

8. Analysis of Industry and Structure of Industrial Production in FBiH for the Textile, Leather and Footwear Sector

8.0 Introduction - Definition of the Sector and Methodical Basics

The analysis includes the textile, leather, and footwear sector in FBiH. The basic goal of the analysis is to create the foundations and to define the possible strategic development goals, contributing towards the further development of the sector.

The focus of this analysis lies on companies which submitted the requested information, which were interviewed, and which participated in round tables.

The available secondary material and published works, which were significant for this sector, were the primary sources used for drafting of this analysis. This also includes the systematic analysis of available statistical data in BiH, which are significant for the sector, but which are scarce. Besides that, the systematic preparation of empiric experiences from the GTZ Sector Counseling Project within the Private Economy Enhancement Program also gave a certain contribution, especially in the creation of market opportunities and strategies for the building of the sector. Interviews with managers of domestic producers from this sector provided the necessary information used in the drafting of this analysis.

A unique questionnaire consisting of 81 questions was prepared for the analysis of the state of the textile, leather, and footwear sector, in order to gain comprehensive answers, adequate for the versatile analysis of the state in this industrial branch.

The questions encompassed:

- financial indicators for 2006, 2007, and the plan for 2008
- staff information,
- state of applied technologies in preparation and production,
- state of production,
- state of development and of development trend, its economic policies, and
- foreign investments and system of enhancing development

The questionnaire was fully completed by six companies, and partially completed by another five. The questionnaires were delivered to the managements of the companies along with direct talks with team members, interviews, visits to companies, and other forms of gathering of necessary information, all with the aim of identifying the true state of the: production and other equipment, levels of technology, the work process and the production of adequate products, quality and production control together with the production flow of materials and work documents.

The analysis of the state using the above mentioned parameters encompassed 6 companies as follows:

- IMK "KULA" d.o.o. Gradačac (clothes production)
- Konfekcija "BORAC" d.d. Travnik (garment production)
- VIS konfekcija d.o.o G. Vakuf-Uskoplje (production of textile and leather garment, trade and transport)
- BONTEX d.o.o. Maglaj (production and trading company)
- FORTUNA d.d. Gračanica (serial production of footwear)
- ZIKO d.d. Zavidovići

8.0.1 Foreign Trends in the Textile and Garment Industry

- **Trends from the production point of view**

The foreign textile industry and the garment industry are in their vertical division (from fiber production and spinning to the finished ready-to-wear clothes) and its horizontal line (from fashion products to standard products and multiple technical and industrial applications) is organized in an extremely heterogeneous manner. In the last 25 years – due to various local and domestic framework conditions and due to the level of work being dissected in different global areas of economy – there were some important structure adjustments.

The most obvious trend can be identified in the **garments** branch: the work processes with high shares of work in the costs of producing added value (as well as generally speaking in the garment industry) were transferred into countries with low levels of salaries.

The degree of this change of position from industrial countries into developing countries and countries with low salaries has reached today a share of 95 %: it will barely be able to grow further. Passive improving of loan is mostly realized in ready-to-wear clothes, and the work is mostly carried out in the production of knitted merchandise and weaving. Companies for the production of garments of all kinds concentrate their investment assets and their knowledge only at the production of collections, at marketing of buying and selling, and at logistics.

The technical knowhow is no longer among the central competences of companies for the production of garments; it is almost completely replaceable, which means that assets are

allocated for that purpose only in limited amounts. The low deal costs concerning productivity of the staff are decisive advantages in the competition of garment manufacturers in countries with a low level of salaries.

On the other hand, today the typical factors of success of Western garment manufacturers include only the product, the distribution channel, and the trade mark. An example for business identity: one workplace in Western Europe costs up to a maximum of 50,000 KM.

The trend **of the primary textile sector** was more different: classic textile initial phases (production of fibers, spinning, knitting, weaving, and improving) are highly capital intensive and they are therefore much more resilient to low salaries. An example for that is: the workplace at a spinning or weaving factory can cost several million marks.

Moving of production, explained solely by the advantages regarding salary costs, is rare in this case, and it has different reasons – usually, strategic decisions, and decisions regarding the location. The drastic set-backs of companies since 1970 – with growing results in production – are contributed to the fact that the needs for productivity, investments, and innovations could have been seen only in those firms which had strong capital. Many firms were not up to the challenge brought about by the structural changes of the profession: within this structural change, an increase in productivity was demanded on the one side, and good capabilities for delivery, fashion and technical innovations of products as well as the logistic overcoming of production batches which were getting increasingly smaller, on the other. The result of this structural change today is a highly specialized “rest of the industry”, which is extremely efficient and competitive, in which salary costs have only a subordinated role. There is general rule for this subsector, defining that the vertical companies, which used to be supreme, are the “horizontal”, primarily with the aim of reaching a greater flexibility of the products and a better logistics. In other words: the textile branch and the garments have reorganized.

Textile companies are the main suppliers of garment manufacturers. Their success factor is a combination of efficient unit costs of production per piece and an innovative product.

Completely independent of the location, the **industrial and technical textile** sector developed. This industrial branch offers technical and textile products for various non-textile uses (car and airplane industry, medical and filtering technology, agriculture, gardening, construction, etc.). Conjunctive cycles, which are specific of, and harmful to, the textile industry and garments industry, almost have no effect on this sector, which stands out due to high-tech innovations and application techniques. Since these firms are secondary suppliers, which means that their costs are only one small part of the total costs of the consumer, product quality and application technique is more important than the costs for the production of added values (and, thereby, also productivity).

Success factors, influencing all the subsectors equally, do not exist: in each sector there are firms which have developed “their own conjuncture” “contrary to the trend” in one segment of the market. Economically, there are more successful firms producing garments with their own share in the final product of 100 % (e.g. Trigema), just like

there are successful vertical companies, but also producers of technical materials, which could no longer survive in a good market environment. Just like in every other branch of the industry, what is important is how well the management manages to use the specific advantages of the firm compared to the competition, and how well he eliminates weaknesses.

- **Trends from the placement point of view**

Seasonally conditioned irregular inflows of duty sheets are an important organizational problem for the entire textile production chain, which leads to oscillations in the usage of production and human capacities at all levels, and which in the end often influences the creation of bottlenecks in production and liquidity, as well as excess production in short time periods. Even the intelligent productions are, due to the high risk in the fashion world, adequate only to a certain extent and only those garment manufacturers who are producing famous brands and who are salable (e.g. Boss) can afford themselves high-risk productions. Somewhat smaller brands or *no names* are focused at short-term duty sheets, which are closer to their needs concerning time, in order to realize their plan, or they have to completely give up on the opportunities offered by the market.

Timely availability of textiles is ensured primarily through – long-term planned – international cloth and garment fairs, which are, for the past 20 years, held within shorter time-frames, shortened altogether for about two months. This brings profit only to the established brand producers, which can realize up to 100 % of their trade on long terms through permanent orders or duty sheets: the placement risk can be transferred, because of the strength of the brand, to sales, which can only store “secure” merchandise of famous brands. It buys the rest on short terms, depending on the needs. The share of relatively “secure” main orders declined, according to the experiences of the last CPD fair, from 75 % from 1980 to almost 20 % of the total needs. The significance of the western garment manufacturers can be judged by the share of participation of famous brands in the permanent orders.

The decline of the number of permanent orders with accompanying, very uneconomical consequences on logistics, storage, and disposition is the most important characteristic of the trend of the chain of textile production and sales.

- **Stagnation at textile markets**

The environment in the fashion industry of garments and in textile trading remains difficult, with the exception of dominant brands. New colors and the awaited renaissance in jeans fashion, for example, will hardly bring the expected progress. Cases of increase in trade of around 3-5%, reported from time to time, are welcome, but no longer encouraging, since stagnation is still the reality.

Many participants in the market fear that another setback of up to 3 %, just like in 2000, would be realistic. There are various reasons for that:

- a. Only some of the firms can keep up with the fast rhythm and shifted season deadlines, many customer wishes remain unfulfilled, because nowadays buyers can give up on buying a certain textile product;
- b. The share of costs for clothes in the total sum of all the expenses of private households is constantly shrinking, from over 8% in 1994 to a little more than 6% today. Increased household incomes could not be found again in trading, as was expected.
- c. Shifting of costs to consumer prices is impossible to apply nowadays in almost all of the EU. It is clearer than ever that spending is focused on other products and services – these are, among others, travels, electric appliances (cell phones, computers), etc.
- d. Classic textile trading is losing its share on the market compared to distribution channels which are unknown to this branch, such like the trading chains of foodstuff, perfume stores, coffee roasteries, etc., which very successfully try to gain the confidence of buyers with price aggressive amount discounts, thereby limiting the increase of values.

8.0.2 Foreign Trends in the Leather and Footwear Industry

The footwear industry dominates the leather industry and the accessories subsector. World sales in this sector are estimated in percents of shares, as follows: leather 30%, footwear 60%, and accessories 10%.

In the past years, the world market, and especially the European market, was completely reoriented considering the developing disintegration of certain countries and the creation of new countries. Due to the war and the complete isolation of the market in Bosnia and Herzegovina, the industrial development was set back 10-15 years, and in some branches of the industry even more, so that the development cycle has to restart from the beginning.

Due to the crash of the former Eastern European economic space, especially the Soviet Union, as a large market, the former Yugoslavia lost almost $\frac{3}{4}$ of its market, which was also transferred to the newly formed countries. The new countries of Eastern Europe have either found new suppliers, or were unable to sign new contracts due to the bad economic situation. It is often the case that the former markets, held by the countries which were at war then, are taken over by those who were not at war, since they had no breaks in the development cycle.

The quick privatization of combines from the former socialist economic system in Poland, the Czech Republic, Slovakia, Hungary, and Romania with the participation of foreign investors in the buying of companies, or the founding of new ones, created new realities in production and on the market. German shoe factories, as well as companies which manufacture certain parts of footwear and material, have especially used the favorable conditions for the foundation of new companies or the taking over of factories, in the above mentioned countries.

Salaries and other personal incomes of employees have a decisive role for foreign investors in the choosing of locations and partners. Low incomes are the primary interest of investors.

Countries, which tend to have a larger production such as China and Vietnam, should be identified as serious and realistic competitors of the **footwear manufacturers from Western Europe**. Not only are the costs low, but the level of productivity is also high. In the last 10 years these countries have learned to manufacture footwear and leather of such quality as demanded by the buyers.

In spite of the mass Asian pressure, Italy is still the leading manufacturer on the world market. The Italian leather and footwear industry has highly qualified and motivated expert staff, excellent designers, and modern technologies.

Italian designers determine and influence the footwear fashion of the world and of Europe. These designers play an important role around the world bringing so the Italian footwear fashion to the leading position at the world market.

In the leather subsector a dramatic increase of prices, caused by the mad cow madness crisis, as well as foot and mouth disease, was expected. The expected increase of prices did not occur, but certain increases of the prices did occur anyway, especially of footwear with high shares of leather.

Leather accessories and small leather products are mostly Turkish products. They determine the design and offer through small companies (family plants) and extinguished craftsmanship, marked by long tradition. Family plants are flexible and able to quickly react to changes in fashion. In the field of high-quality leather accessories and small leather products there is a small number of specialized companies which could prove to have high productivity.

Substitutes and special textile materials have become increasingly important and they have found their way to the leather and footwear sector.

These materials have properties similar to leather, and they are very hard to differentiate from leather, with the naked eye. Constant development of textile materials ensures a significantly wider application for buyers in footwear production.

A triumphant arrival to the footwear industry was made by, e.g. «GOROTEX» or «SYMPATEX», and all the existing materials linked to them.

Because of the mass reallocation of production to abroad, the German leather and footwear industry is marked by a drastic share of insolvency during a 20 year period. From 1980 onwards, approximately 60% of German footwear production plants had to be closed.

As a countermove, the import of footwear to the German market has significantly increased in the time period between 1980 and 2000. Today, 97% of the footwear bought in Germany is manufactured abroad. That makes Germany the typical example of world tendencies concerning manufacturing abroad. In international production there is a

division per countries concerning the two leading European footwear nations, Italy and Germany. While Germany relocates its production mainly to Hungary, Poland, the Czech Republic, and Slovakia, Italy is focused at the neighboring Balkan countries, and it is the only employer for the production in Bosnia and Herzegovina. Tendencies expand towards Asia, which is already becoming reality.

Based on that, Italy, Vietnam, and China are becoming major competitors to Bosnia and Herzegovina in the struggle at the German market.

Asia (India, China, Taiwan) are serious competitors to European manufacturers in the last 15 years. They do not lag behind Europeans in terms of productivity, quality, and delivery deadlines.

Due to joint activities of modern communication technologies (internet), production techniques, and logistics, Asian producers need eight weeks from the placing of an order to the final delivery in German ports (travel between Bombay and Hamburg).

Small and medium companies, as well as buyers, have false presumptions on the costs of transport. Even with great distances, these costs barely matter. There are special transport lines such as the direct, fast container shipment made by transport companies. For example, the transport of one pair of shoes costs 1.00 KM (0.5 EUR) at a distance between Bombay and Hamburg. Production, quality, and exact logistics of a company, and of course the amount of the product, however, still have the final word in this.

8.0.3 Value Chain

The value chain encompasses the whole subsector of leather, leather products, and footwear. It starts with cattle farming and extends to the processing in meat procession plants, transport, all the way up to the next level of processing and trade of different products, and to final buyers.

A direct increase of value occurs with raw skins which with further processing to processed leather achieve their true value. So, for example, one farmer receives approximately 8.0 KM for the sale of raw skin the size of approximately 2.5 m³. In contrast, one square meter of veal skin, depending on the quality and additional work, costs from 45.0 to 60.0 KM.

Skin residues, created during various processes of further processing, is processed through various preparatory methods into products made from leather fibers and reintroduced in the form of insoles, and front and back reinforcements in the material flow.

Further use of value can be seen with leather in the industry of footwear, small leather products and accessories, and with leather garments. The skin residues created during the manufacturing of footwear and leather garments is used in the manufacturing of small leather products.

Compared to the other countries of South-East Europe, less foreign direct investments have entered BiH. Foreign companies, out of which there are 95 % of Italian companies, only act as employers.

Compared to other countries, Slovenia has risen through its engagement in BiH. The Slovenian footwear manufacturer «ALPINA» bought and privatized the shoe factory «FOGS» Sarajevo. «ALPINA» is in BiH very often the ordering party of lohn works. Among other things, the shoe factories KTK from Visoko and LIŠTO from Široki Brijeg work for «ALPINA». Slovenian investors know this region well, and they possess the necessary knowledge of the language and so avoid the existing bureaucracy. Around 80% of Slovenian investors are focused on the counties of South-West Europe.

Diagram 1.4: Value chain in the leather and footwear industry

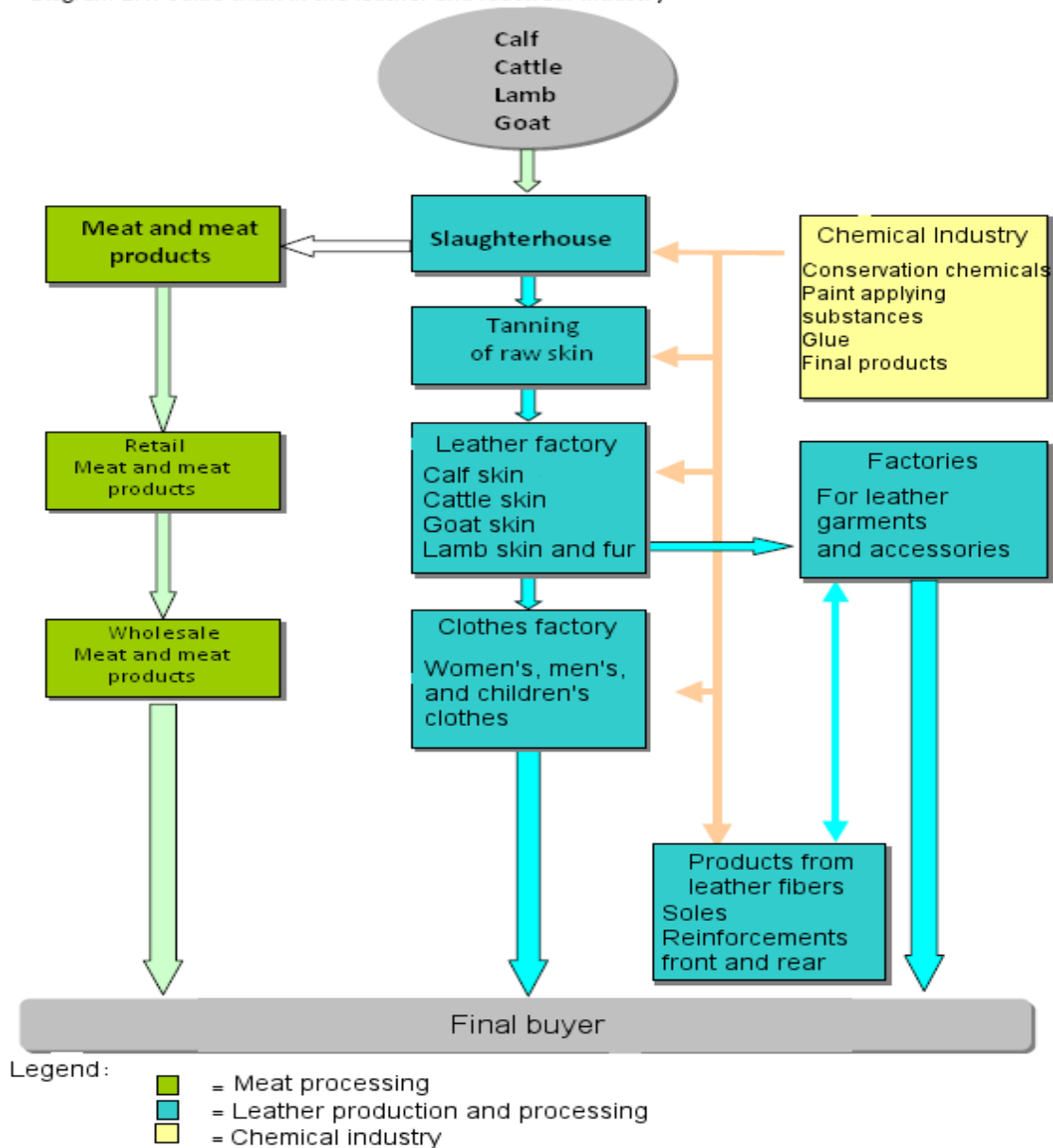


Figure 8.1 Value chain in the leather and footwear industry

A significant reason for holding back of foreign investors in the production of leather and footwear can be seen in the fact that the necessary capacities for the European market are already covered enough. German factories and companies which manufacture parts of footwear and tools in the before mentioned countries (Hungary, the Czech Republic, and Poland) have especially used the favorable opportunities for the foundation of new and the taking over of existing factories.

In short term, there are only small chances for foreign investments or for the foundation of new factories in BiH. This branch is burdened by large capacities. The burdening of capacities in this sector is estimated at 30-40%. Besides that, in accordance with experience, investors are engaged in countries that have the largest possible purchasing power. Besides others, these are Slovenia, Greece, the Czech Republic, and Hungary, but, for now, not Bosnia and Herzegovina.

In the field of the production of other leather products and parts of tools many small, private, crafts companies are active. There is no information regarding this. The estimates of experts are risky, due to the atomistic structure in this branch.

8.1 Cross-Section Data of the State of Production Programs

The main precondition for a successful company strategy is having a good and commercially successful production program. The satisfaction of the buyers regarding a certain product is one of the basic criteria which measure the commercial success of the product.

8.1.1 Basic Information

In this analysis, the textile, footwear, and clothes sector in the economy of BiH encompasses the following branches of the processing industry:

- production of textile (D17D Nace),
- production of clothes, additional work and fur coloring (D18KD Nace),
- processing of leather, manufacturing of accessories and footwear (D19KD Nace)

The textile, clothes, and footwear sector in BiH participated in the production, foreign trade exchange and investments of the economy of BiH in the time period between 2003 and IX 2007 with 6.7% of the production, market, and development strength, which amounts, per individual segments, to:

- production, 220.5 million KM or 3.7%,
- export, 360.1 million KM or 7.9,
- investments, 39.9 million KM or 3.5%

The activities of the textile, clothes, and footwear sector of BiH therefore take the following positions:

- processing of leather, manufacturing of accessories and footwear, 11th place of the processing industry sector of BiH,
- production of textile, 13th place of the processing industry sector,
- production of clothes, additional work and fur coloring, 16th place of the processing industry sector of BiH

The term textile industry subsector means the production of fibers, yarn, weaving, knitting, and textile improvement. The footwear industry encompasses mainly ready-to-wear products or the processing from textile to fashion products.

Table 8.1 Employment and salaries in FBiH (KM)

Field of production	Number of employees	Net salary	Gross salary
Production of textile	4711	345.50	508.07
Production of clothes, additional work, and fur coloring	6971	299.79	440.87
Processing of leather, manufacturing of accessories and footwear	6366	337.09	495.72
Total:	18,048	324.88	477.76

8.1.2 Industrial Products

The amounts of produced leather are low and constantly changing, so that in 1998 a large increase was noted in the production of leather, which can only be explained by orders for additional work up to the requested degree of quality. If we estimate the amounts of the material necessary for the upper parts of all footwear from the assortments of footwear for women, men, and children, as well as the average material use of 0.20 m² per pair of shoes for the production of work shoes for all assortments from its initial point, then there were at least 645,000 pairs of footwear sold at the domestic market in 1996. If the same basic presumption is used for the following years, then there were 960,000 pairs of footwear sold at the domestic market. This beats all the arguments regarding percentages of produced footwear, saying that footwear of adequate quality cannot be produced from domestic skin.

Companies which have their seats in these locations, or the areas of Sarajevo-Visoko, Mostar, Tuzla, and Banja Luka, are not connected into a production chain. They have no basic or strategic alliances with universities, or research institutes, or companies from

different sectors. There is a large need and possibility for acting on the creation of groups and for the increasing of systematic competition, if all the actors integrate among themselves.

Table 8.2 Production of selected industrial products

Products	2002	2004	2006
1. Textile products			
- cotton yarn (t)	11	60	-
- wool yarn (t)	59	439	389
- socks, thousands of pairs	2,175	1,172	1,221
- household linen, thousands of m ²	362	111	47
2. Production of clothes, additional work and fur coloring			
- knit underwear (t)	63	-	45
- knitted clothing (t)	152	395	67
- underwear (thousands/m ²)	51	48	213
- ready-to-wear clothes	4,978	6,140	4,291
- leather clothes (thousands/m ²)	96	130	91
3. Processing of leather, production of accessories and footwear			
- upper leather (thousands/m ²)	144	167	235
- heavy leather footwear (thousands of pairs)	—	274	818
- men, women, and children leather shoes and boots (thousand of pairs)	3,188	3,056	3,222
- other footwear (thousands/pairs)	115	145	173

8.2 State of Technology and Technological Systems

8.2.0 General State of Technology

From the 1970's to the end of the last century, after several centuries of the domination of the industrial manner of production, a new cycle of technological changes began in the industrially developed countries, which encompasses new technologies and techniques, new forms of production organization, and a new system of knowledge. What is especially important is the breakthrough in the area of technologies of new materials, the application of automatization (robots), the informatization of production systems and processes (NC, CNC/CAM, ACC), flexible production systems, and in other areas. One of the most explicit indicators of the technological development of the national economy is the technological complexity of the product and the technological development of technology. Technologies of a higher technological level have total costs which are higher (higher investments in production equipment), compared to conventional technologies (production equipment considerably cheaper), but new technologies make significantly higher incomes, so that the profit is considerably higher (Figure 8.2).

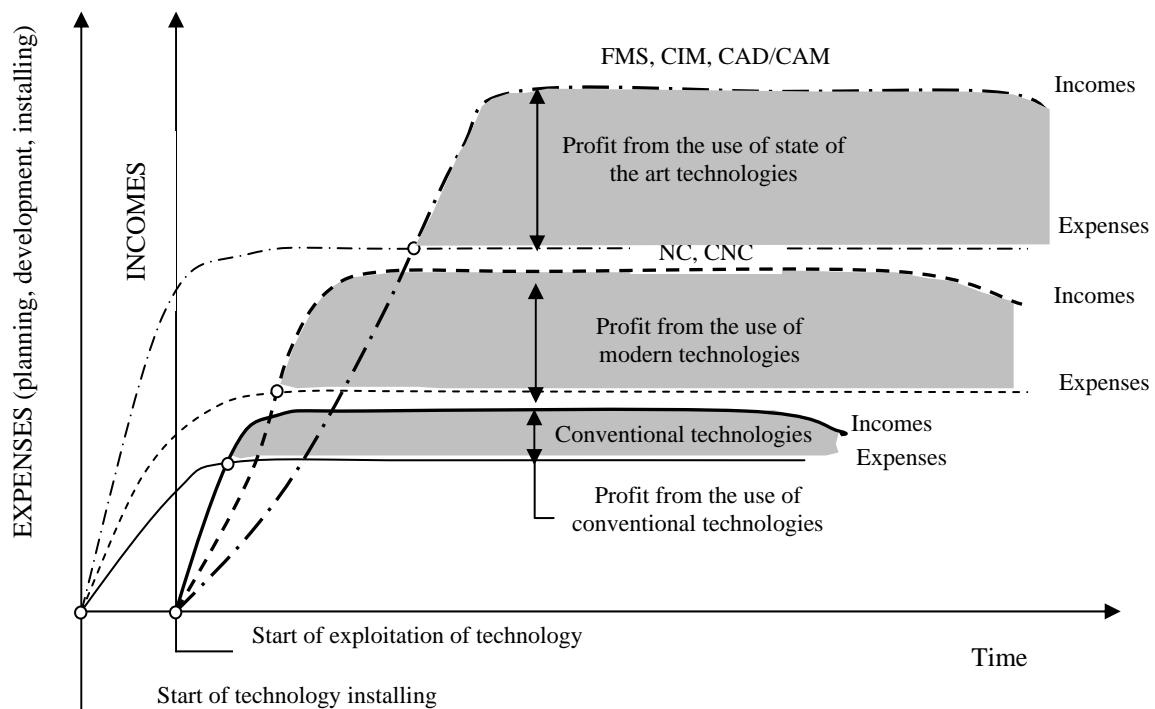


Figure 8.2 Flow of capital with investments into production technologies of different levels of technological complexity

The domestic textile, leather and footwear industry is conventional, based on Lohn works where the income level is the lowest (Figure 8.2.). The implementation of new

technologies and production processes in the textile, leather and footwear sector, progresses slower than the real needs of the sector, resulting in great lags behind foreign producers. There are numerous reasons for such a state, which are of no use, and they are: the lack of financial assets for the buying of modern technologies, the lack of educated and motivated staff which would pull the sector forward, and which even do not have satisfactory incentives at the workplace, the non-existence of an upgrading and specialization program for new technologies, etc. In order to produce products in line with the demands of the global market and the economic criteria for profit, it is necessary to implement a value system in domestic production and business systems, as soon as possible, in order to make that the impulse for a more adequate use of one's own staff.

8.2.1 Textile Subsector

8.2.1.1 State and Aggravating Circumstances for the Implementation of Modern Technologies

- The production and processing systems are as a rule ten or more years old, and they are usually in a good

state, although in most cases they are no match to systems of the developed textile industry from abroad. An insignificant automatization in the clothes sector is compensated through a large number of employees, for example, in the tailoring, and ironing process, and other works.

- Due to a high intensity of Lohn works, one workplace can be financed with several thousand KM, and therefore

the level of salaries is an important competitive factor. What is important for investment planning is not only the height of the salaries, but also the costs of per piece Lohn works, which can be calculated from the product in the following manner "costs of salaries times productivity".

The influence of firms on the price per piece varies depending on the product and the quality within +/- 25-30%. The quality can be insignificantly increased in a positive sense, if additional production phases can be offered, e.g. straight knitting technology (better material flow, shorter delivery deadlines, quick realization of ideas and sale of products).

Table 8.3

Country	Gross costs for salaries KM/hour	Productivity F hour/piece	Price of lohn KM/piece
FBiH	3.00	0.75	2.25
Germany	30.00	0.35	10.50

- The main problems and drawbacks of the managements of clothes firms lie in the following areas:
 1. Informatization and integration of works (CIM) is still insufficient, or better said, it is still not implemented and integrated sufficiently in the production and business system.
 2. Implementation of new technologies is lagging behind, as stated for several reasons.
 3. Modern organization of the firm and the optimization of the production process with the aim of cutting down costs and the production cycle are not accepted in the right way, at the moment.
 4. Modeling, designing, and creation works are still in the starting phase with the exception of single cases.
 5. The calculations and the principle of costs minimization, in order to achieve competitiveness, are not adequately prepared.
 6. Knowledge of market development and trends.
 7. Marketing and sales.

8.2.1.2 Implementation of Modern and New Technologies

- Facilities for training and service providers close to the sector

The work on education and upgrading in the clothes and textile sector is minimal. There are no departments at the university and expert institutions, like for example the department for textile engineering, design, or subjects which intensively deal with certain sectors, like for example, textile marketing, except at the Faculty of Technical Engineering in Bihać. Regarding that, it is hard to find well educated young staff in the field of textile. The whole sector suffers because of the lack of dynamic and professionally qualified young staff. The sector as an employer is unattractive for young qualified staff, for many reasons (low salaries, work conditions are not attractive enough, progress in the branch almost does not exist, etc.). Even when it comes to workers, qualified staff is very hard to find in BiH (seamstress, tailors, etc.). The workers who are mostly educated are the workers at production lines.

- The Academy of Fine Arts in Sarajevo and the Faculty of Technical Engineering in Bihać offer the studying of textile design.

Unfortunately, the CAD/CAM methods known and accepted in the industry, as well as the testing machines are not at disposal, except at some firms (KULA Gradačac). Modern tailoring and designing methods, as well as methods for the planning of the production process are not permanent practices in domestic production plants.

Basically, services close to the sector and, therefore, concrete offers of the service providers linked with the sector, are missing. Since the tools and supporting materials are mostly bought abroad, and the domestic textile industry provides very little export of materials, it could be said that the linking of sectors within the country is insignificant.

The input-output-matrix points out the difficulties of companies for the production of garments in BiH, which are forced to import a large number of pre-products from "expensive" countries, in order to remain competitive with the materials invested. Consequence: poorly expressed linking of domestic suppliers leads to market segmentation.

So, the firms from BiH act as satellites during the international division of work, which have a "link" with (shifting) remote ordering parties, but have less links with the neighboring "satellites", or firms for the production of garments from the country. There is no local market acting as a link, the effect of radiation on the local market is often constricted to informal works, which therefore limit the formalized building of a domestic trading system.

When we speak of the state of technologies and technological systems, one should have in mind that over 90% of it is dominated by the production, such as in Eastern Europe (Bulgaria, Romania, Ukraine, Poland, and the Czech Republic), which mostly uses German and Italian orders.

8.2.2 The Leather and Footwear Subsector

8.2.2.1 State and Aggravating Circumstances for the Implementation of Modern Technologies

- The lack of qualified staff is one of the basic reasons for the problems in the leather and footwear industry in Bosnia and Herzegovina.

The upgrading of long-term employees is not recorded, and the refreshing of knowledge through lifelong learning even less so, and these are the requirements of the modern industrial production today. This drawback concerns all levels. The drawbacks lie in quality managers which should organize something new. The tending towards passive behavior is even amplified by Lohn works. The level of the craftsmen, brigadiers and expert collaborators is cut off from earlier contacts and there is no possibility for upgrading. Modelers have no opportunity to inform themselves on modern tendencies. A lot of the know-how disappeared with the production solely for others.

Also, the earlier Yugoslavian leather and footwear industry had a tradition spanning several decades and it enjoyed good reputation. The first vocational school for the processing of leather and footwear in the Balkans was established in Visoko, as soon as 1929. Since then, the former Yugoslavia became one of the leading footwear nations in Europe. From the end of the war (September, 1995) onwards, there are no such vocational orientations.

- The source of raw skins in Bosnia and Herzegovina will not be delivered in the form of cooperation, anymore, but mostly individually by farmers, and this could mean a smaller inflow.

This cannot cover the needs of factories for the processing of leather. The leather industry is in a very bad state. There is a lack of orders; the organization of plants is not adequate to meet most of the technical quality requirements, the safety at the workplace, and environmental protection. If the leather industry does not receive help, this branch of the industry will not be able to survive.

- The loan works instrument is a tried out means for companies with low capital, which in this way do not have to invest any capital.

The production for others is also more profitable, as stated by the examples of other countries (China and Vietnam). The production for others in Bosnia and Herzegovina is, for now, not profitable, for two reasons: The first reason is low productivity, so that profit cannot be gained, and the other reason is the fact that the factories in BiH are usually dependent on only one ordering party, which fully dictates the work conditions. Factories in BiH accept every condition, without negotiating by themselves. With productions for others, there are constant disagreements on the delivered quality, the delivery flow, as well as on the differences in amounts and assortments. This is also one of the signs of weakness of the producers in Bosnia and Herzegovina. The USAID study (USAID Business Development Program Sector Survey Textiles and Leather, Business Consulting May 1998.), which shows only the commitment to production for others at appropriately high productivity and the lowering of the number of employees, which is not the right solution, since development is not based on new technologies, design, and new products, but on day to day jobs, without a proper and realistic vision of development.

It is fundamental for the companies to be able to defend themselves against the aggressive pressure of prices and production for others with creating associations, harmonizing in that way the plans and programs, but also with their own development and the education of staff.

8.2.2.2 The Technology and Technical State of Leather and Footwear

- Technologies, machines, and facilities are old, except for a few exceptions, but they function properly, nevertheless. The average age of the machines is 20 to 30 years, and therefore they are not important in the assessment of companies during privatization. Despite the age of the machines and facilities, the plants are capable of

producing footwear at middle segment prices and good quality compared to the equipment for various types of production.

The existing technological processes and technologies do not ensure an acceptable productivity, where under the term of productivity we think of the production coefficient per employee in one shift. Since we do not possess information on these amounts, we will have to do with the amount and number of employees. For that purpose we have calculated that one year has 220 work days.

Table 8.4 Productivity in the leather and footwear sector 1997 - 2005

Products group	Unit of measure	1997	2000	2005
Leather and accessories	m ² /worker	0.824	1.101	1.670
Footwear	pairs/worker	2.375	1.980	1.821

During the usual production of footwear by gluing, the international approximate value is 10 pairs of footwear per employee in one shift. If one takes into account the significantly lower number of work days, the difference in production per employee in the footwear industry of developed countries is even higher.

- The most important basis for the calculation of the offered prices is the production cost per minute.

The production costs for one pair of boots or shoes should be calculated by multiplying the time necessary for production, established as a norm within the plant, with the production per minute. According to experience, the production values per minute, depending on the size of the plant, are around 8 - 14 pfennigs (equal to 7.16 eurocent). This value represents the calculation of the above mentioned costs, and leads to wrong conclusions, when applying Western standards. The exact approximate identification of this important basic calculation will not be conducted in any factory in Bosnia and Herzegovina, since there are no objective norms (REFA), no necessary information on costs, and no modern calculations of costs.

From our experience the costs paid for one pair of upper parts are between 4 and 6 KM (2.05 to 3.07 Euro). For finished footwear this amounts to between 5 and 8 KM (2.56 and 4.09 Euro).

In the plants for the production of leather and footwear, there is a calculation of costs, but not a place, and especially not a cost bearer. Therefore, the management is not in the position to identify the costs and their causes in a timely manner and it does not, according to that, implement changes through the cost reduction program. The decisions are adopted based on experience. Three types of costs stand out as the most important types. The share in the total costs is:

staff 50 (+/- 10%), material 20 (+/- 5%), energy 10 (+/- 5%)

There are no good programs for cost reduction, open, in detail, to the principle of costs creation, such as:

- Energy costs reduction program (electric energy and heating energy).
- Use of material norms.
- Work towards individual norms with the aim of orienting production in accordance with rates for an increase in productivity.
- Work towards quality norms.

There is no usage of, and investments in, computers, except in some companies. The basic stand is the following: Rather hire more personnel than use the effects of rationalization with the simultaneous lowering of costs with the use of computers. The work of many managers is still not focused to the enhancement of productivity and the market.

- For products of the initial phase, such as: tools, moulds, front reinforcement, back reinforcement, soles, insoles, shoelaces, grommets, leather threads, and glue there is no specialized industry. Production is, like before, concentrated primarily in Croatia and Slovenia. Due to the territorial situation after the war, these products have to be imported. So, in this part, domestic products are oriented towards import, so there is no need to talk about technology.
- **The educational institutions** in the form of vocational schools, which encompass theoretical and practical classes, do not exist anymore from the beginning of the war in Bosnia and Herzegovina. For now, the plants for the production of leather and footwear still use the existing qualifications of the pre-war times. This is especially true for the jobs of leather and footwear producers. There is hardly any enhancement of qualifications gained for the workplaces in the plants through the employment of pupils. There are also no possibilities for improvement. Vocational education for an engineer of shoemaking for different areas of activities does no longer exist. Based on the non-existence of business perspectives pupils hardly show any interest for a new branch of industry. In this sector, there is a shortage of young, qualified, expert staff for the production of leather and footwear, from craftsmen to engineers.

8.2.2.3 Implementation of Modern and New Technologies

Institutions and companies which we visited do not possess an institution for **research and development**, at least not in the necessary form. The CAD / CAM systems of technology, from our experience, are far from being used. The lack of capable computers and software is conditioned by the lack of financial assets.

Input-output of the clothes industry in BiH - qualitative overview

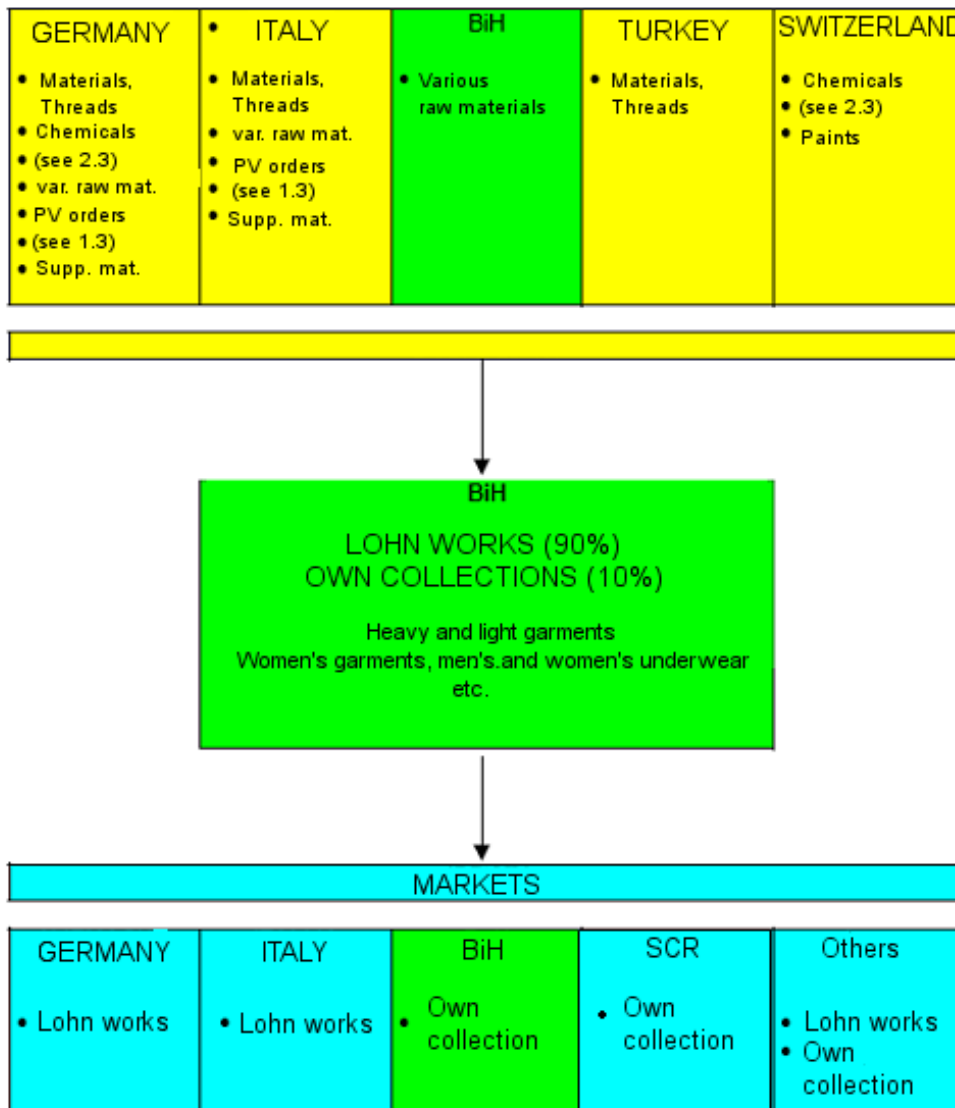


Figure 8.3 Qualitative overview of the garment industry in BiH

Certain companies have DIN SO 9002 certificates, for example "Vitex" in Visoko which is compliant to the "ISO 9002" standard, and it was only done by a few companies.

Institutions for testing are represented in the form of own laboratories. There is no laboratory on a national level, which can process every product in cooperation with European norms for quality assessment and which could monitor the laboratory. Work

compliant to European norms is not possible, since the documentation itself, the regulations, and technical preconditions are lacking.

The implementation of new and modern technologies is lagging behind in practice; there are not enough investments in the training on how to use of these technologies, so that without planned programs, motives, and staff, this issue will not be resolved successfully.

8.3 Possibilities for the Revitalization and Modernization of Technologies

8.3.1 Basic Foundations for the Development of Industrial Production

Modern industrial production requires constant innovations and the enhancement of existing products, production processes and systems, technologies, and quality of work, which make survival of many production and business systems dependent on the efficient application of the same. The basic foundations for the development of modern industrial production are: new production technologies and techniques, information technologies (CAD/CAPP/CAM-CAQ), a fast development of products, the application of knowledge, innovations, flexibility, and modern production systems, with the aim of achieving the competitive edge along with the cutting of production costs.

8.3.2 Basics for the Revitalization and Reengineering of Technologies

The domestic textile, garment, leather, and footwear industry has faced a series of technological and production, as well as economic and market problems, even before the war (insufficient modernization of production processes, difficulties in product placement, quality, and the like), and especially now, after the devastation of production capacities and human resources. The above mentioned problems are the consequence of the insufficient growth of the domestic products in industrial systems with a level significantly lower than the level of the domestic products achieved in industrial systems of developed countries. The domestic product as a result of the work of industrial systems depends on many factors, such as: types of products, types and levels of the technological process and management quality, management, etc. Through revitalization, and, even more, through reengineering the industry gets another, redesigned image of the technological and economic state compared to the earlier state. The technical and economic difference between the existing and the new, revitalized, state best shows the true effect of the performed revitalization (Figure 8.4). Revitalized technological processes cut the costs of direct current labor, and increase the share of indirect current labor which is called intellectual labor based on knowledge, as well as the share of past labor.

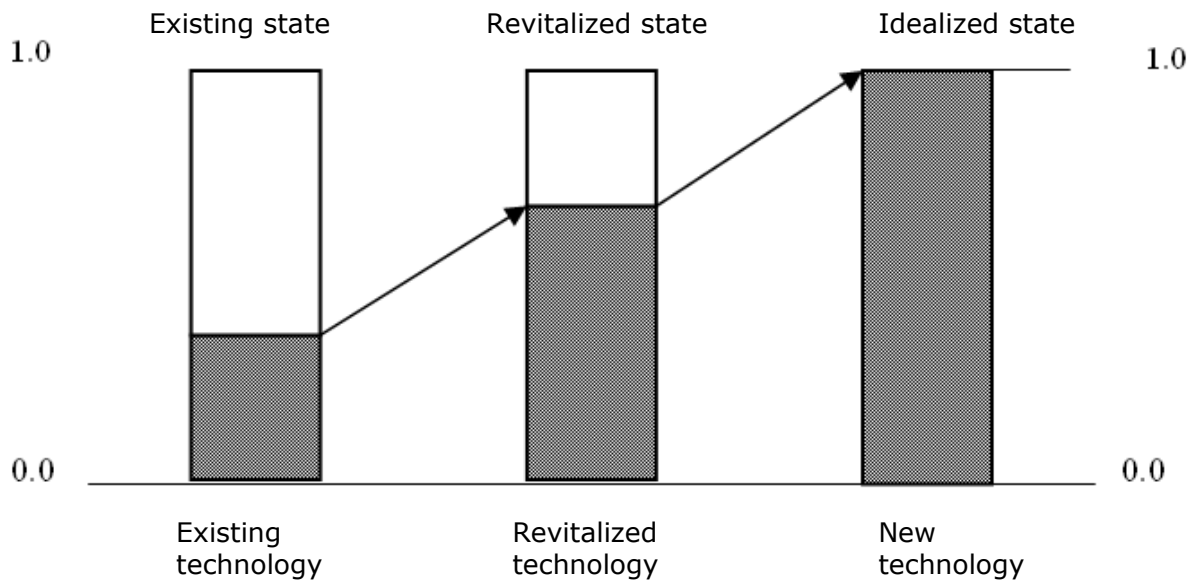


Figure 8.4 State of technology before and after the performed revitalization

8.3.3 Revitalization/Reengineering of Production and Competitiveness

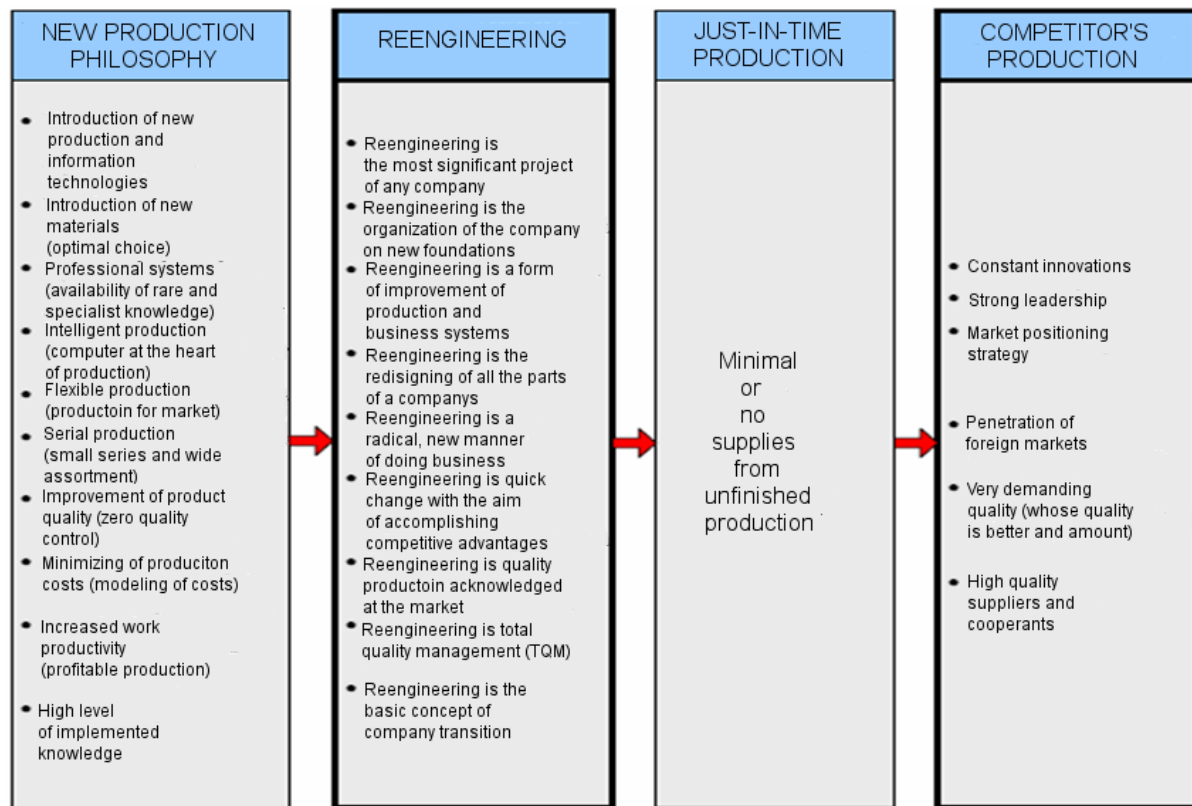
According to that, the revitalization of a certain technological production process or technology can be understood as a deep intellectual process which is based on the existing and new state, with the difference that the existing non-profitable state changes into a new profitable state, with the application of knowledge, where the profit is

$$P_r = U_p - U_t > 0$$

(U_p -total income, U_t - total costs).

The application of revitalization continuously decreases the time of work on a certain processing system per unit of production, and increases the preparation time (projecting, planning, programming, modeling, simulations, and optimizations) with the decrease in material consumption and energy, and the enhancement of product quality. The implemented revitalization adopted new methods in the processing, construction, projecting, and planning of the process, which lowers the costs of production and ensures better placement through higher quality of the product. To better understand the needs for the implementation of the revitalization, one needs to know the share of past labor, and the share of direct and indirect labor per unit of production. Therefore, the more modern the production process is (CNC systems, FMS, revitalized and new technologies) the less direct current labor is used, and the greater the share of indirect current and past labor. Direct current labor relates to works which directly manage the processing process along through the usage of production equipment. Indirect current labor is used on development and the shaping of the product, the construction, the projecting of the processing process, the preparation of production, while past labor means workspaces, work assets, energy, materials, and the like.

The revitalization and reengineering of technologies and technological processes is the organization of production based on new foundations which will radically redesign the production processes in order to improve the business efficiency (technology, quality, speed of materials flow, minimized duration of the work cycle, etc.)



Reengineering of production and competitiveness

Figure 8.5 Steps to achieving competitive production

8.3.4 Algorithm for Revitalization/Reengineering

Revitalization/reengineering include the following steps:

- analysis and assessment of the existing state of production,
- need for the research of market and competition,
- identification of bottlenecks in the production process,
- definition of problems and the target function of reengineering,
- alternatives and solutions for the achieving of the target function of reengineering,
- selection of the optimal solution for the achieving of reengineering goals,
- realization of the reengineering process,
- maintaining of the production system in reengineering,
- analysis of the reengineering results,
- successfully achieved reengineering, and

- improved state of the production system through reengineering

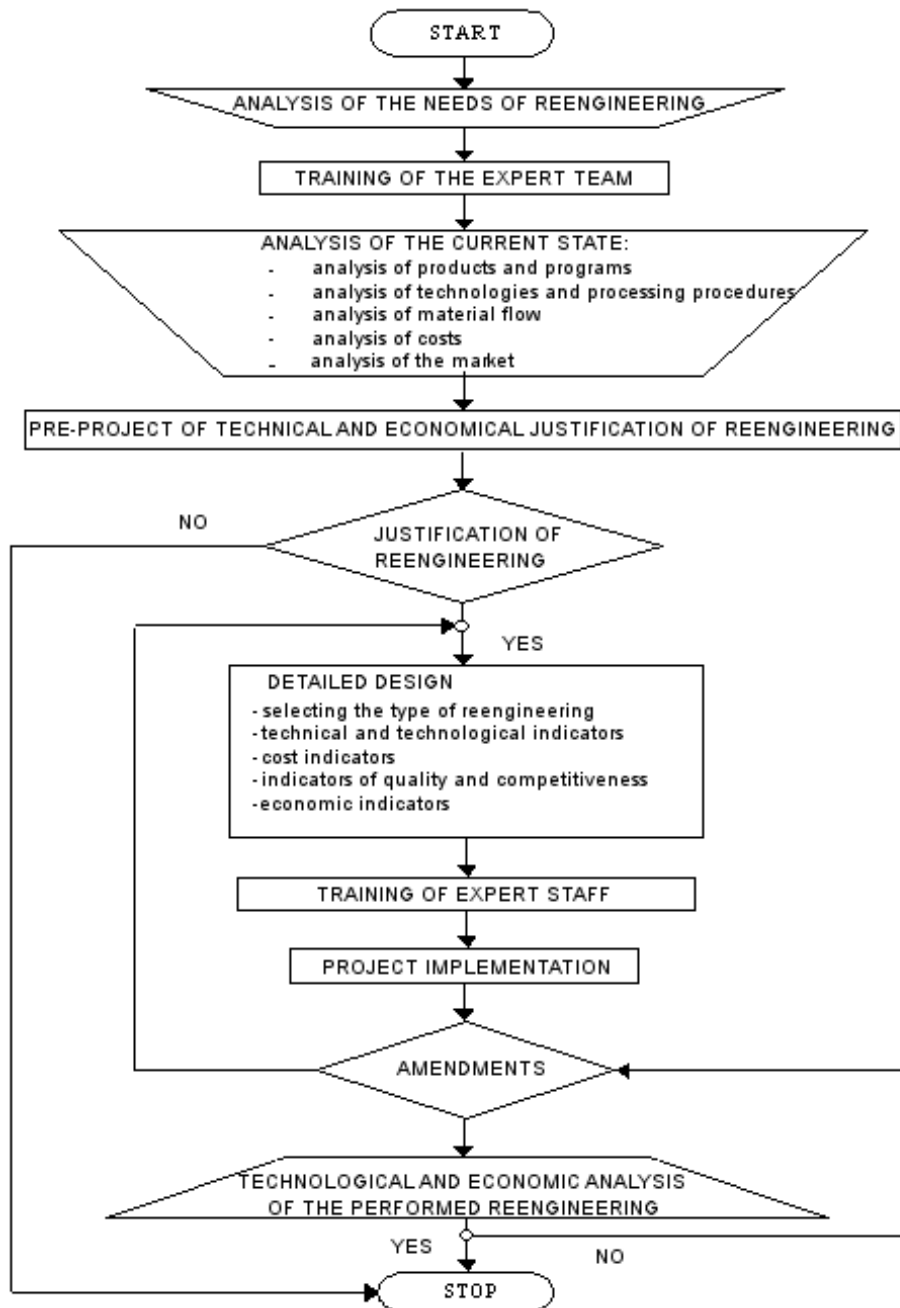


Figure 8.6 Algorithm of revitalization/reengineering

8.3.5 Revitalization and Modernization of Technologies and the Implementation of Knowledge

The modernization of technologies through the implementation of knowledge has four steps (Figure 8.7): Tools for the modeling and simulation of the processes must meet the following functions:

- textual and graphic documents of the process (analysis of the existing state and making of a model),

- changes in the process structure (shorter duration time and lower number of necessary processing systems,...),
- demonstration of system performance measures in a quantitative manner (process time, material usage norms, number of necessary machines,...) and qualitative manner (priorities of process implementation, materials,...)
- communication lines,
- usage and implementation of knowledge.

According to that, the modeling, synthesis, simulation, and optimization are methods of built in knowledge in existing technologies. If that does not give the expected and correct results, the implementation of new technologies should be performed, which demands greater investment assets compared to the previous method.

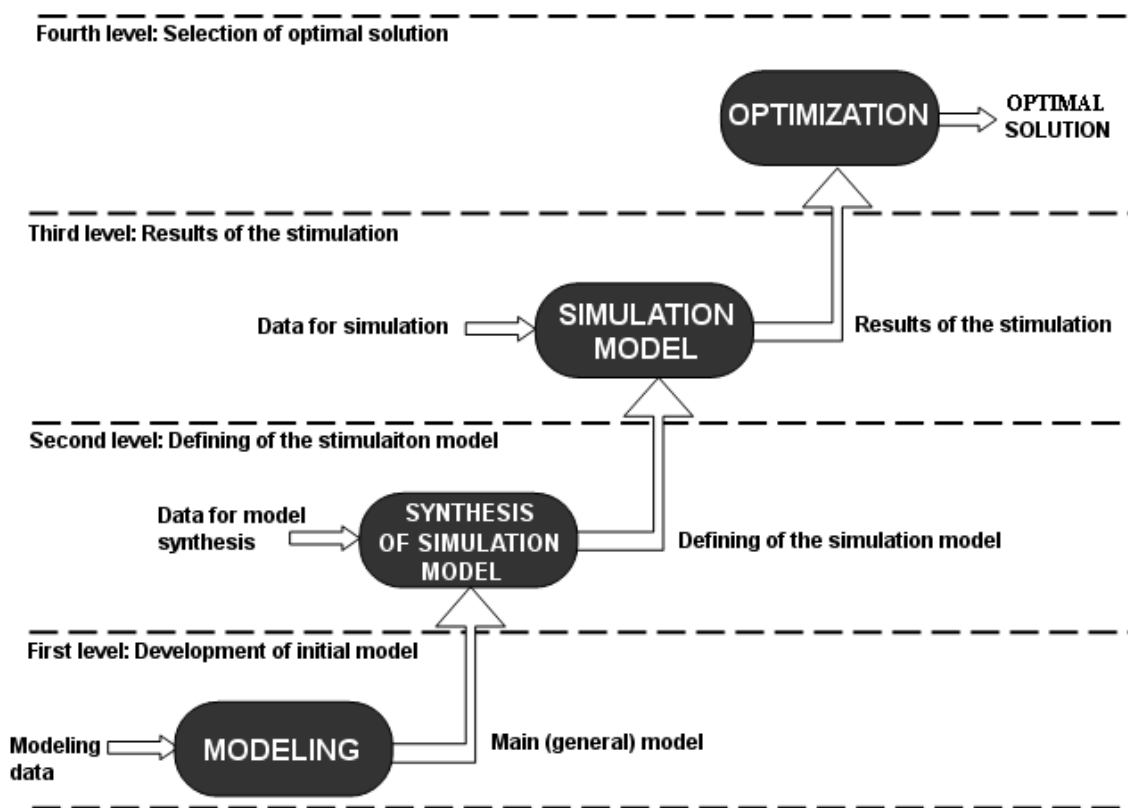


Figure 8.7 Revitalization of the existing technology through implementation of knowledge

8.3.6 Specialization and Rationalization in the Footwear Industry

The problems and challenges which Bosnia and Herzegovina faces are similar to those of other transition countries. This is also true for companies from the leather and footwear industry. The footwear industry is far more dominant and performs only Lohn works for Italian ordering parties, while the leather industry barely plays a role with foreign and domestic buyers. The first level of industry for the production of soles, parts of footwear,

tools, or moulds, without which footwear production is not possible, does not exist in Bosnia and Herzegovina, at all.

The population in Bosnia and Herzegovina is 3.9 million people, who mostly supply foreign companies. The footwear industry more or less “voluntarily” gave up its place to foreign companies on the domestic market. On the other hand, the domestic market is too small to offer an appropriate potential for the leather and footwear industry. Bosnia and Herzegovina has good market opportunities to push out a large number of the foreign competition from the domestic market and to export its own products.

Good chances for the improvement of the economic situation will arise if companies from this sector integrate regarding systematic competitiveness, first within the sector, and on long terms with the meat facilities. This also includes specialization, which would lead to a rationalizing effect. The following Figure points out the possible interaction within the sector for the production of leather and footwear.

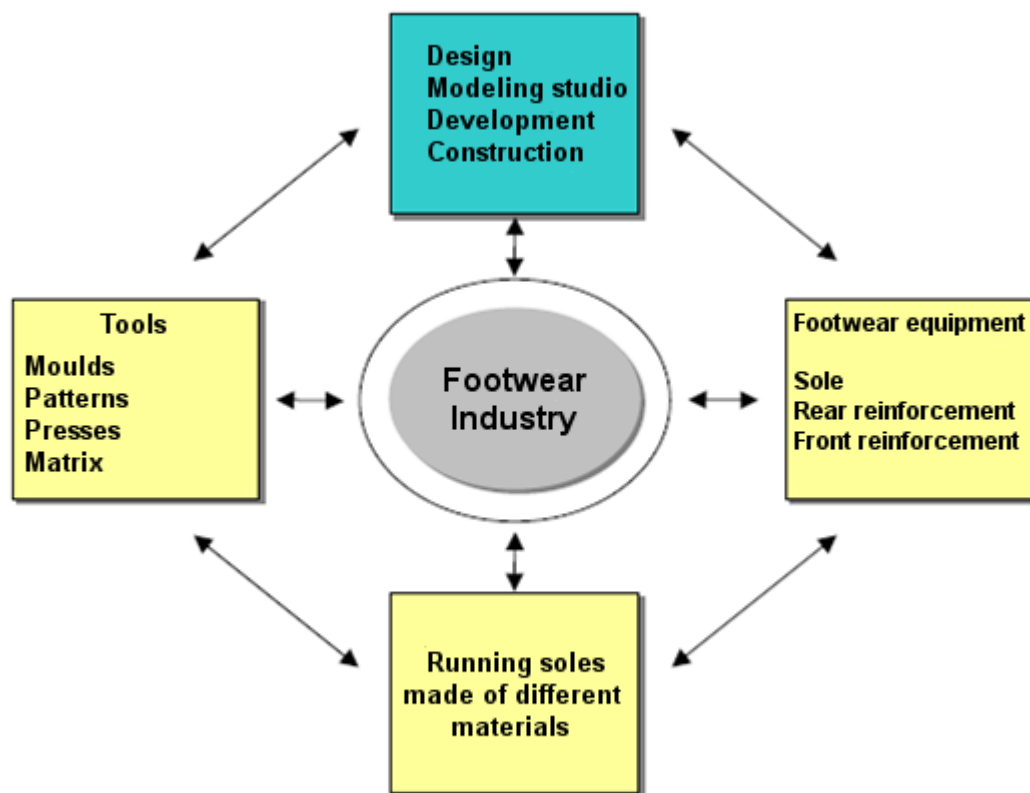


Figure 8.8 Rationalization and specialization in the footwear industry

Figure 8.8 represents the international, usual common actions of different branches of industry. Specialization could achieve greater production along with a simultaneous greater quality of products. Now, the production of soles and moulds cannot be performed by Bosnian companies. Such a production would be too expensive, and qualified staff is missing. The production of such a production line can, for now, only be performed by foreign investors.

- It is considered very important that companies revive their old markets, building so a certain market philosophy and that they constantly develop new product groups. This implies famous brands like: «AIDA FORTUNA», «IZBOR», and «PROLEX». These companies are known for their good and quality footwear among the domestic population and the population of Western Europe. The shape of the moulds and the names of the moulds should be kept as long as possible, and the usage of materials should be adapted to modern needs and the increased demand for quality by the buyers. If these measures are implemented consequently, there is a possibility for the firms in **the upper price segment** to establish themselves.
- The field of **street footwear** is covered enough as a product of serial production, and it offers less market opportunities. But, through a changed relationship towards free time and the changes in the work environment more staff is employed in administration so that there is a greater demand for modern and expensive products from the leather and footwear sector, including the subsector of leather accessories. This circle of staff is mostly employed in public services, in banks, and in other services, and they have to be representative due to business reasons, and they are ready to buy high-quality products, which is why the market opportunities are greater in the area of footwear **for spare time** and the modern and elegant shoes.
- The production of **sports footwear** demands high investments for special machines. The necessary investments can only be allocated by foreign investors. The specialization for various sports shoes demands high investments. The leading producers of sports shoes, like ADIDAS, NIKE, PUMA, and FILA, govern the market and they do not allow the rise of new producers. Sports shoes for special use demand necessary investments in the field of enhancement and development. Good market possibilities cannot be seen in this segment.
- The potential for **women's and children's footwear** is significantly higher than the potential for men's shoes. Women buy up to five times more shoes than men and, due to their developed sense for fashion they are ready to accept higher prices than men. This trend, which is usual in the world, also includes Bosnia and Herzegovina. This kind of buyers is especially represented in cities, despite the low incomes. The part of the population which is aware of fashion trends saves on other things from everyday life in order to be able to afford this luxury. Due to the growth of children, the consumption of children's footwear has also increased. One child needs, on average, two pairs of shoes, every year. Within the family, the health of the child is especially important. The rule that other expenses are suppressed in the favor of children, also applies here. There is a large need which needs to be compensated by market opportunities for production. Special footwear, like for example shoes for craftsmen, for jobs which involve standing, or moving, for health care workers, for athletes, etc., has market opportunities. The production of **large size footwear** amounts only to 1/3 of the total footwear production, anyway. Women's footwear size up to 45 and men's footwear up to 52 can be found within that production. The production of footwear for women and men in large sizes is an international impasse.

Regarding that, special routes of production in plants need to be built and offered at own places of sale. This concept can be supported by marketing measures.

- **The leather subsector** has low market opportunities but only if the leather production is focused at only one plant in every entity. Production for special leather, like for example for leather garments, furniture, and car equipment, can be built there. With **leather accessories** there is also a high share of black market, for example products of Turkish origin. Small plants rule this branch of the industry. These plants are private property and they are flexible when it comes to adaptations to the market. They have a certain amount of capital and they have good market opportunities.

8.4 Internal and External Constraints (SWOT Analysis)

The basic characteristic of firms in BiH is that they are still primarily dealing with consolidating their Lohn works with German and Italian buyers. At the same time, the lacking textile pre-industry with the adequate capacities and qualities, makes Lohn production, or the complete job, impossible. One could therefore expect the market opportunities of the sector to worsen rather than improve, if the gradual reorientation of the sector regarding the opening of new development potential, which would consist of a significantly higher technological level than current Lohn jobs, is not performed. This does not mean that Lohn jobs should be discarded, but the development cycle should be based on complex jobs which have larger technical and economic results.

A SWOT analysis is the basis for the drafting of strategic development goals (Table 7.5.). For the analysis an assessment is performed, as well as a defining of:

- The strength of the textile, leather, and footwear sector
- Weaknesses of the sector,
- Unused opportunities,
- Certain constraints and obstacles,
- Main goals,
- Conclusions, opportunities, and threats

8.4.1 Assessment of the Textile and Garment Subsector

STRONG CHARACTERISTICS, ADVANTAGES OF THE SECTOR	WEAKNESSESS, DRAWBACKS, FLAWS, BAD SIDES OF THE SECTOR
<p>The most significant potentials of the textile and clothes sector of FBiH are:</p> <ul style="list-style-type: none"> - Natural resources (wool, hemp, flax, raw skins, and other), - Installed resources (capacities for primary and final processing, trained and qualified workforce with constant training), - Long-year tradition of production and industrial culture in this sector, - Export tradition and orientation, - Existence of experienced experts, - Good garment quality, - Motivation of the management 	<p>The greatest limitation of the sector are:</p> <ul style="list-style-type: none"> - Too high export dependence, almost 100% - Production through Lohn works with companies from Germany and Italy, - Production in dispersed micro, small, and medium companies (around 90%), - Small series of different products, - Production of female workforce with many absences from work and many sick leaves, - Difficult working conditions, - Great competition, low usage of capacities (around 50%), - Low contracted prices, high norms and low salaries (around 350-450 KM per month), - Difficult getting of jobs through tenders on public procurement, - Small or no systematic state support, - High price of energy sources, - High expenditures on taxes and contributions for salaries, especially in FBiH, - Burdens with high customs taxes for the import of processed materials and equipment not produced in BiH, - Not regulated import and uncustomed and untaxed traffic of products of this

	<p>sector through sales on black markets and the like,</p> <ul style="list-style-type: none"> - Non-existence of sector policy and development strategy, - Institutional and systemic disorganization at the level of BiH, - Lack of pre-industry (buying of materials from abroad), - Weak productivity, - Lack of national market system, - Unsatisfactory financing, small circulating assets in the industry and the non-existence of circulating assets in trade.
IDENTIFICATION OF MAIN GOALS	
<ul style="list-style-type: none"> - Strengthening and building of local markets through the general enhancement of the economic situation and the restoration of the national trading system, - Successes of the exemplary companies prove that there are good development opportunities for a certain number of quality, good, and dynamic firms, - Strengthening of regional integration and joining into one regional system of textile industry and garment, - Expansion to markets of the neighboring countries, - Space proximity and similarity in tastes with Western European key markets (especially Italy), - Reviving and reactivating earlier contacts and places of sale – markets (neighboring countries, Germany), - Better possibility for planning and the possibility of achieving favorable prices through the systemization of the market, - Access to better production through the systemization of production and reconstruction. 	

8.4.2 Assessment of the Leather and Footwear Subsector

STRONG CHARACTERISTICS, ADVANTAGES OF THE SECTOR	WEAKNESSESS, DRAWBACKS, FLAWS, BAD SIDES OF THE SECTOR
The most significant potentials-advantages	The greatest limitation-weaknesses of the

<p>of the leather and footwear sector of FBiH are:</p> <ul style="list-style-type: none"> • Low salaries in Central and Eastern Europe, • For now, good qualified workers, • Wide pallet of good quality products, • Large and instantly available products capacity, • Long lasting tradition and experience, • Used mostly in the same speaking area, • Proximity of the European sales market, • Sale of domestic leather to the domestic footwear industry, 	<p>sector are:</p> <ul style="list-style-type: none"> • Lack of managerial capabilities in the economic and market surrounding, • Lack of managerial capabilities in marketing and design, • Managing is still not oriented towards the market, but towards production, • Too much staff, especially overhead staff, • Lacking adequate educational institutions for training, • Small and insufficient productivity, • Extreme dependence on lohn production (especially Italy), • Lack of liquidity, • Little usage of capacities, • Insufficient knowledge of foreign languages, • Lack of sector-specific information and resulting planning insecurities, • There is no industry for the production of products made of leather fibers and residues. • High share of the black market.
<p style="text-align: center;">IDENTIFICATION OF MAJOR GOALS</p> <ul style="list-style-type: none"> - Protection from irregular import, - Engagement of the state in the creation of conditions for leather and footwear production to regain its former status in the country and abroad, - Incentives and investment promotions, - Strengthening of support measures for the development of the sector of small and medium enterprises, - Modernization of production with the implementation of new technologies, - Conquering of new products, - Specialization in production, 	

- Achieving of high quality products,
- Enhancement of cooperation between producers along with different forms of associations, such as clusters, associations of producers with the possibility of performing joint activities (market research, appearances at fairs, organization of upgrading - training, joint participation at promotional gatherings, etc.),
- Strengthening of integration of leather and footwear manufacturers because of the development and joint representation at the international market,
- Substitution of import,
- Strengthening of the production of leather accessories where there are good market opportunities, because these products are produced in small private companies, which can adapt to the shifting needs of the buyers.

8.4.3 Conclusions on Future Opportunities and Threats

C o n c l u s i o n s o n s t a t e		
No.	State-opportunities	Threats-conclusions
1.	<p>Existing resources of the domestic industry:</p> <ul style="list-style-type: none"> - Natural resources (wool, hemp, flax, raw skins, and others), - Installed capacities of primary and final processing are not modern enough and require revitalization, - Trained and qualified workforce with constant training has an advantage compared to Asian competitive countries, - Long-year tradition of production and industrial culture in this sector provide an advantage compared to the main competitors from Asia whose products are all over the domestic market, - The textile and footwear industry have a tradition of export and 	<p>The textile and footwear industry is under great pressure of large quantities and low prices offered by Asian producers, producers from Turkey, and the like</p> <p>The domestic industry can hardly accept the competition in low prices, but it can accept it in design, quality, and tradition of export to the EU where these parameters are valued. This requires a lot more work in the domestic textile and footwear industry at the greater input of knowledge into products, and this can be done by learned people, professionals, experts.</p> <p>Conclusion:</p> <p>1. As the foreign competition can be defeated at the market by the domestic textile and leather industry with better design, quality, fast and timely delivery, it is necessary to develop models for education and transfer of knowledge in the textile, leather, and footwear sector,</p>

	<p>they are oriented towards export,</p> <ul style="list-style-type: none"> - The existence of experienced experts, but refreshing of knowledge is necessary, - Domestic industry provides garments of good quality, better than Asian producers, - Motivation of the management and managers is not optimal everywhere, and there is also a lack of knowledge. 	<p>strategically and methodologically, with the aim of increasing domestic production which will be nearer to the market, and which will be demanded more and more by the market. This means a higher level of competitiveness of domestic producers.</p> <p>2. Of course, scientific and university institutions, and other subjects in FBiH, must take part in this work.</p>
2.	<p>Internal technologization, organization, and informatization of production and business processes of domestic producers are not adequate compared with the time and demands of modern production and the global market. This requires a reconsideration of the state and a studious and thorough approach for the implementation of modern methods of reengineering, redesigning, and a new start in the qualitative and quantitative sense so that the domestic companies could become modern and get ahead of foreign competition which is highly motivated and basing its whole strategy on low prices of work of the employees, which is difficult and impossible to accept in domestic industry, since incomes are low even now.</p>	<p>Foreign producers have the advantage of being larger, of producing large quantities, which are also often of dubious quality. They are organizationally and technologically different, which is a common characteristic in this industry. These are producers which are also new and without tradition and industrial culture. They will certainly improve and therefore there is no time for waiting (speaking of domestic companies)</p> <p>Conclusion:</p> <p>3. The textile, leather, and footwear industry must be reorganized and then optimally organized, and all domestic producers must be linked into one whole so that they could all together adopt and implement the strategy for modern production. There must also be a place in this work for university institutions, competent ministries of the Government of FBiH, and others.</p> <p>4. Establish a sector policy and a strategy for the modernization of the domestic textile, leather, and footwear industry.</p>
3.	<p>Small and insufficient productivity of the domestic textile, leather, and footwear industry has always been a</p>	<p>Foreign producers of textile and leather products have, regardless of what we think of them, a higher discipline and a</p>

	<p>problem, and especially today, when capacities are lower and when production is more and more based on Lohn works, where there is no creativity and knowledge, but which is a copy of foreign solutions. The roots of such a state lie deep and they consist of many factors which require the complete redesigning of the existing state, not only within the company, but also outside of it, within the state.</p>	<p>division of work within the companies, and they are a serious threat to our productivity, which is low anyway. The problem of productivity lies not within them but within us. The threat is serious and we have to resolve it ourselves primarily with domestic producers. Therefore, the problem of productivity is great, not only because of the costs of production and the low competitiveness, as well as the placement of products at the market, but also because a series of factors within business systems, where relations between obligations and tasks are not regulated, like for example: work assessment, organization of works, mentality, etc.</p> <p>Conclusion:</p> <p>5. Redesign the technological organization and discipline in domestic companies from the grounds up, from the phase of technological preparation of production, the launching of documents, the production phase, to the distribution of the product. This work must be taken over by the managements of domestic firms since this is their job, which no one else will do for them, and they can receive help from many sides, from competent knowledge centers to faculties and those already implementing it in production.</p>
4.	<p>The specialization of the production programs in companies from the textile, leather, and footwear sector is important because of the drafting of development plans, the division of works within the sector, the modernization of production, and the seeking of perfection, which is not possible with all kinds of work, as is to some degree the situation today.</p>	<p>With foreign producers, specialization is the foundation of a modern approach to organization and the economy of production, and considering the quantitative production they have, they are in the lead. Our advantages are creativity, a wide assortment of specialized products, and optimal design, which are products with a higher degree of built-in knowledge, which also cost more.</p>

	<p>The specialization of modern production is an imperative not only in the technological sense, but also in the sense of expenses and staff, so this task must be approached with responsibility and with a lot of sense for the respecting of the opinions of all the competent factors and institutions.</p> <p>Specialization also offers an opportunity for the associating of producers (clusters) in the provision of joint activities (market research, training, product promotions, development planning, and market representation, and the like).</p>	<p>Conclusion:</p> <p>6. Make an agreement and the division of products between producers, within the sector, taking into account their previous specialization, accumulated knowledge, staff, and results on the market.</p> <p>7. The specialization of programs should be a road for domestic producers in the next ten years, which should be addressed in the Development Strategy. When it comes to specialization, it is not an obligation for only one producer to be assigned to a certain type and assortment of products, since there can be more than one, but they have to currently achieve certain results, i.e. they have to have a good foundation for further speedy development, since time is not on our side.</p>
5.	<p>The achieving of quality demanded by the market and of quality at the level of European standards. A few of the domestic producers possess all the necessary certificates and product quality which meets even the standards set out in the textile industry, which is proven by the fact that most of the domestic production is exported to the markets of the European Union. Quality at the European level, and, at the same time, lower cost of work than in the countries of Western Europe, represent a significant comparative advantage for BiH.</p>	<p>Competition of foreign producers regarding the quality is not something which should be especially respected, nor belittled, since positions in technology and quality, and especially at the market, are not constants. If we say that we are better, and we do nothing to actually be better, we could suffer heavy disappointments. Because of that, quality should be approached with great responsibility, having in mind that it is our main comparative advantage, which we yet have to prove on the market, since we usually perform Lohn works, which could fool us at the point when we create, design, and produce by ourselves.</p> <p>Conclusion:</p> <p>8. Introduce quality control and quality management chains in domestic companies using modern work methods, but also by screening every</p>

		<p>workplace, as it is in modern production (at least with the identification of the place of origin of refuse products or flaws) where the quality is known by the phase and work position.</p> <p>9. Ensure all the necessary quality certificates necessary for export and the placement of products at the international market</p> <p>10. Informatization in the quality sector is a necessity in order to identify the true state in real time, not when the distribution of the product is performed. Introduce incentive measures, since quality is our chance for development.</p>
6.	<p>State incentives for the development of the textile industry in various forms should be standards of behavior, although there are numerous limitation considering the fact that these are state subsidies to export products, would greatly help with the technological modernization and the increase in competitiveness which is especially important under the conditions of relative sub-investments of domestic textile and footwear producers. Credits should increase accessibility to assets under favorable conditions planned for the procurement of circulating assets and the financing of export.</p>	<p>In certain countries this branch of industry enjoys a special status, which can also happen in BiH if the Development Strategy adopts that this is the case with the textile, leather, and footwear sector. This is especially important, since women workforce in this sector is the most represented, which is more difficult to employ in some other branches of processing industry,</p> <p>Conclusion:</p> <p>11. Define in the Development Strategy of the industry of BiH the position of the textile, leather, and footwear industry, and create legal definitions and other acts which will support such a strategic position, if that is the priority at the point.</p> <p>12. Until the realization of conclusion 11 adopt and implement in practice the interim solutions in order for this sector to get wind in its sails regarding development, because</p>

		otherwise the waiting for the Strategy could be harmful and it would be too late to awaken the domestic textile and footwear industry.
7.	<p>The possibility of linking with producers in other countries, a good geographical position, and the globalization of the textile and footwear industry gives producers from Bosnia and Herzegovina the opportunity of linking with companies in the neighboring countries which own certain production capacities.</p> <p>This issue should be approached selectively, since we know from experience that some foreign producers are prepotent, forgetting that cooperation is possible only with mutual respect and interest. If that is missing, then there is also no cooperation.</p>	<p>The globalization of production and markets points us to international linking and cooperation, regardless of the fact that sometimes this cooperation gives results which are smaller than expected. If we do not do this on time, then some producers from far-away lands will, making our position even more difficult, because we would get competition for which we are not prepared for, which has a considerably favorable competitiveness, with larger amounts of expenses for personal incomes of employees, whose incomes are considerably lower.</p> <p>Conclusion:</p> <p>13. At the level of the textile, leather, and footwear sector, certain companies, and the Chamber of Economy of FBiH shall scan the state of possible linkages and potential partners abroad. Define the methodology for the realization of this task in accordance with the legal framework and the interests of domestic producers, and approach the concrete steps for the realization of these works. First, start with the examples in which cooperation already exists, including the cooperation in Lohn works which should be improved with the aim of taking over even more complex works than these.</p>

8.5 Possible Strategic Development Goals and Measures for the Consolidation of the Industry

This analysis, just like the strategic development goals and measures for the consolidation of the textile, leather, and footwear industry, should point out the general characteristics and problems this industry is facing in FBiH, and point out the main activities and directions which the state bodies and others should take in order to contribute to the recovery of this branch of the industry.

8.5.1 Strategic Development Goals and Presumptions Which Should be Resolved in Order to Achieve the Conditions and Create Foundations for Comprehensive Development:

- 1. Target goal: Defining the Strategy for the future development of the textile industry in order for it to adjust to the new business conditions and market rules of behavior.**

The Strategy for the future development of the textile industry cannot rely on the business experience of this branch from the past, but it has to rely on the present objective circumstances and facts. So, this industry can survive if it adapts to the new business conditions and market rules of behavior. The Development Strategy should present the planned development of this branch of the industry for at least the next ten years, with respect to the current state and scientific and technological development in the world.

- 2. Target goal: Export orientation.**

Export orientation is one of the most important characteristics of this production, and it is thereby, in the future, necessary to increase the competitiveness of this sector, both at the existing and new markets.

- 3. Target goal: Enhancement of the economic and social position of employees through the implementation of reengineering in the production and business systems.**

The economic and social position of employees in the textile industry and the leather and footwear industry is very bad considering the average incomes in FBiH, which demands the implementation of comprehensive technological, economic, program, and market solutions, but also solutions from state bodies which will improve the business conditions in this branch of the industry. Profits in this sector are traditionally among the lowest in the processing industry. Today, this problem is greater, since the space for the growth of salaries is limited by low prices of additional Lohn works and high operational expenses of companies.

- 4. Target goal: Problem of irregular import-gray economy**

Irregular import or the so-called questionable import harms competition at the domestic market, the extent of the gray economy is still represented, as is the production and

sales "on the black market". Confirming this fact is also the registration of firms for production and trading, which procure cheap goods from gray channels declaring it and selling it as their own product.

5. Target goal: Investments into the textile, garment, leather, and footwear sector.

A low inflow of assets from foreign capital for the development of production results in a low level of investments in the textile, garment, leather, and footwear sector. Because of that, most companies have old technology and equipment which is a hindrance for the development of a modern and profitable branch of industry. Being aware of the fact that producers in the last 10-15 years have improved the production equipment significantly towards greater productivity and a more efficient use of energy sources and raw materials, with the simultaneous introduction of new materials, the domestic producers have the imperative to implement new productive production systems, as soon as possible, for which there should be adequate incentives, even at the state level.

6. Target goal: Training and refreshing of knowledge of employees and the gaining of new knowledge.

A lack of university-educated staff is evident in the textile, leather, and footwear industry, as well as the insufficient refreshing of knowledge of employees through seminars and workshops on permanent learning and the gaining of new knowledge without which there is no successful development of production and business systems in this branch. It is necessary to train such staff, in order for them to work on the development of new products, design, the application of new technologies and technological innovations, as well as the creation and modeling of products with the aim of conquering markets.

7. Target goal: Modern organization of production and business systems.

The organization of work is not adequate for the demands of modern production, there are numerous "idle states" which are not only the result of the management and the employees, but also of the model of "survival" through Lohn works which do not provide a possibility for creativity or the use of top knowledge, and that are therefore not developing, in the right sense.

8. Target goal: Enhancement of own production.

The dominant relying on less complicated works and even the most simple additional works (so-called "cut and make" works), as well as the lack of investment momentum in many companies diminishes the need for the enhancement of own production and the education of experts with top knowledge, but also for the general improvement of business activities, which is not achievable without great motivation of employees and top knowledge. Improvement is a complex multidisciplinary process which needs to be

realized in several directions, such as the: technological and producing, informatics, staffing, organizational, stimulation, costs minimization, quality enhancement.

9. Target goal: Defining of industrial policies for a quicker technological development.

For the defining of industrial policies for a quicker technological development, a larger use of expert knowledge, especially in information and communication technologies, a faster implementation of these technologies in the classic and industrial technologies and all the activities of the society, is necessary to work out a system of incentive measures, which would enable the mass establishing of small firms with high technologies which would employ university-educated staff schooled at domestic and foreign universities. Experiences from around the world point to the fact that even small countries, such as Bosnia and Herzegovina, can become serious partners in the development and implementation of sophisticated technologies through better tax policies, the cutting of administrative obstacles, and other ways, in a relatively short time.

The industrial policies and measures of the economic policies need to create an atmosphere in which the companies would be interested in a more aggressive absorption of new technologies. All of this should contribute to the achieving of at least 10% of the GDP through the export of domestic products. Considering the lack of the critical mass for the transfer, implementation, and upgrading of licensed technologies it is necessary to approach the establishing of funds for providing incentives to research and development, as soon as possible. The funds could be established at the level of Cantons, regions, entities and the country of BiH. Assets gathered in funds would be used primarily for development projects which would result in an increase of competitiveness of our firms, and thereby, realistically, also in an increase in our export.

10. Target goal: Programming and development of scientific researches which would support the development of this sector.

Because of that, allocations for science, research, and education should be increased in order for young staff to be educated in the development of modern production which can create competitive advantages at the global market. Of course, this can also be a target goal for other sectors of the processing industry, competent ministries and Chambers of Economy.

11. Target goal: Legally stipulate alleviations for the transfer of new technologies and procedures and import of modern equipment.

Alleviations can be defined as smaller customs taxes and taxes or favorable credits regarding the current state in the country.

The government policy for the procurement of products of advanced technology should be directed towards the import of such equipment that will stimulate own innovations and the informatization and modernization of existing technologies and technological capacities. This especially relates to those companies which cannot modernize their production on their own nor increase significantly export without the support of

development institutions and university institutions, among which certainly belongs the textile, clothes, leather, and footwear sector.

12. Target goal: Restructuring and privatization of companies.

The privatization of companies of the textile industry should finally be finalized, which encompasses a) processes for the restructuring of great systems, and b) companies which entered the privatization procedure. Consolidation should be performed before the company is sold, in order to perform a more successful privatization and to avoid previous bad cases of privatization. Every stalling of the privatization makes it difficult for companies to adapt to the new market and technological conditions. The current state is that they are lacking the assets, and the right motives to enter the process of business reorganization, because they are waiting for the arrival of a new investor. Certainly, the solving of this problem is under the jurisdiction of the Agency for Privatization, which should speed up the privatization process of companies, so that companies could finally exit the crisis.

Every bad side of the previous privatizations should be avoided in the process, with the note that privatization is not just the change of ownership, but primarily the change of the technological status of the company.

13. Target goal: Revitalization and reengineering of primary production.

The participation of the state in this task is necessary and important, so the state must reply to this issue, since this is providing incentives for the development of the raw materials basis, where targeting of investment flows into this sector also has to occur. The revitalization and development of the production of yarns and fabrics is important because of many reasons, from the aspect of meeting domestic demand from domestic production, which leads to the lowering of a high level of import dependency and acts positively to the foreign trade balance of the country. Also, the use of domestic raw materials is a precondition for the reorientation to more advanced and cost-effective forms of additional work, as well as to classic export.

This issue certainly needs wider expert and technological, as well as economical, elaborations, before making the final decision, having in mind that in this production there were considerable and recognizable capacities. *Of course, this should be coordinated with other activities for the recovery of production of yarns and fibers.*

14. Target goal: Revitalization of production systems.

The revitalization should be handled in an expert and organized manner, and it should be planned and programmed in order to achieve the expected results. One should keep in mind that the time limit in which revitalization should be performed is limited, although the need for revitalization and modernization will always exist considering the development and technological advancement of the competition, as well as the fact that the international market is the best indicator of performed revitalization. A total revitalization of a company cannot be successfully performed without own development potentials and competent staff, which even with the destruction caused by war, and the

declining staff trends should not be in question, since external institutions and competent experts can also join the revitalization process. Revitalization and modernization can be understood through four basic aspects:

- revitalization based on the use of new and own knowledge demands the lowest possible financial assets, since it starts from the revitalization of existing production capacities,
- revitalization based on the buying of new technologies and modern production equipment demands greater financial assets and, usually, the engagement of foreign firms,
- revitalization preformed by the combining of the first two aspects, i.e. the use of domestic knowledge and the knowledge of technologically developed foreign firms,
- revitalization performed with the help of foreign financial assets based on the principle of joint investments

Which of the abovementioned aspects of revitalization will be used depends on practical and specific conditions of certain companies. In any case, the revitalization project must answer these and a series of other questions important for the achieving of competitiveness of the production and business system.

15. Target goal: Informatization and modernization of the textile, leather, and footwear sector in the preparation, production, and business parts

An educational system should be ensured for the enhancement and modernization of technologies, which would provide expert staff capable of working on the improvement of existing and the implementation of new technologies. This primarily concerns the transfer, development and application of new CAx technologies, designs, or fashion and modeling, and optimization of procedures and work costs in the textile, garment, and footwear sector.

Also, there is a lack in marketing or the area of promotion and sales, as well as in the administration and development management. A specialist marketing cycle on the Western European level (analysis, export marketing, marketing strategies, marketing technologies, knowledge marketing, etc.) should be offered at the university level. The relevant sectoral enhancement of technologies should primarily tend to a wide diffusion of the modern development trend, the ensuring of quality measures and organizational concepts. The enhancement of technology should focus on the following basic principles:

- Providing incentives to sector relevant education at universities through the possibility of specialization in a certain field in the area of textile (textile engineers, leather processing, design, etc.) The further strengthening of the Faculty of Technical Engineering in Bihać for textile design which already educates experts in this area, and the Academy of Fine Arts in Sarajevo, and the possible linking with other educational institutions/studies in order to make education even more useful to the domestic industry.

- Providing incentives for the expansion of technology – thorough informative and advisory centers, specific demonstrational centers, Computer Aided Design (CAD), Computer Aided Management (CAM), firms for learning, REFA – schooling (Train-the-Trainer), and quality management.
- Providing incentives for the research and development and the awakening of creative potentials at the level of firms, like, for example, technological competition, tax enhancements of development expenses of the firm, care of systematic informing of firms from BiH, and the like.
- The existing state should be identified in each production and business system, it should be analyzed, and technical, technological, market, and economic solutions according to the trend of technological development of developed productions should be developed, while during that process a type of revitalization and modernization, the bearers, and the executors of this very complex and important process, should be adopted based on the relevant internal and external state.

An agreement on cooperation between the textile, leather, and footwear sector, and the Faculty of Technical Engineering in Bihać, Department for Textile and Design, is suggested for the realization of the above mentioned, with the aim of drafting a program and mode of cooperation.

8.5.2 Strategic Measures for the Consolidation of the Industry and Programs for the Recovery of Production and Export

The previous item pointed out one series of major target goals and problems the textile, garment, leather, and footwear industry is facing. Some of the above mentioned problems have become long-lasting, they are hard to overcome and their solution requires specific activities from all the participants, not just the management and employees of the company, but also from certain state bodies, and educational institutions, Chambers of Economy, and others. Of course, that should not discourage those responsible in the problem solution chain, but motivate them additionally to detect the true states and make efforts in the defining of efficient measures, the task bearers, and the deadlines for their solution. Some of the strategic measures are:

1. Scientific and applied researches for the development of industrial production

Choose and entrust the project, through targeted biddings, to competent organizations and proven researchers which guarantee a quality exit result which must guarantee the application of project solutions. The Government of FBiH could prepare quality counseling with the universities on this subject, resulting in proposals and conclusions for realization. The competent ministry could take over the realization of these works. Scientific and research work in BiH is not at a satisfactory level, especially not the work at technological projects which would lay the foundations for the road of development and

the application of new technologies and technological methods. The lack of material, technical, and financial assets, as well as the adequate conditions for work shows that the scientific and applied researches are in a crisis. Because of that, allocations for science, research, and education should be increased, in order for young staff to be educated on the development of modern production which can achieve the competitive advantage at the global market. The faculties should receive strong support in the development of modern institutes which would become a necessary link between science and practice, and which would take over the technological development of small and medium enterprises which cannot have their own institutes, or development centers.

2. Use staff and research laboratories at faculties for the needs of production development

In order to intensify the cooperation between economy and faculties, a way for the enhancement of the scientific and research infrastructure of university laboratories must be found, through the procurement of new and modern research equipment. The staff from the universities must be stimulated and committed to cooperation with companies. A new Law on High Education needs to carry out the integration of staff and research capacities at the level of universities and thereby enable the academic community to engage in projects which are useful for production, export, and the whole society, in a more meaningful and organized manner. This especially concerns projects in which there is a transfer and development of new technologies, as well as their implementation in production. Without a more meaningful and specific engagement of faculty and other competent staff in the development of production and business systems it is not possible to technically revitalize production and business. This especially relates to small and medium enterprises which do not have own development and technological centers and which primarily need help and the engagement of expert staff outside of their own surroundings.

3. Joint activities of the companies, chambers, and state bodies in the development of the textile, leather, and footwear sector

The development of the sector should follow after the joint work of different state and economic institutions. In the realization of tasks and the implementation of measures there are Chambers of Economy, representatives of firm's interests and of interests of other institutions. These institutions must play, as partners for policy on the one hand and of companies on the other, a role of a catalyst and promoter of the strengthening of the competitiveness of the textile, garment, and footwear branch of industry. The political level is responsible for the creation of economic framework conditions specific for the sector of industrial production, so that the suggested development concepts would have favorable conditions for realization in all the directions of activities (technological, staff, investment, market), as soon as possible. Therefore, it is important to approach improvement measures soon, because the time lost with regards to the competition is difficult to compensate in today's dynamic market situation. The basic presumptions for the implementation of the development strategy of the sector are that the responsible

institutions at the political level and the institutions at the mezzo level (associations, chambers, etc.):

- should clearly define, limit, and arrange the level of responsibility with other relevant institutions,
- should take political measures and open a dialogue transparently and constructively, based on intensive dialogue with the adequate companies from the textile and clothes branch of industry, with the aim of rapidly improving the overall state of the production sector,
- should agree and constructively cooperate regarding the implementation of measures from the Stability Pact

4. Illegal activities in the production and trade of textile products

The illegal activities in the production and trading of textile products are still widely represented, creating in that way unfair competition to companies which conduct business regularly. Only state bodies have the competences for the preventing of these occurrences. Activities which must be performed are a more intensive and thorough controls by the market, and financial inspections, and the inspection of the labor market. The question is whether companies which are registered for the production and trading of clothes really do have any production, or whether they use it just as a cover for the sale of irregularly imported goods. This means that the flows of the movement of goods should be under control and supervision because, in that way, regular companies and the state are being harmed since all the prescribed rates are not being paid. The competent state and Cantonal bodies and other competent institutions should establish the concept, measures, and solutions in order to begin solving these problems.

5. Restructuring and modernization of production and business

- a) On the turbulent and overbooked international market there is a harsh competition because of which a very efficient conduction of business of the companies is required. Because of that, companies must constantly seek out technical, organizational, and cost improvements which will lead to the growth of productivity, the rational use of all the production resources and the lowering of business costs.
- b) In order to achieve that new and radical solutions in the preparation and realization of production with the implementation of new technologies, as well as the procurement of state of the art production equipment, including information systems, new management techniques and design, as well as the application of new techniques and methods in the preparation of production, are necessary.
- c) Clothes producers should use the technological innovations as one of the main levers in the creation of new models, production processes, which should represent a real competitive advantage on the market.

The bearer of these activities should be the textile, leather, and footwear sector

together with the competent Chambers of Economy and others in the drafting of programs of measures and tasks, and their realization.

6. The project of revitalization-reengineering of technologies and processes in the textile, leather, and footwear sector

The reengineering of production requires the realization of certain phases in order to avoid unnecessary losses of time, financial, and other losses. The process of reengineering should be approached with much detail and analytically.

That is the reason why reengineering is performed in several main phases:

- a) **Pre-project:** Analysis of the existing state, including the analysis of the surrounding, of the domestic and the international market.
- b) **Pre-project:** Technical and economical justifications of reengineering. This pre-project should be used to receive an answer on whether revitalization is justified and the approximate costs of revitalization. This pre-project contains the analysis of the overall state of the producer, namely the states of: products, technologies, production costs, markets, and it also marks the possibilities and directions of revitalization. If this pre-project shows that revitalization and modernization is not technically and economically justified, then it will not be performed, which means that new expenses will not be generated. According to that, this pre-project ends or continues the revitalization process as a whole or in certain segments.
- c) The decision of the responsible bodies on the performing of reengineering.
- d) **The detailed design** and the sub-projects of the production reengineering. The drafting of the revitalization process requires detailed, expert, and systemized analytic work and knowledge on the state in technology, production, and the market in the narrow and wide surrounding. Since this is highly expert and professional work, such projects should be performed by a competent and specially educated and prepared multidisciplinary team of professionals and experts of various profiles.
- e) **Project:** Education and training of expert staff for the implementation of reengineering. Companies are neither trained nor used to the tasks required by revitalization. Because of that, it is necessary to organize an intensive training of expert staff on the performing of these jobs.
- f) **Project** (methodology-procedure): Implementation of the designed reengineering.
- g) Value analysis of the results of reengineering.
- h) Realization of the detailed design. Quality changes of the production structure, the value system, and the manner of behavior compared to the existing state should be ensured through revitalization. The application of project solutions will be

highly complicated and difficult, not only because of the allocation of financial assets, but also because of the need for changing people's habits.

7. Specialization and rationalization in the footwear industry

- a) Bosnia and Herzegovina is faced with problems and challenges similar to those which other transition countries are facing. This also relates to companies from the leather and footwear industry. The footwear industry is far more dominant and performs solely *lohn* works for Italian ordering parties, while the leather industry barely plays a role with foreign and domestic buyers. The first level of industry for the production of soles, parts of footwear, tools, and moulds, without which the manufacturing of footwear is not possible, does not exist at all in Bosnia and Herzegovina.
- b) The population in Bosnia and Herzegovina amounts to 3.9 million inhabitants, which are mostly supplied by foreign companies. The footwear industry more or less "voluntarily" gave it place to foreign companies on the domestic market. On the other hand, the domestic market is too small to offer an adequate sales potential for the leather and footwear industry. Bosnia and Herzegovina has good market opportunities to suppress a large number of foreign competition from the domestic market and to export its own products.

Good chances for the enhancement of the economic condition will occur, if the companies from this sector integrate, in the sense of systematic competitiveness, first within the sector and then on long terms with the meat institutions. This also includes specialization, which would lead to a rationalization effect.

8. Lohn works and their selection

- a) The basic characteristic of firms in BiH is that they are still dealing with getting their *lohn* work consolidated primarily with German and Italian buyers. At the same time, the lack of the textile industry with appropriate capacities and qualities makes *lohn* production, or the complete work, impossible. It can therefore be expected that the market chances of the sector will get worse rather than get better, if the gradual reorientation of the sector concerning the creation of new development potential, which would consist of a significantly higher technological level than present *lohn* works, is not performed. That does not mean that *lohn* works should be abandoned, but the development cycle should be based on complex works which have a higher technological and economic result.
- b) It is important that companies remain in the center of further development of products and the market within the framework of the sector enhancement policy. So, there are solution within the frameworks in the short and long run:
- c) Quick release from the great amount of *lohn* works at a low level characterized by the bad position in negotiations of BiH companies, which are reflected through one-sided supremacy of foreign business partners.

- d) Acceptance of the so-called intelligent Lohn production with a high share of services (medium level) and a large buyer loyalty.
- e) Development of own collections, or brands.
- f) Italy, and especially Turkey, who used to be main partners of Germany in Lohn production, can serve as examples in that sense. They have now successfully developed into offerors of own collections, or brands.
- g) Explanations for reorientation and turning away from the low Lohn strategy are:
 - Cheap Lohn works should be replaced and oriented towards countries with the lowest incomes, which cannot be justified, considering the high salaries in BiH,
 - The previous arguments, that these jobs due to its export characteristics strengthen the foreign trade balance, mostly are not true anymore, since the producing of extra profit due to the international excessive capacities in the countries of Central and Eastern Europe is decreasing and in certain cases it even does not cover the salaries costs,
 - A real know-how transfer and the effects of learning are almost not represented at all since the ordering parties, in many cases, can give up on the long-term planned business contact due to an oversized offer of partners in Lohn production,
 - The influence of the low potential for salaries increases, which is linked to passive Lohn works, local purchasing power remains weak, and the attractiveness of the sector remains very weak for expert staff,
 - The demand of consumers for textile is covered through legal and illegal import which consume foreign exchange; the making of extra profit is moved to abroad and in that way the clothes sector contributes only a little to the economic dynamics of the country, compared to other sectors.

9. Authorities of FBiH

Besides the above-mentioned, the authorities in FBiH should:

- Bring all the subjects of this sector into an equal position with other consumers of electric sources, with the management of the price policy in a manner done by EU countries, which provide incentives for the better use of installed capacities.
- Lowering taxes and salary allowances.
- Implementation of legal regulations in tender procedures and awarding of jobs to domestic producers under competitive conditions compared to foreign producers.
- Stimulation of priority production for the foreign orientation of domestic companies.

- Release the import of raw materials and processed materials from paying of customs and added value taxes.
- Release technological equipment, which comes mainly from import, from paying customs and added value taxes, since that is a condition for the faster modernization of existing production capacities and the building of new ones.
- Form incentive credit lines within the framework of existing banks which would help in modernizing production and becoming thus able to compete in export.
- Lower the irregular import and uncustomed sales of products of this sector through black market sales, etc.
- Easing of the visa regime and the adoption of the sector policy on development within the framework of the overall industrial policy of the country.
- Institutional organization at the level of BiH within the framework of the Ministry of Industry or in another way.

10. Organizations for technological development, education, and transfer of knowledge

Besides the already mentioned organizations for education, the transfer and technological development should:

- Envision, develop, and transfer technological, managerial, and organizational knowledge to production systems.
- Create modern programs and organize systems for whole-life learning as a constant and continuing way of gaining new knowledge and refreshing existing knowledge of employees in the textile, leather, and footwear sector.
- Establish competent teams at faculties, institutes, and development centers, wherever that is possible, made up of the best domestic and foreign experts and define appropriate development projects which will be implemented in production.
- At faculties at which there are departments for textile, the modernity of curricula and the entry of students, as well as the connection of these faculties with companies from the textile, leather, and footwear sector, should be especially analyzed.
- Schools, seminars, workshops on the transfer of knowledge and the solving of production problems, and the like.
- Encourage human resources based on knowledge and innovative activities in production systems, as main resources for the gaining of competitive advantages,

which need to be motivated, and assessed harshly, and which need conditions for their development to be created.

11. Companies in the textile, leather, and footwear sector

Besides the already pointed out tasks of the company in this sector, they should:

- Perform the reengineering of all the companies from the sector with the main goal of creating competitiveness and achieving competitive advantages (from the shaping of the product, the technology modeling phase, the technological production process, quality control and ensuring of quality, and the placement on the market).
- Modernize the preparation of production and the very production process by introducing new modern methods and technologies with the replacement of old production equipment and introducing of new technologies, especially of production and information techniques.
- The companies should have a foundation for wide technology and knowledge transfers with compulsory whole-life learning – for those who accept that, adopt stimulation criteria for assessments and advancement in the field of expertise.
- Organize companies in a modern, productive, and competitive way (introduce functions, such as: developing, logistic, quality management with certification and ISO standards, staff resources and knowledge transfer, transfer and implementation of CAX technologies, etc.) in order for them to successfully respond to a globalized and turbulent market and the growing competition of developing countries where the workforce is significantly cheaper.

12. The textile, leather and footwear industries are in an extremely difficult and complicated position today, since this is a matter of survival of this branch of the industry in FBiH, considering the emerging of new producers and their conquering of the market in the last ten years. The lack of financial assets, not only for modernization and the development of capacities, but also for the procurement of circulating assets, is a problem which is burdening most domestic producers from this sector. The above mentioned shows that it is necessary to develop a methodology in the competent ministries and the Chamber of Economy of FBiH, for the rescuing of this sector, which could otherwise disappear from the economic map of BiH.

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