36. PROFILE ON PRODUCTION OF LEATHER ARTICLES (BELTS, HAND BAGS, PURSES & WALLETS)

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I. SUMMARY

This profile envisages the establishment of a plant for the production of leather articles (belts, hand bags ,purses and wallets) with a capacity of 100,000 pieces of belts, 100,000 pieces of hand bags and 100,000 pieces of purses and wallets per annum.

The present demand for the proposed product is estimated at 5.77 million pieces per annum. The demand is expected to reach at 11.54 million pieces by the year 2017.

The plant will create employment opportunities for 34 persons.

The total investment requirement is estimated at Birr 3.58 million, out of which Birr 1.17 million is required for plant and machinery.

The project is financially viable with an internal rate of return (IRR) of 21.18 % and a net present value (NPV) of Birr 2.03 million, discounted at 8.5 %.

II. PRODUCT DESCRIPTION AND APPLICATION

These include ladies bags, school bags, eye glass cases, purses, wallets, belts, brief cases and others such as cases for transistor radio to protect the equipment from dust, heat, damage etc. Due to the wide applications of the items , there is a wide market both in the domestic and abroad. They are manufactured from sheep and goat leather that are locally available.

III. MARKET STUDY AND PLANT CAPACITY

A. MARKET STUDY

1. Past Supply and Present Demand

There are a variety of leather articles that can be produced and supplied to the domestic and world market. Among these are belts & bandoliers, hand bags, purses, wallets, beauty or jewellery cases and the like. The plant can also produce a variety of other leather articles based on the market demand.

The demand for belts & bandoliers, hand bags, purses wallets, beauty or jewellery cases is met both through local production and import. Although it is known that most of the products are produced locally for the local market quantitative data could not be found either from the Statistical Abstract of CSA or surveys of the manufacturing sector.

Due to limitation of data on domestic production, the export data and the import data obtained from the Customs Authority has been used as a proxy for estimating the unsatisfied demand.

Ethiopia has stated to export some of the products in recent years although the quantity is very small. According to the data obtained from Customs Authority leather belts and bandoliers that worth Birr 37,076 has been exported. Leather hand bogs have been also exported in the past three years (2004 -2006) with a total value of Birr 50,082. Similarly, about 1,870 cases and containers with outer surface of leather that worth Birr 281,923 has been exported during the past six year (2004-2006). This indicates that there is a potential international market if the products are produced with acceptable quality. The amount of import for the lather articles mentioned above are shown in Table 3.1.

Table 3.1

IMPORT OF LEATHER ARTICLES BY TYPE (IN NO.)

Year	Belts and Bandoliers	Hand Bags	Cases and Containers	Jewellery Beauty Boxes, Pocket Bags etc.	Total Value (Birr)
1997	538,438	56,332	279	30,707	3,857,442
1998	871,760	17,489	1,726	51,248	5,097,564
1999	1,178,831	15,029	28,443	116,259	5,799,417
2000	1,835,861	5,602	17,682	83,042	3,975,320
2001	1,618,576	32.491	9,235	115,786	5,205,764
2002	1,922.961	40,628	9,788	54,657	6,377,165
2003	3,422,176	23,029	1,219	495,998	11,829,433
2004	4,364,680	9,603	3,075	105,260	13,318,103
2005	6,264,224	164,153	73,503	133,299	25,369,966
2006	3,723,464	121,851	84,131	65,962	18,613,254

Source:- *Compiled from Ethiopian Customs Authority.*

Note:- *For belts & bandolier the data for the year 2001-2006 is obtained in kg. to convert into pieces an assumption of 1 kg= 8 pieces is applied by taking the average weight of the product.*

Table 3.1 reveals that Ethiopia spents a huge amount of foreign currency for importing the limited types of leather articles. The annual average expenditure on the four items only during the period 2003-2006 was about Birr 17.3 million. This substantial amount of foreign exchange could have been saved if the products were manufactured in the country using domestic raw materials.

In order to estimate the current unsatisfied demand for each product the data presented in Table 3.1. is analyzed as follows.

Import of belts and bandoliers has been consistently increasing in the past 10 years except some decline in the year 2000. Import volume which was 538,438 in 1997 has reached to a level of 6,264,224 by the year 2005. Annual average growth rate during the period 1997-2006 is about 20%. Since, import has been consistently increasing in the past nine years the average import figure for the year 2005-2006 is taken as abase to project the current demand. Therefore, current unsatisfied demand for belts and bandoliers is estimated at 4,993,844.

Import of hand bags as well as cases and containers fluctuates from year to year. As a result a trend could not be observed from the data. Due to this reason the average import of the recent three years is taken to reflect the current demand. Accordingly, current unsatisfied demand for handbags and cases and containers is estimated at 98,536 and 53,570, respectively.

Although the import of jewellery, beauty boxes, pocket bags and the like fluctuates from year to year the general trend observed is an increasing trend. This could be seen from the fact that the average level of import during the period 1997-2000 was 70,314 units per annum. But during the period 2001-2004 the annual average import volume has reached to a level of 192,925 units. On the other hand, average import during the most recent years, i.e., 2005-2006 was 99,630. Thus to smooth the fluctuation the average of the recent past four years is taken as the current affective demand. Accordingly, current effective demand is estimated at 200,000.

It has also to be noted that if the envisaged project produces the products in an acceptable quality and competitive price the possibility of exploiting the export market is very wide.

2. Projected Demand

Demand for leather goods is generally influenced by income and urban population growth. In addition to the domestic market leather articles are highly demanded in the developed countries of Europe, USA, Asia and the Middle East. Therefore, as long as

the product is produced in an acceptable quality and price there is wide market locally and internationally. Considering this opportunity and taking the present unsatisfied demand as a base, an 8% growth rate is applied to forecast the unsatisfied demand (see Table 3.2).

Table 3.2

PROJECTED UNSATISFIED DEMAND FOR LEATHER ARTICLES (NO)

Year	Belts and Bandoliers	Hand Bags	Cases and Containers	Jeweller, Beauty Boxes, Pocket Bags, etc.
2008	5,393,352	106,419	57,855	216,000
2009	5,824,820	114,932	62,484	233,280
2010	6,290,805	124,127	67,483	251,942
2011	6,794,070	134,057	72,881	272,098
2012	7,337,595	144,782	78,712	293,865
2013	7,924,602	156,364	85,009	317,375
2014	8,558,571	168,364	91,810	342,765
2015	9,243,257	182,383	99,154	370,186
2016	9,982,717	196,974	107,086	399,801
2017	10,781,334	212,731	115,654	431,785

3. Pricing and Distribution

Although the price of the various leather articles differ on the design and quality, the following average prices are recommended.

- Belts Birr 14 per piece
- Hand bags Birr 80 per piece
- Purses & wallets Birr 15 per piece

The products will find their market outlet through existing leather articles retailing shops as well as ready made garment and shoe department stores.

B. PLANT CAPACITY AND PRODUCTION PROGRAMME

1. Plant Capacity

Based on the market study indicated above, the unsatisfied demand gap for leather goods has been found out to be in the order of 6 million assorted production in year 2008. The envisaged leather goods plant would be designed to produce 300,000 pieces of assorted leather articles per annum. The plant will operate single shift of 8 hours a day and 300 days a year. Production can be doubled, if the plant operates double shift, 16 hours a day.

The plant can produce various types of leather goods. However, for the purpose of this study four leather products are selected, namely; belts, and bags (including school bags); wallets and purses and the annual production of these products will be 100,000 pieces each, respectively.

2. Production Programme

The production programme build-up to full capacity will take place in such a way that at the initial year the plant will operate at 75% of installed capacity. It will then raise its production capacity to 85% during the second year, and then to 100% (full capacity) at the third year and then after. Table 3.3 shows production build up programme.

Table 3.3

PRODUCTION PROGRAMME

Year / Description	1	2	3 and above
Capacity utilization (%)	75	85	100
Production (pieces)			
a) Belts	75,000	85,000	100,000
b) Hand bags & school bags	75,000	85,000	100,000
c) Purses & wallets	75,000	85,000	100,000

IV. MATERIALS AND INPUTS

A. RAW & AUXILIARY MATERIALS

Raw materials required to produce leather articles consist of upper leather (finished leather from goat or sheep skin), lining fabric, lining paper and cardboard. All these materials are found locally. Auxiliary materials required by the plant include locks, zippers, buckles, glue- cement, thread and other materials. Table 4.1 below shows the annual requirements of raw and auxiliary materials at full production capacity of assorted leather articles.

Table 4.1

RAW AND AUXILIARY MATERIALS REQUIREMENTS

(AT FULL CAPACITY)

Sr. No.	Description	Qty	TC ('000 Birr)
1	Upper leather (m^2)	55,000	8,882.5
2	Lining fabric (m^2)	60,000	330.5
3	Cardboard (m^2)	20,000	80.5
4	Lining paper (m^2)	36,000	73.10
5	Locks (pcs)	9,000	346.50
6	Zippers	95,000	63.00
7	Buckles	155,000	117.0
8	Glue, cement (kg)	2,000	28.5
9	Thread (km)	2,000	19.8
	Total Cost	**-**	**9,940.90**

B. UTILITIES

Inputs to leather goods producing plant are electricity and water. Electricity is required to run production equipment and for lighting. Water is required for general purposes. The total annual cost of utilities is estimated at Birr 60,000.

V. TECHNOLOGY AND ENGINEERING

A. TECHNOLOGY

1. Production Process

The technology of leather articles production is not new to the country. Universal leather goods factory located in Addis Ababa is intensively engaged in the production of various types of leather articles including leather jackets, handbags, wallets belts, etc. Joy leather plc., is another enterprise, that produces leather articles. Operational skill as well as repair and maintenance capability have been developed in the existing enterprises.

The major operations involved in leather articles production are cutting, skiving and folding, stitching, splitting, gluing /cementing, testing and packing. These operation are either partially or completely required in the production of bags (children, ladies), wallets and belts.

Cutting of the upper leather can be carried out either by knife and template, or by using clicking machine. This is an important operation in order to obtain consistent production and satisfactory final appearance of the product. The same applied to the cutting of wallets and belts with a cutter and of cardboard rein fore cements with a guillotine cutter.

Skiving and folding is done to secure straight and even edges. Stitching, which is done on sewing machines of different types, must take into consideration the materials to be sewn together, thread, needle, stitch length, etc. In some cases considerable skill is required to obtain satisfactory result.

Splitting is required to reduce the thickness of the leather or other sheet materials to be used. The application of glue or cement and the subsequent joining of the parts in the cementing operation has to be done carefully to obtain a satisfactory bond as well as a clean look. The final product thus finished is tested and packed.

2. Source of Technology

Machine and equipment required for the production of leather articles are available in different technological levels. For this specific project a German company devoted for planning, supply, erection and start up of leather articles manufacturing machinery is given below.

Shon & Cie.AG
P. O. Box 2517
D – 66932 Pirmasens
Fax: (06331) 713125
Germany

B. ENGINEERING

1. Machinery and Equipment

The leather articles identified and intended to be produced in the envisaged plant will employ similar production equipment for most of its operations. There are only few equipment required for individual operations attached to specific product. The complete list of machinery and equipment required for leather articles plant and associated is presented in Table 5.1.

Table 5.1

MACHINERY AND EQUIPMENT REQUIREMENT AND COST

Sr. No.	Description	Qty	Unit Price	Cost, ('000 Birr)		
				FC	LC	TC
1	Hydraulic clicking machine	2	115	230	-	230
2	Guillotine cutter	1	75.0	75.0	-	75.0
3	Strap cutter	2	65	130.0	-	130.0
4	Splitting machine	2	85	170	-	170
5	Skiving machine	2	28	56	-	56
6	Folding machine	2	24.0	48	-	48
7	Sewing/stitching machine	10	25	250.0	-	250.0
8	Hand tools	Reqd		10.0	-	10.0
	FOB price			969.0	-	969.0
	Customs, Insurance, etc.				200	200
	CIF Landed Cost			969	220	1169

2. Land, Building and Civil Works

Total space requirement for production hall, stores, offices and social units is estimated at 600 m^2. Land area required consists of area for buildings and face space for expansion and other facilities. The overall land requirement for the plant will then be 1,000 m^2. considering a unit cost (per m^2) of building of Birr 1,500, and land lease value of Birr for 80 years, the total cost of land, building and civil works will be Birr 980,000.

3. Proposed Location

Location of a plant is determined on the basis of proximity to local raw materials, availability of infrastructure and distance from potential market areas. For leather articles producing plant three woredas, namely Awassa zuria, Wonago and Arbaminch have been identified. Of these Awassa zuria is selected considering fair distribution of project. It is therefore suggested that the envisaged plant be located in the vicinity of Awassa town.

VI. MANPOWER AND TRAINING REQUIREMENT

A. MANPOWER REQUIREMENT

The leather articles producing plant requires well trained and experienced labor in designing, cutting and stitching operations. As leather articles are fashion-oriented, designing of various type of goods that can get acceptance in the market is required. The max of production and administrative manpower required for leather articles producing plant is shown in Table 6.1.

B. TRAINING REQUIREMENTS

As pointed out above, the plant requires a well-trained manpower in the design, cutting and stitching operations. For this, training programme will be carried out in one of the local leather articles producing plants for a period of one month. Training cost is, therefore, estimated at Birr 30,000.

Table 7.1

MANPOWER REQUIREMENT AND LABOUR COS T (BIRR)

Sr. No.	Job Title	Req. No.	Monthly Salary	Annual Salary
	A. Administration			
1	Plant manager	1	2,000	24,000
2	Secretary	1	500	6,000
3	Personnel officer	1	600	7,200
4	Sales man	1	600	7,200
5	Store man	1	600	7,200
6	Accountant	1	700	8,400
7	Clerk	1	400	4,800
8	General services	6	250	18,000
	Sub-total	**13**		**82,800**
	B. Production			
1	Production supervisor	1	1,200	14,400
2	Skilled workers (operators)	15	600	108,000
3	Design expert	1	800	9,600
4	Semi-skilled workers	4	200	9,600
	Sub-total	**21**		**141,600**
	Workers' benefit (25% of basic salary)			56,100
	Total Cost	**34**		**280,500**

VII. FINANCIAL ANALYSIS

The financial analysis of the leather articles project is based on the data presented in the previous chapters and the following assumptions:-

Construction period	1 year
Source of finance	30% equity
	70% loan
Tax holidays	3 years
Bank interest	8.5 %
Discount cash flow	8.5%
Accounts receivable	30 days
Raw material local	5 days
Work in progress	7 days
Finished products	30 days
Cash in hand	10 days
Accounts payable	30 days

A. TOTAL INITIAL INVESTMENT COST

The total investment cost of the project including working capital is estimated at Birr 3.58 million, of which 17 per cent will be required in foreign currency.

The major breakdown of the total initial investment cost is shown in Table 7.1.

Table 7.1

INITIAL INVESTMENT COST

Sr. No.	Cost Items	Total Cost ('000 Birr)
1	Land lease value	80.0
2	Building and Civil Work	900.0
3	Plant Machinery and Equipment	1,169.0
4	Office Furniture and Equipment	35.0
5	Vehicle	-
6	Pre-production Expenditure*	246.9
7	Working Capital	1,145.3
	Total Investment cost	**3,576.3**
	Foreign Share	17

** N.B Pre-production expenditure includes interest during construction (Birr 137.74 thousand) training (Birr 30 thousand) and Birr 79.2 thousand costs of registration, licensing and formation of the company including legal fees, commissioning expenses, etc.*

B. PRODUCTION COST

The annual production cost at full operation capacity is estimated at Birr 10.48 million (see Table 7.2). The material and utility cost accounts for 95.40 per cent, while repair and maintenance take 0.19 per cent of the production cost.

Table 7.2

ANNUAL PRODUCTION COST AT FULL CAPACITY ('000 BIRR)

Items	Cost	%
Raw Material and Inputs	9,940.90	94.83
Utilities	60	0.57
Maintenance and repair	20	0.19
Labour direct	197.7	1.89
Administration Costs	82.8	0.79
Total Operating Costs	10,301.40	98.26
Depreciation	90.34	0.86
Cost of Finance	91.58	0.87
Total Production Cost	**10,483.32**	**100**

C. FINANCIAL EVALUATION

1. Profitability

According to the projected income statement, the project will start generating profit in the first year of operation. Important ratios such as profit to total sales, net profit to equity (Return on equity) and net profit plus interest on total investment (return on total investment) show an increasing trend during the life-time of the project.

The income statement and the other indicators of profitability show that the project is viable.

2. Break-even Analysis

The break-even point of the project including cost of finance when it starts to operate at full capacity (year 3) is estimated by using income statement projection.

$$BE = \frac{\text{Fixed Cost}}{\text{Sales} - \text{Variable Cost}} = 25\ \%$$

3. Pay Back Period

The investment cost and income statement projection are used to project the pay-back period. The project's initial investment will be fully recovered within 5 years.

4. Internal Rate of Return and Net Present Value

Based on the cash flow statement, the calculated IRR of the project is 21.18 % and the net present value at 8.5 % discount rate is Birr 2.03 million.

D. ECONOMIC BENEFITS

The project can create employment for 34 persons. In addition to supply of the domestic needs, the project will generate Birr 1.21 million in terms of tax revenue. The establishment of such factory will have a foreign exchange saving effect to the country by substituting the current imports.