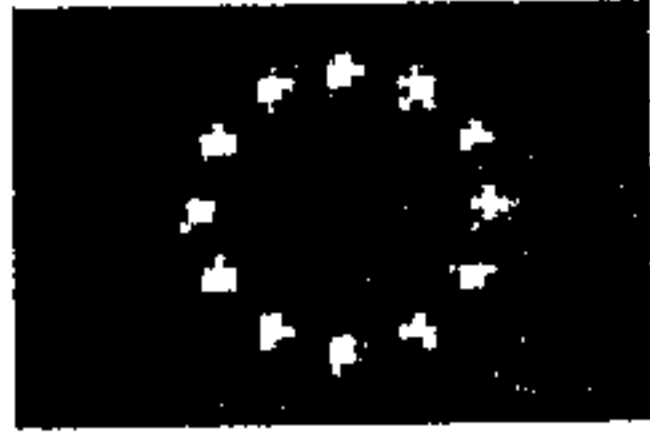


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PROJECT MANAGEMENT UNIT
INDUSTRIAL MODERNISATION PROGRAMME
LEBANON



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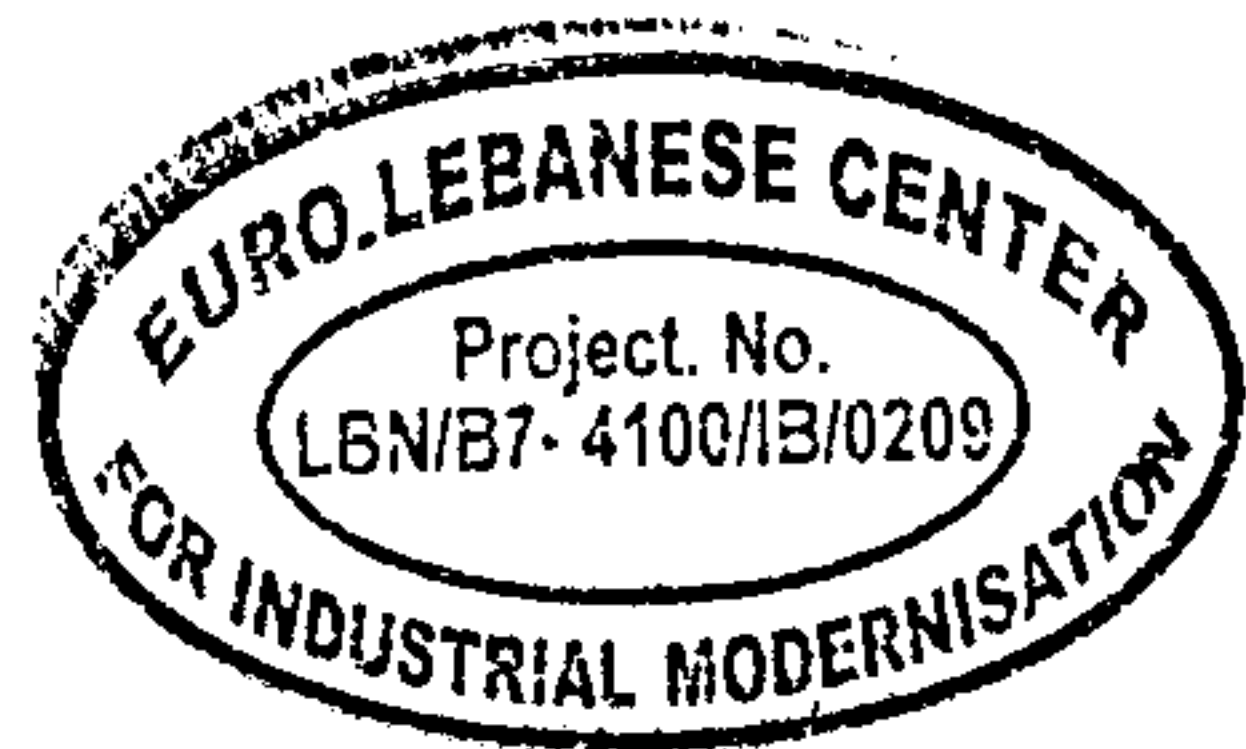
SECTORAL ANALYSIS ON
THE MODERNIZATION OF THE LEBANESE
TANNING INDUSTRY

Chef du Service Technique

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Office of the Minister of State for Administrative Reform
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(C.P.S.P.S.)



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TABLE OF CONTENTS

I- Introduction

II- Key Sectors Related To The Tanning Industry

III- Clusters

IV- Minimum Economic Scale

V- Quality Standards

VI- Export Potential

VII- Growth Prospects

VIII- Product Diversification

IX- Key Success Factors

X- Successful Applicants

XI- Ways And Means

1. Modernizing Slaughterhouses
2. ELCIM

I- Introduction

The Tanning industry started in a village situated in the Bekaa valley in Machgharah, then moved to the outskirts of Beirut principally to the Dora vicinity where nine of the factories are still operating today. Of the 70 factories that existed before the war, only 24 are still working and some of them may not last long. They employ about 200 people, among them many foreigners.

NUMBER OF FACTORIES	LOCATION
9	Dora Beirut
6	Sidon
1	Machgharah
3	Wadi Shahrour
3	Outskirts of Beirut
1	Koura
1	Jounieh

II- Key Sectors Related To The Tanning Industry

Approximately 80% of the tanning in Lebanon is related to the shoe industry; 15% relates to garments, handbags and upholstery.

Prior to the Lebanese civil war, the production of handbags was especially vital. It was mainly sustained by export to Europe and the United States. During the war, Lebanese industrialists were unable to furnish their clients as they once could.

After the war, handbags produced at a very low cost, especially in the Far East invaded the markets and made it very difficult for the Lebanese to keep exporting.

The tanning of mutton hides of which the handbags were made, lost more than 70% of the volume produced.

Furniture producers use partly Lebanese hides. The poor quality of raw hides makes it difficult for the tanner to turn out large pieces needed for the furniture industry. In fact, the slaughterhouses in Lebanon lack modern machinery and qualified people to skin animals without damaging the hides. As we will see later, this is a great hindrance to the tanning industry.

The garment industry requires designers, qualified workers and is therefore unable to develop in Lebanon because of the small market. During the war both the handbag and garment industries could not develop into important factories directed toward export.

The natural materials used in the tanning industry in Lebanon are cow, mutton and goatskins since no other hides are available or used. Some tanners use imitations to reproduce patterns of hard to find skins, using special machinery. This technique also helped to hide defects in the original hides, which will then be sold at reduced prices.

III- Clusters

Tanning factories in Lebanon form three distinctive groups:

- **Group A** — 4 factories in Lebanon are equipped to tan all kinds of hides and also have the technical capacity to produce high quality hides for all kinds of usage (experts, qualified workers...). They can produce 5-10,000 feet of hides a day with 30 to 40 workers. They are in need of a business and marketing-centric staff to be able to handle the restructuring of their business for exporting purposes.

- **Group B** — 4 factories have the equipment needed to perform the same tasks as the factories in Group A. They have the capacity to produce goods of a high quality due to qualified workers and the experience of the owners as well as the existence of experts needed for the chemical operation of tanning. The difference between Group A and Group B is that the former produces more by about 50% of normal capacity and with less machinery. The managing staff usually lacks the qualifications and expertise needed to face financial, commercial and sometimes administrative tasks.

- **Group C** — 16 factories are still operating in unsuitable conditions. Some of the equipment needed to perform all tasks required is lacking. Aside from the experience of the owners and the workers trained on the job they don't have the necessary expertise to inspire confidence in the purchasing market. They produce some articles and reduce quantities, making the operation economically vulnerable. Between four and five of them produce pickles and buffing towels for cars. Three have recently stopped completely. Some of them are forced to skip government regulations just to make ends meet.

The following table provides a breakdown of the 16 studied factories:

# of empl.	Prod. P/D ft.	Materials Used			Quality Rating			Markets		Needs		
		Cow	Goat	Mut.	I	II	III	Local	Export	Equip.	Tech.	Export
16	1600	80%	15%	5%	A			90%	10%			X
10	1000	90%	10%			B		100%			X	X
10	1000	50%	50%			B		100%			X	X
15	1500	80%	10%	10%	A			100%				X
17	1600	90%	10%			B		90%	10%		X	X
6	700	90%	5%	5%		B		100%			X	X
25	2500	80%	10%	10%	A			80%	20%			X
6	500	90%	10%			B		100%			X	X
15	1500	80%	10%	10%	A			100%				X
4	400	50%	30%	20%		B		100%		X	X	X
6	600	75%	20%	5%			C	100%		X	X	X
10	1200	90%	5%	5%		B		95%	5%		X	X
6	500	100%				B		100%			X	X
6	700	20%	80%				C	100%		X	X	X
6	600	80%	20%			B		100%		X	X	X
7	800	100%				B		100%		X	X	X

The current total capacity of the Lebanese tanning industry is 100,000 to 120,000 feet a day but production is around 18,000 to 20,000 feet a day. All factories are working below capacity, some even at 10% of their total capacity. Of the 24 factories, 3 have recently stopped working; 5 produce pickles and buffing towels for cars; 16 are still producing leather hides, of which one specializes in shoe soles and another in specialty ("fantaisie") shoes for women.

IV- Minimum Economic Scale

The minimum scale required for an economically viable tanning factory should aim at producing 2000 feet of hides or more a day. The machinery needed costs USD 400,000 with 8 workers. This costly and needed equipment will be used, among others for:

- Measuring,
- Buffing,
- Ironing,
- Embossing,
- Toggling

The machinery in question includes ovens, drums, vacuums, roller-coasters, boilers, generators, compressors, electrical and water stations, to name a few. The factories need technical experts and qualified workers. Management should have a business-savvy staff to handle marketing and administrative tasks.

As the above table shows, eight factories meet these requirements but still need adequate managerial and administrative staff.

V- Quality Standards

The Lebanese tanning industry has the potential to produce high quality products that compares to European quality. The Lebanese tanning industry cannot compete with other nations in all products. Materials such as pig, snake, alligator skins, etc. are not found in Lebanon. Nevertheless Lebanese tanners are able to do excellent work with such rare skins such as rabbit for example because many factories are owned by people with specialized training or have hired experts.

In general tanners put an emphasis on producing good quality because of local and foreign competition. They work to improve their technical performance using multiple

means including good old-fashioned trial and error methods. A large problem for the tanning industry is the often poor quality of leather turned out by the slaughterhouses. Damaged and riddled skins cost tanners a lot of money just to have the rejected or unusable hides removed. Often, they are forced to imprint the skins in order to hide the defects.

Quality in the tanning industry reveals itself in hides intended for the shoe industry mainly. Poor tanning for garments and upholstery is not the result of lack of expertise but that of defects in the raw skins. This raises the cost of local production and discourages tanners from putting an emphasis on these articles that are of little consumption in Lebanon. Furthermore other countries are able to recuperate rejects and use them in other products because they have industries that make use of small pieces while we do not. For example, rejected skins can be used in buttons or other small sized products. The main reason for the decline in prosperity in handbag production after the war is not due to a lack of quality but to the low cost imports that prevent local manufacturers from maintaining medium and low quality production. It is necessary to study further the diversification into handbag production.

VI- Export Potential

Some of the factories have experienced export on a minor scale but in general the tanning industry in Lebanon is producing for the local market. Unlike the shoe industry, it did not go into large-scale exports to the Arab world, although most of the exported shoes are made with Lebanese hides. Traditionally, this industry began and grew out of a remote village using local leather from the slaughterhouse and supplying the shoe factories in Lebanon. At the time that the shoe industry enjoyed customs protection tanners were provided with an easy market that did not push them into export. Just before the war factories thought to develop their factories both in volume, diversification and quality. The problems that followed prevented them from going further—even one of the most

promising factories had to stop its operations completely. At least eight factories in the industry have the essential equipment and the know-how needed to export.

Local tanners proved they could produce high quality hides for the shoe industry. It is extremely important for Lebanese tanners to start exporting because local consumption of hides is dwindling due to greater imports of shoes, the semi-recession in the country and lack of diversification.

Many items are necessary to successfully establish an exporting business:

- As exporting requires sophisticated administration tanners must be staffed with qualified marketing and business people as well as experts in the export markets who can advise Lebanese tanners as to the products in demand abroad.
- Contacts with clients in Europe.
- Export has to aim at high quality products; local industrialists have to familiarize themselves with the laws, customs and practices of the mainly European markets since exporting to developing countries is less profitable. The Lebanese tanning industry can produce high quality products with a relatively low-cost enabling it to penetrate the European markets.
- The above conditions imply the existence of factories of important means and volume of production, which brings us the problem of investment and of financing.
- Factories need advice about how to restructure their management, information about the European markets and training in some cases.
- Joint venture between European (or American) and Lebanese factories are a short cut to obtaining all the conditions needed for a successful exporting policy.

VII - Growth Prospects

The productive capacity of the tanning industry is many times superior to its current production.

In order to increase production tanners must count on the following developments:

- Export of high quality products
- Development of export of goods needing tanning hides, specifically shoes and handbags.
- Diversification of garment, upholstery and handbag production.

The shoe industry is the main consumer of tanned goods. Developing the export of shoes to Europe as well as diversifying the production of leather goods could give the tanning industry a much-needed boost and an opportunity to increase production and develop variety.

As it stands, many in the tanning industry are unable to either provide the local market with more sophisticated raw materials or to export. As divided above in three groups, the 24 factories represent the industry. The 4 factories belonging in Group A have the production capacity, the necessary expertise and the needed machinery to grow but they lack proper managerial and marketing expertise. One or two factories from Groups B and C might also find their way to growth and develop their operations with the proper investments. The conditions of growth of a typical factory are mainly related to financing of the working capital in order to buy raw materials, recruit personnel and other usual expenses. Tanners might need machinery on occasion but this is not a deficiency in

the tanning industry, tanners are generally well equipped and have a large production capacity compared to the volume of distribution.

VIII - Product Diversification

At least 8 tanning factories are equipped to provide a variety of tanned and leather goods in demand. Before the war, production of hides for shoes and handbags represented the bulk of production, now the production of shoe hides has dwindled and handbags from mutton hides became negligible.

Our chances of developing the tanning industry in Lebanon are in producing high quality and modern products according to the needs of the European and American markets. To properly target those markets, it is vital that the necessary contacts be made between Lebanese tanners and foreign importers. Tanners have the technical abilities and the readiness to produce for both local and export markets, what they need is to encourage large investors to take notice of them. It is obviously not enough that Lebanese tanners are skilled; this factor alone does not drive business. What they need is the investment of strong firms in order to be able to afford production of high quality products for export to markets where high-priced goods are regularly consumed.

Large volume production is also needed to encourage tanners to produce high quality hides. Small orders don't warrant the investment of a high quality product.

Tanners rely on various other industries such as garments, handbags, upholstery and others in order to develop large-scale production of hides. Since tanned leather cannot be easily exported as is, it will be necessary to help industries using leather to diversify which will in turn give a boost to the tanning industry.

As a matter of fact, importers usually order big quantities of a limited kind of items, which can be difficult to accommodate by a small firm. Furthermore, the problem of low quality raw skins because of bad slaughtering is another major hindrance.

Since helping the tanning industry for export comes down to helping industries using tanned leather, we have chosen the handbags as an industry able to develop and to export.

After the war, the production of handbags faded, principally because of low-cost goods invading both local and exported markets. This low-cost production coming from the Far East attacks mainly medium and low quality products, handbags made partly or completely with plastic raw materials. Top quality handbags that sell in the market at \$90 or \$100 are less vulnerable to dumped products.

First quality handbags are made with hides of various appearances copying natural skins of crocodile snakes, pigs, etc. The cost of one foot of such hides ranges between \$2.50 to \$3.50 or 40% costlier than other hides. A typical handbag uses 8 feet or \$20 to \$28 of high quality skins and \$2 in accessories and \$7 to \$9 for labor. It sells to the factory at \$4 to \$5 markup.

The high quality production of handbags sold in Lebanon are made in small volumes and are not sufficient to warrant the existence of factories producing high quality leather, and so must count on export.

Therefore the Lebanese industry should focus on this kind of production and to do so, local manufacturers should:

- Establish contacts with European and American importers with the help of ELCIM;

- Stay up to date on the latest trends and models demanded in Europe and the US;
- Acquire accessories for handbags in metal with high quality performance;
- Use cowhides from local producers of the highest quality.

Our enquiries show that the hides and accessories used in handbags and produced in Lebanon are of comparable quality to European products. Furthermore, Lebanese manufacturers are aware of the latest fashions in demand in Europe. The Lebanese tanners need to be linked to European and American importers, they also need to restructure their management to recruit qualified people in marketing and finally, they need to get the necessary credits with low interest and easy conditions.

The best way to succeed would be to establish a joint venture with a reputed firm in Europe. ELCIM should intervene with its wide range of information to encourage joint ventures.

IX - Key Success Factors

It is obvious that the crisis faced by the tanning industry is a direct result of the difficulties faced by the shoe, handbag and garment industries, which have reduced the consumption of local hides by more than 70%. The recession of the local market, the elimination of customs protections for the shoe industry and the lack of investment are contributing factors to the lack of modernization and diversification of the tanning industry and all those that depend on its raw materials.

Key success factors therefore depend on:

- Encouraging tanning factories to invest in modernizing, recruiting experts and especially staffing their administration with qualified employees;
- Developing the shoe, handbag and garment industries which will in turn help the tanning industry;
- Modernizing the slaughtering operations in order to produce good quality skins.
- Ensure that all raw leather be used solely by Lebanese tanners.

X - Successful Applicants

Table of successful applicants:

Emp.	Prod. P/D ft.	Materials Used			Quality Rating			Markets		Needs		
		Cow	Goat	Mut.	I	II	III	Local	Export	Equip.	Tech.	Export
16	1600	80%	15%	5%	A			90%	10%			X
10	1000	90%	10%			B		100%			X	X
10	1000	50%	50%			B		100%			X	X
15	1500	80%	10%	10%	A			100%				X
17	1600	90%	10%			B		90%	10%		X	X
25	2500	80%	10%	10%	A			80%	20%			X
15	1500	80%	10%	10%	A			100%				X
10	1200	90%	5%	5%		B		95%	5%		X	X

The successful applicants were selected based on the following factors: volume, equipment and product quality. According to the norms cited above, they all have the potential to grow, export and produce good quality. Current production is too low, only one of the successful applicants produces over 2000 feet a day, but all have the necessary equipment and expertise.

Because Lebanese tanners cannot at this point export large quantities, the success of their industry depends on the shoe, handbag, garment and upholstery industries obtaining leather from Lebanese tanners.

For all practical purposes, all the tanning factories in Lebanon can be considered vulnerable, what keeps most of them in operation is a relatively important markup. Tanned leather sold at \$2 a foot costs in raw materials and direct labor \$1.50 because the cost of raw hide is relatively low. To make ends meet tanners have been broadening the scope of their services, for example 4 factories produce hides for women's specialty shoes ("fantaisie"), which are more costly. Others have opened shoe operations in addition to their tanning factory.

The applicants listed above need very little investment in machinery, which limits their credit needs to working capital.

XI - Ways And Means

1. Modernizing Slaughterhouses

The Lebanese tanning industry depends on the raw skins treated in the slaughterhouses otherwise they would have to import from outside at a substantially higher cost. As we said above, the industry has to aim at high quality production as well as to diversify in the production of handbags, upholstery and hides for various purposes. The need for flawless leather is essential.

Slaughterhouses in Lebanon are managed under the supervision of the government officials, mainly the city councils. Before the war an effort was made to modernize the principal slaughterhouse of Beirut and its vicinity. Unfortunately, the troubles of the war resulted in the dispersion of modern machinery—imported from Germany—and left the management of the slaughterhouse with incompetent, unqualified personnel.

It is of crucial importance that all slaughterhouses modernize their equipment and recruit qualified people to run operations under the supervision of appropriate government agencies.

2. ELCIM

ELCIM is able to help in many ways but its main task should be to find tanning firms in Europe willing to make joint ventures with Lebanese tanners.

Such joint ventures will enable the local factories to:

- Produce high quality hides needed in export markets;
- Help them in exporting hides directly through their distribution channels;
- Furnish them with needed modern machinery;
- Eventually bear with them some of the financial burdens that big production entails.

Lebanese tanners are having difficulty exporting their products to Europe or elsewhere and to be able to compete with giant firms that dominate the market. It is therefore evident that the best option is for Lebanese tanners to join with one of the larger firms.

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This will open many possibilities for local producers. If leather-dependant industries pick-up, tanners will not be able to adequately supply them because they lack the financial ability to produce at a large scale.

ELCIM is also called on to help creating in contacts between Lebanese shoe factories and European importers and retailers. Local shoe and handbag manufacturers will need assistance in their plans to diversify which will in turn help the tanning industry since it is their main supplier of leather goods.

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