



TOGETHER
for a sustainable future

OCCASION

This publication has been made available to the public on the occasion of the 50th anniversary of the United Nations Industrial Development Organisation.



TOGETHER
for a sustainable future

DISCLAIMER

This document has been produced without formal United Nations editing. The designations employed and the presentation of the material in this document do not imply the expression of any opinion whatsoever on the part of the Secretariat of the United Nations Industrial Development Organization (UNIDO) concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries, or its economic system or degree of development. Designations such as “developed”, “industrialized” and “developing” are intended for statistical convenience and do not necessarily express a judgment about the stage reached by a particular country or area in the development process. Mention of firm names or commercial products does not constitute an endorsement by UNIDO.

FAIR USE POLICY

Any part of this publication may be quoted and referenced for educational and research purposes without additional permission from UNIDO. However, those who make use of quoting and referencing this publication are requested to follow the Fair Use Policy of giving due credit to UNIDO.

CONTACT

Please contact publications@unido.org for further information concerning UNIDO publications.

For more information about UNIDO, please visit us at www.unido.org

ml



05187



Distr.
LIMITED
ID/WG.169/2
19 November 1973
ORIGINAL: ENGLISH

United Nations Industrial Development Organization

Seminar on the development of footwear manufacturing and leather goods manufacturing in developing countries.

Madras, India, 4 - 13 February 1974

INVESTMENT AND MANAGEMENT CONSIDERATIONS IN ESTABLISHING
NEW AND EXPANDING EXISTING PLANTS IN DEVELOPING COUNTRIES 1/

Horace Auberry *

* Chairman of the Board, Wellico Enterprises Incorporated, Waynesville, USA

1/ The views and opinions expressed in this paper are those of the author and do not necessarily reflect the views of the Secretariat of UNIDO. This document has been reproduced without formal editing.

We regret that some of the pages in the microfiche copy of this report may not be up to the proper legibility standards, even though the best possible copy was used for preparing the master fiche.

CONTENTS

<u>Chapter</u>		<u>Page</u>
	Introduction.....	1
I.	MARKETING.....	1
	A. Market Selection.....	1
	B. Retailer Surveys.....	2
	C. Statistics.....	4
	D. Export Market.....	5
	E. Means of Distribution.....	6
	F. Merchandising and Advertising.....	7
II.	MANUFACTURING.....	8
	A. Factory Location.....	8
	B. Building Design.....	9
	C. Building Area.....	9
	D. Choice of Process.....	10
	E. Machinery and Equipment.....	12
	F. Management.....	14
III.	FINANCIAL.....	15
	A. Capital Requirements.....	15
	B. Cash Flow.....	18
	C. Pro Forma Profit and Loss Statement.....	18
	D. Typical Operating Statements.....	19

ANNEXES

I.	Hypothetical Labor Analysis.....	21
II.	Hypothetical Material Costing.....	24
III.	Hypothetical Cost Summary.....	25
IV.	Hypothetical Profit and Loss Statement.....	26

INTRODUCTION

There could be many reasons for establishing new, or expanding existing shoe manufacturing plants. Your own motivation might include financial gain, to render a service to mankind, or to earn foreign exchange for your country. In any case, none of these goals is attainable unless your business is successful.

A business-like examination of the factors influencing such a venture in relation to the risk involved is essential to success. These factors may be logically divided into those affecting marketing, manufacturing, and financing.

CHAPTER I. MARKETING

There is a common maxim in use in the United States frequently quoted by sales executives; that is, "Nothing ever happens until somebody sells something." This is a bit overstated, and the same thought could apply to manufacturing. Still, it is the most vital factor you must take into consideration. You can do everything else right, but if you happen to have chosen the wrong product, price category or means of distribution, your business is doomed. You can work your own will in manufacturing, do things as you like, but you must cater to a market and be fairly dependent upon its tastes, purchasing power and preferences. Therefore, one could argue about whether it's the primary consideration, but it is difficult to regard it as anything else but the center around which all of the business must revolve.

A. Market Selection

There are really only two basic markets that you have in which to sell your shoes. One is inside your own country, and the other is to the rest of the world. These two markets are completely dissimilar and in most cases

require different distribution channels and different merchandising techniques. However, you should still contemplate serving both.

You might find your best local market potential consists of supplying a better quality product, a greater variety of sizes and styles, or a lower priced product, or replacement of an import item which will save your country needed foreign exchange, or maybe it is a hot selling item in a neighboring country, but has not yet been established in your own.

How do you properly determine the footwear needs within this market?

Your first idea can very well come from your own experience. Perhaps you have tried to buy a little girl's patent leather pump for your daughter's dress up occasions and found the price exorbitant, and satisfactory variety nonexistent. Or maybe it is your wife who is continually saying, "What this country needs is a fashionable but comfortable women's shoe at a reasonable price." With this as a spark, you have asked a few of your friends and found that they have had similar experiences and say, "Yes, this would surely be a successful business, and one could make a fortune."

But never, never go into business based only on your personal observation and the opinions of a few close friends. Unless, that is, you are only thinking of selling one or two pairs of shoes per week; and even that is not assured because your friends may very well decide that after you have designed and priced your shoe, it wasn't exactly what they had in mind after all.

B. Retailer Surveys

But there are a number of very good ways in which you can form a valid judgement of your potential market, then confirm, or reject, or replace your original idea. The most important and the simplest would be retailer surveys. Visit your local shoe shops, window-shop, observe the lines and prices, become friendly with the manager and clerk, query them about their

needs, about what styles consumers are asking them for, then, when you have found what seems to be an opening for your potential product, zero in and be specific. If they say, "Sure, we could sell these like hot cakes," find out immediately if you both really envision the same product and in a reasonable price bracket. It is very well possible that this particular dealer imagines your product is going to be priced like hot cakes, also.

Interviewing one such retailer is only a little better than interviewing one of your consumer friends. Therefore, you must, depending upon how broad a market you seek, survey many stores in different sections of the town and in different areas of your state and country. This becomes most important if there are great climatic, geographical or cultural differences within your country. This goes deeper than the obvious, such as not trying to sell snow boots in the tropics, or thong sandals to the Eskimos. A very minor variation in cultural habits can cause a top selling shoe in one area to be completely unsaleable fifty miles away.

Retailer surveys are probably the single best way of learning the business and finding your place within it. However, it is a very slow procedure and it can be very expensive in time and money for you to be running around the country getting to know all your potential customers. In some countries, trade shows offer the opportunity to short cut the survey procedure. Most such shows, whether gatherings of retailers, wholesalers or manufacturers, are open to the public and it is perfectly permissible to wander around, view the competition and ask discreet questions. Your retailer friend can give you information on such shows and, very possibly, the address of the sponsoring trade organization. If trade associations do exist in your country, they provide another good source of statistical and general information about the industry.

C. Statistics

A second approach to the analysis of your market is statistical. What you really need to know is how many people there are within your area of distribution who will buy your product. Unfortunately, that particular statistic does not exist. But there are some numbers available in practically every country that can lead you toward an approximate answer to this question. An estimate of total population is always available. This in itself is a useful number. But if you are considering selling, let's say, little girl's play shoes, you would really like to know more. Yearly birth statistics may be available and the ratio of males to females. There are probably enough numbers available from your government sources to estimate how many little girls there are out there who could use your shoes.

Then comes the second part of the question. How many of them can afford to buy? Statistics such as buying power, gross national product, population by income levels, offer at least a partial answer. With these, you may be able to make a good estimate as to how many of these little girls will go bare foot or how many will wear cheap sandals rather than your comparatively expensive shoe. It is quite possible that many other useful statistics are available. There might be footwear production figures as well as sales, and this might be further broken down by gender and type of shoe.

One very important figure which is almost certain to be available is footwear imports. Governments are very conscious today of import statistics, and rightly so. You may even find that your specific category of little girl's shoes is separately defined in the import statistics. Possibly, certain footwear items are allowed into your country only because a suitable local source does not exist. In such a case, if you can prove your ability to fill the consumer

needs for such a product, the government might very well restrict the import of this product, thus effectively eliminating your foreign competition. Never rest easy in such a situation. Unless you are able to produce a quality product that can compete price-wise with a foreign product, allowing a reasonable duty rate, your business can never be secure.

Thus, through a combination of your own experience, retailer surveys, governmental statistics, and your own good judgement, you have determined that there is a need or at least an opening for sale of a specific quantity of your product at a specific price. Hopefully, this will be a sufficient quantity to make a viable business and you would need to look to the export market only for the gravy and the growth.

D. Export Market

It would not normally be feasible to make a similar preliminary survey of the world market as for the local. It is almost impossible to arrive at a valid judgement of the world potential until you have obtained a technical staff, are able to produce good samples, and can quote specific delivery dates and prices. If you are able to obtain within your country raw materials such as leather, rubber, vinyl, etc., at or below competitive world prices, and if labor costs are substantially below the foreign average, there is a market out there for you, once you are ready to serve it.

Furthermore, your government might be one of those that are encouraging export of labor-intensive products such as footwear through the granting of export incentives. The export incentive may include financial assistance for foreign trade shows, promotional travel, and even more direct cash assistance through allowance of various tax credits on export shipments. This may sound so lucrative you may be tempted to forget the local market and start immediately with export. Do not be misled, outside your country, you are in competition

with the finest and most capable shoe makers in the world. You must learn the business and be able to prove your capability before you have even a remote chance of success, even though you start with the necessary prerequisites of cheap raw materials, labor and export incentives.

E. Means of Distribution

Footwear distribution alternatives include:

(1) Establishment of your own retail units selling directly to the consumer. Once established, this method offers great market security and opportunity for a double profit. However, it vastly increases the amount of capital required, both to establish and to operate, and it requires you and your organization to acquire expertise in an additional area of business management. Therefore, it is a practical course only for a very large and well financed organization.

(2) Selling your product to a wholesaler who resells, probably under his own brand and product image, to the individual retailers. This is one of the most conservative approaches as it enables you to concentrate on manufacturing, leaving the merchandising and distribution headaches to someone else. You might even find a wholesaler who would contract for your entire output at a specific price, thus taking a great share of the risks out of your enterprise. But the risks and the headaches go hand in hand with opportunity for profit and ability to control your full destiny.

(3) Creation of your own sales force which would call directly on the retail outlets.

(4) Direct consumer selling, which includes selling directly to the passersby from the back door of the factory, at fairs, central market places, bazaars, house to house selling, and mail order.

Any of these methods have their individual merits, depending upon the

customs of your country and your own financial situation. You may find as you grow that it is necessary to adopt a combination of the several different means on your way to becoming the leading shoe manufacturer in your area.

F. Merchandising and Advertising

(1) Merchandising

In its broadest sense, merchandising incorporates several prime functions of any business. It is the process of determining how the product will be styled to give it the broadest popular appeal, the price range at which it will be sold, variations of colors, ornamentation, or other styling factors, and may even include method of packaging.

Simply making an excellent product is not enough. If quality were the sole determining factor in the public's acceptance of a product, only the few firms making the finest products would survive. If price were the only vital factor, only the firms producing the lowest priced products would survive. Except for the most basic consumer products such as staple foods or minimal shelter, excellent value for the price can often become merely a secondary factor.

Except for the aforementioned basic consumer needs, purchasing a product is more of an emotional decision than one of logic. That is why styling, material and color selection, packaging, store decor, product brand-name prestige, as well as other subtle influencing factors play a great part in determining the sales success of any manufacturer's output.

In these matters, it is advisable to retain the services of an individual, or a firm, experienced in these matters to assist in the planning and the execution of these programs.

(2) Advertising

The soundest, long term approach to the marketing of your product

is to "own" the public. This means establishing a favorable reputation for your product with the consumer, so that your product, rather than a competitor's will be preferred, other factors being relatively equal.

Here again, the emotional factor is of the utmost importance. It is essential to convince the public that to purchase your product will make them happier than they would be spending their money on a competitor's product or on some totally unrelated product. It must be borne in mind, that in the marketplace you are basically competing not only with similar products, but with practically every other product and service offered for sale. The average person has but limited funds at his disposal. He is constantly deciding which products or services will make him or his family happiest. Your advertising, with the proper appeal, can influence him in deciding in favor of your product.

A budget must be fixed, based on a percentage of anticipated or past sales, and must be included in your costings. This figure should not be exceeded. It should be allocated between the various media you plan to use, such as newspapers, radio, magazines, outdoor posters, direct mail, etc. Be certain to include realistic production costs.

Again, it is advisable to retain the services of an individual or firm specializing in this aspect of business. Often the same firm is in a position to handle both your merchandising and advertising problems simultaneously. Actually, it is a distinct advantage, since both functions are so closely interrelated. Neither merchandising nor advertising should be entrusted to amateurs, any more than you would entrust legal matters, engineering problems or financial management to amateurs.

CHAPTER II. MANUFACTURING

A. Factory Location

It is desirable, though not essential, to be close to your sources

raw materials and in the center of your distribution. It is most essential that you be near a source of capable, dependable labor. Electric power needs vary from low consumption for a conventional cemented construction to moderate for vulcanized with on-the-site rubber preparation. There is practically no pollution hazard in footwear manufacturing. Disposition of the waste from the cutting room is usually the biggest problem and this can only be considered a lean waste compared to most other industries. Truck transportation is usually efficient and not overly expensive. There are few heavy or bulky materials products involved. One factor often forgotten is that you are going to be working with a relatively large inventory of combustible material; fabrics, adhesives, cements, so you must consider the fire hazard and think of sprinklers, adequate water supply and the resultant reasonable insurance rate.

B. Building Design

You don't need a fancy building to be successful in shoe manufacturing. Like many enterprises you do not need to project a particular image of prosperity in order to attract business. Your building and grounds should be neat, well maintained and, if appropriate, painted attractively so your employees will consider it a pleasant place to work. Good employees are vital to your manufacturing success and their safety and comfort should be a major consideration. Adequate heat, air conditioning, lighting, ventilation, working space, and a clean lunchroom or cafeteria, will reduce your absenteeism, your employee turn over, lower your training costs and increase productivity.

C. Building Area

How much space do you need? If your chosen market is 1,000 pairs a day of all plastic molded footwear, you need only about 500 square feet for your one machine, ample PVC pellet storage, and there will even be room for some finished product. On the other hand, 20,000 square feet might be too little

to produce the same 1,000 pairs a day of a variety of men's Goodyear Welt dress shoes. Don't cramp your operation initially. Depending on building costs and your own ambitions, you should allow sufficient space to produce 25% to 50% more than your initial market. Average floor space required for conventional leather shoe manufacturing, including raw material storage and some finished goods, in one of the modern processes such as cement lasted, direct injected, or Injection 82 follow:

For 1,000 pairs a day, about 15,000 square feet,
for 2,000 pairs, 20,000 square feet, for 3,000
pairs, 30,000 square feet.

These very approximate figures are for a single shift, eight hour operation, and do not include space for auxiliary operations such as rubber making or unit sole production.

D. Choice of Process

As would be the case for the all-plastic, one-piece molded footwear, your process may have been predetermined with the product choice. The little girl's play shoe, on the other hand, likely could be made Goodyear Welt, stitch-down, cement lasted stuck-on, cement lasted injected, or Injection 82. The upper might be made of leather, urethane, vinyl, or a combination of the three. If vinyl, it might very well be assembled and decorated with high frequency, flow molding techniques, eliminating many of the stitching operations. Some of the merits and demerits of various bottoming processes are as follows:

(1) Goodyear Welt

The traditional way to make the best quality shoe, but style effects are somewhat limited. Initial equipment costs are considerable and the labor and material content is the highest of all commonly used processes. These factors, taken together, could effectively rule out this process for your

local market. However, because of the high labor content and the prestige of the construction, there is a potential export market in Goodyear Welts to the rich countries of the world.

(2) Cement Lasted with Stuck-On Soles

The chief advantage of this process is that it allows quick and relatively inexpensive adaptations for style changes. It requires less machinery investment than Goodyear Welt, injected or vulcanized. Labor content is considerably less than Goodyear Welt, but more than direct injected or Injection 82. Purchased material content is normally more than direct injected or Injection 82, but considerably less than Goodyear Welt. Quality of the finished product can be almost as good as Goodyear Welt. The shoes can be made neat in appearance with slightly less finishing cost than can direct injection or Injection 82, but the possibility of sole bond failure is greater than in any of the direct molded processes.

(3) Cement Lasted with Direct Sole Injection

This method allows the production of a shoe equal in quality to stuck-on, at least from the standpoint of wear, with lower labor and material costs. Initial investment is greater than for cements and approximates that of Goodyear Welt. Adaptability for style changes is lessened because of the injection tooling costs and lead time for producing the molds.

(4) Stringlasted Direct Injected

Offers the lowest unit labor cost of all the processes. But, unfortunately, as a practical matter, its use is limited to shoes with fabric or vinyl uppers. Material costs are also lower, but in too many cases, the lower costs are more than offset by the lower market value of the finished product. Investment costs are great, but less than cement lasted by the elimination of the Lasting Department equipment. Style change adaptability is

the same as in the cement lasted direct injected process.

(5) Injected 82

Offers most of the labor saving advantages of the stringlasted process, but is also applicable to leather uppers. Material costs are usually higher than stringlasted, but lower than for the other processes. Finished quality is proportional to the material and labor content but can be as good as Goodyear Welt. Considerable style variations can be accomplished by the use of differing welt materials, but the process is not as adaptable in this respect as stuck-on soles or Goodyear Welt. Since it is a proprietary patented process, a royalty must be included in the costing, but this may be more than offset by the technical assistance offered. This process may also be adapted to rubber vulcanized, should rubber be more available and cheaper in a particular country than PVC.

E. Machinery and Equipment

It would be impossible and also unfair in a presentation of this limited scope to attempt to detail the best type stitching machine for a particular operation or the best manufacturer of lasting machinery. However, there are some generalizations which could prove helpful.

(1) Service. Again, people who can be relied upon for service are more important to your business than choice of machines. There is very little difference, for instance, between the three or four top manufacturers' general line of sewing machines. They all have post beds, flat beds, cylinder beds, needle feeds and roller feeds. But it is quite likely that not each one has a capable local sales and service agent who will stock the spare parts you need and give your sewing machinist help as required. This is not to say that you shouldn't investigate an individual company's special superiority in a particular type machine. One particular company is noted for making the best bartack

machine. Another specializes in chain stitch for closing, and still another lasting machine manufacturer is known world wide for superiority of side lasting machines. Still, it would be better to have the second best machine with all its parts running smoothly, than to have the number one machine sitting idle waiting for parts.

(2) Buy conservatively. Don't buy more equipment than immediately needed for your particular production. This may seem an unnecessary statement, but there are many, many shoe factories around the world who have brand new machines covered with dust because they were sold specialized machinery as a part of a standard shoe industry package, but never got around to making that particular speciality.

(3) Avoid over sophistication. There are many wonderful developments in our industry today, high frequency welding and flow molding, computerized stitchers, automatic cutting machines, computerized pattern grading. Chances are, though, that very few of these are for you, unless you are one of those rare companies that start large and rich and immediately grow larger. Investigate and study all of these technical marvels, but don't buy just to have the latest. Most of them are highly specialized, requiring very large production runs of a single item. Labor saving is their main purpose, but usually at the expense of a great increase in engineering and technical staff.

(4) Reconditioned versus new machinery. Aside from these most recent technical developments, shoe industry machinery has changed very slowly over the years. Therefore, if capital investment is a problem, you really should consider reconditioned equipment, which is usually about half the cost of new and it takes a very sharp pencil to judge the difference in output between a 1945 model post bed single needle sewing machine and the closest equivalent 1973 model. Again, service, dependability and integrity of your supplier is

the key. Used equipment dealers suffer, perhaps unfairly, in reputation, but honest and capable ones do exist. In recognition of this growing important second market, many of the major equipment manufacturers have now established separate branches for the sale of their own used machines.

F. Management

(1) Shoe Manufacturing Experience

It is not essential that either you or the general manager of your factory be completely knowledgeable in all phases of shoe manufacturing. The commonly taught business practices pertaining to personnel, administration, organization, delegation, etc., are quite applicable to the running of a shoe factory. But make no mistake, there must be someone close to the top management of your factory who is an experienced shoe maker. This man ideally will have had many years of experience covering most of the factory departments and many different processes. He will know how to cut leather for best consumption and proper stretch, when to skive a seam, whether the upper pattern is practical for economical production and, if not, how to adjust it so that it could be produced, which type sewing machines to use, whether to mull particularly hard leather for easier lasting, how to adjust an upper pattern and how to repair the heel seat laster. Believe it or not, such geniuses do exist and they can be hired away from their present employers because all this talent that the man has accumulated over the years is not being properly used or recognized. Possibly, the man has either just retired or is on the verge of retirement and would be pleased to spend six months or several years where his talent is recognized, rewarded and passed on to others. The usual method of finding such a person is advertising through the trade journals. You might choose to employ him as a factory superintendent, technical manager, or simply technical consultant.

(2) Technical Assistance and Licensing Agreements

Why not buy all the needed technical management through long term agreements with companies who are already well established and have ample specialized staff available to train and advise your own personnel in every phase of the business? In most cases, this is a very good idea, but such arrangements can never substitute for your own management. It will take a man such as the genius described in the previous paragraph to be able to communicate knowledgeably with your affiliated technical resource, to pass on the problems, and to understand their recommended solutions.

Technical and styling assistance and process licensing from capable, experienced companies can be the best of all bargains. In order for such agreements to be effective and profitable, there must be a close relationship with a continual exchange of information, problems, solutions and ideas. It is often possible to arrange for your key personnel to receive valuable training at the site of the company abroad which is rendering the technical assistance you have contracted for.

CHAPTER III. FINANCIAL

A. Capital Requirements

A major consideration in entering or expanding a shoe business is the investment required. How much money will it take to produce the desired pairage per year of little girl's play shoes. You are going to need land, building, equipment, raw materials, in-process inventory, and an adequate inventory of finished goods. In addition, you will probably have to give credit terms to your customers and you will need money to pay your employees and your other overhead expenses until sufficient collections from your customers are received.

Although it is still a lot cheaper than starting up a steel mill or

roller bearing factory, you will find that it adds up to quite a lot of money.

(1) Fixed Assets

If your available capital is limited, you will surely want to lease your building. There are no particular requirements for a shoe factory which would make it difficult to find an existing building or to convince someone to erect a building for leasing. In many countries, it is traditional, and economical, to lease a major portion of the machinery also.

(2) Working Capital

This is probably the most important financial consideration in that the needs are so variable and the amount required so often underestimated. Insufficient working capital is by far the greatest cause of new business failures. You will need capital for the physical assets of raw materials, parts in process, and certainly some finished goods accumulating for shipment to customers. You must provide for payment of the labor force, supervisors, your electrical and freight bills, etc., until sufficient flow of cash is coming in from satisfied customers. Working capital needs are lessened by the credit terms of your suppliers and are increased by the credit you extend your customers.

Your needs then are not precisely controllable. Suppliers may take longer to deliver than you would like. Quite often longer than they promise. Or they may insist on your accepting delivery weeks or months before you will actually use these materials in production. There will be times when you will want to buy in large quantities in order to get a favorable price at an opportune time, other times when you have planned and bought materials to make brown shoes and the majority of your customers suddenly want black.

Unfortunately, these similar, only partially controllable, variables affect the entire operation. Work-in-process inventory might normally be

three to seven days supply, depending on your process and product mix and you should definitely plan to operate an efficient factory within these guidelines. Plan, that is, everything but your space and money needs, because the unexpected is sure to happen. A critical machine fails and even though there is a spare, capacity for a particular operation is suddenly greatly reduced. You will train operators to be flexible so that they can fill in for each other as necessary, but still there will be a day when all three of your trained eyeletters are out sick. You must have a well planned Purchasing Department and store room, but still you will eventually run out of the simplest but the most critical of items, such as white sewing thread.

When such events occur, you are faced with the necessity of stopping the entire production flow, sending your workers home unhappy, postponing shipments and reducing profitability through unabsorbed overhead. The other and only practical choice is to have some reserve work materials available that can be routed around the critical operation so that the factory does continue to function, although not in an ideal way, and at the expense of increasing your in-process inventory.

Your finished goods inventory will vary, usually upward, for many of the same reasons. In almost any country, you will have to stock each shoe in at least seven sizes and retailers are usually insistent upon getting some of each size with each shipment. Retailers who will accept and pay for sizes 6, 8 and 10 and wait patiently for their sizes 7, 9 and 11 are the world's nicest people who should be treated with special concessions and remembered at Christmas time.

Let us assume that you have logically determined, taking into consideration lead time, variety made, and distance from supplier's sources, that a thirty day raw material inventory should be sufficient. When totaling the capital

required, take a full 100% reserve and allow funds for sixty days. If you plan seven days in process, allow capital for at least ten. Unless you are so lucky as to have nothing but wonderful customers, allow ten days finished goods inventory, rather than your projected five.

Custom of your country will dictate how much credit you must extend to your customers. In many countries, footwear retailers pay cash upon delivery and there is no problem. More often though, terms from thirty days to six months are given, with perhaps the average being three months.

B. Cash Flow

A cash flow projection is the accounting documentation of anticipated working capital. If your project requires outside financing, a lending organization will usually require such cash flow projection, monthly for the first year and quarterly for the second and third. The document will show your opening cash balance, a detailed summary of the cash expenditures during the period, cash receipts and closing balance. Actual performance should be compared with the cash-flow budget on a month by month basis.

C. Pro Forma Profit and Loss Statement

This is really what it is all about. The formulization of your first rough thoughts about the project that must have gone something like, "If I could sell this shoe for 'x' and it only costs me 'y', there will be a profit of 'z' and, therefore, it is a viable project." Costs are usually separated into material, labor, manufacturing overhead and selling and administrative overhead. Manufacturing overhead includes such elements as the supervisory cost, utilities, maintenance and equipment depreciation. Careful analysis can lead you to a fairly accurate estimate of these expenses. Selling and administrative costs are trickier in that they depend greatly upon the market acceptance of your product. You may find that you have to advertise

more than anticipated, hire more salesmen, or pay higher than anticipated commission in order to get your product established.

If the bottom line of the profit and loss, total anticipated yearly profit, is insufficient, you have a real problem. You will, of course immediately recheck the calculations. Avoid what may seem the easiest solution at this stage, and certainly the common tendency to arbitrarily assume you are going to be able to get by on a little less material or less overhead. Rethink and restudy, but if you are unable to find a legitimate way to reduce costs or to raise the selling price, abort the project while it's still in the planning stage.

Shoe making can be a most interesting and fascinating pastime, but it is unlikely that finding a new pastime is one of your major goals. To realize your true goal, whether it be financial gain, service, etc., will require continuity of the business and continuity is possible only as long as there is a favorable bottom line on your profit and loss statement.

D. Typical Operating Statements

A material and labor costing analysis and a profit and loss statement for the year ended 1974 for the mythical XYZ Corporation is included as an annex. While few of these figures would be applicable in your particular case, the cost elements and the presentation may be useful.

For simplicity, it has been assumed that XYZ makes only one style of shoe, No. 982*, a men's hiking boot. Also, the accounting has been simplified by allowing all inventories to remain constant. Other pertinent facts which will

*Samples of this particular shoe will be made available for evaluation.

help you to understand the operation are:

(1) XYZ employs ten salesmen to sell directly to the independent retailer. Four of these salesmen work only for XYZ. The others sell non-competing lines from other manufacturers as well as XYZ shoes.

(2) Average daily production is 1,000 pairs and there are 240 work days each year.

(3) Sixty factory workers are employed, but absenteeism reduces the average daily attendance to fifty seven.

(4) These workers are highly motivated to produce by a piece work system, technically described as a "standard hour individual incentive plan, with a guarantee of 100 and expected performance of 130."

Caution: This operating profit and loss statement differs from the pro forma profit and loss discussed in the previous paragraph in that it is for a well established business. There is no need to anticipate extra costs for employee training and other start-up expenses.

XYZ CORPORATION
Labor Analysis

Style 982

Description: Men's Injection 82 Hiking Boot

Department: Cutting

<u>Operations</u>	<u>Std. Hrs. Per 100 Pairs</u>	<u>Base Rate</u>	<u>Cost Per 100 Pairs</u>
Cut Leather Upper	3.519	\$2.36	\$ 8.30
Cut Socklining	.083	2.11	.18
Cut Counter	.122	2.11	.26
Cut Homasote Heels	.232	2.11	.49
Skive Leather Upper	1.131	1.90	2.15
Skive (Split) Counter	.311	1.87	.58
Cut Collars	.102	2.28	.23
Cut Foam Collar Fillers	.223	2.28	.51
Cut Texon Insole	.152	2.11	.32
Split Leather Upper Parts	.440	1.87	.82
Stamp Counter	.202	1.93	.39
TOTAL			<u>\$14.23</u>
Plus 8% Reserve			15.37
Hourly Pay (Mechanic and Preparation)			<u>2.10</u>
Total Allowance per 100 Pairs			\$17.47

Style 982 Labor Costing (Continued)

Department: Stitching

<u>Operations</u>	<u>Std. Hrs. Per 100 Pairs</u>	<u>Base Rate</u>	<u>Cost Per 100 Pairs</u>
Mark Collars	.435	\$1.87	\$.81
Close Quarters	.647	1.93	1.25
Stay Quarters	.491	1.93	.95
Trim for Stayer	.491	1.87	.92
Cement and Form Collars	3.120	1.87	5.83
Apply Box Toe	.499	1.90	.95
Cement Lining to Tongue	.667	1.87	1.28
Sew Outside Eyestay	4.462	1.98	8.83
Eyelet	.812	1.90	1.54
Hooks	1.510	1.90	2.87
Bartack Side of Tongue	1.014	1.90	1.93
Bartack Front of Tongue	.927	1.90	1.76
Sew on Side Stripping	1.331	1.94	2.58
Trim Side Stripping	1.840	1.87	3.46
Sew on Collar	2.942	1.98	5.83
Sew Location on Collar	2.307	1.98	4.57
Sew Counter	1.448	1.90	2.75
Topstitch Tongue	2.404	1.98	4.76
Vamp	2.491	1.98	4.93
Stringlast	1.567	1.93	3.02
Lace	.833	1.90	1.58
Stitch Welt	1.600	1.94	3.10
Form Upper	1.684	1.94	3.27
			<u>\$68.77</u>
TOTAL			
Plus 8% Reserve			\$74.27
Hourly Pay (Mechanic, Preparation, Repair)			\$ 8.62
Total Allowance Per 100 Pairs			<u>\$82.89</u>

Style 982 Labor Costing (Continued)

Department: Injection and Finishing

<u>Operation</u>	<u>Std. Hrs. Per 100 Pairs</u>	<u>Base Rate</u>	<u>Cost Per 100 Pairs</u>
Inject	5.400	\$2.05	\$ 11.07
Flame Trim	.485	1.87	.91
Gold Stamp Sock	.200	1.87	.37
Lace	.617	1.90	1.17
Insert Sock Lining	.833	1.90	1.58
Stamp Boxes	.283	1.93	.55
Wrap and Box	.447	1.87	.84
Pack and Carton	.287	1.93	.55
TOTAL			<u>\$ 17.04</u>
Plus 8% Reserve			\$ 18.40
Hourly Pay (Inspect, Preparation, Mechanic)			\$ 10.15
Total Cost Per 100 Pairs			<u>\$ 28.55</u>

LABOR COST SUMMARY

	<u>Cost Per 100 Pairs</u>
Stock Room	\$ 2.05
Cutting	17.47
Stitching	82.89
Injection and Finishing	28.55
Indirect	2.90
Shipping	3.00
	<u>\$136.86</u>

XYZ CORPORATION
Material Costing

Style 982

Description: Men's Injection 82 Hiking Boot

Size Range: 6½ through 14, N, M, W - Average Size 10

	<u>Type</u>	<u>Usage</u>	<u>Unit Price</u>	<u>Total</u>
<u>Leather</u>				
Upper Leather	Full Grain Bison	2.20 Sq. Ft.	\$.72	\$ 1.584
		TOTAL		<u>\$ 1.584</u>
<u>Fabric and Vinyl</u>				
Padded Collar Cover	Kaplan Vinyl	1.50 Sq. Ft.	.20	.300
Vinyl Sock Lining	Vinyl on 1/16" Foam	.043 Yds.	2.45	.105
Padded Collar Foam	Crest Foam 1/8"	.035 Yds.	.49	.017
Counter	Robus Leatherboard	.046 Sq. Yds.	1.10	.051
		TOTAL		<u>\$.473</u>
<u>Sole</u>				
PVC	Great American	1.10 Lbs.	.19	\$.209
Welt	1/8" x 7/16" Stitched PVC	1.40 Yds.	.075	.105
Heel Filler	Homasote 1/4"	.005 Sheets	1.35	.007
	Homasote 3/8"	.010 Sheets	1.55	.016
Sole Filler	Colonial Board	.028 Sheets	1.00	.028
Shank	1/2" x 1/16" Wood	2 Pieces		.005
		TOTAL		<u>\$.370</u>
<u>Findings</u>				
Eyelets	"00" PCI	8 Pieces	.82/M	\$.007
Hooks	#2 ASS	20 Pieces	3.41/M	.068
Thread and Stringlasting Cord				.070
Box, Carton and Tissue				.065
Box Toe	Print-On			.025
Lace	40" CS4	2 Pieces	4.14 Gr.	.058
		TOTAL		<u>\$.293</u>
TOTAL MATERIAL COST				\$ 2.72

XYZ CORPORATION
Cost Summary

Style 982

Description: Men's Injection 82 Hiking Boot

<u>Element</u>	<u>Source</u>	<u>Cost Per Pair</u>
Material	Material Cost Sheet	\$ 2.72
Direct Labor	Labor Cost Summary	1.37
Fringes on Labor	40% of Direct Labor	.55
Manufacturing Overhead	1973 Experience	.75
TOTAL MANUFACTURING COSTS		\$5.39
SELLING, G&A EXPENSE (20% of Anticipated Selling Price)		1.60
PRETAX PROFIT (12% of Anticipated Selling Price)		<u>.96</u>
		\$7.95
MERCHANDISED SELLING PRICE		\$8.00
SUGGESTED RETAIL PRICE		\$16.00

XYZ CORPORATION
PROFIT AND LOSS STATEMENT
FOR THE CALENDAR YEAR 1974

	<u>Total</u>	<u>Per Pair</u>
<u>SALES - Shoes</u>	\$1,920,000	\$ 8.00
Less Discounts and Allowances	51,000	.21
<u>TOTAL</u>	<u>\$1,869,000</u>	<u>\$ 7.79</u>
 <u>COST OF GOODS SOLD</u>	 \$1,320,000	 \$ 5.50
 <u>GROSS PROFIT ON SALES</u>	 \$ 549,000	 \$ 2.29
 <u>SELLING GENERAL AND ADMINISTRATIVE EXPENSES</u>	 \$ 378,500	 \$ 1.58
 <u>PROFIT FROM OPERATIONS</u>	 \$ 170,500	 \$.71
 <u>INCOME CHARGES</u>		
Interest	\$ 36,000	\$.15
 <u>PROFIT BEFORE INCOME TAXES</u>	 \$ 134,500	 \$.56
 <u>PROVISION FOR INCOME TAXES</u>		
State	\$ 6,000	
Federal	45,000	
<u>TOTAL</u>	<u>\$ 51,000</u>	<u>\$.21</u>
 <u>NET PROFIT</u>	 \$ 83,500	 \$.35

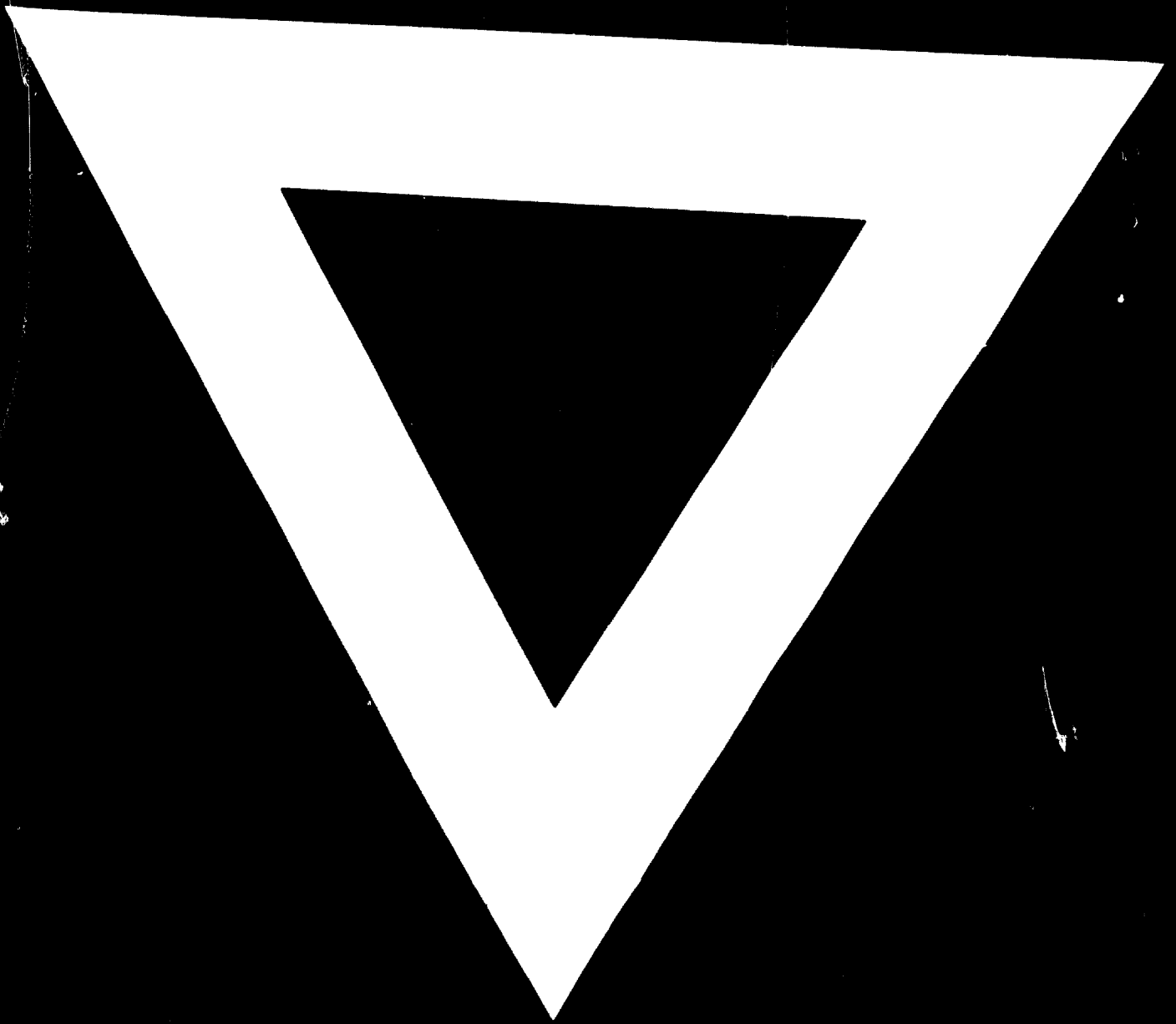
XYZ CORPORATION
COST OF GOODS SOLD
FOR THE CALENDAR YEAR 1974

	<u>Total</u>	<u>Per Pair</u>
<u>MATERIALS</u>	\$ 672,000	\$ 2.80
<u>LABOR</u>	<u>324,000</u>	1.35
 <u>LABOR PRINCIPLES</u>		
Vacation Pay	16,000	
Holiday Pay	11,000	
Employees Health Insurance	36,000	
Retirement Fund	39,000	
Social Security Taxes	<u>34,000</u>	
<u>TOTAL</u>	<u>136,000</u>	.57
 <u>MANUFACTURING EXPENSES</u>		
Supervisors Salaries	50,000	
Vehicle Maintenance	1,000	
Insurance	3,000	
Property Taxes	1,000	
Machine Rent	3,000	
Heat, Light and Power	18,000	
Repair and Maintenance	20,000	
Building Rent	15,000	
Depreciation	24,000	
Clicker Dies and Markers	5,000	
Freight on Materials	25,000	
Factory Supplies	<u>23,000</u>	
<u>TOTAL</u>	<u>188,000</u>	.78
	1,320,000	<u>5.50</u>
 <u>GOODS IN PROCESS INVENTORY:</u>		
Beginning	32,000	
<u>Total</u>	<u>1,352,000</u>	
Ending	32,000	
<u>COST OF GOODS MANUFACTURED</u>	<u>1,320,000</u>	<u>5.50</u>
 <u>FINISHED GOODS INVENTORY:</u>		
Beginning	65,000	
<u>Total</u>	<u>1,385,000</u>	
Ending	65,000	
<u>COST OF GOODS SOLD</u>	<u>1,320,000</u>	<u>5.50</u>

XYZ CORPORATION
SELLING, GENERAL AND ADMINISTRATIVE EXPENSE
FOR THE CALENDAR YEAR 1974

	<u>Total</u>	<u>Per Pair</u>
<u>SELLING EXPENSES:</u>		
Sales Commission	\$ 122,500	
Salaries	30,000	
Advertising	84,000	
Travel	24,000	
Freight	2,500	
<u>Total</u>	<u>263,000</u>	1.10
<u>GENERAL AND ADMINISTRATIVE EXPENSES:</u>		
Office Salaries	85,000	
Office Supplies	3,000	
Postage, Telephone, Etc.	15,000	
Dues and Subscriptions	1,500	
Legal and Audit Fees	5,000	
Taxes, Franchise, Sales, Etc.	2,000	
Depreciation - Office Equipment	1,500	
Contributions	500	
Office Machine Rent & Repairs	1,500	
Miscellaneous	500	
<u>Total</u>	<u>115,500</u>	.48
<u>TOTAL</u>	<u>378,500</u>	<u>1.58</u>





3. 9. 74