment	277,000
3	Utility Motor Vehicles	45,000
4	Furniture and Fittings	10,000
5	Add: Pre-Operational Expenditures	18,000
6.	Contingencies	25,000
	Total	400,000
7	Add: Initial working Capital	151,000
	GRAND TOTAL	**551,000**

FINANCING PLAN

S/N	Source of Funds	Cost US$)
1.	Owners Equity	351,000
2.	Add: Bank Overdraft Facility	200,000
	GRANDTOTAL	**551,000**

1.7. Collateral Security

The project promoters will offer as security to bank loan continuous mortgage over project property (machinery to be procured; fixed and floating debenture over all current and future assets of the company; as well as personal and joint guarantees of the company directors.

1.8. Selection of Technology

Garments manufacturing machinery and equipment to be procured for the project will be obtained from China.

1.9. Production and Capacity Utilization

The proposed project facilities will initially concentrate on the production of work wear/uniforms (including suits, belts, hats, boots etc.) mainly for the mining and manufacturing sectors. The project shall have the annual capacity of producing estimated number of at 60,000 pieces/units. However, capacity utilization has been estimated at only 60% in year one, rising to 70% in the second year before stabilizing at 80% from year three onwards.

1.10 Raw Materials Requirements and Availability

The main raw material for garments manufacturing is the fabric, mainly cotton and polyester, to be sourced both locally and through importation.

1.11 Production Costs

Raw materials and consumables constitute about 40% of total revenue of which 90% thereof is cost of fabric materials. Factory overhead cost is estimated at 20% of raw materials cost. Other major direct costs include salaries, wages and labour overhead costs and repairs of machinery equipment. Major administrative costs will include factory building repairs and maintenance, motor vehicle running expenses, advertising and publicity. Salaries and Wages have been based on the prevailing scales in the private sector which is estimated at 15% of total revenue. There is provision of 20% to cover company contribution to NSSSF (10%) and other social welfare (10%). Administrative/Overhead costs are likewise based on the prevailing rates in the market and needs of the proposed project.

1.12. The Market

The study has revealed that there is a huge demand for garments and allied products in the country, given that almost 100% of clothes requirement is imported. It was further revealed that the demand is even higher in the work wear particularly in the mining and industrial sectors. Major companies in the country are interested in branding their products. A large number of companies operating in Tanzania have to depend on far sources for the design and manufacture of their uniforms.

1.13 Environmental Considerations

The project is environmentally sustainable and manageable. Production wastes are considered a temporary environmental hazard and hence directors have designed a plan to tackle the problem through collection and destruction of all the production wastes. Therefore, no serious negative environmental effects are expected.

1.14 Project Developmental Values/Benefits

Implementation of this project will lead to realization of the following development values/economic benefits.

- Creation of employment opportunities for about 38 local permanent jobs and 5 contract jobs for foreign expatriate instructors.
- Contribution of revenue to the Government in form of various taxes
- The project involves transfer of technology to Tanzania from South Africa and China for manufacture and branding of garments and allied products.

1.15. Financial Projection and Evaluations

Annex IV of the attached Financial Projections analyses the Trading Account/Income Statement, Annex V analyses Sources and uses of funds while Annex VI deals with the Balance Sheet. Annex II analyses the Loan Repayment Schedule, Annex VII the Internal Rate of Return (IRR) and Annex VIII deals with the Payback Period Analysis as summarized hereto below:

Tablev1.2: Financial Projection and Evaluations

(**In US$")**

Particulars	**Year 1**	**Year 2**	**Year 5 onwards**
Sales Turnover	540,000	630,000	720,000
Gross Profit from Operations	105,730	153,508	177,508
Net Profit/(Loss)	74,011	107,456	124,256
Net Profit/(Loss) as a percentage of t/over	13.71	17.06	17.75

Break-even Ratio (including cost of finance)			53.13
Net Fixed Assets/Current Liabilities	3.93	2.96	4.25
Debt/Equity Ratio (%)			8.9
Return on Equity (%)			61.23
Return on Investment (%)			38.60

- Internal Rate of Return on investment 18.75%
- The Normal Payback Period is 3.78 years at zero discounting rate
- Breakeven Point ranges between 32.13% and 53.13%

1.16. Organization and Management

The project will be managed through the Board of Directors. The Board will formulate policy and offer strategic business guidance to management and regularly monitor and evaluate performance of the project. The day to day management of the project will be vested in the management team to be headed by a Managing Director.

Key technical personnel will include qualified and experienced production instructors, supervisors, machine operators, marketing and financial personnel. A total of 38 permanent local staff will be employed by this particular project while expatriate staff will be five (5).

1.17. Project Implementation

Implementation of the project is estimated to take 12 months to allow adequate time for grant of permits, authorizations and licences, solicit of funds to implent and run the project, and grant of TIC Certificate of Incentives to access exemptions on duties, VAT deferments and other benefits and protections as statutorily provided for under Tanzania Investment Act (1997) before the arrival of imported machinery and equipment.

1.18. Conclusion and Recommendations

The Business Plan reveals that the project is:

- technically feasible
- financially viable
- economically viable
- socially desirable
- environmentally friendly, sustainable and manageable

In view of the growing demand for garments products in Tanzania and work wear in general and the benefits associated with this project as indicated in this report, the project is strongly recommended for financing and subsequently implemented without unnecessary delays. A fast implementation is advised and an application for term bank loan at the tune of US$ 50,000- and an

overdraft facility of US$ 150,000- is advised to finance procurement and installation of plant machinery as well as financing working capital requirements respectively.

It is further recommended that the project be granted a Tanzania Investment Centre (TIC) Certificate of Incentives so as to enable this project access fiscal incentive and other benefits as provided for under Tanzania Investment Act, 1997.

2.0. GARMENTS MANUFACTURING SECTOR OVERVIEW

2.1. Introduction

Garment manufacturing industry is a sector that manufactures semi-durable consumer goods to fulfill the basic clothing needs of individuals. It is recognized for its contribution to industrial production and export earnings. The apparel manufacturing industry transforms fabrics produced by textile manufacturer into clothing and accessories that fit the retail store. Garment manufacturing industry produces all kinds of cloths and accessories. Garment consumption is not just for fulfilling the needs of individuals, but also for satisfying their tastes and preferences and offering them the style and status they are looking for. The industry is composed of clothing that includes outerwear, underwear, work and leather clothes, knitted and fur clothes. Since garment manufacturing industry is a labor-intensive sector, it is an important employment area within the overall economy. As a manufacturing industry, the availability of raw materials in the country are primarily important.

2.2 Materials Requirement

The process of apparel manufacture begins with the procurement of raw material and inspection or checking of the same. This includes the fabric and trims (zippers, buttons, interlinings, labels, tags etc.). Fabric inspection is done to find faults or defects in the fabric. Ideally 100 per cent of fabric received should be checked before it is cut. However, when the fabric is procured from a reliable source or when the fabric is certified as fault free by the fabric manufacturer, only representative sample quantities are checked. Production costs are among the determinant factors in the competition. Especially energy, finance and environment costs are the determinant factors along with labor costs.

2.3 Fabric Inspection

There are internationally accepted systems of fabric inspection which define the way the fabric is to be inspected and what constitutes an "OK" fabric. In all the systems, the fault or defect is assigned points based on its size, type, spread etc. The total points in a given linear length are then totaled and the fabric is 'accepted' or 'rejected'. Some companies have customized their own system by adapting from existing systems according to their need and specialized fabric types. The acceptance criteria also depends on the final product (style, market, functionality, performance base, etc.) being made. Other than this, certain tests are also conducted to test the suitability of the fabric for its end use. The tests may be standard tests done by any fabric manufacturer or may be specially requisitioned by the buyer of the end product. These tests include colour fastness (against light, moisture, perspiration, chlorine etc.), thread count, fabric weight, shrinkage, flame-retardant etc. Once the defect and its extent are identified, the possibility of repair/rectification is checked. If the fabric can be

rectified, it is sent for the selected process. If not, the fabric is rejected. Some faults may be accepted if the extent is not very high i.e. it does not affect a large area of the fabric. Sometimes the decision to accept defected fabric may be taken if the cost and/or time involved in the reprocessing of the fabric are too high to be absorbed by the cost of the order.

Fabric inspection is one of the most important steps in the process of production, as it defines the final quality of the product The cost of raw material in any garment is about 70%, out of which 90% or above is that of the fabric. In case this process is not carried out properly, the cost factor of the fabric component in the garment would increase leading to less profits and, in some cases, losses.

2.4 Production Process

Garment production is an organized activity consisting of sequential processes such as laying, marking, cutting, stitching, checking, finishing, pressing and packaging. This is a process of converting raw materials into finished products. It will be difficult to maintain the industry if production is not, up to the mark if the preproduction phase of preparation of material is not properly carried out. Ready to wear apparel or garment manufacturing involves many processing steps, beginning with the idea or design concept and ending with a finished product. Apparel manufacturing process involves Product Design, Fabric Selection and Inspection, Patternmaking, Grading, Marking, Spreading, Cutting, Bundling, Sewing, Pressing or Folding, Finishing and Detailing, Dyeing and Washing, QC etc.

Garment manufacturing industry is primarily engaged in the design, cutting and sewing of garments from fabric. On industrial basis there are certain areas or sequence through which Garment are manufactured. Apparel Production is generally done in four stages:

- Procurement and Inspection of raw materials
- Laying and Cutting of fabric/materials
- Assembly of the product
- Finishing and Packaging

Besides these, there may be an additional stage of 'Value Addition', which is a term used to indicate any process that adds to the total cost of the product and hence increases the value of the product. The addition is to enhance use and serviceability/functionality of the product and/or its aesthetic appeal. This includes special finishes to yarn and fabric (e.g., special washes to garments like sand wash or enzymes wash for denims) or surface ornamentation (e.g., prints, embroideries, etc.). This becomes specific to the product style and could be done before, during or after assembly of the product.

The next stage in the production of garments is the planning and processing of the cutting of the fabric. This involves the following steps:

2.4.1 Marker Plan

A marker is defined as the placement of pattern pieces on fabric in such a manner that the consumption of fabric per garment is optimised. The first stage is to identify the number of pieces that make up the entire pattern of one unit of item. The planning of the marker defines the average consumption of the fabric per piece which ultimately affects the cost of the product. The marker may be planned by manually placing pattern pieces on a defined width of the table and creating permutations till the most optimum length is achieved. This is very time consuming especially where the number of pattern pieces involved are high (such as in a formal jacket). There is also the problem of copying the marker so that it can be replicated for multiple lays. The more efficient technique of marker planning is by using specific computer software or CAD system. In this, the pattern pieces are fed into the system (digitized) and planning is done on a monitor. This technique is time efficient and eliminates most of the errors that are related to a manual plan. A printout of the final marker/s is taken for replication which ensures that the consumption of fabric per unit of product is maintained.

2.4.2 Spreading

Fabric is smoothened and spread along lengths of table in layers. The length of the layer is defined by the marker. The fabric layers are matched along one length edge and are equal in length. The fabric may be spread by hand or with the assistance of machines called Spreaders. These machines may be mechanically, electrically, electronically or computer operated. The final product of the spreading process is called a lay. The height of the lay will also affect and be affected by the cutting apparatus to be used. Care is taken during lay preparation that each lay consists of only one type of fabric.

2.4.3 Marking

The patterns are traced on the top layer as per the define marker. In some cases a computerized printout of the marker on a paper sheet of the same width as the fabric may be used as the cover to the lay. This then gets cut with the fabric layers.

2.4.4 Cutting

The layers are cut simultaneously using machines that maybe controlled either manually or through computer systems. There are different types of machines like the straight knife, round knife, band knife and die cutters. The height of the lay, i.e. number of layers in each lay, is dependent on the type of cutting apparatus as well as the dimensional stability of the fabric.

2.4.5 Bundling

The cut pieces are bundled for further processes of stitching/embroidery/printing etc. The number of pieces in a bundles dependent on the type of production system and the process sequence to be followed. The bundles may have all the components of a garment or only selected ones. Along with bundling, ticketing of the components is done which identifies the layer number within the lay. This is done to ensure that components of one garment are cut from the same layer of fabric.

2.4.6 Assembly of the Product

The garment pieces are next sent to the assembly or stitching section comprising of different types of sewing machines. The sewing machines may be multipurpose, i.e they can be used for different types of operations of sewing, or the machines may be specialized, i.e., they are used for specialized operations only. The more common of the first category of machines (multipurpose) is the Single Needle or Lockstitch Machine. It uses two threads to do the stitching, one which enters the fabric from the top through the needle and one which enters from the bottom through a bobbin. This machine can be used for any type of fabric and any kind of stitching operation. The lockstitch is reversible and a very stable, strong and inflexible stitch. It is also possible to work it in reverse direction to have a double stitching line.

For stitching of knitted fabric, the machine used is the Chain Stitch machine. This stitch may use between 1–5 threads for formation. The lower thread comes through a hooked device called the looper. The looper may or may not have its own source of thread. The chain stitch is flexible and non-reversible by nature. It is predominantly used to accommodate stretch in the fabric being sewn. The commonly used type of this machine is the Over lock machine. This machine is used for all garments made from knitted fabric. The process of assembly, i.e., the way in which the multiple pieces of the garment are put together to make a complete garment, may use one or a combination of multiple production systems. Some of these are:

(i) **Tailor system –** Each operator or tailor assembles an entire garment. This system is used mainly in customised clothing — clothing made to fit and to the measurements of one individual. The operators are extremely skilled and are capable of working on varied types of machines.

(ii) **Team working or module system —** The garment is assembled by a group or team of operators. This is the most popular system in the garment manufacturing industry. Each team is a mix of skilled, semi skilled and unskilled workers and jobs are allocated according to skill level requirements of the assembly process.

(iii) **Unit production system –** The garment assembly process is broken into smaller units called operations. Each operator is given one or more operations to do which need to be done on the same sewing machine. The piece is passed from one operator to the next operator in a predetermined pattern enabling the total assembly of the product. This system is used effectively in units with large manufacturing facilities or/and in garments which have many operations as also in manufacturing units which are catering to production of a single product. This system is dependant more on the training of the operator. Operators are trained on specific machines and in specific type of operations so that their individual productivity is high. The system does not work very well in small orders and for garments which have very few operations.

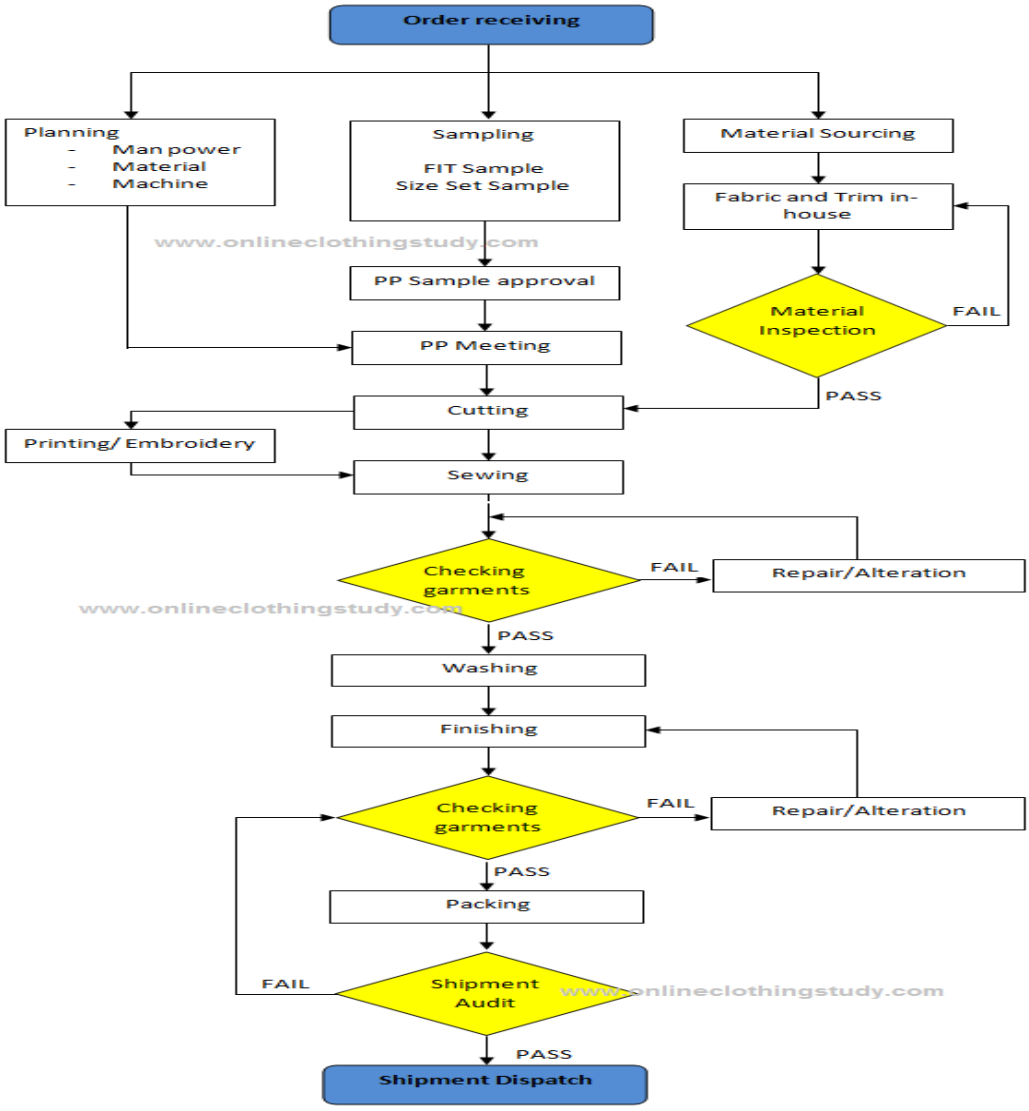
(iv) **Finishing and Packaging -** The garments are finally sent for finishing and packaging. The finishing process includes final inspections, stain removal, repairs, ironing/pressing and folding. The pressing/ironing techniques would also define the final look of the garment (creases, folds, size of fold, etc.). Packaging of garments can be done in many ways. Some garments are hanger packed (coats, jackets, suits, children's dresses etc), some are fold packed (shirts, t-shirts, track suits, etc.) and some are folded and then hanger packed (trousers). The type of packaging is dependent on the specifications of the buyer, the display techniques at point of sale, the bulk of the garment (volume of individual piece), the price of the garment etc. For exports, all the above detailed types of packaging may be used as specified by the buyer. The packing of the garments differs from packaging. Packing is the process of preparing any product for dispatch from one place to another. The most common packing technique is the use of Cartons. A carton is made of layers of corrugated paper stuck together in a box shape (cube/ cuboid). The size of the carton can be customised as per requirement, defining its length, width and height.

2.4.7 The Production Processing Flow Chart

To make a complete garment depends on some steps and techniques. Apparel manufacturing process starts from order receiving and end to the dispatching shipment of the finished garments. If we explain it, then it involves many processing steps like Product Design, Fabric Selection and Inspection, Pattern making, Grading, Marking, Spreading, Cutting, Bundling ,Sewing, Pressing or Folding, Finishing and Detailing, Dyeing and Washing, QC and finally ending with a finished garment.

There are different steps for a garment industry but the standard one is as follow:-

Figure 2.1: Production Processing Flow Chart



2.5 Quality Assurance in the Garment Industry

Quality of the product is defined as its 'fitness for use'. That means the requirement of the customer actually dictates whether any product is a quality product or not. The frequently used term 'Bad Quality', hence, does not exist as the term 'Quality' by itself defines the fitness of the product. The quality of the product is ensured by –

(a) Adopting proper procedure of work – defining the complete process of the product manufacture from raw material to finished goods and elaborating on operating procedures for each department.

(b) Following the adopted procedure as defined above.

(c) Selection and use of appropriate machinery.
(d) Training of manpower – This is done at all levels, i.e., operators, supervisors and management – on machinery, maintenance, quality systems, production and the product.
(e) Inspection of product at various stages of production – For this, crucial stages are selected. There are no defined rules on the frequency and quantity of inspection. Companies tend to develop their own rules for the same. The important issue is that the final product should conform to the standards and specifications laid out for the product in question.

3.0 PROJECT OVERVIEW

3.1 Introduction

The project entails establishing facilities for the manufacture of quality clothing, focusing mainly in the production of work wear and uniforms particularly for the mining and manufacturing sectors. The immediate plan is to produce for public institutions and private sector, while in the long run more products will be added into the list. Project activities will involve procurement and inspection of raw material, laying and cutting of fabric/material, assembly of the product, finishing, packaging and distribution. The main objective of the company manufacturing of quality clothing which will be sold to clients and distributors for domestic and in future exported to international market and to develop its own brand of apparel products.

In this project it is planned that a manufacturing facility be initially set up in Geita Township with the directors looking at extending the production activities to Mwanza city. The following are the main activities involved in the proposed project.

- Rehabilitation, partitioning and converting the rented residential building into garments manufacturing facility;
- Purchase and installation of the various machinery equipment required in the manufacture of garments.
- Purchase of motor vehicles
- Purchase of furniture and fittings
- Recruitment and training of local personnel to instil garments manufacturing skills
- Identify sources of raw materials and establish links material suppliers.

3.2 Project Ownership

The initial Authorized Share Capital of the company is TShs 500,000,000/= divided into 500 ordinary shares of TZS 1,000,000/=. The liability of the members is limited and the following names compromise the company ownership and principal shareholding as illustrated on Table 3.1 below.

Table 3.1: Company Shareholders and Shareholding Structure:

S/No.	Shareholder's Name	Address	Number of Shares
1.	Jeremia Bezuidenhout	433 Bahamas Street Hibberden , 4220 KwaZulu, Natal SOUTH AFRICA	200
2.	Hendrik Nicolaas Coetsee	Plot No. 50 Block "G" Nyamalembo Street, Mtakuja	75

		Ward, Geita District P.O. Box 491 Geita TANZANIA	
3.	Jozua Caleb Coetsee	Plot No. 50 Block "G" Nyamalembo Street, Mtakuja Ward, Geita District P.O. Box 491 Geita TANZANIA	75
4.	Chantel Nicoline Bezuidenhout	433 Bahamas Street Hibberden , 4220 KwaZulu, Natal SOUTH AFRICA	100
5.	Fanuel Yona Lukwaro	Room No Zero Kauma House, Plot No. 242 Block "T" Kenyatta Road P.O. Box 491 Geita TANZANIA	15
6.	Un-allocated Shares		35

Shareholders

The project promoting company, M/s JCRA Security Systems Ltd is formed by five shareholders as indicated in Table 3.1 above. The brain behind this project is Ms. Chantel Nicoline Bezuidenhout (20% shares) who will be the overall in-charge of the daily garment project management. Ms. Bezuidenhout is trained in budgeting and accounting with lots ofskills and experience in garments manufacturing. She is followed by Mr. Bezuidenhout (40%) is extensively experienced in the security profession.. The third one is Mr. J.C Coetzee (15%), a specialist in design and implementation of engineering drawings. The fouth is Mr. H.N. Coetsee (15%), a specialist in maintenance and engineering works.. The last one is Mr. F.Y Lukwaro (3%), a business consultant playing advisory and facilitation roles in trade and investment.

Company Directors

Of the five shareholders, only three have been appointed into the board. These are:

(i) Jeremia Bezuidenhout (Chairman);
(ii) Fanuel Lukwaro (Director); and
(iii) Ms. Chantel Nicoline Bezuidenhout (Secretary)

3.3 Investment in Fixed Assets

Civil Works

Civil work costs include rehabilitation, partitioning and converting the rented residential building into garments manufacturing facility, including installation of electrical works. A budget of US$ 25,000- has been allocated to this project activity.

Machinery Equipment

The bulk of investment in fixed assets will go to financing of machinery equipment. This investment item comprises of machinery divided into five (5) major sections:

- **(i)** **Sewing Machines:** about 30 sewing machines of various kinds and functions including Inline Sewing Vacuum Table will be procured;
- **(ii)** **Cutting Machines:** a number of various fabric cutting machines required will include – bland knives, end cutters, fusing machines, lay table, CAD, head plotter, CAD Software and key;
- **(iii)** **Embroidery Machine;**
- **(iv)** **Finishing Machines (9):** to include vacuum iron, strain removal station, and conveyor needle detector;
- **(v)** **Fabric and Trim Machines:** fabric inspection machines, light box, electronic weighing for fabric, GSM cutter and scale

In addition to the major machinery equipment, the project will also require miscellaneous fixed assets such as racks, pallets, tables, trolleys, bins, centre tables, operator chairs etc, office furniture and motor vehicles for administration and distribution purposes.

In summary, the proposed manufacturing facility will comprise of the following components:

S/N	Item	Cost
1	Land and Buildings	25,000
2	Plant Machinery and Equipment	277,000
3	Utility Motor Vehicles	45,000
4	Furniture and Fittings	10,000
5	Add: Pre-Operational Expenditures	18,000
6.	Contingencies	25,000
	Total	400,000
7	Add: Initial working Capital	151,000
	GRAND TOTAL	**551,000**

FINANCING PLAN

S/N	Source of Funds	Cost US$)
1.	Owners Equity	351,000
2.	Add: Bank Overdraft Facility	200,000
	GRANDTOTAL	**551,000**

3.4 Production Capacity and Plan

The proposed project will have the capacity of producing 60,000 pieces/units of assorted garments and allied products per annum when operating at 100% capacity on a single extended shift of 10-hours per day when operating for 300 days per annum, translating to a production of 200 pieces per day. However, it is expected that the plant will slowly build up its operations starting at 60% capacity, increasing to 70% capacity in the second year and 80% from year 3 onwards. Improvement in capacity utilization is anticipated to arise from operational improvements of the workforce as they gain more skills and work experience. The proposed production plan will be as shown in the table below:

Table 3.2: Production Capacity and Plan

ITEM	**ACTUAL PRODUCTION (IN PCS)**		
	YEAR 1	**YEAR 2**	**Year 3 onwards**
Capacity Utilization	60%	70%	80%
Installed Production Capacity (pcs)	*60,000*	*60,000*	*60,000*
Actual Production of assorted garments and allied products	36,000	42,000	48,000

In product development and quality chain; high value added production, design, collection and fashion capacity are important competitive elements besides brand creation. JCRA envisages production with high value added, creating her own design collection and fashion capacity, and brands.

3.5 Revenue Estimates

Selling price is estimated at US$ 15- per a piece of garment. From the capacity utilization and production plan under Table 3.2 above, and assuming selling price is US$ 15- per piece, revenue is projected as indicated under Table 3.3 below{

Table 3.3: Revenue Estimates

	YEAR 1	**YEAR 2**	**Year 3 onwards**
Production (pcs)	36,000	42,000	48,000
Price per piece (US$)	**15**	**15**	**15**
Revenue per annum (US$)	**540,000**	**630,000**	**720,000**

3.6 Materials and Labour Cost

Cost of materials in the industry is estimated at 45% of gross revenue. On the other hand, fabric alone contribute to 90% of materials cost while the remaining 10% goes to accessories and other consumables (zippers, linings, buttons, labels, etc.). Garments manufacturing being a labour intensive activity, labour cost is estimated at 15% of gross sales. This includes salaries, wages, allowances and labour overhead cost pegged at 20% of labour cost as summarised under Table 3.4 below:

Table 3.4: Materials and Labour Cost

	YEAR 1	YEAR 2	Year 3 onwards
Revenue per annum (US$)	**540,000**	**630,000**	**720,000**
Materials (40% of sales)	216,000	252,000	288,000
Labour cost (15% of Sales)	81,000	94,500	108,000
Total Materials and Labour	**297,000**	**346,500**	**396,000**
Materials			
Cost of Fabric (90% of material cost)	*194,400*	*226,800*	*259,200*
Accessories and other consumables	*21; 600*	*25,200*	*28,800*
	216,000	252,000	288,000
Labour			
Salaries, Wages & Allowances	*64,800*	*67,600*	*86,400*
Labour Overheads	*16,200*	*16,900*	*21,600*
	81,000	***94,500***	***108,000***

3.7 Product Demand and Market Analysis

The project involves design and fabrication of garments and allied products as the major activity.. Garments manufacturing is a sleeping giant in Tanzania where with no apparent reason the country imports almost every piece of apparel with the small local production being conducted by highly disorganized small operators. Local manufacturing is mainly geared towards production of school uniforms and work wear to other public and private institutions. Quality of the locally manufactured products is generally low. Multinational companies engaged in local industrial sectors at times have to import work wear to meet their standards.

To begin with, JCRA focus at producing work wear and allied apparel products for the local mining and manufacturing sectors. Investigation carried out by the local company directors reveals that quality work wear and allied apparel products have a very high demand in the local market, especially in these two sectors. Three of the company directors are very conversant with the mining industry where they have been providing specialized technical support in the

industry for the last twenty years. The two factors are expected to influence access to the mining industry security contracts.
The second major target is securing other commercial installations and institutions. JCRA has particularly an eye in the new Standard Gauge Railway (SGR) for provision of both protections to travelers, infrastructure and installations, as well as work wear. JCRA banks on her three of the company directors who are very conversant with the mining industry where they have been providing specialized technical support in the industry for the last twenty years. The two factors are expected to influence access to the mining industry security contracts. Stiff competition is however expected in other commercial and institutions where suppliers already exist. The directors are however confident to outcompete other suppliers given quality of products which the company envisages producing.

In marketing and sales chain, the main competitive elements are active local marketing, with sales with JCRA brands within the country and the introduction of JCRA ready-to-wear fashion and brands with "Made in Tanzania" image that represents the quality of JCRA garment manufacturing.

3.8 Pricing Strategy

The basis for pricing has been from observations and data collected from various parts of Tanzania, market behavior of input costs and profit margins. The pricing has been estimated at constant price based in United States Dollar and annual sales projected at 60% of full revenue generation capacity in year one, increasing to 70% in year two before stabilizing at 80% from year three onwards.

3.9 Implementation Schedule

Implementation of the project is planned to take about 12 months. Initial site preparations are planned towards the end of January 2023 while full production is expected to materialize by January 2024 when the company completes recruitment and training of personnel (including foreign expatriates), and has managed to supply contracts .

4.0. MANPOWER REQUIREMENT AND RECRUITMENT

4.1. Employment

The whole project is looking at providing direct employment to at least 38 local permanent jobs at full implementation and operation of the project by end of year three when installed production capacity is utilized by at least 80%.. Recruitment will be made in phases the number of which will depend on contracts secured from clients. The employment schedule is divided into five (5) Departments: Cutting, Sewing, Embroidery, Finishing and Packaging

4.2. Recruitment

JCRA will recruit local personnel and train them on garments manufacturing skills. Careful methodology is being worked out by a competent management consultant who will set the job descriptions to ensure that the right calibre is recruited. Recruitment of expatriate personnel will be carried out in consultation with the relevant authorities in Government and the collaborating agencies.

4.3. Training and the Use of Consultants

For productivity, the availability and employment of qualified and trained work force is the main determinant factor. The Company plans to initially carry out on the job training for most of the technical staff to be recruited. The company will ensure that employees acquire adequate skills and procedures to perform their duties perfectly. Educational materials will be distributed to the workers to develop themselves further.

Whereas the company will endeavor to obtain the best talents to fill the permanent posts in the organization, it is intended where necessary, to continue with the policy of hiring out specialized skills by way of consultants. Alternatively, those skills not required throughout the year will be left to consultants. These include legal counsels, systems and management consultants. To ensure efficient and scientific management, operational manuals will be prepared for the core functions of the company.

4.4. Organization and Management

The project will be managed by qualified professionals given the vast experience in the of the Managing Director of the project, M/s and other Directors have acquired over years in running and managing similar businesses. The Board of Directors formulates policy and offer strategic business guidance to management and regularly monitor and evaluate performance of the company.

All the day-to-day management will be vested in the management team headed by Ms. Nichole Bezuidenhout, the director in charge of the project who is to be assisted by qualified and experienced personnel.

5.0 FINANCIAL ANALYSIS

5.1 Financial Assumptions

The estimated capital cost and basic operating assumptions are summarized in the financial projections as shown in Annexure I to XI. In the financial analysis the following major assumptions have been taken into considerations:

- By taking into consideration gradual increase in service provision capacity, the financial projections are for 5 years.
- For convenience and stability, all financial figures have been quoted in United States Dollar at US$ 1 = 2,350/=TShs.
- Total capital investment cost is estimated at US$ 551,000-.
- It is proposed to finance the total Investment costs of this project through local and foreign equity contributions (63.7%), as well as local bank term loan (36.3%). The Initial Working Capital Requirements estimated at US$ 200,000- will be financed through a bank short-term loan in form of overdraft facility to be charged interest at the rate of 8%.
- Implementation period of thirteen (12) months has been taken into consideration to allow for development of the site (renovations, infrastructure and other civil works structures etc); recruitment and training of technical staff; procurement and installation of the necessary hand tools, machinery equipment and motor vehicles; and securing garments supply contracts.
- Discounting rate has been assumed to be 8%
- Depreciation of fixed assets and amortization of the pre-operational expenses/contingencies rates used are as shown in Table 3.3 under sub-section 3.6.12.
- Project capacity utilization is estimated at 60% in the first year, rising to 70% in second year before stabilizing at 80% from year three onwards.
- Investment Costs are shown in Annex I (Investment, Replacement and Depreciation/Amortization Schedules).
- Direct production costs shown in Annex 1V (Trading Account) are based on current rates.
    - Salaries, Wages and Allowances have been based on the prevailing scales in the security service industry in Tanzania. There is provision of 20% to cover company contribution to Social Security Fund (10%) and other Social Welfare Benefits (10%).

- Administrative/Overhead and Factory Overhead costs are based on the prevailing rates in the market and needs of the proposed project.

5.2 Major Operating Costs

Major production cost items are indicates in Table 3.5 under Section 3.8.

- Corporate Tax is fixed at 30% of taxable profits.

The project will be granted a Tanzania Investment Centre (TIC) Certificate of Incentives and therefore enjoy tax relief on both capital and deemed capital goods, including.

5.3 Analysis of Financial Results

Following are highlights of the financial projections and analysis:

Annex IV – Trading Account

Operations of the project are profitable right from year 1 when the company posts a net profit after tax of US$ 74,011-. The profitability position remains stable during the subsequent years, rising to US$ 107,456- in year two, 121,456- in year three before climaxing at US$ 127,056-- by end of the 5th and last assumed economic life of the project.

Appendix V – Sources and Uses of Funds

The projected Cash flow for Financial Planning indicates that the project will generate enough cash to meet its financial obligations. Net annual cash surplus balance (Net Profit After Tax) increases from US$ 38,259- in year one to US$ 123,556- by the 5th year of operation. The cumulative cash balance during the same period grows 1.63 fold, increasing from US$ 74,011- to US$ 554,235-. This is a positive indication that the project is liquid enough to meet its cash requirements to support its trading operations.

Appendix VI - Projected Balance Sheets

The balance sheets indicate a favourable state of affairs of the project throughout the projected period. Similarly current liabilities are well covered by the current assets, the ratio ranging from 1.51 to 4.70 fold. The company net-worth grows 2.58 fold during the economic life of the project, increasing from US$ 351,000- at the end of construction period to US$ 905,235- by end of the 5th year, a significant growth in the value and profitability of the company.

Payback Period

The Normal Payback Period is 3.78 years at zero discount rate

Key Financial Ratios

- The ratio between Net Profit + Interest to Investment ranges from 20%% to 43%.
- **Return on Equity (RoE)** tells us how much profit the firm generates for each dollar of equity it owns. RoE on this project by the end of its assumed economic life at year five (5) is 61.23, translating to a return of 61.23 for every 100 equity dollars invested in the project. This indicates that the project is very profitable, over and above the industrial standard return of 15-20%
- **Return on Investment (RoI)** is a performance measure used to evaluate the efficiency or profitability of an investment. RoI on this project is 38.60%, a return of 38.60% for every US$ 100- invested.
- **Debt to Equity Ratio (D/E Ratio**) is used to evaluate a company's financial leverage. It is a measure of the degree to which a company is financing its operations with debt rather than its own resources. D/E Ratio for this particular project is only 0.44, by far lower than the standard range of 2 to 2.5. This result tells us that resource allocation in this project is not optimal. The directors should consider more finance borrowing to seize growth opportunities.
- **Equity to Total Liabilities** ratio range from 1.26 in year one, decreasing as the loan amount is reduced before reaching at year four 1,81when the loan is fully paid, and 2.30 by the end of the assumed project life at year five.

Breakeven Analysis

Break-even ratio for this project is 53.13%. This tells us that the firm can break-even when it operates at 53.13% of the assumed project operating capacity. .

Sensitivity Analysis

From the analysis carried out on changes of some key factors to show their effect on profitability and IRR, the project shows to be more sensitive to changes in price than changes in decline in capacity utilization and increase in direct operating costs.

6.0. CONCLUSION AND RECOMMENDATIONS

Analysis of the project confirms that the project is:

- Technically feasible,
- Financially and Economically viable,
- Socially desirable
- Environmentally sound, manageable and sustainable.

A timely financing and implementation of the project is therefore highly recommended in order to realize the anticipated benefits outlined in this study/report.

Provided all other economic factors remain substantially the same, it is strongly recommended that the project be implemented with immediate effect. It is further recommended that an application for TIC Certificate of Investment Incentives be submitted to Tanzania Investment Centre with a view to benefit from investment benefits and protection as statutorily allowed under Tanzania Investment Act, 1997.

FINANCIAL PROJECTIONS

FINANCIAL ANALYSIS OF THE PROPOSED PROJECT FOR GARMENTS MANUFACTURING

JCRA Security Systems Limited (Garments Project)

ANNEX I: INVESTMENT, REPLACEMENT AND DEPRECIATION SCHEDULES (IN US$)

Year		YEAR 0	1	2	3	4	5
Land, Buildings & Structures		25,000					
Machinery, Tools & Equipment Salt		277,000					
Vehicles		45,000					
Furniture & Office Equipment		10,000					
Pre-operational Expenses		18,000					
Contingencies		25,000					
Initial Working Capital		151,000					
Total Investment Cost		**551,000**					
Annual Depreciation							
Land, Buildings & Structures			2,500	2,500	2,500	2,500	2,500
Machinery, Tools & Equipment	12.5%		22,506	22,506	22,506	22,506	22,506
Vehicles	20%		7,200	7,200	7,200	7,200	7,200
Furniture & Office Equipment	12.5%		1,062	1,062	1,062	1,062	1,062
Pre-operational Expenses	20%		3,600	3,600	3,600	3,600	3,600
Contingencies			5,000	5,000	5,000	5,000	5,000
Total Depreciation			**41,868**	**41,868**	**41,868**	**41,868**	**41,868**
Cummulative Depreciation			**41,868**	83,735	125,604	167,472	209,340
Cummulative Investment							
Book Value of the Assets		**551,000**	**509,132**	**467,264**	**425,396**	**383,528**	**341,660**
Balance outstand							

ANNEX II: LOAN, INTEREST AND REPAYMENT SCHEDULE($)

Years		**0**	**1**	**2**	**3**	**4**	**5**
Loan Receipt		200,000					
Loan Repayment	4		50,000	50,000	50,000	50,000	
Loan interest	8%		16,000	12,000	8,000	4,000	
Total Payment			66,000	62,000	58,000	54,000	
Balance outstanding		200,000	150,000	100,000	50,000	-	-

ANNEX III: WORKING CAPITAL SCHEDULE($)

Year		0	1	2	3	4	5
Current Assets							
Stock of materials			90,000	105,000	120,000	120,000	120,000
Stock of output			31,500	36,750	42,000	42,000	42,000
			121,500	141,750	162,000	162,000	162,000
Current liabilities			142,525	89,612	56,700	56,700	56,700
Total W/C			264,025	231,362	218,700	218,700	218,700
Incremental W/C				(32,663)	(12,662)	-	-

ANNEX IV: TRADING ACCOUNT (US$)

ITEM/YEAR		0	1	2	3	4	5
Fabric Materials			*194,400*	*226,800*	*259,200*	*259,200*	*259,200*
Accessories and Consumables			*21,600*	*25,200*	*28,800*	*28,800*	*28,800*
Other Operating Costs			*79,402*	*86,386*	*100,624*	*100,624*	*100,624*
Salaries/Wages/Allowances			*81,000*	*84,500*	*108,000*	*108,000*	*108,000*
			376,402	**422,886**	**496,624**	**496,624**	**496,624**
Total Operating costs		-	376,402	422,886	496,624	496,624	496,624
Sales Revenue			540,000	630,000	720,000	720,000	720,000
Trading Profit			163,598	207,376	223,376	223,376	223,376
Trading Profit as% of Sales			30.24%	32.92%	31.02%	31.02%	31.02%
Years		**0**	**1**	**2**	**3**	**4**	**5**
Trading Profit			163,598	207,376	223,376	223,376	223,376
Total Depreciation			41,868	41,868	41,868	41,868	41,868
Loan Interest			16,000	12,000	8,000	4,000	
Net Profit			**105,730**	**153,508**	**173,508**	**177,508**	**181,508**
			19.58%	24,37%	24.10%	24.65%	25.31%
Cumm. Net Profit			105,730	259,238	432,746	610,254	791,762
Tax at	30%		31,719	46,052	52,052	53,252	54,452
Net Profit After Tax			**74,011**	**107,456**	**121,456**	**124,256**	**127,056**
			13.71%	17.06%	16.87%	17.26%	17.75%
Cumm. Net Profit after tax			74,011	181,467	302,923	427,179	554,235

ANNEX V: SOURCES AND USES OF FUNDS (US$)								
SOURCES & USES/YEAR		0	1	2	3	4	5	
Sources								
Local Equity Equity								
Foreign Equity		351,000						
Local Bank Loan		200,000						
Sales Revenue			540,000	630,000	720,000	720,000	720,000	
Total Sources		551,000	540,000	630,000	720,000	720,000	720,000	
Use of Funds								
Total Invest. Costs		551,000						
Total Operating costs			376,402	422,886	496,624	496,624	496,624	
Incremental W/C			-	(32,663)	(12,662)	-	-	
Loan Repayment			50,000	50,000	50,000	50,000	-	
Loan interest			16,000	12,000	8,000	4,000	-	
Tax at	30%		31,719	46,052	52,052	53,252	54,452	
Total Uses		551,000	474,121	498,275	594,014	603,876	551,076	
Balance		-	65,879	131,725.00	125,986	116,124	168,924	
Balance/CF		-	65,879	197,604	323,590	439,714	608,638	
ANNEX VI: PROJECTED BALANCE SHEET AT THE END OF EACH YEAR ($)								
PERIOD		**YEAR 0**	**YEAR 1**	**YEAR 2**	**YEAR 3**	**YEAR 4**	**YEAR 5**	
ASSETS								
Current Assets								
Cash C/F			74,011	181,467	302,923	427,179	554,235	
Stock of materials			90,000	105,000	120,000	120,000	120,000	
Stock of output			31,500	36,750	42,000	42,000	42,000	
Total			**195,511**	**323,217**	**464,923**	**589,179**	**716,235**	
Investment Assets								
Land		-	-	-	-	-	-	
Buildings & Structures		25,000	22,500	20,000	17,500	15,000	12,500	

Machinery, Tools & Equipment		277,000	254,494	231,988	209,482	186,976	164,470	
Motor Vehicles		45,000	37,800	30,600	23,400	16,200	9,000	
Furniture & Office Equipment		10,000	8,938	7,876	6,814	5,752	4,690	
Pre-operational Expenses		18,000	14,400	10,800	7,200	3,600	-	
Contingencies		25,000	20,000	15,000	10,000	5,000	-	
Initial Working Capital		**151,000**	**151,000**	**151,000**	**151,000**	**151,000**	**151,000**	
Total Investment Book Value		**551,000**	**509,132**	**467,264**	**425,396**	**383,528**	**341,660**	
TOTAL ASSETS		**551,000**	**704,643**	**790,481**	**890,319**	**972,707**	**1,057,895**	
LIABILITIES AND EQUITY								
Current liabilities			26,026	15,908	56,700	56,700	56,700	
					17,658	16,617	15,513	
Other Liabilities			103,606	142,106	112,038	121,211	80,447	
Loan outstanding		200,000	150,000	100,000	50,000	-	-	
Equity		351,000	351,000	351,000	351,000	351,000	351,000	
Cumm. Net Profit after tax		-	74,011	181,467	302,923	427,179	554,235	
TOTA LIABILITIES AND EQUITY		**551,000**	**704,643**	**790,481**	**890,319**	**972,707**	**1,057,895**	
CL/CA			0.66	0.49	0.40	0.33	0.24	
CA/CL			1.51	2.05	2.50	2.99	4.70	
ANNEX VII - INTERNAL RATE OF RETURN								
Method of Computation: Double Your Money Scenario								
Number of years required to double investment money = 4								
100/4x75% = 18.75								
ANNEX VIII – PAYBACK PERIOD			0.88				1.34	
Payback Period Analysis								

	Year	Beginning Balance	Net Profit After Tax	Ending Balance
Cost of investment	0	400,000	0	400,000
	1	400,000	74,011	325,989
	2	325,989	**107,456**	218,533
	3	218,533	**121,456**	97,077
	4	97,077	**124,256**	27,179
	5	27,179	**127,056**	154,235

Payback Period =	**3.78**	**Years**

ANNEX IX: RETURN ON EQUITY (RoE)								
RoE = Net Income AfterTax/Shareholders Equity x 100								
Net Income After Tax for 5 years = Cummulaive Net Ptofit After Tax =				554,235				
Shareholders Equity = Initial Equty + Retained Earnings (Cummultive Net Income After Tax)								
Net Income After Tax for 5 years		554,235						
Initial Shareholders Equity		351,000						
Add: Cummulative Net Proofit After Tax		554,235						
		905,235						
RoE = 554,235/905,235 x 100 = 61.23%								
ANNEX X: RETURN ON INVESTMENT (RoI)								
RoI = Final Value - Initial Cost/Cost of Investment x 100								
RoI = 474,485 - 291,250/291,250 x 100								
RoI = 63%								
Final Value	554,235							
Minus Initial Cost	400,000							
	154,235							
Divide by Cost of Investment	400,000							
	0.386							
Times 100 =	38.60	%						
ANNEX XI: DEBT TO EQUITY RATIO (D/E RATIO)								
D/E Ratio = Company's Total Liabilities divide by its Shareholders Equity.								
Total Liabilities = Current + Long Term Liabilities								
Total Liabilities = 80,447								
Shareholders Equity = Owners Equity + Cummulative Retained Earnings After Tax = 905,235								
D/E Ratio = 80,447/905,235 x 100 = 8.9%								
ANNEX XII BREAK-EVEN POINT								
Break-even Point = Gross Profit Margin/Fixed Costs x 100								
Gross Profit at year 5 = 181,508								
Fixed Cost (net of depreciation) at year 5= 341,660								
Break-even Ratio = 181,508/341,660 x 100 = 53.13%								

APPENDIX 1: CAPITAL INVESTMENT STRUCTURE (IN US$)					
CAPITAL ITEM	YEAR 0	YEAR 1	YEAR 2	TOTAL	
LAND, BUILDINGS & STRUCTURES					
Revovation and Civil Works Structures	25,000			25,000	
MACHINERY EQUIPMENT					
Handtools and Machinery Equipment	277,000			277,000	
MOTOR VEHICLES					
1 Pickup	20,000			20,000	
1 Light Truck	25,000			25,000	
FURNITURE & OFFICE EQUIPMENT	10,000			10,000	
PRE-OPERATIONAL EXPENDITURES	18,000			18,000	
CONTINGENCIES	25,000			25,000	
INITIAL WORKING CAPITAL	151,000			151,000	
TOTAL INVESTMENT	**551,000**				
				551,000	
DEPRECIATION & AMORTIZATION SUMMARY	**YEAR 1**	**YEAR 2**	**YEAR 3**	**YEAR 4**	**YEAR 5**
Land, Buildings & Structures	2,500	2,500	2,500	2,500	2,500
Machinery Equipment	22,506	22,506	22,506	22,506	22,506
Motor Vehicles	7,200	7,200	7,200	7,200	7,200
Furniture & Office Equipment	1,062	1,062	1,062	1,062	1,062
Pre-operational Expenditures	3,600	3,600	3,600	3,600	
Contingencies	5,000	5,000	5,000	5,000	
	41,868	**41,868**	**41,868**	**41,868**	**33,268**

APPENDIX 2: OPERATIONAL COSTS						
	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	
Materials						
Fabric Materials	*194,400*	*226,800*	*259,200*	*259,200*	*259,200*	
Accessories and Consumables	*21, 600*	*25,200*	*28,800*	*28,800*	*28,800*	
	216,000	252,000	288,000	288,000	288,000	
Salaries, Wages & Allowances	*64,800*	*67,600*	*86,400*	*86,400*	*86,400*	
Labour Overhead Costs (20% of Salaries, Wages &	*16,200*	*16,900*	*21,600*	*21,600*	*21,600*	
	81,000	*84,500*	*108,000*	*108,000*	*108,000*	
Total Materials and Salaries, Wages & Allowances	297,000	336,500.00	396,000.00	396,000	396,000	
Other Operating Costs						
Water Supply & Treatment	2,400	2,400	2,400	2,400	2,400	
Electricity	4,200	4,290	4,500	4,500	4,500	
Rapairs & Maintenance of capital assets	9,600	11,200	16,000	16,000	16,000	
Motor Vehicle Running Expenses	6,300	7,200	9,000	9,000	9,000	
Factory Overheads	10,784	12,393	14,377	14,377	14,377	
Administrative Overheads	8,100	8,450	10,800	10,800	10,800	
Licences, Permits and Authorizations	6,000	6,000	6,000	6,000	6,000	
Marketing & Travelling	10,800	12,600	14,400	14,400	14,400	
Transport Expenses	14,000	14,000	14,000	14,000	14,000	
Sub total	*72,184*	*78,533*	*91,477*	*91,477*	*91,477*	
Miscellaneous Expenses	7,218	7,853	9,147	9,147	9,147	
	79,402	*86,386*	*100,624*	*100,624*	*100,624*	
Operating Cost Summary						
Materials and Labour	297,000	336,500	396,000	396,000	396,000	
Other Operating Costs	*79,402*	*86,386*	*100,624*	*100,624*	*100,624*	
TOTAL OPERATING COST	**376,402**	**422,886**	**496,624**	**496,624**	**496,624**	

APPENDIX 3: ANNUAL DEPRECIATION AND AMORTIZATION OFASSETS									
CAPITAL ITEM/YEAR	**Scrap Value**	**Rate**	**YEAR 0**	**YEAR 1**	**YEAR 2**	**YEAR 3**	**YEAR 4**	**YEAR 5**	**TOTAL**
Land									
Commulative Investment									
Annual Depreciation	100%	0%	-	-	-	-	-	-	-
Book Value									
Buildings & Structures			25,000						25,000
Commulative Investment			25,000	25,000	25,000	25,000	25,000	25,000	
Annual Depreciation	50%	10%		2,500	2,500	2,500	2,500	2,500	
Book Value - Buildings			**25,000**	**22,500**	**20,000**	**17,500**	**15,000**	**12,500**	
Machinery, Tools & Equipment			277,000						277,000
Cumulative Investment			277,000	277,000	277,000	277,000	277,000	277,000	
Annual Depreciation	35%	12.5%		22,506	22,506	22,506	22,506	22,506	
Book Value			**277,000**	**254,494**	**231,988**	**209,482**	**186,976**	**164,470**	
Vehicles			45,000						45,000
Cumulative Investment			135,000	135,000	135,000	135,000	135,000	135,000	
Annual Depreciation	20%	20%		7,200	7,200	7,200	7,200	7,200	
Book Value			**45,000**	**37,800**	**30,600**	**23,400**	**16,200**	**9,000**	
Furniture & Office Equipment			10,000						10,000
Cumulative Investment			10,000	12,500	12,500	12,500	12,500	12,500	
Annual Depreciation	15%	12.5		1,062	1,062	1,062	1,062	1,062	
Book Value			**10,000**	**8,938**	**7,876**	**6,814**	**5,752**	**4,690**	
Pre-operational Expenses			18,000						18,000
Cumulative Investment			18,000	18,000	18,000	18,000	18,000	18,000	
Annual Depreciation	0%	20%		3,600	3,600	3,600	3,600	3,600	
Book Value			**18,000**	**14,400**	**10,800**	**7,200**	**3,600**	**-**	
Contingencies			25,000						25,000
Cumulative Investment			25,000	25,000	25,000	25,000	25,000	25,000	
Annual Depreciation	0%	20%		5,000	5,000	5,000	5,000	5,000	
Book Value			**25,000**	**20,000**	**15,000**	**10,000**	**5,000**	**-**	
Total Cummulative Book Value			**291,250**	**252,286**	**213,322**	**174,358**	**135,394**	**98,430**	
Cummulative Book Value Summary									
Buildings & Structures			25,000	22,500	20,000	17,500	15,000	12,500	
Hand Tools, Machinery Equipment			277,000	254,494	231,988	209,482	186,976	164,470	
Motor Vehicles			45,000	37,800	30,600	23,400	16,200	9,000	
Furniture & OfficeEquioment			10,000	8,938	7,876	6,814	5,752	4,690	
Pre-operational Expenditures			18,000	14,400	10,800	7,200	3,600	-	
Contingencies			25,000	20,000	15,000	10,000	5,000	-	
Total			**400,000**	**358,132**	**316,264**	**274,396**	**232,528**	**190,660**	
Depreciation and Ammortization Summary									
Buildings & Structures				2,500	2,500	2,500	2,500	2,500	
Hand Tools, Machinery Equipment				22,506	22,506	22,506	22,506	22,506	
Motor Vehicles				7,200	7,200	7,200	7,200	7,200	
Furniture & OfficeEquioment				1,062	1,062	1,062	1,062	1,062	
Pre-operational Expenditures				3,600	3,600	3,600	3,600	3,600	
Contingencies				5,000	5,000	5,000	5,000	5,000	
Total				**41,868**	**41,868**	**41,868**	**41,868**	**41,868**	
Total									