Restructuring and Reorganization Plan

"Mrrik" company's sock and stocking plant.

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This is a business plan of restructuring and reorganization plan for "Mrrik" closed joint-stock company's sock and stoking factory, which will enhance the current activities of the company and improve its current financial situation. The operations of this plan will start immediately after whole privatization of sock and stocking factory of the company which is partially state owned. Finally, implementation of this plan will establish future planing operations of the company in order to increase the future prosperity conditions of rising market economy.

Executive Summary

The main objective of this plan is to implement financial and organizational restructuring, which will allow the MRRIK sock and stocking producing company to operate effectively and efficiently under the current conditions of transitional period in the economy.

The MRRIK's administrative, financial, and inventory operations and logistics were developed for working as a state company under the tight control of the Ministry of Industry, and in accordance with the conditions of command economy. In the beginning of 1990s, after the liberalization of economy this way of working proved to be absolutely ineffective. The company is going to be completely privatized by the end of 1996 and the management of the company is interested in restructuring of the company in a way that will make the company to operate effectively under current conditions of economy in Armenia.

After the careful study of the main problems caused by internal factors at the company, the following steps are suggested.

- Change organizational structure of company and introduce rational principles for administrative management

- Introduce some methods of financial management and managerial accounting, adapt them to needs of the company
- Develop inventory management system which will allow to have efficient control system and effectively meet seasonal demand

The main risk of the implementation of this plan is considered to be the resistance of some groups of workers and people from staff due to two factors: unavoidable layoffs and tightening of work process control.

Calculations show that implementation of the project will result in 2.5 % decrease in fixed cost, 9% decrease in average variable cost of a unit, <u>22% increase in operating profit</u>, 50% decrease in average level of inventory, improvement of collections of receivables and overall cash management.

According to estimations, implementation of the project requires about 12.5 millions of drams. The life of the project is considered to be 5 year. Given the discount rate (cost of capital) 72%, which is a normal rate for companies in Armenia, the IRR of the project equals 137 %.

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INTRODUCTION

In the former Soviet Union the entire system of the company management was based on the norms and rules which were set by corresponding ministries. These norms, set by ministries, governed every aspect of activity including price determination, volume of production, employment decisions, inventory size, etc. The major problem that the company's management had to solve was the preparation of quarterly reports, corresponding to predetermined norms. With the transition to a market economy, another absolutely useless "market norms" were set by the ministry, again distancing the company's management from independent decision making. It is natural that the company was not ready to effectively cope with these tremendous changes caused by the transition to a market economy and aggravated by hyperinflation and the energy blockade.

Company management recognized the need to change their decision making principles and to orient themselves to market factors such as demand and competition. According to the company management and also experts of MASF program of TACIS EU the organizational structure of the company should be changed, in a way to incorporate new comprehensive finance and inventory management systems, which will enable the company to quickly react to changes and have access to information for appropriate decision making. This document is an alternative plan for implementation of restructuring and reorganization of MRRIK company.

THE INDUSTRY, THE COMPANY, ITS PRODUCTS AND MARKET POSITION

A. Industry

The industry and the specific branch of it in which the MRRIK company is currently acting are described below with the help of following scheme:

Textile Industry ⇨ Knitting Mills ⇨ **<u>Socks and Stockings Knitting Mills</u>**

Overall outlook on the textile industry of Armenia provides us with evidence that this industry was among the developed ones in Armenia. Study of the industry shows that there are several large knitting mills in Armenia but, excepts the mill in Kamo owned by MRRIK, only one of them has necessary equipment and facilities to be qualified as a producer of stockings. The industry also includes 5-6 small private knitting shops, which produce among other products socks, and two small companies which formerly were subsidiaries of the MRRIK company.

The industry can be characterized by the following main features

- Great dependence on the quality of raw materials supplied

- High seasonal fluctuations in sales and production despite seasonal synchronization
- Low entry barriers and high exit barriers
- Almost no substitutes for products
- Middle level of economies of scale

The main competitors outside the Armenia that can be considered real or potential entrants to the markets where the MRRIK company sells its production, are mainly from China, Iran, Turkey, Syria and India.

B. The company and its concept

The company was started up as a small cooperative in Kamo in 1939, in a private house, with 45 people. In 1940, under the Soviet system, it changed statute, becoming a state factory in the same location under the Ministry of Light Industry. In 1955-56, another factory was started up for knitting underwear for women and children. It expanded personnel to 400 workers and production volume to 3 million units. In 1965-66, the company has moved to a new building with 700 workers and a production of 6 million units per year.

Due to pollution of the nearby Lake Sevan from the dyeing process of the knitted goods, the factory was closed in 1979. The decision was taken to produce socks, since no dyeing process was involved. The socks were produced with non-colored cotton thread and pre-colored synthetic thread.

In 1987-88, a new factory was built in its present location, still in Kamo, and started up operations in 1990. A total of 10 million pairs of men, women and children socks were produced in this factory and its 2 subsidiaries in Karmir and Vardenis cities (nearby Kamo) producing the same product for men, women and children. At the same time when the new factory was built, the decision was taken to differentiate the production from other factories by its quality and composition of materials.

Starting from 1987, production was profitable due to state subsidizing. For the previous decade, starting in 1979, an active marketing effort was made, with representatives visiting trade exhibitions and an effort to introduce stylish colors. After 1990, this policy was weaken due to overall recession of the economy after the decay of the USSR. The Kamo Stock production was widely sold in the Soviet Union, even exported to Mongolia.

Two years ago the company was reformed to the MRRIK Joint-Stock company with 80% of shares owned by the state. Recently, the subsidiaries in Karmir and Vardenis became separate independent privatized companies. The MRRIK company is going to be privatized by the end of this year.

Strengths of the company are:

- large production facilities (economies of scale) and low cost[1]
- relatively new fixed assets (machinery, buildings and constructions)
- skilled labor (workers)
- established distribution channels

Perceived weaknesses are:

- unreliable suppliers, low quality of raw materials
- underutilization of capacity
- inadequate financial management and accounting system
- poor packaging and styling

Opportunities for the company are:

- expansion in Russian and Ukrainian markets
- potential availability of markets in Southwest and Middle Asia
- extension of line of products

Perceived threats are:

- collections of receivables (permanent risk)
- transport blockade
- high interest rate, so, high cost of capital
- breaks of power supply

[1] Due to undervalued assets (about 80-100 times), large facilities almost do not influence the cost of production trough depreciation expenses.

C. The Products, Customers and Distribution

The company positioned itself in a low price segment in both sock and stocking market. The main products produced and offered by the MRRIK company are

1) socks for men, women, and children made from cotton, polyester, wool, acrylic

2) stockings and tights for women and children made from cotton, wool, polyester

Today the main markets of the company are

1. Armenia - 40 % of total sales, where main wholesale customers are Defense and Internal Affairs Ministries (30% of total sales) and private wholesale distributors (10% of total sales)
2. Southern Russia - 30 % of total sales, distribution through wholesalers
3. The Ukraine - 15 % of total sales, distribution through representative agents of the company
4. Turkmenistan - 10 % of total sales, distribution through state wholesale trading company.

D. Competition

Within Armenia, the main competitor is considered to be a knitting mill in Gumry city. This plant produces a wide variety of knitted goods, and is not specialized in socks and stockings production. Other large knitting mills do not have necessary equipment and machinery for socks and stockings producing. There are 5-6 small knitting shops (up to 10-15 knitting machines) with outdated machinery. The former subsidiaries of the company in Karmir and Vardenis cities, now independent private companies can also be considered as small competitors. Each of them has about 30 knitting machines.

Outside Armenia, MRRIK considers its chief import competitors as companies from Turkey, China, Iran and Syria which produce low cost goods, and often with poor quality. Sock producers from Russia and Baltic countries are in high price sector of the market so, they are not considered as competitors. According to market research of Management Advisory Service and Facility office of TACIS program conducted for the company, approximately 30% of socks sales in Armenian market are products from Syria, 20% from Turkey, 15 % from China imported by individual entrepreneurs. Another major competitors are Iran companies, especially products for children (about 40% of sales).

According to the research the company's products have better quality and priced almost 30% less than that of competitors. However, the customers rather pay attention to packaging and styling, the factors that are among the weaknesses of the company's products. Also children like bright colors so their parents prefer to buy lower quality Iranian products for them, even though the price might be twice that of MRRIK's products.

The company have been able to compete successfully since their dyeing operations started up in spring 1996. It is planned to obtain and install modern packaging equipment after privatization of the company.

E. Perspective Growth and Changes

The company is going to expand its markets in Russia and the Ukraine, so the production volume is going to be increased twice in 1997. It is planned to sell trial batches of products through wholesale distributors in the Middle East. The line of products will be expanded and new production will include decorated socks.

Packaging shop will be equipped with new equipment. After privatization, the company management is going to undertake significant structural changes which will include reorganization of inventory management system, introducing financial management and managerial accounting methods and adequate reporting system and restructuring of organizational structure. These changes are described in more detail in subsequent sections of this document.

DEVELOPMENT PLANS

A. Current Status of the Company

Currently the company is in a hard economic and financial conditions due to the overall economic situation of Armenia. The situation aggravated by the fact that the company is still state owned and partly governed by the Ministry of Industry plans and directions. It tighten the financial resources of the company and do not allow to act in-time and be flexible in market conditions. On the other hand, planning and reporting systems imposed by the Ministry do not correspond to actual needs of the enterprise. According to this systems administrative departments, especially accounting and planning departments, are engaged mainly in development of reports for the government agencies. This resulted in lack of significant control of the internal operations in the company itself. Now the company is working 10% of its capacity and in the case of expansion of its operations[1] the mentioned problems will result in organizational and financial difficulties in the future.

B. Tasks

For overcoming mentioned problems and difficulties company should develop *financial planning system*, *inventory management* to decrease costs related with oversupply or undersupply, and change the *organizational structure* of the company in order to establish better control system and more flexible management information system. By development appropriate reporting system for each area company will achieve desired degree of control.

C. Difficulties and Risks.

Difficulties faced by enterprise caused mainly by its legal status. Since the enterprise is state owned it can not control and govern its financial resources in accordance with its actual needs. Lack of cash on hand does not allow plant management to arrange suitable contracts with suppliers who demand payment immediately. Besides, lack of cash prevents management from payment wages to employees in time and thus causes decreased work efficiency and lower motivation of employees. Also change of the organizational structure which will affect human resources policies, may cause some difficulties connected with expected layoffs. These difficulties connected with management of cash resources can cause some pressure while implementation of the proposed restructuring.

Overall political and economic instability in Armenia represents another risk for normal activity of the company. Even privatization would not guarantee stable working conditions in unstable political and economic environment.

[1] After privatisation it is planned to increase the production volume 2-3 times.

MANAGEMENT TEAM

A. Current Organizational Structure

The current and proposed organizational charts of the plant are presented in Appendices. Currently each of the departments is accountable to the Executive Director directly. Existing administrative part of the organizational structure incorporates Secretariat, Security Service, Lawyer, Department of Technical Control and Human Resource Management.

The main scope of operations for each Department can be described as following:

Supply Department -currently consists of 1) Warehouse of Raw Materials 2) Warehouse of Working Materials. The main activities of this Department currently include delivery, storage and management of raw and working materials, preparation reports on operations for Financial Department. There is one Head for these two warehouses and he is at the same time Head of the Supply Department.

Financial Department - currently consists of 1) Planning Division, 2) Division of Salaries, 3) Accounting Division, 4) Publishing Division. The main scope of work for this Department include financial management of the plant, planning and of the financial operations (expenditures, operating costs, etc.) of different Departments, information processing received from other Departments and elaborating corresponding solutions and methodologies, preparation of financial reports and analysis for Executive Director.

Production Department currently includes the 1) Division of Technology, 2) Mechanical - Energy Division, 3) Laboratory, 4) Division of Work Security. Activities of this Department consists of immediate coordinating of the production process, conducting technological control and undertaking work security tutoring sessions.

Delivery Department presently consists of the 1) Warehouse of Finished Goods 2) Transportation Division. Present activities can be described as following: storage and management of the finished goods and conducting transportation activities, as well as preparation reports covering its activities submitted to the Financial Department.

B. Proposed changes

Currently there is no link between departments which delays information flow and does not provide feedback. Besides, since the activities of some divisions in different departments directed toward common operations it seems more appropriate to bring them together based on functions performed so far.

Accordingly the proposed modifications are the following:

Warehouse of Finished Goods should be transferred from the Marketing Department into the Supply Department where other two warehouses are located. This change will allow to establish better inventory management system. Besides that is appropriate to appoint one head of the Supply Department, instead of two different heads for raw materials and finished goods warehouses.

Instead of Delivery Department it is proposed to create Sales Department which will consist of Marketing Division and Transportation Division. Marketing Division has to be responsible for information collection and analysis as well as for the new products development, based on market research conducted so far. Transportation Department will be responsible for monitoring and organizing transportation activities connected with the delivery of raw materials and finished goods to the clients.

Since activities of the Department of Technical Control directly related to the production process it seems more appropriate to relocate it into the Production Department from staff position and combine it with the Technical Division. So new Division of Technical Control and Technology will be created.

It seems relevant to add activities of Division of Work Security to the activities of Division of Technical Control and Technology and thus remove Division of Work Security from Production Department.

It would be more beneficial to transfer Financial Department into the administrative part since its activities are more connected with the control and planning operations. This Department will be named now Financial and Accounting Department, and will conduct activities of the Planning Division and the Division of Salaries, previously located in the Financial Department separately.

Reports prepared by Departments have to be submitted to the Financial and Accounting Department for further control and coordinating of activities. The ultimate decisions will be conducted by Executive Director based on reports submitted to him in assistance with the Heads of Departments.

Thus, proposed new structure would provide better information management and control over daily operations.

C. Key Management Personnel.

<u>Executive Director</u> - Babken Martirossian

Executive Director receives reports and solutions from the Financial Department and Departments and based on this information he makes ultimate decisions on plant overall activities.

Financial Manager - Head of Financial and Accounting Department - not determined yet.

The main scope of responsibilities is control of day-to-day financial operations by analyzing reports prepared by other departments, analysis of every day expenditures, including raw material expenditures, transportation costs, operating expenses, etc., planning of further activities, organizing of reporting to Executive Director.

Heads of the Departments are responsible for coordinating operations of their departments accordingly to the scope of the activities (descriptions of the activities for each department are presented above), preparation reports on every day operations to be submitted to the Financial and Accounting Department and to Executive Director.

D. Supporting Professional Advisors and Services.

According to the planned schedule, introduction of the new methods will begin in December (after the privatization). Conducting training among employees and assistance of some consulting agencies can ease adopting of the proposed new methodologies. Thus, it is planned to collaborate with the consulting company "Sed Marsed", located in Armenia. This company will provide assistance and training in the area of financial planning.

OPERATIONS PLAN OF THE ALTERNATIVE ACTIONS

A. Strategy of restructuring implementation and activities

The main objective of this plan is to implement financial service and organizational restructuring, which will allow the organization to operate effectively and efficiently, at lowest cost to themselves. For implementation of stated objectives the following activities should be conducted:

- Change organizational structure of company and introduce rational principles for administrative management

    1. establish reporting mechanism among departments in order to make flow of information more effective for decision making process

2. clarify the role of departments and their functions in whole organization in order to avoid overlapping of functions among them

- Introduce some methods of financial management and adapt them to needs of the company

    1. to avoid discrepancies, costs and losses caused by old planning system new financial planning will be used in order to reduce discordance between actual and planned results
    2. for the planning of financial activities of the company the break-even analysis, cash flow management will be introduced and used.

- Develop inventory management system which will allow to have efficient control system and effectively meet seasonal demand

    1. to avoid high inventory holding costs implement mechanisms for proper inventory control
    2. to have strict inventory control system, which will allow to reduce and control inventory costs

B. Activity implementation

Implementation of proposed activities will be done in accordance with the following steps and terms:

Step 1. Restructuring of organizational structure

Restructuring of organizational structure - creation of new departments and reorganization of old ones with new responsibilities and accountability in the following sequence:

A. Financial department - with full control and planing functions of financial activities of the company. Accounting division and department of information service will be accountable to this department.

B. Department of Information Services - this department will collect all information from all departments on daily basis and provide this information to the financial department and to the executive director. This department will develop databases with this information and information flow flexible system among departments.

C. Marketing department - this department will be responsible for new product design, will conduct market research and analysis of data and provide with seasonal sales forecast. Collection of the market data will be done through department of information services. This department will be mainly accountable to the executive director.

D. Transportation Department - creation of this department as a separate unit will allow to have flexible and mobile system in the satisfying transportation needs of the company. It will serve for both internal transportation as well as external.

Step 2. Financial restructuring

Financial restructuring - introducing and adaptation of pro-western methods of financial management and managerial accounting, establishment of computerized system of financial reporting.

A. Establishment of PC-based, computerized accounting system for Financial department. This will allow to produce 1) Income Statements on a monthly basis, 2) Balance Sheets on a monthly basis, 3) Inventory reports on purchases, usage and remaining balances of raw materials, 4) Cost data at more detailed level which will allow for more exact cost accounting and pricing of products, and 5) Control reports on cash, inventory, purchases and sales. This system will allow management of the company to have financial projections and planning and comparing with actual data make adjustments in company's plans.

B. Reporting mechanism will be developed with the purpose of making flexible information flow among departments and having much control on the costs. Report flow to Financial Department on daily basis from

- Production shops about units produced, inventory used, jobs completed and hours completed by workers. They should use developed job cost sheets (for measurement of the cost of direct materials used) and time tickets (for measurement direct labor costs).[1]

- Warehouses about distribution of inventory and supplies, especially raw materials to the departments. They should use developed materials requisition forms (for measurement of the cost of the raw materials used) and bill of materials (this will give an information on suppliers too). Also they will provide information about shipped orders.
- Energy and Mechanical Department about quantity of energy used by each department

C. Development of information databases by Financial Department according to the reports and providing this information to the Executive Director and Marketing department for the further analysis. Preparation of these reports by the mentioned departments will be done on weekly basis and they will be given to the executive director.

It is typical for this industry to use predetermined overhead rate due to the fact that it is relatively small portion in the costs. The overhead costs will be decreased due to strict control on administrative expenses and usage of energy. The rate will be determined according to the following formula:

Predetermined overhead rate = Estimated total manufacturing overhead costs / Estimated total units in the base (MH, DLH, etc.)

[1] See appendices

In this case for the base will be used machine hours (MH) because of the higher rate of machine utilization in the company's manufacturing process.

Described reporting mechanism will allow company to have efficient cost control and flexible flow of information for effective decision making. Based on the report analysis received from Financial and Marketing Departments, Executive director will have an opportunity to control overall situation in the company and peruse continuous growth strategy.

Step 3. Inventory management restructuring

Inventory management - proposed inventory management is called perpetual inventory management system the main idea of which is the fact that inventory accounts are updated continually. This system provides both the maintenance of inventory records (inflow and outflow of goods, as well as quantities and prices in records on continuing basis), and verification actual physical accounts according to the established periods (according to our proposal four times a year, or more often as needed).

This method implies the following requirements for updating the accounting for inventory:

- purchase of goods should be recorded as debits in inventory account (at the time of purchase)
- usage of goods should be recorded and used amount should be determined by a debit to the raw materials expense account and credit of inventory account (at the time of usage)

Usage of the procedures of this method will allow the company to have exact number of the amount of the inventory on hand at each time and also establish determined cost structure which will show the real division of the direct, indirect and overhead costs in company's cost accounting. This straight-forward system will allow to minimize the chances of theft, error and will give indications of inventory spoilage to the management at time and they will make timely corrections of the problems. In the case of some discrepancies, in order to resolve inaccuracies, they should count the physical inventory and make adjustments in accounting. Using of this method will give an opportunity of determination of the costs during the pricing of the items, because the accuracy of the numbers relates to the associated costs.

OVERALL SCHEDULE

The proposed plan of activities relates to the restructuring and reorganization of the company, especially establishment of new organization structure, financial planing and inventory management. Due to the difficulties connected with the fact that the enterprise is still under state control, the proposed organizational changes could not take place. That is why the proposed changes according to the company's management will be started at the December 15, 1996 when the privatization of the company will be completed. According to this date overall schedule of the proposed actions will be as following:

Steps	Starting Date	Ending Date	Action
Step 1	December 15, 1996	January 15, 1997	Reorganization of the organizational structure.
Step 2	January 5, 1997	February 5, 1997	Establishment of the reporting mechanism and flow of the reports in the organization.
Step 3	January 10, 1997	February 10, 1997	Establishment of the procedures and mechanisms of the financial and inventory management. Installation of necessary equipment

Based on this preliminary schedule the company's management will establish the proposed system of organizational restructuring and make on continuing basis adjustments in their planning mechanisms and procedures. All project will be implemented under the direct supervision of the executive director with the assistance of the financial manager.

CRITICAL RISKS

Although the willingness of the company's management for organizational restructuring, they are some risks and potential problems that may emerge during implementation of this project. The personnel of the factory belongs to middle aged group (35-55) and most part of the management are young and reliable people to the executive director. The main risks related with this fact is that according to changes in organizational structure some of the old-aged personnel will be fired or disposed from their previous positions and replaced with young and trained specialists. This fact could rise resistance to changes among the middle-age group because it will touch their personal interests, which will be opposed against the interests and the future of the company. On the other hand, according to the privatization law of Republic of Armenia, no worker could be fired in six months period after the privatization of the company. Due to the lack of financial resources, company can not afford to have retirement fund for workers who will be reluctant to the restructuring changes, and that is why after six months they will be forced to fire those workers.

ECONOMICS OF RESTRUCTURING

This section describes the economic pattern of the restructuring using a comparative analysis, which is done in two steps first, economic calculations are done for the case of non-restructured company (case A) and case of restructured company (case B)[1], second the net economic effect (positive and negative) is determined by comparing expected economic results of each case.

The calculations were based on the information received from the management of the company as well as from the above mentioned research of the MASF. Below some summary results of the calculations are presented in order to provide a base of economic feasibility of the restructuring.

Proforma Income statements[2] ***(drams)***

	*Case A: **no** restructuring*	*Case B: restructuring*
<u>Revenue</u>	**394,960,000**	**394,960,000**
Total Variable cost of Output	**296,997,796**	**285,797,946**
Contribution Margin	**97,962,204**	**109,162,054**
<u>Fixed Cost</u>	**43,829,900**	**42,909,100**
<u>Profit</u>	**54,132,304**	**66,252,954**
Average Variable Cost	171,576	165,106

[1] The level of sales, i.e. output and prices, are the same for both cases
[2] These proforma income statements do not include expenses to service financing.

According to these tables in case of restructuring, all else equal, there will be decrease in both in variable and in fixed costs. So, the contribution margin and profit will increase. So, the restructuring cause the following changes in fixed cost

- Decrease in expenses for fixed salary..
- Increase in expenses for depreciation.
- Increase in fixed expenses for maintenance and repair
- Increase in fixed expenses for power
- Decrease in fixed expenses of inventory maintenance
- Increase in other expenses

The combination of all these factors results in decrease of the fixed cost (see tables).

Comparative analysis of variable costs shows that the restructuring will cause decrease in expenses for raw materials due to

- better supply and inventory management,
- better control and decrease of thefts cases. So, as a result of restructuring a unit variable cost decreases.

Moreover, the data from the tables 6a, 6b, and 7 shows that the increase in profit is large enough to cover the significant increase in financing expenses.

Thus, at this point the analysis of proforma income statements leads to the conclusion that the economic benefits of restructuring will become evident in the same year of changes. More detail analysis of the calculations are provided in financial section of this document.

FINANCIAL ANALYSIS

A. Assumptions

The financial analysis of the project is based on assumptions coordinated and agreed with the company management. These assumptions relates to the products' prices, volumes of production, seasonallity of sales, costs of raw materials (see tables 1a, 1b), terms of financing (see tables 6a, 6b), discount rate (see table 9).

B. Budget of the project

Implementation of the project requires 11,256,000 drams for purchase and installation of necessary equipment and 1,260,000 for expenses on consulting service and staff training. More detailed information on the project budget is provided in table 8.

C. Variable cost

Calculation of variable costs of various products of the company is based on both cost calculation forms of the company's accounting department and western methods of cost accounting. As a result, we come to the numbers deferring from those company's accounting department provide with. However this section does not have a goal to criticize inadequate accounting methods used by the company, it rather describes the changes in financial indicators that is expected to appear due to restructuring. The amplitudes of changes in initial data were calculated in direct collaboration with financial, technical, and marketing experts of the company.

Comparative analysis of variable costs shows that the restructuring will cause decrease in expenses for raw materials (Tables 1a, 1b) due to 1) better supply and inventory management, 2) better control and decrease of thefts cases. So, as a result of restructuring a unit variable cost decreases.

D. Fixed cost

The changes in fixed cost are more complicated that in variable cost, although they have less effect on final result (Tables 2a, 2b) . So, the restructuring will cause

- Decrease in expenses for fixed salary. This item is influenced by two opposing processes of restructuring 1) decrease in number of people employed (in staff) 2) increase of salaries. However, the combination of these two factors results in decrease of fixed expenses for salaries.

- Increase in expenses for depreciation. The restructuring include purchase and installation of some equipment, mainly computers (Table 8), so the value of fixed assets and, consequently, allocated depreciation rise.
- Increase in fixed expenses for maintenance and repair due to maintenance of new equipment
- Increase in fixed expenses for power due to use of new equipment
- Decrease in fixed expenses of inventory maintenance due to better inventory control and warehouse management.
- Increase in other expenses, which include money allocated for staff training and consulting service.

The combination of all these factors results in decrease of the fixed cost (see tables).

E. Break-Even Analysis

The results of comparative break-even analysis (Tables 3a, 3b) shows overall improvement in case of restructuring . Contribution margins and profits rise. Some products, the production of which according to our calculations cause losses, become profitable after restructuring. The levels break-even points fall and safety margins rise for all products.

F. Cash Flows

Besides changes in cash flows caused by increase in profit after restructuring, two key factors have significant influence on cash flows (Tables 7a, 7b). These are 1) financing and expenses for service of financing, which rise in case of restructuring, 2) terms of receivable collection, which are reduced in case of restructuring thus decreasing the level on necessary working capital.

G. Comparative analysis of operative cash flows

The comparative analysis of operating cash flows during first year for both cases .are provided below

	No restructuring	Restructuring	Cash Inflows	Cash Outflows
Gross Profit	54,132,304	66,252,954	*12,120,650*	
Financing Expense	16,340,000	21,470,000		*5,130,000*
		Resulted Cash flow	***6,990,650***	

As it is shown, the project provides a positive cash flow in the first year. The cash inflows for other 5 years of the project are shown in Table 9.

H. Investment Analysis

The summary results of investments in the project are presented in Table 9. The results of analysis shows positive NPV (2.7 mln. drams) and rather good IRR (137%), given discount rate (cost of capital) to be equal 72%.

APPENDICES

Table 1a. Variable cost calculation

	Men's socks					Children's socks	Women's socks	Children's tights				Women's tights		
Product Code	55_179	45_188	40_105	1_95	5_95	88_97	6_94	75_140 size 16	75_140 size 18	75_140 size 20	75_140 size 22	15_169 size 23/25	15_185 siz 23/2	15_186 size 23/25
Price (without VAT)	145	145	190	350	350	120	280	380	380	420	460	480	480	740
Number of units to be produced	500,000	200,000	250,000	100,000	150,000	250,000	50,000	33,000	34,000	34,000	34,000	23000	23000	50000
Revenue (without VAT)	72,500,000	29,000,000	47,500,000	35,000,000	52,500,000	30,000,000	14,000,000	12,540,000	12,920,000	14,280,000	15,640,000	11,040,000	11,040,000	37,000,000
Variable expenses for a unit:														
raw materials expense	58	63	94	230	156	33	160	182	214	250	300	303	282	532
other materials expense	5	5	8	10	10	8	10	16	16	16	16	18	18	18
variable expenses for power & water	10	11	18	21	16	6	17	28	32	38	22	40	40	40
variable transport and packaging expenses	11	12	20	23	18	7	19	31	36	42	55	51	47	54
variable labor cost	10	10	10	10	10	8	10	13	13	13	13	18	18	18
inventory maintenance variable cost	4	4	4	4	4	4	4	6	6	6	6	7	7	7
Total Variable Cost of a Unit	98	104	154	298	214	66	219	275	318	365	412	437	412	669

Table 1b. Variable cost calculation

	Men's socks					Children's socks	Women's socks	Children's tights				Women's tights		
Product Code	55_178	45_188	40_105	1_95	5_95	88_97	6_94	75_140 size 16	75_140 size 18	75_140 size 20	75_140 size 22	15_169 size 23/25	15_185 siz 23/2	15_186 size 23/25
Price (without VAT)	145	145	190	350	350	120	280	380	380	420	460	480	480	740
Number of units to be produced	500,000	200,000	250,000	100,000	150,000	250,000	50,000	33,000	34,000	34,000	34,000	23000	23000	50000
Revenue (without VAT)	72,500,000	29,000,000	47,500,000	35,000,000	52,500,000	30,000,000	14,000,000	12,540,000	12,920,000	14,280,000	15,640,000	11,040,000	11,040,000	37,000,000
Variable expenses for a unit:														
raw materials expense	52	61	90	210	147	31	154	179	198	248	294	296	275	511
other materials expense	5	5	8	10	10	8	10	16	16	16	16	18	18	18
variable expenses for power & water	10	11	18	21	16	6	17	28	32	38	22	40	40	40
variable transport and packaging expenses	11	12	20	23	18	7	19	28	35	38	53	51	45	52
variable labor cost	10	10	10	10	10	8	10	13	13	13	13	18	18	18
inventory maintenance variable cost	4	4	4	4	4	4	4	6	6	6	6	7	7	7
Total Variable Cost of a Unit	92	103	150	278	205	64	213	270	300	359	404	430	403	646

in case of **no** restructuring

Table 2a. Fixed Cost (in drams)

	Drams	% of total fixed costs
Expenses for fixed salary	25,650,900	59%
Expenses for official depreciation	455,000	1%
Communication charges	434,000	1%
Fixed expenses for power	3,632,000	8%
Maintenance and repair	2,365,000	5%
Fixed transport expenses	1,342,000	3%
Marketing	1,123,000	3%
Traveling	3,000,000	7%
Inventory maintenance fixed expenses	3,450,000	8%
Other fixed expenses	2,378,000	5%
Total	**43,829,900**	

Table 2b. Fixed Cost (in drams)

	Drams	% of total fixed costs
Expenses for fixed salary	23,193,900	54%
Expenses for official depreciation	2,706,200	6%
Communication charges	434,000	1%
Fixed expenses for power	2,287,000	5%
Maintenance and repair	2,965,000	7%
Fixed transport expenses	1,342,000	3%
Marketing	1,123,000	3%
Traveling	3,000,000	7%
Inventory maintenance fixed expenses	2,220,000	5%
Other fixed expenses	3,638,000	8%
Total	**42,909,100**	

Table 3a. Break-Even Analysis

	Men's socks					Children's socks	Women's socks	Children's tights				Women's tights		
Product Code	55_179	45_188	40_105	1_95	5_95	88_97	6_94	75_140 size 16	75_140 size 18	75_140 size 20	75_140 size 22	15_169 size 23/25	15_185 siz 23/2	15_186 size 23/25
Revenue (without VAT)	72,500,000	29,000,000	47,500,000	35,000,000	52,500,000	30,000,000	14,000,000	12,540,000	12,920,000	14,280,000	15,640,000	11,040,000	11,040,000	37,000,000
Variable cost of output (drams)	49,002,500	20,882,162	38,502,027	29,791,081	32,132,432	16,441,486	10,965,838	9,082,840	10,799,503	12,401,086	14,004,600	10,061,350	9,485,890	33,445,000
Contribution Margin	23,497,500	8,117,838	8,997,973	5,208,919	20,367,568	13,558,514	3,034,162	3,457,160	2,120,497	1,878,914	1,635,400	978,650	1,554,110	3,555,000
Allocated Fixed Cost (drams)	9,767,490	4,059,217	6,786,503	2,968,302	3,805,516	3,932,366	1,293,875	1,188,843	1,380,134	1,552,650	1,923,561	1,225,376	1,155,355	2,790,711
Operating Profit (drams)	13,730,010	4,058,621	2,211,470	2,240,617	16,562,052	9,626,147	1,740,287	2,268,317	740,364	326,263	-288,161	-246,726	398,755	764,289
Break Even Point (units)	207,841	100,007	188,556	56,985	28,026	72,507	21,322	11,348	22,129	28,096	39,991	28,798	17,099	39,251
Break Even Point (drams)	30,136,953	14,501,064	35,825,723	19,944,749	9,809,201	8,700,879	5,970,101	4,312,236	8,409,031	11,800,356	18,395,805	13,823,279	8,207,343	29,045,380
Safety Margin	58%	50%	25%	43%	81%	71%	57%	66%	35%	17%	-18%	-25%	26%	21%

Table 3b. Break-Even Analysis

	Men's socks					Children's socks	Women's socks	Children's tights				Women's tights		
Product Code	55_179	45_188	40_105	1_95	5_95	88_97	6_94	75_140 size 16	75_140 size 18	75_140 size 20	75_140 size 22	15_169 size 23/25	15_185 siz 23/2	15_186 size 23/25
Revenue (without VAT)	**72,500,000**	**29,000,000**	**47,500,000**	**35,000,000**	**52,500,000**	**30,000,000**	**14,000,000**	**12,540,000**	**12,920,000**	**14,280,000**	**15,640,000**	**11,040,000**	**11,040,000**	**37,000,000**
Variable cost of output (drams)	46,050,000	20,562,162	37,552,027	27,791,081	30,782,432	15,886,486	10,667,838	8,895,730	10,214,703	12,200,486	13,736,000	9,890,000	9,269,000	32,300,000
Contribution Margin	**26,450,000**	**8,437,838**	**9,947,973**	**7,208,919**	**21,717,568**	**14,113,514**	**3,332,162**	**3,644,270**	**2,705,297**	**2,079,514**	1,904,000	1,150,000	**1,771,000**	**4,700,000**
Allocated Fixed Cost (drams)	9,562,290	3,973,939	6,643,929	2,905,943	3,725,568	3,849,753	1,266,693	1,163,867	1,351,139	1,520,032	1,883,150	1,199,633	1,131,082	2,732,083
Operating Profit (drams)	**16,887,710**	**4,463,899**	**3,304,044**	**4,302,976**	**17,992,000**	**10,263,760**	**2,065,469**	**2,480,403**	**1,354,158**	**559,482**	20,850	-49,633	**639,918**	**1,967,917**
Break Even Point (units)	180,762	94,193	166,967	40,310	25,732	68,193	19,007	10,539	16,981	24,852	33,628	23,993	14,689	29,065
Break Even Point (drams)	26,210,436	13,658,028	31,723,711	14,108,633	9,006,179	8,183,121	5,321,980	4,004,888	6,452,791	10,438,043	15,468,734	11,516,474	7,050,903	21,507,886
Safety Margin	64%	53%	33%	60%	83%	73%	62%	68%	50%	27%	1%	-4%	36%	42%

in case of **no** restructuring

Table 4a. Proforma Income Statement (in drams)

Revenue	**394,960,000**
Total Variable cost of Output	**296,997,796**
Contribution Margin	**97,962,204**
Fixed Cost	**43,829,900**
Profit	**54,132,304**

Total Production Volume (units)	1,731,000
Average Variable Cost (drams)	171,576

Table 4b. Proforma Income Statement (in drams)

Revenue	**394,960,000**
Total Variable cost of Output	**285,797,946**
Contribution Margin	**109,162,054**
Fixed Cost	**42,909,100**
Profit	**66,252,954**

Total Production Volume (units)	1,731,000
Average Variable Cost (drams)	165,106

Table 5a. Seasonal Distribution of Production (units)

Product's code	1st quarter	2nd quarter	3rd quarter	4th quarter
55_179		300000	200000	
45_188		200000		
40_105		150000	100000	
1_95	30000			70000
5_95	20000	60000	60000	10000
88_97	30000	80000	100000	40000
6_94	10000	15000	15000	10000
75_140 size 16	7000		7000	19000
75_140 size 18	7000		7000	20000
75_140 size 20	7000		7000	20000
75_140 size 22	7000		7000	20000
15_169 size 23/25	2000		3000	18000
15_185 size 23/25	2000		3000	18000
15_186 size 23/25	2000		3000	18000

Table 5b. Seasonal Distribution of Production (units)

Product's code	1st quarter	2nd quarter	3rd quarter	4th quarter
55_179		300000	200000	
45_188		200000		
40_105		150000	100000	
1_95	30000			70000
5_95	20000	60000	60000	10000
88_97	30000	80000	100000	40000
6_94	10000	15000	15000	10000
75_140 size 16	7000		7000	19000
75_140 size 18	7000		7000	20000
75_140 size 20	7000		7000	20000
75_140 size 22	7000		7000	20000
15_169 size 23/25	2000		3000	18000
15_185 size 23/25	2000		3000	18000
15_186 size 23/25	2000		3000	18000

Table 6a. Proforma Cash Flow

	1st year				
	1st quarter	2nd quarter	3rd quarter	4th quarter	1st quarter
Cash Sources					
Beginning Cash Balance	**1,500,000**	**8,820,655**	**2,096,755**	**3,008,720**	**12,696,230**
Sales (without VAT)	17,980,000	116,725,000	74,240,000	38,135,000	-
Collections from Sales					
65% in Current quarter	11,687,000	75,871,250	48,256,000	24,787,750	-
37% in Next quarter		6,652,600	43,188,250	27,468,800	14,109,950
Total sources of cash	**13,187,000**	**91,344,505**	**93,541,005**	**55,265,270**	-
Uses of Cash					
Variable Expenses	12,152,620	78,894,025	50,178,560	25,775,315	-
Fixes expenses	10,843,725	10,843,725	10,843,725	10,843,725	-
Total Uses of Cash	**22,996,345**	**89,737,750**	**61,022,285**	**36,619,040**	-
Cash Requirements	**-9,809,345**	**1,606,755**	**32,518,720**	**18,646,230**	-
Financing					
Loan	23,000,000	6,000,000			-
Interest on loan (6% monthly)	4,370,000	5,510,000	5,510,000	950,000	-
Reimbursement of principal			24,000,000	5,000,000	-
Ending Cash Balance	**8,820,655**	**2,096,755**	**3,008,720**	**12,696,230**	**26,806,180**

Table 6b. Proforma Cash Flow

	1st year				
	1st quarter	2nd quarter	3rd quarter	4th quarter	1st quarter
Cash Sources					
Beginning Cash Balance	**1,500,000**	**9,868,855**	**2,922,605**	**2,639,170**	**2,950,030**
Sales (without VAT)	17,980,000	116,725,000	74,240,000	38,135,000	-
Collections from Sales					
74% in Current quarter	13,305,200	86,376,500	54,937,600	28,219,900	-
25% in Next quarter		4,495,000	29,181,250	18,560,000	9,533,750
Total sources of cash	**14,805,200**	**100,740,355**	**87,041,455**	**49,419,070**	-
Uses of Cash					
Variable Expenses	12,152,620	78,894,025	50,178,560	25,775,315	-
Fixes expenses	10,843,725	10,843,725	10,843,725	10,843,725	-
Equipment Purchase	3,000,000	8,000,000	300,000		
Total Uses of Cash	**25,996,345**	**97,737,750**	**61,322,285**	**36,619,040**	-
Cash Requirements	**-11,191,145**	**3,002,605**	**25,719,170**	**12,800,030**	-
Financing					
Loan	26,000,000	6,000,000			-
Interest on loan (6% monthly)	4,940,000	6,080,000	6,080,000	2,850,000	1,520,000
Reimbursement of principal			17,000,000	7,000,000	8,000,000
Ending Cash Balance	**9,868,855**	**2,922,605**	**2,639,170**	**2,950,030**	**2,963,780**

Table 8. Expenses for restructuring implementation

Expenses	USD	Drams
Server computer 1x $3000	3,000	1,260,000
PC computers 12x$ 1500	18,000	7,560,000
Necessary accssesories	3,800	1,596,000
Cables	1,000	420,000
Installation	1,000	420,000
Consultancy & Training	3,000	1,260,000
Total	**29,800**	**12,516,000**

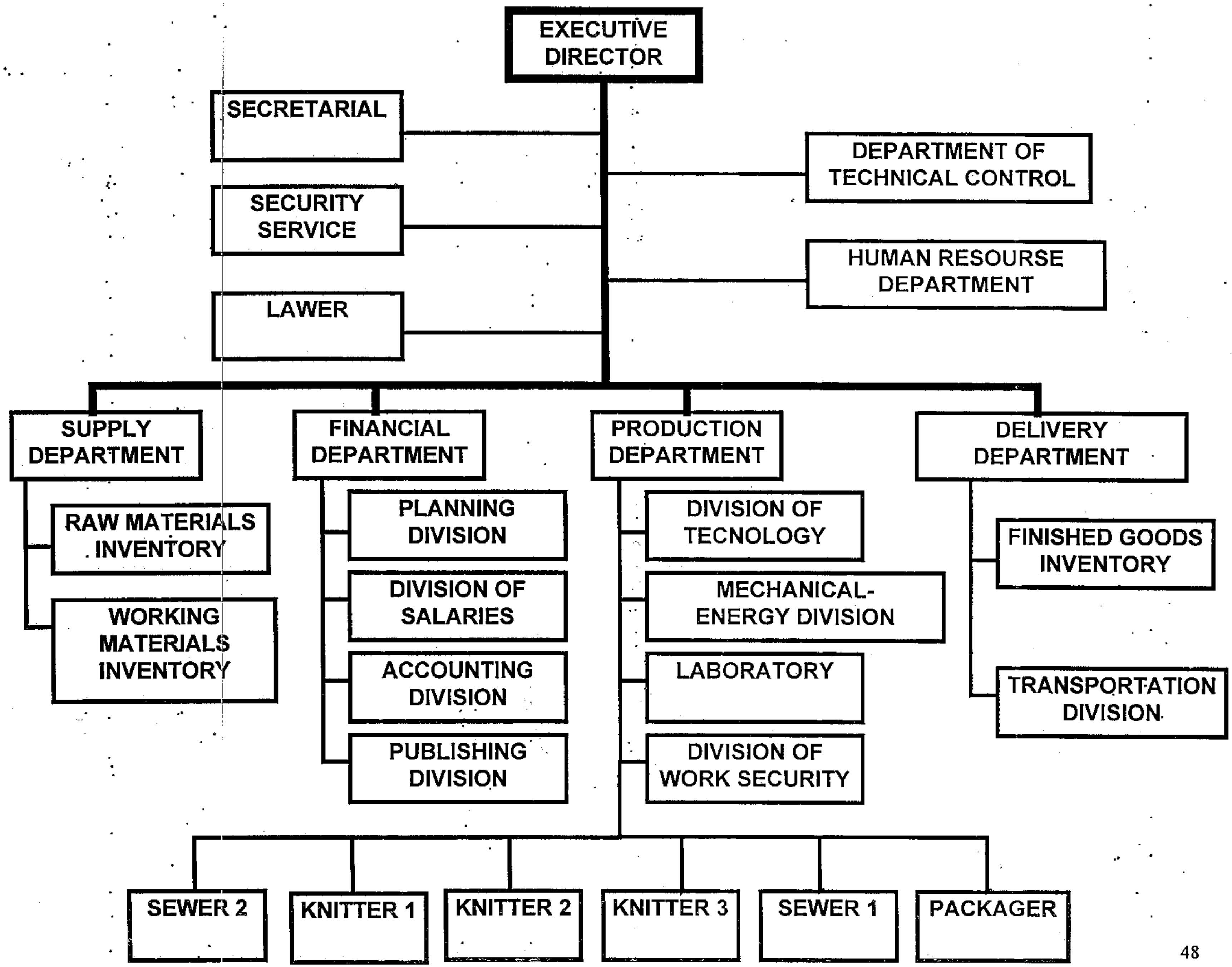
Table 7. Comparative analysis of operating cash flows

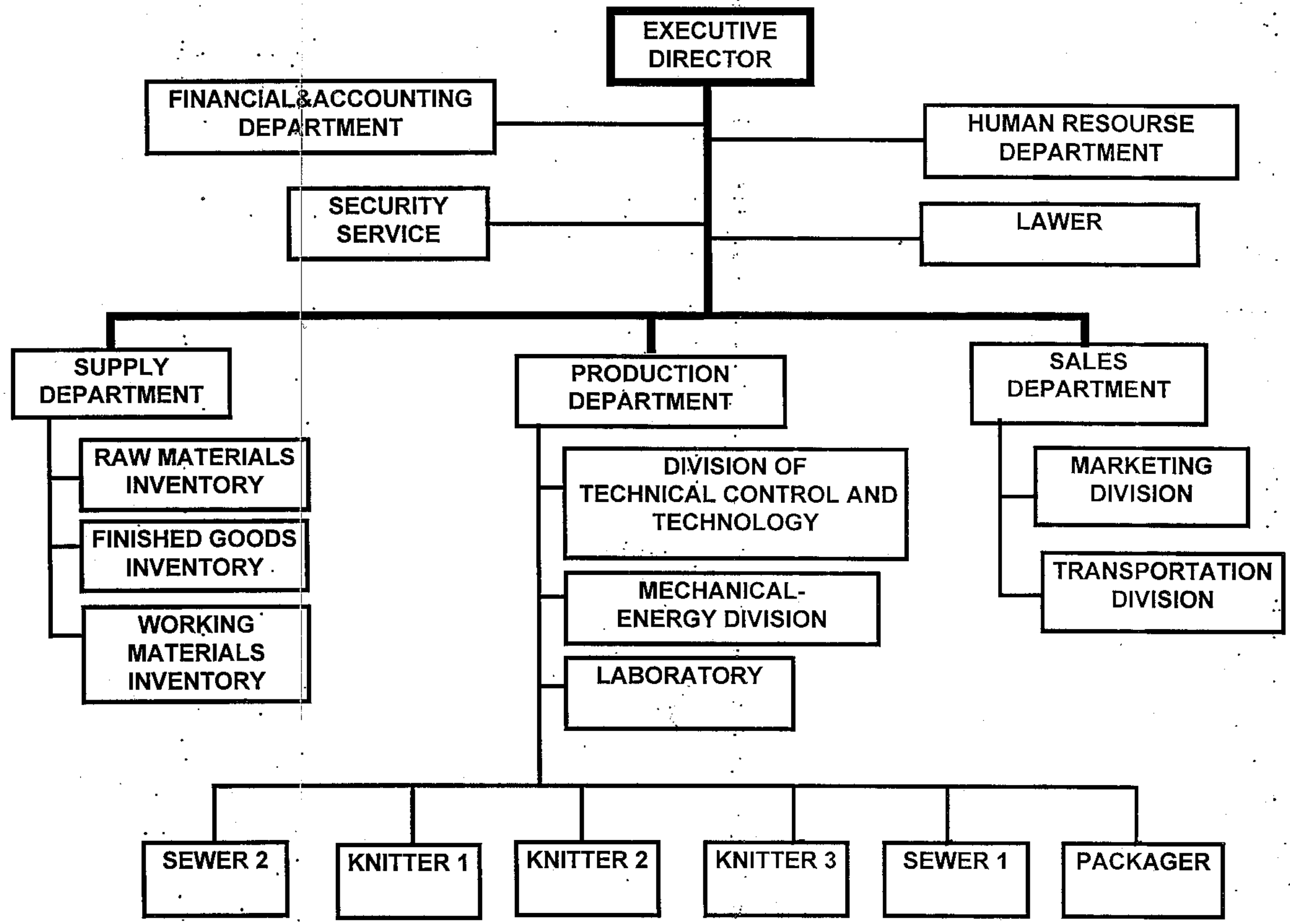
	No restructuring	Restructuring	Cash Inflows	Cash Outflows
Gross Profit	54,132,304	66,252,954	*12,120,650*	
Financing Expense	16,340,000	21,470,000		*5,130,000*
Resulted Cash flow			***6,990,650***	

Table 9. Investment analisys

	1st year	2nd year	3rd year	4th year	5th year
Cash Inflows	6,990,650	6,990,650	5,260,000	3,780,000	3,000,000
Cash Outflows	11,256,000				
Resulted Cash Flow	-4,265,350	6,990,650	5,260,000	3,780,000	3,000,000

Discount rate	**72%**
NPV	**2,662,602**
IRR	**137%**


EXECUTIVE DIRECTOR
SECRETARIAL
SECURITY SERVICE
LAWER
DEPARTMENT OF TECHNICAL CONTROL
HUMAN RESOURSE DEPARTMENT
SUPPLY DEPARTMENT
RAW MATERIALS INVENTORY
WORKING MATERIALS INVENTORY
FINANCIAL DEPARTMENT
PLANNING DIVISION
DIVISION OF SALARIES
ACCOUNTING DIVISION
PUBLISHING DIVISION
PRODUCTION DEPARTMENT
DIVISION OF TECNOLOGY
MECHANICAL-ENERGY DIVISION
LABORATORY
DIVISION OF WORK SECURITY
DELIVERY DEPARTMENT
FINISHED GOODS INVENTORY
TRANSPORTATION DIVISION
SEWER 2
KNITTER 1
KNITTER 2
KNITTER 3
SEWER 1
PACKAGER


EXECUTIVE DIRECTOR
FINANCIAL&ACCOUNTING DEPARTMENT
HUMAN RESOURSE DEPARTMENT
SECURITY SERVICE
LAWER
SUPPLY DEPARTMENT
PRODUCTION DEPARTMENT
SALES DEPARTMENT
RAW MATERIALS INVENTORY
FINISHED GOODS INVENTORY
WORKING MATERIALS INVENTORY
DIVISION OF TECHNICAL CONTROL AND TECHNOLOGY
MECHANICAL-ENERGY DIVISION
LABORATORY
MARKETING DIVISION
TRANSPORTATION DIVISION
SEWER 2
KNITTER 1
KNITTER 2
KNITTER 3
SEWER 1
PACKAGER

REPORTING MECHANISM SHEETS

BILL OF MATERIALS

Նյութ # ____________ Արտադրամաս # ____________			Ամսաթիվ ____________	
Գործի տեսակը		Քանակը	Միավորի ինքնարժեքը	Ընդհանուր ինքնարժեքը
N1.				
N2.				
N3.				
N4.				
N5.				
N6.				
N7.				
N8.				
N9.				
N10.				
N11.				
N12.				
N13.				
N14.				
N15.				
Պահեստապետ		/ /		

JOB COST SHEET

Աշխատանքի # ______ Արտադրամաս ______ Արտադրատեսակ ______ Նյութի մնացորդ ______	Ամսաթիվ ______ Պատրաստի ______ արտադրանք

Ուղղակի նյութեր		Ուղղակի աշխատուժ			Ոչ արտադրական ծախսեր		
Նյութ #	Գումար	Աշխատանքային թերթիկ	ժամ	Ընդհանուր գումար	ժամ	ժամավճար	Ընդհանուր գումար

Ընդհանուր ինքնարժեք	
Ուղղակի նյութեր	
Ուղղակի աշխատուժ	
Ոչ արտադրական ծախսեր	
Ընդհանուր ինքնարժեք	
Միավորի ինքնարժեք	

Առաքված արտադրանքի քանակը		
Ամսաթիվ	Քանակ	Բալանս

EMPLOYEE TIME TICKETS

Աշխատանքային քերթիկ # ____________
Աշխատող______________________________

Ամսաթիվ ____________
Արտադրամաս ____________

Սկսել է	Ավարտել է	Ծախսած ժամանակը	Վճարը	Ընդհանուր գումար	Աշխատանքի #
Ընդհանուր					

Արտադրամասի պետ / /

Աշխատանքային քերթիկ # ____________
Աշխատող ______________________________

Ամսաթիվ ____________
Արտադրամաս

Աշխատանքի #	Քանակը	Վճարը	Ընդհանուր գումար
Ընդհանուր			

Արտադրամասի պետ / /