THE MANUFACTURING SECTOR AND THE INFORMAL CREDIT MARKETS THE CASE OF TRADE CREDITS IN THE FOOTWEAR INDUSTRY

by

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I   INTRODUCTION

A   SIGNIFICANCE OF THE STUDY

The issue on credit has become more pronounced especially in developing countries   like the Philippines   that are working towards economic recovery and sustainable long run growth   Where

owner's capital is scarce, credit has been envisioned as a vital instrument to finance production activity that can accelerate economic growth. Of distinct significance, too, is the role played by informal credit markets (ICMs) in the financial system. There are now some information regarding the useful function of ICMs in the rural financial markets (see Lamberte and Lim [1987]). Notwithstanding, the question as to whether or not the ICMs can be incorporated in the financial policy programs in the country has still to be resolved due to the lack of systematic information about this sector.

This study is inspired by the fact that very little is known about the ICMs operating in the urban sector. There is a great challenge in studying ICMs in the urban sector where they are playing a significant role especially in financing micro enterprises that do not have access to the formal financial markets. In particular, the footwear manufacturing industry relies more heavily on the ICMs for its financing requirements. A study reveals that only 23 percent of the footwear manufacturers interviewed borrowed from formal institutional sources (see PIDS, 1983). In general, footwear firms are to a large degree dependent on input suppliers, private moneylenders and relatives/friends for credit. There is therefore a need to investigate the economic significance of these informal subsectors and to generate more empirical evidence on the mechanisms and the factors that have conditioned their existence.

B. OBJECTIVES OF THE STUDY

This study attempts to characterize and analyze the existing financing schemes of the footwear manufacturing industry in Marikina, Metro Manila, with special emphasis on trade credits. Specifically, the study aims to:

(1) Investigate and document the existing formal and informal credit arrangements in the footwear manufacturing industry;

(2) Determine the extent of trade credits provided by and availed of by footwear manufacturers;

(3) Describe the mechanisms or instruments and arrangements used by creditors and debtors;

(4) Estimate the effective cost of borrowing by footwear manufacturers;

(5) Derive and estimate a model of the demand for trade credit by footwear manufacturers;

(6) Analyze the lending behavior of input suppliers; and

(7) Discuss the special lending program of the Philippine Commercial International Bank (PCIB) to the Marikina footwear industry;

C. METHODS OF DATA COLLECTION

The study focuses on Marikina, Metro Manila which is acknowledged as the center of the footwear manufacturing industry in the country. This town alone accounts for about 70 percent of total footwear firms in the country. Marikina is a small town of some 38.9 sq. km. located within the eastern part

of Metro Manila. Over the years, it has gained reputation for excellent craftsmanship in shoemaking not only in the country but overseas as well.

There are two main groups of respondents for the study, namely: the footwear manufacturers and input suppliers. All firms classified under the shoes and slippers establishments were considered for the study although some firms may have other products such as bags.

The selection of respondents was based on the list of registered manufacturers secured from the Footwear Development Council at the Mayor's Office in Marikina, Metro Manila. A total of 1,200 manufacturing establishments were registered operating as of 1987 . Further, the registry of Philippine exporters of footwear and leathergoods in Marikina was secured from the Bureau of Domestic Trade to take account of big manufacturers and exporters. Added together, a total of 1,219 made up the population of registered footwear manufacturers.

A target sample of 65 footwear manufacturers was considered due to budget constraint. This sample comprises 5.3 percent of the total population. Respondent - firms were selected through simple random sampling. Only 63 questionnaires were included in the analysis since two respondents refused to provide complete information.

The list of input suppliers was obtained from the License and Permit Department at the Mayor's Office in Marikina. A total of 51 establishments compose the population. Ten (10) of them were randomly selected to represent the sample. One respondent who provided only partial information was excluded from the analysis.

Prior to the conduct of the actual field survey, an official permit was secured from the Mayor's Office. A letter of introduction from the Municipal Mayor facilitated in building rapport with the respondents.

Two structured interview schedules, one for the footwear manufacturers and the other for the input suppliers, were used in gathering information necessary for the study. They were administered personally with the owners as respondents, in the case of small firms, and with the managers or authorized representatives as respondents, in the case of large firms.

The interview schedule for the footwear manufacturers consists of six major parts. The first part focuses on the respondents' characteristics which included the name, position in the firm, sex, civil status and educational attainment. The second part deals with basic information about the firms, such as location, mode of ownership, types of products, number of workforce, capitalization (sources and terms of credit if any), and inventory of fixed assets. Data on Production are dealt with in Part III which includes production capacity per week, production costs, sales and profits, and assessment of prices.

Details on marketing such as market outlets, prices received from each market outlet, price setting competitiveness of markets, and exports are addressed in Part IV Part V attempts to gather information about trade credits The terms, requirements and arrangements, interest rates and other costs involved in credit contracts were investigated The last part focuses on other sources of credit such as banks, informal moneylenders and friends/relatives Information about the volume of borrowings, terms and requirements and costs of credit were obtained

Admittedly the data provided by footwear manufacturers, particularly those pertaining to production, incomes and prices were based on recall Only a few, bigger firms keep records of their operations

The questionnaire for input suppliers is much shorter It attempts to gather information about the input suppliers' lending policies, lending rates and costs and credit arrangements

The interview with respondents was conducted between September to October, 1987 in Marikina, Metro Manila In most cases, more than one visit was made to complete the interview

During the course of the survey, we discovered that the PCI Bank has been directly supporting the shoe industry through its Shoe Industry Desk attached to their branch in Marikina An interview with the Account Manager of the PCI Bank was made to know the interest rates, mechanisms, instruments and arrangements used in the administration of their credit program

Supplementary information were gathered from existing studies on the leather and leather products industry.

D. ORGANIZATION OF THE STUDY

The next chapter gives a brief background of the footwear industry in the Philippines. Chapter III presents the theoretical framework. Specifically, it discusses the definition of trade credits, distribution channels of footwear products, and sources of inputs and trade credits. Then a model explaining the demand for trade credit is developed. The method for calculating the effective interest rate is also discussed in this chapter.

Chapter IV discusses the empirical results pertaining to the demand for trade credit by footwear manufacturers. Essentially, it answers objectives (1) to (5) of this study. The analysis of the lending behavior of input suppliers and the special credit programs of PCIB is presented in Chapter V. These are, respectively, objectives (6) and (7) of this study. The last chapter contains the summary, conclusions and policy implications.

II. INDUSTRY BACKGROUND

This chapter has two parts. The first gives a brief history of the footwear industry in the Philippines, while the second discusses some important characteristics and prospects of the industry.

A. BRIEF HISTORY

The Philippine footwear industry draws its origins in Marikina through a culture hero, Don Laureano Guevara (called Kapitan Moy by his townmates). Way back in 1884, the wealthy landowner tried to repair his worn-out shoes which he bought home from Europe, instead of bringing it to the Chinese cobblers in Escolta, Manila. He took the shoes apart and carefully studied how its components were assembled. He improved his knowledge by watching the Chinese worked in Escolta. At that time, the Chinese had the monopoly of leather shoe-making. With the use of local raw materials and tools he borrowed from blacksmiths, he patiently experimented to fashion his new pair of shoes. As he mastered the art of shoemaking and with his desire to provide employment for his townmates, Kapitan Moy established the first shoe shop in his basement, which eventually became the first training school for Philippine shoemakers.

Marikina was then still a pastoral valley, but under each house, the "silong", was a shoemaker's shop. The fine-crafted Marikina shoes turned the pre-war Gandara, the shoe street in Manila, into a footwear finery.

The American era contributed to the development of the industry by making Filipinos shoe-conscious. In 1898, the American occupation troops in the country placed orders for army shoes. This encouraged the establishment of two other shoe shops, one of which was the Esco Shoe Company. Other shoe factories were soon set up, including Ang Tibay Inc. in 1910 which later expanded from slipper-making to the manufacture of leather shoes. By 1933, around 350 shoe-making shops were operating in the country, principally in Luzon. As early as 1931, the total volume of transactions made by Marikina shoemakers alone was placed at ₱1.6 million.

In 1933, the government imposed a protective tariff on imported finished shoes in order to encourage domestic shoe production. Commonwealth Act 340 was approved in 1938 authorizing the Bureau of Animal Industry to establish tanneries to supply the industry's raw material requirements. Complementing this Act, a ₱1.0 million National Footwear Cooperative Association was organized through the National Development Corporation (NDC) to procure the raw material requirements of member-firms and to act as a distribution center for their finished products.

Still, imported shoes dominated the market and made postwar rehabilitation of the industry very slow. Republic Act 650 known as the Import Control Law enacted in 1951 gave the industry a much needed boost by cutting down footwear imports from ₱10.6 million in 1949 to only ₱650,000 in 1962. However, imports once again rose after the lifting of import control in 1962, although

not as rampant as in the 1930s. The creation of the Marikina Shoe Trade Commission further bolstered the industry in the 1960s by providing the impetus for the development of trade associations aimed at promoting improvements in production, marketing and finance.

The footwear industry has been recognized as one of the growth sectors in the country. Being one of the priority areas of the Bureau of Industry in the thrust of industry development and exports promotion in the 1970s, the leather footwear industry received major government support. The mid-1970s signified the heyday of leather footwear exports. The footwear industry became one of the important export earners. Small-and-medium size firms started to proliferate and successfully gained their market share.

B. GENERAL CHARACTERISTICS AND PROSPECTS

The footwear industry is mainly dominated by small-and-medium-size firms, (92%), i.e., those which have 10 or less laborers, which are typically family-owned businesses despite its fairly long history. Marikina which is acknowledged as the center of the leather footwear industry accounts for almost 70 percent of total footwear firms in the country (Bureau of Foreign Trade, 1986). Other major production areas include Biñan and Liliw in Laguna, Cebu, Baguio, Bulacan and Pangasinan. The larger mechanized firms mostly producing sports and industrial shoes and sandals in large volumes are located within Metro Manila. These are organized either as partnerships or corpora-

tions, some of which are joint ventures with American, Italian, Japanese and Chinese companies.

Most of the footwear manufacturers still follow traditional production technology. Thus, industrial promotion programs that seek to address the cross-section of the footwear industry must necessarily deal with small establishments, and the corresponding concerns of the cottage and small-scale industry sector (PIDS, 1983).

The United States ranks as the number one importer of Philippine footwear, accounting about half of total Philippine footwear exports. Other major markets include the United Kingdom, Japan, Australia, Hongkong and West Germany. The country's abundance of reptile skin (snakes, lizards, frogs, etc.) and a wide range of different natural fibers and textiles offer big prospects for local manufacturers.

It has been noted that the main competitive advantage of Philippine-made shoes lies on the generally cheaper labor costs. Results of certain studies show that leather footwear industry has a low domestic resource cost and therefore has a definite export potential (Malaluan, 1979). Whether this still holds today remains to be seen.

Lately, it has been observed that the footwear manufacturing industry is in a downswing, both in terms of volume and quality. According to the latest registry of manufacturers in Marikina, the number of producers has declined by 40 percent, from 2,000 to

1,200 registered firms. The economic crisis has forced footwear manufacturers to shift product and market strategies in order to maintain profitability levels (PDCP, 1986). Responses of firms in this present study also support these earlier findings. Some firms have even gone to the extent of closing down and shifted to other business ventures.

Currently, shoe manufacturers catering to the local markets are ,veering away from the production of leather shoes while increasing their products of synthetic (fabric, plastic and rubber) footwear. This could be attributed to the inability of local tanneries to provide high quality leather by the volume, and to the high cost of leather since tanning requires imported chemical and dyestuffs. Locally produced synthetic materials, on the other hand, are cheaper, making non-leather shoes more affordable by consumers. The smaller margins from the sales of synthetic footwear can be offset by the sales volume.

According to manufacturers, the volume of sales has decreased by as much as 28 percent. On the other hand, local demand contracted by as much as 30-50 percent brought about by the shrinking purchasing power of the consumers (PDCP, 1986). Moreover, consumers are sacrificing the luxury of leather for cheaper synthetic footwear.

The demand for snakeskin footwear reached its peak in the 1970s until 1981. Since then, export volume of Philippine footwear has been declining. Weak export performance can be traced mainly to the following factors: (1) high cost of

imported raw materials; (2) poor quality control since only 15 percent of the entire production process is mechanized; (3) limited financial resources; and (4) weak market penetration strategies. These factors have weaken the ability of the local footwear industry to compete with other shoe exporters like Korea, Taiwan, Spain and Italy in the international market.

The government through the NDC-NACIDA Raw Materials Corporation previously assisted the industry by acquiring imported raw materials at lower tariff rates. However, the agency had to cease operations due to financial difficulties. This is a big blow especially to small producers who cannot afford to open their own letters of credit for importation of their raw materials.

With the prohibitive cost of importation, weak product demand and stiff competition, some large producers who used to export before are shying away from the export market and are concentrating instead in the local market. This makes small producers more insecure because of their possible displacement in the domestic markets.

The lack of confidence of the international markets on the economic and political state of the country is another major cause for the soft demand for Philippine shoes. Foreign buyers are wary about the exporters' capability to deliver ordered products.

In general, those expected to survive the harsh local economic environment are the large leather and synthetic footwear manufacturers which have already established their names in the local market. These companies have better technical and financial capabilities to respond to the shifts in market demand. Yet, the small-scale producers who make up the bulk of the industry should not be left out if the industry is to attain a sustained growth and increase its contribution to the economy.

III. THEORETICAL FRAMEWORK

Since this study focuses on trade credit, it would be worth-while to start with a descriptive definition of the term trade credit. Afterwards, we will sketch various distribution channels for footwear products and sources of inputs, and point out where trade credit may arise. We will also discuss the alternative sources of credit for footwear manufacturers. Then, the theoretical framework explaining the demand for credit will be presented. Finally, the method for calculating the effective interest rate on trade credits will be discussed.

A. DEFINITION OF TRADE CREDITS, DISTRIBUTION CHANNELS OF FOOT-
   WEAR PRODUCTS, SOURCES OF INPUTS AND TRADE CREDITS

Just like any contractual arrangement, trade credit involves two contracting parties, namely, the creditor and the debtor. Unlike ordinary debt contracts, however, the resources transferred from the creditor to the debtor are not financial, but rather physical in nature. In other words, the creditor is not a financial lender. He may be an input supplier advancing inputs to the manufacturer, to be paid later on in cash or in kind depending on the agreement reached by the two contracting parties. The creditor may also be a manufacturer granting trade credit to wholesalers/retailers/middlemen (jobbers). The debtor, on the other hand, uses the physical resources acquired on credit either as inputs to his production activities or as items for sale to consumers. The debtor in the latter case is not a consumer of those resources, otherwise, the arrangement will be

called consumer credit. But just like consumer credit, trade credit facilitates the transfer of resources from one hand to the other, ultimately resulting in an increase in the volume of sales of the creditor.

The tenor of trade credit is usually short term, the reason being that the resources transferred are used as part of the working capital. Sometimes, the credit period is sufficient for the debtor to dispose of the (manufactured) goods. Therefore he can pay the creditor in part or in whole from his sale. Thus, trade credit obtained may be self-liquidating.

In trade credits, the contracting parties are non-financial institutions/individuals. As such, their behavior is not governed by any Central Bank regulations. It can therefore be said that they belong to the informal credit markets.[1]

Figure I outlines in detail the sources of inputs for a typical footwear manufacturer and possible distribution channels for his footwear products. The manufacturer needs material inputs, some of which are locally produced while others are imported. Locally produced material inputs are sourced directly from domestic input suppliers. In the case of imported material inputs, the manufacturer may buy them either directly from foreign suppliers or from domestic suppliers who import the

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[1] See Lamberte and Balbosa (1988) for the definition of informal credit markets (ICMs).

FIGURE I

DISTRIBUTION CHANNELS OF FOOTWEAR PRODUCTS
AND SOURCES OF INPUTS
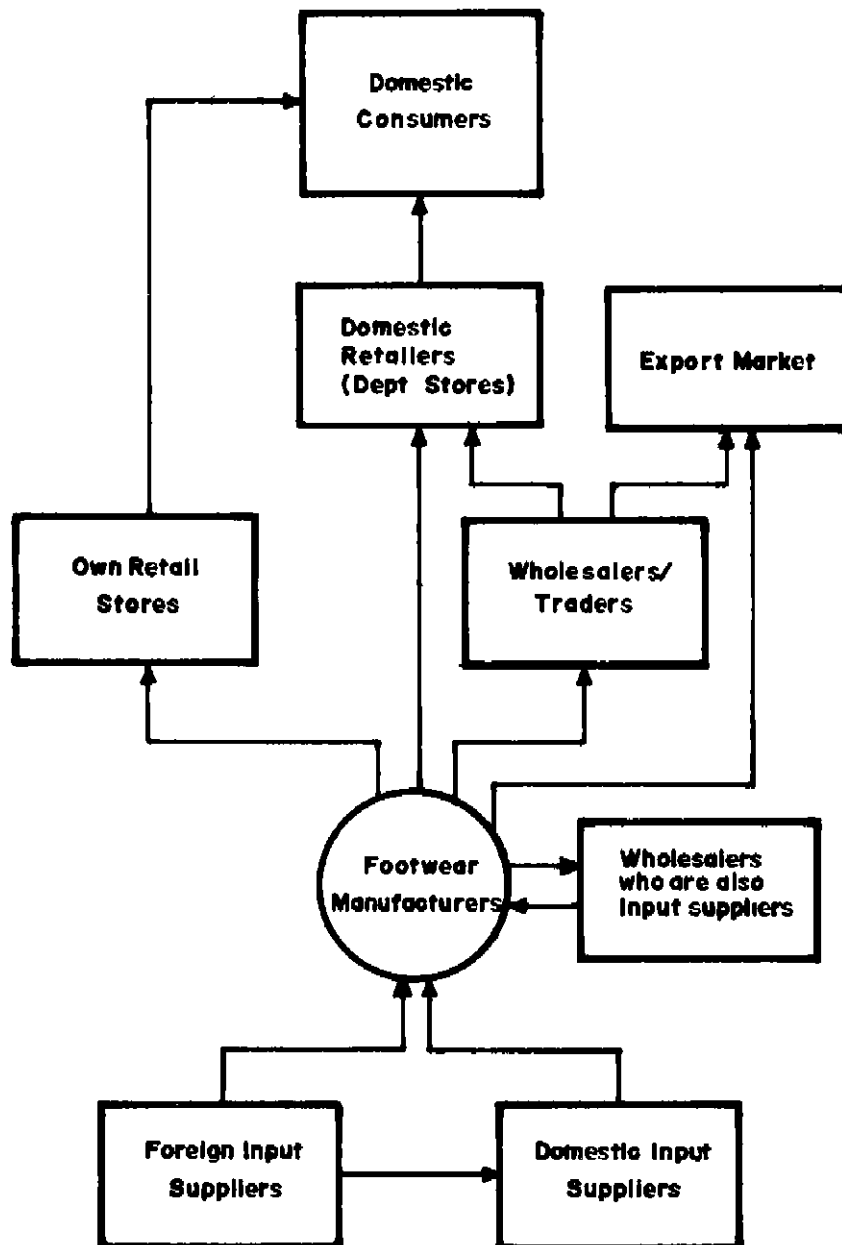
required material inputs. This depends on the manufacturer's financial capacity.

Raw material inputs comprise at least 50 -55 percent of the total cost in footwear manufacture. High quality leather shoes are made up of about 96 percent raw materials directly imported or sourced locally but manufactured from imported raw materials (Bada, 1987). Even synthetic footwear still demands some amount of imported raw materials. This poses a problem especially to small manufacturers who cannot afford to open their own letters of credit (LCs) to directly import their requirements.

The relatively huge financial resources required to purchase the needed inputs oftentimes strain the resources of manufacturers. Most affected are the small manufacturers who find it difficult to raise their own working capital internally. Thus, trade credit becomes a very attractive arrangement for them. It is also possible that input suppliers who provide trade credit to footwear manufacturers supplement it with cash credit so the latter can purchase other inputs.

Footwear manufacturers have various distribution channels for their products. They may have their own domestic retail stores. Others who would like to concentrate in production sell their products to either retailers, like department stores (e.g. Shoemart, Fairmart) and supermarkets, or to wholesalers/traders. The latter, in turn, sell the footwear products to domestic and foreign retailers. One mode is to sell the products directly to foreign buyers. However, only big manufacturers who have direct

access to foreign markets have this capability. To most of the footwear manufacturers, the domestic retailers and wholesalers/ traders would most likely be their customers.

It is not easy to capture customers of products whose style changes frequently depending on the fashion. Being ahead or at least in step with what is in vogue is necessary for the survival of a footwear firm. Thus, it is not enough to simply establish good relations with customers.

To stay in business, therefore, a footwear manufacturer must be aggressive in marketing his products. Unlike a farmer, he does not just go on producing products in large quantities when the season comes. He starts by sending samples of his products and corresponding price quotation to prospective customers/ buyers. Whenever the latter believe that some or all of the sample products can be marketed, they then place an order. In their order •slip, they specify the materials to be used, the number of units per size per color and the delivery date. If this is acceptable to the footwear manufacturer, then he starts producing to fulfill the order.

In some instances, the prospective customers specify the kind and style of products they want to be manufactured. Foreign customers who know the fashion in their own country better usually do this.

Customers of footwear manufacturers may not immediately pay in cash for the delivered goods. In other words, they obtain trade credits from footwear manufacturers for a term of say, 30

to 60 days. Often, well-known customers, like Shoemart, Fairmart and big wholesalers/traders leave footwear manufacturers, especially the small ones, no choice but to extend them trade credits. Here is a case where small ones provide credits to the bigger ones.

The manufacturer's resources are locked in between the time he delivers the goods to his customers and the time he receives the payment. However, he does not stop producing but tries to get new orders to keep his business going. To be able to this, he needs additional working capital. Such may come solely from plowed back profits if they are sufficient for his requirement. The other alternative is to turn around and ask for trade credit from his input suppliers using as security the credit instrument issued to him by his customers who obtained trade credit from him. Thus, we have a case wherein the footwear manufacturer plays a dual role! He provides trade credit to his customers at one end and obtains trade credit from input suppliers at the other end. Synchronizing receipts and payments is crucial in this arrangement.

In most cases, though, the maturity period of the trade credit the footwear manufacturer has obtained from his input suppliers is shorter than the maturity period of the trade credit he has given to his customers. Under such situation, he has to look for other sources of funds to pay his obligations to the input suppliers. Other sources of credit may include banks, moneylenders and friends/relatives. These alternative sources of

credit may also be tapped by the footwear manufacturer if he does not obtain trade credits from his input suppliers, or if such trade credit is not sufficient for his needs

The footwear manufacturer may also enter into a "tie-in" arrangement with input suppliers who are also wholesalers/traders Under this arrangement, the input supplier provides trade credits to the footwear manufacturer on the condition that the latter sells to him the footwear manufactures at a pre-agreed price. The manufacturer's debt is settled once he delivers the goods to the input supplier This is similar to the trader/miller-farmer "tie-in' or linked credit arrangement now prevalent in the rural areas

Figure 2 summarizes the main points discussed above In particular it portrays the flow and kinds of credit provided/obtained by a footwear manufacturer

B   A MODEL OF THE DEMAND FOR TRADE CREDIT

Given the salient points on the emergence of trade credit in the footwear industry, we present a theoretical model of the demand for trade credit But before doing so, it is useful to highlight the basic foundations of the demand for credit and to review some of the related framework of analysis along this line

The basic premise of the theoretical explanation of the demand for credit lies in the firm's production decision The

FIGURE 2

FLOW AND KINDS OF CREDIT
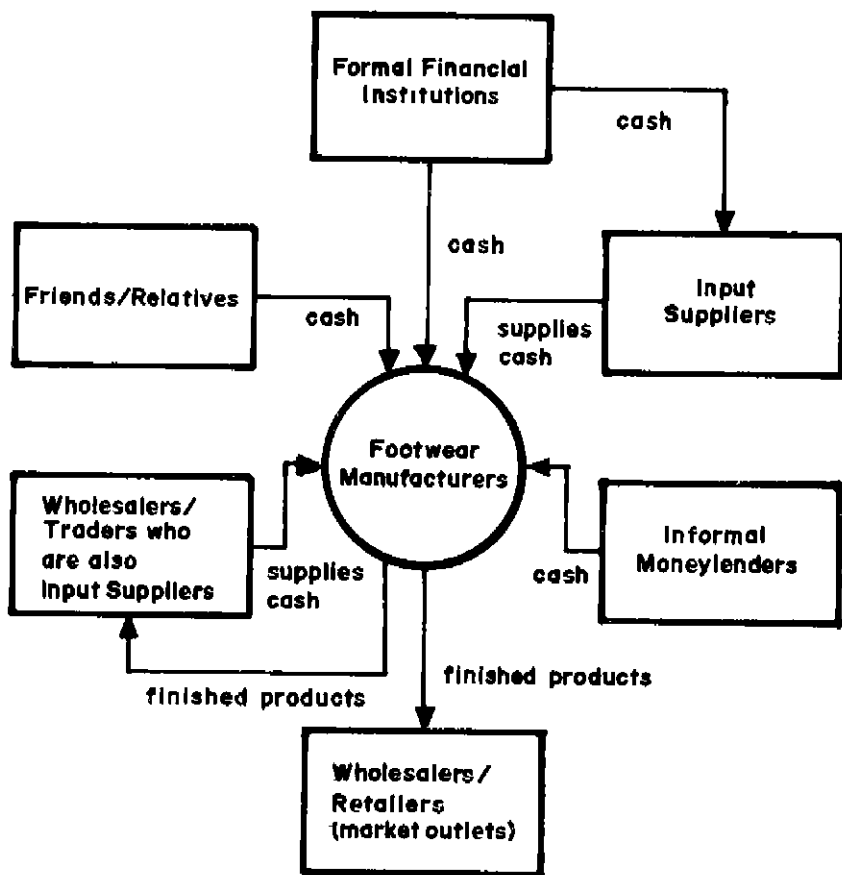
demand for credit is a derived demand of the firm's demand function since credit is a means of financing the inputs of production. It is, thus, obtained as a function of input prices and the product price. Therefore, an examination of the productivity of inputs is necessary to know the productive potential of additional inputs financed by credit.

Input Demand Theory

Consider the typical neoclassical firm's production model, assuming a constant technology, perfect markets for inputs and output, and given input and output prices. Given a continuous, twice-differentiable production function $Q = f(x1, x2,...xn)$, the firm is assumed to maximize profits subject to certain constraints. That is,

$$\pi = pf(x1, x2,...xn) - \sum_{i=1}^{n} cixi \qquad (3.1)$$

s.t.:

$$xi \geq 0 \qquad \text{for } i = 1, 2, ..., n$$

The first-order conditions of (1) are as follows:

$$\frac{\partial \pi}{\partial xi} = pfi - ci = 0 \qquad (3.2)$$

$$pfi = ci \qquad (3.3)$$

where p is the product price, ci is the price of the i-th input, fi is the marginal product of the i-th input, and xi is the i-th input.

Equation (3.3) states that the firm equates the marginal value product of each input to the input price. Under perfect competition, pf_i is then the marginal value product of the i-th input (MVPi). Hence, relating MVPi and p_i to x_i gives a one-to-one correspondence. If $\frac{\partial f_i}{\partial x_i} < 0$, then MVPi is downward sloping and as c_i decreases, the use of x_i must increase if $\frac{\partial (f_i p)}{\partial x_i} < 0$. Therefore, the MVPi is the demand curve for the i-th input of production. The firm will hire the i-th input up to the point where MVPi = p_i.

This theory gives the demand for one input assuming *ceteris paribus* conditions. In case the level of another input is changed, then $\frac{\partial f_i}{\partial x_j}$ must be known, holding c_i constant.

Jaffee (1971) has pointed out that the firm without outside financial sources first makes its production decision and determines its fixed and working capital requirements, and then adjusts its financial structure to meet the required need for funds. In effect, the firm's financial structure adjusts to the predetermined fixed and working capital needs.

With access to financial market, there will be better opportunity for the firm to venture into production activities. Given initial endowments, the prevailing cost of funds and the marginal productivity of capital, the firm can either be a borrower or saver. Access to financial markets means that the firm can utilize more capital inputs, thus, increasing productivity.

The behavior of borrowers is also explained by McKinnon (1973). It would be worthwhile to highlight the main features of his model. Starting from the two-period Fisherian model, an individual decides whether to consume all his endowments in period one, or to save part of them in the form of investment in order to consume more in period two. McKinnon pointed out that firms cannot rely on initial endowment and thus must resort to external financing in order to avail of high-productivity investments. This makes both borrowers and savers better-off and at the same time provides for efficient transfer of resources from less productive to more productive investments. The limitation of McKinnon's model is that it only takes account of the interest rate and fails to consider transactions cost incurred by borrowers in acquiring a loan. Ladman (1984), however, tried to remedy this weakness by incorporating in his model the effective cost of borrowing (i.e., nominal interest rate plus borrower transactions cost). In this model, the choice between two lenders can be examined due to differentiated transactions costs in acquiring a loan on the part of the borrower.

Since we are analyzing the demand for credit or footwear manufacturers, their special features must be considered. As pointed out earlier, a footwear manufacturer is a borrower and a lender at the same time. This feature cannot be represented in the existing models. In such a case, therefore, the demand for credit becomes a function not only of the cost of borrowing, the expected productivity of the resources employed as a result of using credit, but also of the extent of trade credit a

footwear manufacturer provides to his customers. We now attempt to develop a model of the demand for trade credit of a typical footwear manufacturing firm. It heavily draws on Pollard (1980) who developed a model of the demand for credit by the farm.

Figure 3 depicts the model for the demand for credit by a footwear manufacturer. Let MVPk, ACk and MCk stand for the marginal value product, average cost and marginal cost of capital services, respectively. The manufacturer will acquire capital services as long as MCk < MVPk. For a maximum profit to be attained, the firm will acquire capital services up to Q* at which MCk = MVPk.

Let us assume first that sales from previous production cycle can fully finance the next production cycle. It means that of the total sales (S) of the previous production cycle, Q* < S will be plowed back to acquire the necessary inputs. Hence, the firm is said to be fully self-financing its production activities.

Suppose that the footwear manufacturer sells a portion of his products to his customers on credit. Let this be denoted by Z. Then only Y = S - Z, where Y stands for cash proceeds for the sale of the product, will be available for plowing back for the next production cycle. If Y $\geq$ Q*, then the footwear manufacturer can still fully finance its capital requirement for the next production cycle, in which case, no external financing will be sought.

FIGURE 3

THE DEMAND FOR CREDIT
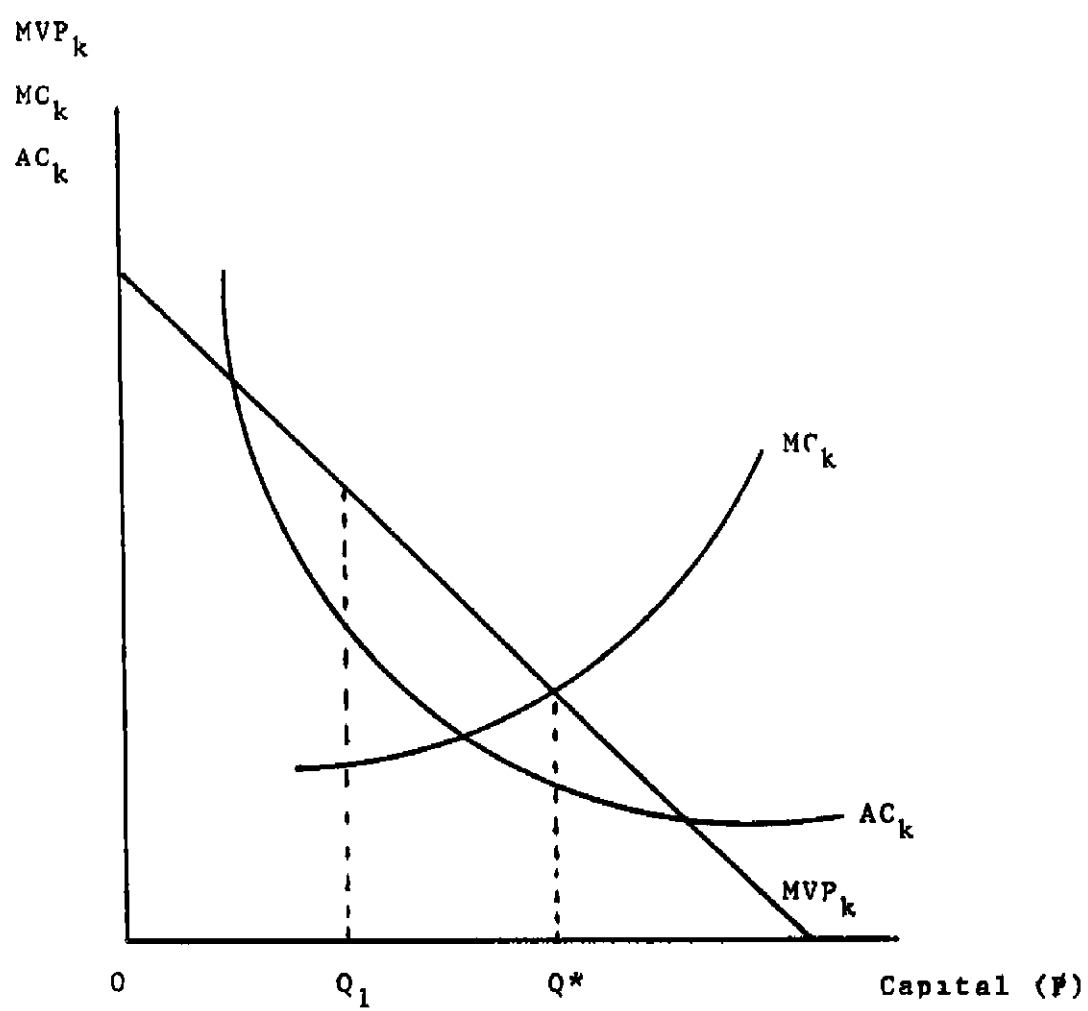
Suppose now that a greater proportion of the footwear manu-facturer's products is sold on credit such that $Y' < Q*$. In other words, he can only finance his capital requirement for the next production cycle equivalent to $Y' = Q1 < Q*$ out of its current total sales. In this case, the manufacturer will not be maximizing profit since $MCk < MVPk$. To get back to $Q*$, the firm must seek external financing equivalent to $Q1Q*$, while it finances $OQ1$ out of its cash sales. It is clear then that as Z increases, Y decreases and, therefore, the demand for credit increases.

So far, we have established the demand for credit by a footwear manufacturer. It is hypothesized that the demand for credit by a footwear manufacturer is inversely related to the cost of credit and positively related to the extent of trade credit granted to his customers. In an economy where the finan-cial market is functioning well, the manufacturer is likely to obtain (cash) credit from the banking system. However, this is not the case in the Philippines. Usually, only the bigger firms have access to the formal financial markets while small ones have to resort to borrowing from the ICMs. The usual sources of credit in the ICMs are the moneylenders and friends/relatives. Apart from these, though, a manufacturing firm has an additional source of credit, that is, the input suppliers. A manufacturing firm whose costs of raw materials comprise a significant proportion of the total costs of production will likely tap trade credits from input suppliers. It is then hypothesized that the demand for trade credits by a footwear manufacturer from

input suppliers depends on the extent of trade credit he grants to his customers and the relative cost of credit from various sources. More formally,

$$X_j = X(TC_j, r_{ij}) \quad j = 1, 2, \ldots n \quad (3.4)$$

where X_j = demand for trade credit from input suppliers by the $j\underline{th}$ firm,

            TC_j = trade credit granted by the $j\underline{th}$ firm to his customers, and

            r_{ij} = cost of credit from the $i\underline{th}$ source of credit

Firms may not face the same price for the trade credits they obtain from input suppliers. Small firms may be charged higher prices compared to bigger firms to compensate for the relatively higher risk and the transactions costs involved in extending trade credits to them. Those who have access to alternative sources of credit will likely get a better deal from input suppliers for their trade credit. Thus, a corollary hypothesis is:

$$r_{xj} = r(k_j, AC_{ij}) \quad j = 1, 2, \ldots n \quad (3.5)$$

where

     r_{xj} = price/cost of trade credit to the $j\underline{th}$ firm;

     k_j = size of the $j\underline{th}$ firm; and

     AC_{ij} = degree of access to the $i\underline{th}$ source of credit other than input suppliers.

Both equations (3.4) and (3.5) are testable hypotheses. It is important to point out that the model is built on the following crucial assumptions:

A1. A significant proportion of the products of a
footwear manufacturer are sold on credit.

A2. Current cash sales which are the difference between the
market value of the products and sales on credit are
less than the optimal capital requirement for the next
production cycle, i.e., Y = S - Z < Q*.

A3. Costs of raw materials comprise a significant
proportion of the total costs of production of a
footwear manufacturer.

C.   CALCULATING THE EFFECTIVE INTEREST RATE

As suggested by the model, the cost of credit is a crucial
variable determining the demand for credit.   It would be
worthwhile to discuss how the cost of credit is calculated.

From the point of view of borrowers, the cost of credit
includes interest cost and transactions cost.   The former is
equivalent to the product of the nominal interest rate and the
size of the loan. On the other hand, transactions cost refers to
the out-of-pocket costs and opportunity costs of the borrowers'
time in securing a loan.   In other words, borrowers consider the
effective cost of borrowing, which in this case includes interest
cost and transactions cost,   in making decision regarding
borrowing.

Transactions costs in securing loans from the ICMs are
usually negligible.   We found this to be true in the case of

footwear manufacturers who borrowed from the ICMs. In particular, trade credits are usually negotiated in an informal manner and can be obtained rather quickly. Thus, we can ignore transactions costs in the analysis. Instead, we will focus on the effective interest rate on trade credit.

The effective interest rate on trade credit is found to consist of at least three components. One set of pure interest rates are charged on trade credit in the form of discount rate on post-dated checks. Two, plain interest rates are charged on trade credits. The third is in the form of price differentials on inputs or outputs, as the case may be, arising from trade credit transactions.

(1) Explicit Interest Rate

There are two types of explicit interest rate on trade credits, namely, the discount rate on post-dated checks and the plain interest rate.

(i) Discount Rate on Post-dated Checks

As will be discussed more extensively in the next chapter, footwear manufacturers receive post-dated checks for the trade credits they grant to their customers. Usually, post-dated checks have a maturity period of 60 to 90 days. Often, footwear manufacturers turn around and secure trade credits from input suppliers using the post-dated checks as security. Input suppliers discount the post-dated checks. The discount rate includes both the opportunity cost of funds and risk premium.

For purposes of computing the effective interest rate, the discount rate is annualized using the following formula:

$$rd = y\ (365/m) \tag{3.6}$$

where rd =   discount rate per year,

           y =   reported discount rate per month, and

           m =   maturity period of the trade credit in days.

Note that the maturity period of the trade credit should not exceed the maturity period of the post-dated check.

(ii) Plain Interest Rate on Trade Credits

When the footwear manufacturers cannot present a post-dated check, input suppliers charge interest on trade credits.

Again, for purposes of computing the effective interest rate, the plain interest rate on trade credit is expressed in annual terms. Let this be denoted by r_{tc}.

These two types of explicit interest rates are not necessarily mutually exclusive. Sometimes, input suppliers charge interest rate on trade credits on top of the discount rate on post-dated checks presented by the same borrower.

(2) Implicit Interest Rates

As mentioned earlier, the price differential can be computed depending on where the footwear manufacturer obtains his trade credit. As discussed earlier, he may secure trade credit from input suppliers or from wholesalers/traders who are also input

suppliers   If trade credits were obtained from input suppliers, then the price differential arising from overpricing of inputs is computed in the following manner

$$r_{i1} = P_1 (365/m) \qquad\qquad (3\ 7)$$

where r_{i1} =   price differential per year due   to overpricing of inputs

P₁   =   reported price differential between inputs bought on credit and inputs bought in cash expressed in percent and

m   =   the same as in equation (3 6)

In   case   of tie-in arrangement wherein the   footwear manufacturer obtains trade credits from   wholesalers/traders on condition that   the former sells the products to the   latter   at pre-agreed price,   the   price differential arising from under-pricing of outputs is computed using the following formula

$$r_{i2} = P_2 (365/m) \qquad\qquad (3\ 8)$$

where r_{i2} =   price   differential   per year on trade credit due to underpricing of outputs

P₂   =   reported price differential between outputs used   to repay the trade credit and outputs sold   to   other outlets without   tie-in arrangement expressed in percent, and

m   =   the same as in equation (3 6)

Thus, the effective interest rate on trade credit is computed in the following manner.

(a) Effective interest rate on trade credit acquired from input suppliers (EFR_1)

$$EFR_1 = r_d + r_{tc} + r_{i1} \qquad (3\ 9)$$

where r_d = discount rate on post-dated check per year,

r_{tc} = interest rate on trade credits per year, and

r_{i1} = price differential charged on trade credit per year

(b) Effective interest rate on trade credit acquired from wholesalers/traders (EFR_2)

$$EFR2 = rd + rtc + ri2 \qquad (3\ 10)$$

where r_d = discount rate on post-dated check per year,

r_{tc} = interest rate on trade credits per year, and

r_{i2} = price differential charged on trade credit per year

The effective interest rate is computed for each manufacturer-borrower using equation (3 9) or equation (3 10) depending on the source of trade credits   Consider the following example

Discount rate on post dated check   = 3% per month

Interest rate   = 3% at 51 days maturity

Price differential of input   = 8% at 51 days maturity

Computation:

$$r_d = 3\% \times (365 \text{ days}/30 \text{ days}) \sim 36\% \text{ per year}$$

$$r_{tc} = 3\% \times (365 \text{ days}/51 \text{ days}) \sim 21\% \text{ per year}$$

$$r_{il} = 8\% \times (365 \text{ days}/51 \text{ days}) \sim 57\% \text{ per year}$$

Thus, the resulting effective interest rate on trade credit is:

$$EFR_1 = 36\% + 21\% + 57\% = 114\% \text{ per year}$$

D.   MANAGING THE INTEREST RATE: A DIGRESSION

As discussed above, the effective interest rate charged by input suppliers on trade credits granted to footwear manufacturers is the sum of explicit and implicit interest rates. We hypothesize that input suppliers determine first the total effective interest rate, and then decide on the relative shares of the explicit and implicit interest rates. In this case, the explicit interest rate will be negatively correlated with the implicit interest rate. This is depicted in Figure 4. If the explicit interest rate is equal to A, then the implicit interest rate should be B to attain a certain effective interest rate. If the explicit interest rate is C < A, then the implicit interest rate must be adjusted upwards to D > B to attain the same effective interest rate. We treat this as an additional testable hypothesis.

FIGURE 4

ISO-EFFECTIVE INTEREST RATE

Explicit Interest Rate (vertical axis)

Iso-Effective Interest Rate

Implicit Interest Rate (horizontal axis)
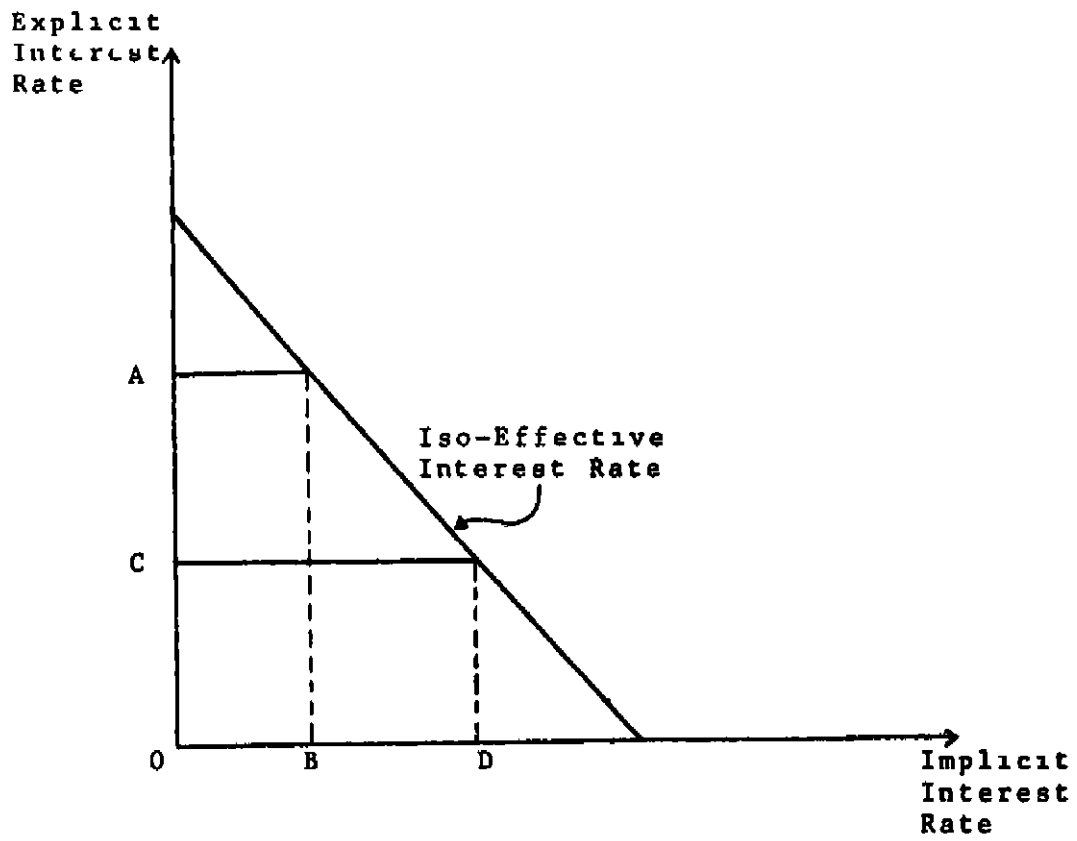
IV THE DEMAND FOR TRADE CREDITS BY FOOTWEAR MANUFACTURERS EMPIRICAL RESULTS

This chapter has two parts The first presents a descriptive analysis of the primary data collected while the second discusses the results of testing the hypotheses of this study

A DESCRIPTIVE ANALYSIS

Profile of the Respondents

In most occasions the respondents were the owners and/or managers of the firm, except in a few cases wherein only the secretary or accountant was available for the interview. In the latter case some information which were culled from the records of the firm concerned had to be cleared first with the owner/manager of the firm

Out of the 63 respondents, 73 percent are male and 27 percent are female (see Table IV 1) Majority (89%) are married while 10 percent are single The average age of the respondents is 41 7 years

About 30 percent of the respondents are high school graduates and a significant portion (49%) have reached college level or have gained a college degree It is interesting to note that many degree holders of varied fields (e g , engineering, architecture etc) are running footwear shops as their main occupation Most of them inherited the business from their parents

TABLE IV.I

Profile of the sample 63 footwear manufacturer-respondents.

Socio-Demographic Characteristics	Number	Percent
1. Position in the firm		
manager/owner	59	.65
President	1	1.59
Secretary/staff	3	4.76
	63	100.00
2. Age (years)		
Below 30	9	14.28
30 – 39	23	36.51
40 – 49	16	25.40
50 – 59	13	20.63
60 – above	2	3.17
	63	100.00
Mean (years)	41.68	
S.D.	10.14	
3. Sex		
Male	46	73.02
Female	17	26.98
	63	100.00
4. Civil Status		
Single	6	9.52
Married	57	90.48
	63	100.00
5. Highest educational attainment		
Elementary level/ graduate	13	20.63
High school level/graduate	19	30.16
College level	11	17.46
College graduate/ post graduate	20	31.75
	63	100.00
Mean (years)	10.67	
S.D.	3.44	

Characteristics of Sample Firms

Some footwear shops have gradually progressed from the previously small backyard operations into medium-and large-scale operations. Seventeen (17) percent of the sample firms operate their shops in buildings separate from the house (see Table IV.2).

On the average, the sample firms have been operating for nearly 11 years although many (about 41%) were just established in the 1980s. This signifies that newly-emerging firms contributed largely to the growth of the industry. This may likewise provide some evidence that the industry attracted several new firms before the onset of the economic crisis.

Most of the sample firms (87.3%) are owned by single proprietors. Only three are owned on a partnership basis (still family related), while five are corporations (see Table IV.2). All firms interviewed had business permits to operate. Firms with a mayor's permit do not necessarily have a business name except for firms registered with the Bureau of Domestic Trade, Security and Exchange Commission and the Board of Industries. These are usually the medium-and large-scale firms.

Only a few firms are members of an association or group related to footwear manufacturing. Non-members do not appreciate the merits of membership in any organization because in their previous experience, only large firms were able to avail of services provided by the organizations, such as financing and

TABLE IV.2

General cnaracteristics of the sample footwear
manufacturing establishments.

Characteristics	Number	Percent
1. Location of plant		
Within the premises of the house	24	38.10
Portion annexed to the house	28	44.44
Building separate from the house	11	17.46
	63	00.00
2. No. of years in operation		
1 - 5	22	34.92
6 - 10	12	19.05
11 - 15	15	23.81
16 - 20	7	11.11
above 20	7	11.11
	63	00.00
3. Mode of ownership		
Single proprietorship	55	87.30
Partnership	3	4.76
Corporation	5	7.94
	63	100.00
4. Membership in association/group		
Yes	17	26.98
No	46	73.02
	63	100.00

marketing assistance. It was discovered during the course of the survey that a cooperative in one barrio (Barangay San Roque) has been newly organized. According to the organizer and president of the cooperative, it will take sometime to convince and orient producers to become members.

Respondents can be classified as to whether they are manufacturers only or both manufacturers and traders (i.e., wholesalers/retailers). Of the 63 respondents, 60.3 percent belong to the second group. They do wholesaling/retailing through their own store or other market outlets. Some firms subcontract some orders to other manufacturers, but this is not widely practiced.

There is a wide range of products produced by manufacturers. They include men's and ladies' shoes, slippers, sandals, step-in and bags. Some firms are engaged in more than one product line. Most of the firms interviewed are engaged in the manufacture of non-leather shoes (see Table IV.3). It was gathered from some manufacturers that they previously produced leather shoes for local and export markets but later shifted to synthetic shoes due to the bleak prospects in the export market for leather shoes.

According to the geographic setting of firms, those located in the eastern portion of the town generally engage in the manufacture of ladies' and children's shoes. Those situated in the

TABLE IV.3

Type of products and manner of business of 63
footwear manufacturing establishments.

Type of Product	As Manufacturer		As manufacturer and wholesaler/Retailer			
	No.	%	No.	%	Total	%
1. men's shoes/boots, leather	9	14.29	6	9.52	15	23.81
2. men's slippers, leatherette/synthetic/leather	3	4.76	3	4.76	6	9.52
3. men's shoes, rubber/canvass/synthetic	5	7.94	1	1.59	6	9.52
4. ladies' shoes, leather/reptile skin	6	9.52	6	9.52	12	19.05
5. ladies' shoes, synthetic/fabric cloth/leatherette/rubber	25	39.68	13	20.63	38	60.32
6. ladies' step-in, leatherette/synthetic	2	3.17	1	1.59	3	4.76
7. ladies' sandals/slippers, synthetic/rubberized leatherette	4	6.35	5	7.94	9	14.28
8. children's shoes, synthetic/leatherette	7	11.10	3	4.76	10	15.87
9. bags	2	3.17	1	1.59	3	4.76

Note: A manufacturer can have more than one product.

western portion of the town engage in manufacturing men's foot-wear. The list of registered firms indicates that more firms are located in the eastern part. This seems to indicate that there is a larger demand for ladies'and children's footwear/ apparel than men's. About 24 percent of the respondents manufacture men's shoes and boots out of leather materials while around 10 percent produce men's shoes out of other materials such as rubber, canvas and synthetic.

Manufacturing ladies' shoes out of leather and reptile skin requires bigger capital. Hence, only larger firms produce such products. Nineteen (19) percent of the sample firms produce high fashioned shoes, both for local and export markets.

Sixteen (16) percent specialize in the production of children's shoes. Three (3) manufacturers also make bags aside from footwear.

Value of Fixed Assets

Manufacturing firms have already started mechanizing their operations although the process is still considered labor-intensive. There is no shoe factory in Marikina that is fully mechanized. Even the largest manufacturers are mechanized only up to a maximum of 70 percent (PDCP, 1986). The small shops with only 10 laborers or less produce almost entirely handcrafted shoes, aided by a minimum of machines such as sewing machines and trimming machines.

The sewing machine is the most basic machinery a firm owns, not to mention simple handtools. Other machines include the sander, splitting machine, finishing machine, skiving machine, stitching machine, heavy duty sewing machine, and trimming machine (see Table IV.4). Most firms have only two to three types of these machines. Most firms have inadequate machineries due to insufficient capital. Other firms still resort to manual operations or rent machineries to produce better quality products. Basic tools are usually brought in by hired workers.

The more well-off firms own a transport vehicle for delivery services. It has an average estimated value of ₱62,137. Other important accessories are shoe lasts and factory furnitures which have an average aggregate value of ₱18,895.

Land and building constitute more than 50 percent of total assets of a factory. The typical "backyard" nature of small firms indicate that the shop is essentially a part of the house.

On the aggregate, the average total value of fixed assets is ₱596,051.

Initial Capitalization

Starting a business is very crucial because of the great risks involved during the initial stages. People in Marikina view footwear manufacturing as a basic skill that a family member has to grow with. Children of footwear shop owners are expected to acquire the art of shoemaking and later on, to put up their own shop.

TABLE IV.4

Value of fixed assets of 63 Footwear
Manufacturers

	Assets	Average Value (₱)
1.	Land	163,666.67
2.	Building	˙257,793.67
3.	Machineries	
	Sewing machine	28,571.43
	Sander	10,223.81
	Splitting machine	8,282.54
	Finishing machine	5,998.41
	Skiving machine	9,396.82
	Stitching machine	10,190.48
	Heavy duty sewing machine	9,698.41
	Trimming machine	3,039.68
4.	Transport vehicle	62,137.28
5.	Tools	7,835.71
6.	Other accessories	18,895.24
TOTAL		596,050.81

Capital is needed to acquire basic tools, machines and other accessories and to purchase raw materials for starting the first shipment of manufactures. Starting the business does not necessarily require formal training. Some proprietors interviewed started as workers in other shops, or in the family-owned enterprise itself where they slowly acquired their managerial skills.

Eight (8) percent reported to have started their shops with an initial capital of just less than ₱1,000 (see Table IV.5). In such a case, they had already existing second-hand or inherited machines and other accessories. Most firms reported an initial capital investment of ₱10,000. Some bigger firms started with more than ₱50,000.

Financing the Initial Operation

About 51 percent of the respondents borrowed for their initial operations from at least four sources, namely: banks, input suppliers, moneylenders and friends/relatives. The rest used their own funds. In terms of the number of borrowers, friends/relatives appear to be the most popular source of credit, while moneylenders, the least popular (see Table IV.6). In terms of the average amount borrowed, banks rank first, followed by moneylenders, input suppliers and friends/relatives. Large firms were the main borrowers from banks while small firms which did not have access to banks resorted to borrowing from the informal credit markets (ICMs). Loans obtained from banks and friends/relatives were of longer maturity and were used mainly

TABLE IV.5

Amount of own initial capital invested in footwear manufacturing.

Capital range (₱)	Respondents	
	No.	Percent
1,000 and below	5	7.94
1,001 - 5,000	19	30.16
5,001 - 10,000	15	23.81
10,001 - 15,000	4	6.35
15,001 - 20,000	9	14.28
20,001 - 30,000	1	1.59
30,001 - 50,000	2	3.17
Above 50,000	8	12.70
TOTAL	63	100.00

Mean = ₱119,676.19   S.D. = 378,943.09

Median = ₱10,000.00

TABLE IV.6

Sources and terms of credit to augment initial
capital of footwear manufacturers.

Item	Sources of Credit			
	Banks	Input Suppliers	Informal Money-lenders	Friends/ Relatives
No. of borrowers	7	9	3	13
% of total respondents	11.1	14.3	4.8	20.6
Ave. amount borrowed (₱)	149,286	14,111	52,000	13,523
Ave. maturity period (days)	785	30	40	233
Ave. no. of install- ments or payments	16.4	8.3	3.0	2.7
Ave. effective interest rate per annum (%)	15.3	40.5	110.7	2.7
Ave. outstanding balance (₱)	54,857	1,250	0	1,769
Ave. value of collateral requirement (₱)	245,714	500	60,000	0

to finance the acquisition of fixed assets of footwear manufacturers. On the other hand, loans secured from input suppliers and moneylenders were short-term and used mainly for operating capital.

As expected, moneylenders charged the highest interest rate at 110.7 percent per annum, followed by input suppliers. In the case of the latter, we took into account the price differential between inputs bought in cash and on credit. Interestingly, loans from banks carried an average effective interest rate of 15.3 percent per annum only. This relatively low interest rate can be attributed to the fact that most of those loans actually came from the special credit programs of government agencies (e.g., Technology Resource Center) which used banks as mere conduits. This is a classic case of the regressiveness of subsidized credit programs since ultimately, only large borrowers can avail of them.

As is usually the case, banks place emphasis on collateralized loans. The ratio of collateral to loan amount is about 1.6, which is slightly higher than the normal ratio of 1.5. For moneylenders, the collateral to loan ratio is a little over 1. Friends/ relatives do not demand collateral. They pay attention to personal relationship when it comes to lending. They lend to somebody who wants to start a business, sometimes out of sympathy and sometimes out of familial obligation. Terms of payment of this kind are not well defined. Some borrowers

from friends/relatives reported to have paid their debts but others do not feel obliged to repay.

The size of capital sufficient for a normal operation varies directly with the production capacity of the firm. What is perceived as sufficient is an amount enough to finance one production cycle and then rolled over for subsequent operations, granting that the output market is fairly favorable. Around five (5) percent of the respondents said that ₱10,000 is already enough to finance a normal operation (see Table IV.7). Firms which are exporting need ₱1.0 million or more. The highest amount reported is ₱5.0 million mainly to finance imported raw materials. On the average, ₱360,300 for working capital is considered sufficient by manufacturers.

Production Cost and Income Structure

The average cost of production of footwear manufacturers in 1986 was ₱1,134,236. Raw material inputs are the highest expense item reported by manufacturers accounting for more than 50 percent of the total cost. This finding validates assumption A3. There was a notable increase of about 35 percent in the total production cost in 1986 compared to the total production cost in the period 1983-1985 (see Table IV.8). This is mainly attributed to the unusually high inflation rates experienced by the economy since 1984. Labor and overhead costs also followed the trend.

TABLE IV.7

Amount of annual operating capital perceived as
sufficient for normal operation.

Capital range (₱)	Respondents	
	Frequency	Percent
10,000	3	4.76
20,000 to 50,000	12	19.05
100,000	13	20.63
120,000 to 200,000	15	23.81
300,000 to 500,000	16	25.40
1,000,000 and above	4	6.35
TOTAL	63	100.00

Mean   =   ₱360,301.59   S.D.   =   78,471.94

Median   =   ₱150,000.00

TABLE IV.8

Average cost of production and income from sales.

ITEM	Amount (₱)	
	1986 (%)	1983-85 Average (%)
Total production cost	1,134,236.50 (100.0)	840,273.38 (100.0)
Labor	336,913.66 (30)	278,044.88 (33)
Material Inputs	610,346.75 (54)	416,528.34 (50)
Interest cost	42,129.59 (4)	28,566.28 (3)
Delivery/transportation cost	13,375.29 (1)	8,201.55 (1)
Depreciation 1/	61,326.86 (5)	41,685.09 (5)
Others	60,103.02 (5)	47,639.31 (6)
Total peso value from sales	1,677,741.75	1,161,249.36
Net income from sales	424,588.81	296,203.59

1/
     Includes registration fees, light, and water fees, taxes,
and other costs.

*   Figures in parentheses are percent to total cost.

Labor costs accounted for about 30 percent of total cost. Footwear workers are compensated either on a piece-rate or a daily basis, the former being more prevalent. The administrative staff (e.g, secretary, accountant) are paid on a daily or monthly basis. Shoemakers receive the highest rate with an average of P4.80 per pair. Upper makers get an average rate of P3.70 per pair. Those working in the finishing section such as sole atta- chers, finishers and packers, get a rate of P1.00-2.50 per pair. Generally, piece-rate workers receive between P300 and P600 per week.

The latter part of 1983 until early 1986 was not at all a bright period for manufacturers, especially those who were exporting. Despite this, gross sales of firms in 1986 increased by 44 percent from P1,161,249 (1983-1985 average) to P1,677,742 in 1986 (see Table IV.8). Net profits consequently increased by 43 percent.

Comparing 1985 and 1986, 59 percent of the respondents said that there was a 10.4 percent increase in the unit price of output, while 38 percent noted no increase. The increase of the unit cost of inputs was higher (12%) from 1985 to 1986, as reported by 78 percent of the respondents. Only a few (17%) did not exprience any price changes (see Table IV.9).

For 1987, manufacturers did not experience any improvement in the market. In fact, a significant proportion of the respondents (63%) indicated that sales declined by 27.9 percent. However, a few firms (19%) experienced increased sales by 17.5

TABLE IV.9

Assessment of footwear manufacturers on the
changes in prices and sales

Information	No. of responses	Percent higher/lower
1. Compare unit price of output in 1986 from 1985		
the same	24 (38.10)	
higher	37 (58.73)	10.417
lower	2 (3.17)	-7.5
	63 (100.00)	
2. Compare unit cost in 1986 from 1985		
the same	11 (17.46)	
higher	49 (77.78)	12.04
lower	3 (4.70)	-7.67
	63 (100.00)	
3. Compare sales in 1987 from 1986		
the same	11 (17.46)	
higher	12 (19.05)	17.5
lower	40 (63.49)	-27.9
	63 (100.00)	

Note: Figures in parentheses are   percent.

percent.   The rest (17%) did not report any change in the sales
for 1987.

Marketing System

The bulk of the industry's production is absorbed by the
domestic market.   According to the respondents, orders from both
foreign and domestic buyers in the most recent past are not as
regular as in previous years due to the unpredictable peace and
order situation in the country. It should be noted that an unsuc-
cessful coup attempt was made by some soldiers a month before the
interview with respondents.   Only 11 percent of the respondents
exported a portion of their products in 1986.   The rest solely
concentrated in the local market. From the analysis of Bada
(1987), the country's surplus production of approximately 8.0
million pairs per year can be readily absorbed by the export
market. This potential still remains unexploited.

Channels of Distribution

Domestic department stores and supermarkets are still the
dominant market outlets of footwear manufactures as reported by
84 percent of the respondents.   These outlets absorbed around 64
percent of the total output of the manufacturers. Interestingly,
about 24 percent of the respondents, mostly composed of small
manufacturers, sold their products to wholesalers/traders who are
also input suppliers (see Table IV.10).   The latter obtained
about 14 percent of the total output.   This suggests that "tie-

TABLE IV.IO

Types of market outlets and proportion of sales.

Market outlet	No. Reporting	% to total respondents	Proportion of sales to total output (%)
Own retail store	27	42.86	11.30
Wholesalers/traders	19	30.16	10.16
Wholesalers/traders who are input suppliers	15	23.81	14.65
Retailers (e.g. department stores, supermarkets)	53	84.13	63.89
		Total	100.00

in" arrangement or linked credit is not only prevalent in the
rural, agricultural sector, but also in the urban, manufacturing
sector.

Competitiveness of the Market and Price Determination

The respondents were asked whether they could easily shift
from one market to another. Fifty-four (54) percent said that
they can do it since there is no problem in finding alternative
market outlets (see Table IV.11). However, an equally high per-
centage (46%) also said that it is difficult to find alternative
outlets so they have to stick to their present outlets. It is
noteworthy that 26 percent of the latter group did not wish to
shift to other customers since they have a contract with their
present customers. Most of them are dealing with wholesalers/
retailers who are also input suppliers and therefore they are
concerned with losing the trade credit facility.

In general, manufacturers follow a mark-up pricing scheme.
That is, the desired unit profit rate is added to the unit cost
to arrive at the ex-factory unit selling price. This procedure
is used to negotiate the selling price with their customers.
However, small firms have difficulty in determining the unit
cost since they usually do not keep good production records. To
prevent underestimation of the unit cost, some small firms try to
follow the offered unit price of large footwear firms.

The sample footwear manufacturers were asked regarding
their relative strength in determining the prices of their

products. A great majority of those who sell to domestic

retailers and input suppliers said that the price of their pro-

ducts are determined through negotiation/agreement with their

customers (see Table IV.11). In contrast, a great majority of

those who sell to wholesalers/traders claimed that they dictate

the price. It seems that the relative strength of footwear

manufacturers depends on the kind of customers they have.

Trade Credits Granted by Footwear Manufacturers to their Customers

All the sample footwear manufacturers have been granting

trade credits to their customers (see Table IV.12). In 1986

alone, the volume of their products sold on credit averaged 82

percent of their total sales. This is equivalent to ₱1,383,885

per footwear manufacturer. This validates assumption A1.

Retailers, such as department stores and supermarkets, garnered

69 percent of the trade credits granted by footwear manufacturers

(see Table IV.13). Eighty-four (84) percent of the total sample

firms granted trade credits to retailers. Thirty (30) percent

gave similar arrangements to wholesalers/retailers. Except for

the individual customers/buyers, the average maturity period of

the trade credits ranges from 69 to 72 days, depending on the

types of customers.

Since trade credit is term credit, manufacturers usually

demand some sort of security to ensure payment. The most popular

instrument used as security is the post-dated check. Almost all

the respondent-firms prefer to receive a post-dated check from

TABLE IV.II

Competitiveness of the market and price
determination.

Information	Frequency	Percent
Can you easily shift from one outlet to another?		
Yes	34	54.0
No	29	46.0
	63	100.0
Reasons for not able to shift from one outlet to another		
Hard to find other wholesalers/ retailers	20	69.0
Like present customer	1	3.4
Have marketing contract with present customer	8	27.6
	29	100.0
Price determination by type of market outlet		
1. Wholesalers/traders		
manufacturer	12	63.2
buyer	0	-
common agreement	7	36.8
	19	100.0
2. Input suppliers		
manufacturer	1	7.14
buyer	1	7.14
common agreement	12	85.71
	14	100.0
3. Retailers		
manufacturer	12	22.64
buyer	2	3.77
common agreement	39	73.58
	53	100.0

TABLE IV.12

Proportion and value of trade credits granted by
footwear manufacturers to their customers.

Information	No. Reporting	Percent
1. No. of footwear manufacturers who granted trade credits to their customers	63	100.00
2. Proportion of trade credits to total sales (%)		
below 50	5	7.94
50 - 75	11	17.46
76 - 95	22	34.92
96 - 100	25	39.92
	63	100.00
Mean	82.508	
S.D.	23.329	
Median	90.000	
3. Value of trade credits (₱)		
below 100,000	4	6.35
100,001 - 500,000	19	30.16
500,001 - 1,000,000	15	23.81
above 1,000,000	25	39.68
	63	100.00
Mean	1,383,885	
S.D.	1,668,554	
Median	790,020	

TABLE IV.I3

Distribution of trade credits and average maturity
period of trade credits by type of outlet.

	Type of Outlet	No. Reporting	Average	S.D.
1.	Distribution of sales on credit (%)			
	Individual customers/buyers	7	2.4	13.0
	Wholesalers/traders	19	13.3	26.4
	Input suppliers/wholesalers/ traders	4	14.8	32.0
	Retailers (dept. stores, supermarkets)	53	69.5	39.6
			100.0	
2.	Maturity period of trade credits (days)			
	Individual customers/buyers	3	35.0	22.9
	Wholesalers/traders	19	72.4	31.2
	Input suppliers/wholesalers/ traders	11	70.9	23.3
	Retailers (dept. stores, supermarkets)	52	68.8	23.5

their customers (see Table IV.14). Implicit in the post-dated checks is the maturity period of the trade credit.

When a manufacturer delivers the orders to his customers, he does not immediately receive a post-dated check as payment for his deliveries. Rather, he receives a "counter receipt" which states that goods of such value have been delivered. The post-dated check can be picked up three to seven days after the delivery of the goods. Requiring a downpayment for the delivered goods is not generally practiced among individual buyers or consumers who buy from their store (see Table IV.15).

The post-dated check is not a perfectly risk-free security instrument. Customers may have closed their bank accounts before the maturity of the check. Delayed payments may also occur. When customers encounter liquidity problems, they may persuade the concerned footwear manufacturer not to encash the check upon maturity. Among the different customers of footwear manufacturers, the incidence of delayed payments in 1986 was alarmingly high for retailers and wholesalers/traders (see Table IV.16). Wholesalers/traders rank first in terms of average number of days of delayed payments and average value of arrearages. They are followed by retailers, input suppliers who are also wholesalers/traders and individual buyers. Footwear manufacturers do not charge penalty on any delayed payments.

Respondents were asked whether the prices they charged for their products sold on credit were higher than the prices they

TABLE IV.14

Types of security instrument required by footwear
manufacturers from their customers who bought on
credit.

Types of security	No. Reporting	Percent of total Respondents
Promissory note	1	1.6
Post-dated check	60	95.2
Verbal agreement	18	28.6

TABLE IV.15

Footwear manufacturers requiring downpayment on
the trade credits granted to their customers.

Type of Customer/Market Outlet	No. Reporting	Percent
1. Individual customers/buyers		
Yes	6	85.7
No	1	14.3
	7	100.0
2. Wholesalers/traders		
Yes	5	26.3
No	14	73.7
	19	100.0
3. Input suppliers/wholesalers/ traders		
Yes	1	25.0
No	3	75.0
	4	100.0
4. Retailers (dept. stores, supermarkets)		
Yes	2	3.8
No	51	96.2
	53	100.0

TABLE IV. 16

Incidence of delayed payments on trade credits
granted by footwear manufacturers to their
customers.

Market Outlet	No. Reporting	Ave. No. of days delayed	Ave. Amount Overdue (₱)
Individual buyers	3	6.0 (1.41)	350.00 (212.13)
Wholesalers/traders	14	120.2 (165.63)	792.86 (396,704.03)
Wholesalers/traders who are also input suppliers	7	13.3 (4.08)	25,500.00 (27,508.18)
Retailers (department stores, supermarkets)	29	18.6 (12.43)	26,971.43 (93,166.32)

Note: Figures in parentheses are standard deviations.

charged for the same products sold in cash. About 22 percen

the total respondents answered the question positively. On

average, the price differential was 7 percent.

Trade Credits Obtained by Footwear Manufacturers from Input Suppliers

Since a great proportion of their sales is locked i

trade credits which can be liquified only after 60 to 90

footwear manufacturers have to resort to borrowing to

themselves to continue operating. Ninety (90) percent of

sample respondents admitted that they availed of trade cr

from input suppliers in 1986 (see Table IV.17). Input supp

and wholesalers/traders who are also input suppliers are their

primary sources of credit. About 84 percent of the respondents

obtained trade credits from input suppliers. Twenty-

four (24) percent of them also obtained trade credits from whole-

salers/traders who are also input suppliers. On the average, 80

percent of the value of the material inputs were bought on cre-

dit. In peso value, trade credits obtained by footwear manufac-

turers from input suppliers in 1986 averaged ₱476,920. This is

only 38.5 percent of the value of trade credits they granted to

their customers in the same year.

Of the total trade credits obtained by footwear

manufacturers in 1986, 85 percent were contributed by input

suppliers while 15 percent came from wholesalers/traders who are

also input suppliers (see Table IV.18).

TABLE IV.17

Trade credits obtained by footwear manufacturers
from input suppliers.

Item	No. Reporting	Percent
. No. of manufacturers who bought inputs on credit	57	90.5
. No. of manufacturers who bought inputs on credit from input suppliers	53	84.1
. No. of manufacturers who bought inputs on credit from wholesalers/traders who are also input suppliers	15	23.8
Proportion of the value of material inputs bought on credit to total value of the material inputs (%)		
below 51	2	3.5
51 - 75	15	26.3
76 - 95	24	42.1
96 - 100	16	28.1
Total	57	100.0
Mean	80.4	
S.D.	21.1	

TABLE IV.17 (continuation)

Item	No. Reporting	Percent
5. Average value of material inputs bought on credit (₱)		
Below 50,000	8	15.09
50,000 - 100,000	12	22.64
100,000 - 500,000	22	41.51
Above 500,000	11	20.76
Total	53	100.00
Mean	416,127.44	
S.D.	598,450.50	
6. Ratio of the value of trade credits obtained from input suppliers to the value of trade credits granted to customers (%)		
Below 10.01	13	20.63
10.01 - 30.00	18	28.57
30.01 - 50.00	18	28.57
50.01 - 1.00	11	17.46
Above 1.00	3	4.76
Total	63	100.00
Mean	34.8	
S.D.	29.7	

TABLE IV.18

Proportion of the value of trade credit on inputs
contributed by each source and maturity of trade
credit.

Item	No. Reporting	Average	S.D.
1. Proportion of trade credit on inputs contributed by:			
a) Input suppliers (%)	53	85.44	30.00
b) Wholesalers/traders who are also input suppliers (%)	15	14.56	30.00
2. Maturity period of the trade credit (days)			
a) Input suppliers	53	50.98	21.22
b) Wholesalers/traders who are also input suppliers	15	47.47	29.19

The average maturity period of the trade credit is 45 days for wholesalers/traders who are also input suppliers and 51 days for input suppliers. Note that this is shorter than the maturity period of the trade credits granted by footwear manufacturers to their customers.

There are several credit instruments that may be accepted by input suppliers, but the most popular is the post-dated check issued by customers of footwear manufacturers (see Table IV.19). This is considered the most highly negotiable credit instrument. For manufacturers who have already established good relationships with input suppliers, verbal agreement would suffice. Quite a number (21%) of the respondents have this agreement with their input suppliers.

The predominant use of the customers' post-dated checks account mainly for the shorter maturity period of the trade credits obtained by footwear manufacturers than the maturity period of the trade credits they grant to their customers. As pointed out earlier, there is a lag between the delivery of the goods to their customers and the receipt of the post-dated check. The counter receipt issued by the customers upon delivery of the goods is not considered as a negotiable instrument. However, footwear manufacturers can use it as proof that a post-dated check is forthcoming.

TABLE IV.19

Securities required/accepted by input suppliers for the trade credits.

Type of Security	No. Reporting	Percent
a) Own promissory note	3	5.26
b) Promissory note of customers/buyers	1	1.75
c) Own post-dated check	6	10.53
d) Post-dated check of customers/buyers	43	75.44
e) Verbal agreement	12	21.05

Effective Interest Rate and its Components

As discussed in Chapter III, the effective interest rate on trade credits obtained by footwear manufacturers from input suppliers includes the discount rate on post-dated check, the plain interest rate on trade credit from input suppliers and the implicit interest rate arising from price differentials. The components of the effective interest rate on plain trade credit (i.e., trade credits obtained from input suppliers) and on tie-in credit (i.e., trade credits obtained from wholesalers/traders who are also input suppliers) are shown in Table IV.20.

The discount rate on post-dated check is almost the same for plain trade credit and tie-in credit.' The same is true of the plain interest rate. However, the implicit interest rate on trade credit greatly differs between the two sources of trade credit. The implicit interest rate charged by input suppliers is twice as high as the implicit interest rate charged by wholesalers/traders who are also input suppliers.

The following explains such difference.

Wholesalers/traders usually have marketing contracts with big retailers or exporters. To assure themselves of a steady supply of footwear manufactures, they engage in tie-in arrangements with footwear manufacturers. This is the best way they can reduce business risk arising from non-delivery of goods when they have no control on production. Since footwear manufacturers have alternative outlets for their products as well as alternative

TABLE IV.20

Components of effective interest rate.

Source/Component	Percent per year	Percent Share
A. Plain Trade Credit (Input Suppliers)		
Discount rate on post-dated checks	33.18	28.51
Plain interest rate	7.35	6.32
Price differential	75.84	65.17
Total	116.37	100.00
B. Tie-in Credit (Wholesalers/traders who are also input suppliers)		
Discount rate on post-dated check	31.84	40.67
Plain interest rate	9.60	12.26
Price differential	36.85	47.07
Total	78.29	100.00

sources of inputs, wholesalers/traders are therefore compelled to give footwear manufacturers a better price for their products. This is corroborated by the earlier finding which shows that when it comes to dealing with wholesalers/traders, footwear manufacturers claimed to have dictated the price of their products. The marketing contract also reduces the risk of default on the credit they extend to footwear manufacturers.

This is not the case with input suppliers who are solely supplying inputs. Footwear manufacturers find the necessity of borrowing from them since their working capital is tied up with the trade credits they extended to their customers. Therefore, input suppliers can exercise some degree of pricing power which is reflected in the greater overpricing of inputs.

The total effective interest rates charged by input suppliers and wholesalers/traders who are also input suppliers are 116.37 and 78.29 percent per annum, respectively. As already pointed out above, the difference can be mainly attributed to the implicit interest rate charged by both sources of trade credit. It is to be noted that the effective interest rates paid by footwear manufacturers for their trade credits are substantially higher than the interest rate charged by pawnshops and finance companies (see Lamberte, 1988). However, these are not substantially different from those charged by informal moneylenders (see below and Lamberte and Bunda, 1988).

Alternative Sources of Credit

Aside from input suppliers, footwear manufacturers had other sources of credit to finance their business operation in 1986 such as banks, moneylenders and friends/relatives. Cash credit is obtained from these sources.

Of the 63 respondents, only 6 borrowed from banks in 1986 (see Table IV.21). These are big firms. The average amount borrowed was ₱55,000 (median) with a maturity period of one year. The average interest rate was 16.5 percent per annum, which is about the same rate given by banks to their prime clients in 1986. The collateral to loan ratio is almost 2. As of 31 December 1986, the average outstanding balance amounted to ₱18,500.

Reasons forwarded by those who did not borrow from banks were: no collateral, too many bank requirements, knowing that their application would not be approved and no need for additional capital.

Seventeen respondents borrowed money from moneylenders to finance their business operations in 1986 (see Table IV.22). Most of them are small firms. Some of them borrowed several times from moneylenders in 1986. The maturity period for the loans from moneylenders is short, ranging from 30 to 60 days. The interest rate for the loans ranged from 36 to 120 percent per annum. Those who presented post-dated checks for discounting paid lower interest rates. Ten respondents used the post-dated

TABLE IV.21

Terms of credit obtained by footwear manufacturers
from banks.

Item	Mean	Median
No. of manufacturers who borrowed from banks	6 (9.5%)	
Ave. amount borrowed (₱)	778,833.31	55,000.00
Ave. maturity period (days)	669.17	365
No.of installments or payments	10.67	8.0
Interest rate (%)	12.29	16.50
Collateral requirement (₱)	97,500.00	100,000.00
Outstanding balance (₱)	752,833.31	18,500.00

Reasons for not applying for loan at a bank	No. Reporting	
1. did not need additional capital	12	21.05
2. know application would not be approved	13	22.81
3. did not have collateral to offer	20	35.09
4. processing is too long/ too many requirements	17	29.82
5. has not paid previous loan	2	3.51
6. fear won't be able to repay loan on time	2	3.51
7. high interest cost	5	8.77

TABLE IV.22

Terms of credit obtained by footwear manufacturers
from informal moneylenders.

Information		No. Reporting	Mean	Median
No. of manufacturers who borrowed from moneylenders		17 (27.0%)		
Ave. no. of times borrowed		17	8	2
Amount borrowed (₱)				
Loan	1	17	67,735.30	5,000.00
	2	9	9,111.11	5,000.00
	3	4	9,500.00	7,500.00
	4	3	9,333.33	5,000.00
	5	3	20,000.00	5,000.00
Maturity (days)				
Loan	1	17	66.71	30.0
	2	9	50.56	40.0
	3	4	46.75	45.0
	4	3	52.33	60.0
	5	3	41.00	33.5
No. of installments or payments				
Loan	1	17	14.18	2.0
	2	9	18.11	2.0
	3	4	14.00	2.5
	4	3	18.00	3.0
	5	3	17.33	1.0

TABLE IV.22 (continuation)

Information	No. Reporting	Mean	Median
Interest rate (%)			
Loan 1	17	118.176	36.00
2	9	90.556	48.00
3	4	101.500	120.00
4	3	95.330	120.00
5	3	87.000	78.00
Collateral requirement (₱)			
Loan (other than post-dated check)			
1	17	62,823.53	0
2	9	8,571.43	0
3	4	10,000.00	0
4	3	8,333.33	0
5	3	1,666.67	0
Outstanding balance			
Loan 1	17	47,058.82	0
2	9	857.14	0
3	4	0	0
4	3	400.00	0
5	3	0	0
Discount rate on post-dated checks used as payment for loans (per annum)	10	40.2%	36.0'

Note: Reference period is 1986.

checks issued by their customers as loan security. The average discount rate charged by moneylenders for post-dated checks was 36 percent per annum. This is slightly higher than the input suppliers' discount rate for post-dated checks. Aside from the post-dated checks, moneylenders did not ask for any collateral for the loans they granted. All loans from moneylenders were paid as of 31 December 1986.

About one-third of the respondents turned to their friends/relatives for additional working capital (see Table IV.23). Some of them borrowed several times from their friends/relatives in 1986. The average amount borrowed was small compared to the average amount borrowed from moneylenders. The full amount of the loan is usually paid at maturity. The average maturity period was very short at 30 days. Loans from friends/relatives are usually interest free. Also, collateral is not usually required. Only 2 out of 20 respondents who borrowed from friends/relatives used post-dated checks issued by their customers as security for the loan. They were discounted at 36 percent per annum. Respondents claimed that all loans from friends/relatives obtained in 1986 were already paid as of 31 December 1986.

B.   RESULTS OF TESTING THE HYPOTHESES

This section discusses the results of testing the hypotheses of this study. The hypotheses tested are:

TABLE IV.23

Terms of credit obtained from friends/relatives.

Information	No. Reporting	Mean	Median
No. of manufacturers who borrowed from friends/ relatives	20 (31.75%)		
No. of times borrowed	19	2.6	2.0
Amount borrowed (₱)			
Loan 1	20	35,790.00	3,500.00
2	11	33,954.55	2,000.00
3	6	14,833.33	3,000.00
4	3	5,500.00	1,000.00
5	2	1,250.00	1,250.00
Maturity period (days)			
Loan 1	14	64.00	30.0
2	9	38.22	30.0
3	5	57.00	30.0
4	3	75.00	30.0
5	2	22.50	22.5
No. of installments or payments			
Loan 1	15	1.9	1.0
2	8	1.0	1.0
3	4	1.5	1.5
4	2	1.5	1.5
5	2	1.5	1.5

TABLE IV.23 (continuation)

Information	No. Reporting	Mean	Median
Interest rate (%)			
Loan 1	20	3.30	0
2	11	2.73	0
3	6	5.00	0
4	3	10.00	0
5	2	0	0
Collateral requirement (₱)			
Loan 1	20	100	0
2	10	0	0
3	6	0	0
4	3	0	0
5	2	0	0
Outstanding balance (₱)			
Loan 1	20	15,275.00	0
2	11	27,727.27	0
3	6	0	0
4	3	0	0
5	2	0	0
Discount rate on postdated checks (per year)	2	36	36%

Note: Reference period is 1986.

(1)   The demand for trade credit by a footwear manufacturer is:

    (a)   positively related to the extent of trade credits he grants to his customers, ceteris paribus;

    (b)   negatively related to the cost of obtaining trade credit, ceteris paribus; and

    (c)   positively related to the cost of credit from other sources of credit, ceteris paribus.

(2)   The smaller the footwear manufacturing firm, the higher the effective interest rate it pays on trade credit; alternatively, the bigger the manufacturing firm, the lower the effective interest rate it pays on trade credit; those footwear manufacturing firms which have access to alternative sources of credit will likely pay lower interest rate on trade credits.

(3)   The explicit interest rate is negatively correlated with the implicit interest rate.

The Demand for Trade Credits

As discussed above, footwear manufacturers have two sources of trade credit, namely: input suppliers and wholesalers/traders who are also input suppliers (i.e., tie-in arrangement). It is therefore necessary to analyze separately the demand for trade credits from the two sources.

Before presenting the results, it would be worth discussing the variables used in testing the hypotheses. For the dependent

variable, two alternative definitions are used, namely: the amount or peso value of the trade credits obtained by footwear manufacturers and the proportion of trade credits obtained from input suppliers to the total value of the material inputs. Correspondingly, the extent of trade credit granted by footwear manufacturers to their customers is alternatively defined in peso value and as a proportion to total sales.

The effective interest rate is computed using equations (3.9) and (3.10). The use of the interest rates on loans obtained from other sources such as moneylenders and friends/relatives presents a problem since not all of the sample firms borrowed from such sources. We therefore resorted to the use of either the amount of loans obtained from these sources or dummy variables (i.e., 1 if the firm borrowed from a particular source, and 0 otherwise). The expected signs of these variables are negative.

The estimate of the demand for trade credits from input suppliers is presented in Table IV.24. Both Model A-I and Model A-II utilize the amount of trade credit from input suppliers. The difference is that Model A-I uses the actual amount of loan obtained from other sources, whereas Model A-II uses dummy variables. As expected, the amount of trade credits granted by footwear manufacturers to their customers has a significant, positive effect on their demand for trade credits from input suppliers. Footwear manufacturers are short of working capital, and this is aggravated by the kind of sales arrangement they have

TABLE IV.24

Estimate of the demand for trade credits from input suppliers (OLS Method).

Independent Variables	Amount of trade credits from input suppliers		Proportion of trade credits from input suppliers to total material inputs	
	Model A-I	Model A-II	Model A-III	Model A-IV
Constant	111031.28	105808.40	45.470509	46.137559
Amt. of trade credits granted to customers	0.2294961 (5.6042)***	0.2498849 (6.2954)***	-	-
Proportion of trade credits granted to customers to total sales	-	-	0.3757268 (3.2609)***	0.3763837 (3.2728)***
Effective interest rate	-366.90345 (0.4458)	-14.035234 (0.0165)	0.0316861 (0.8757)	0.0323039 (0.8771)
Amount of loans obtained from moneylenders	0.1027980 (0.1969)	-	0.000007 (0.3193)	-
Amount of loans obtained from relatives/friends	1.1671228 (1.2374)	-	-0.00001 (0.4539)	-
Dummy variables:				
Obtained loans from moneylenders	-	-36539.218 (0.2612)	-	0.8233017 (0.1354)
Obtained loans from relatives/friends	-	51425.013 (0.37781)	-	-3.5016959 (0.5990)
R^2	0.442024	0.416580	0.126695	0.129357

Note: Figures in parentheses are t-values; *** Significant at 1% level;
No. of observations = 53

with their customers. Since a substantial amount of their working capital is locked in the trade credits they grant to their customers, footwear manufacturers therefore have to turn around and seek trade credits from their input suppliers in order to go on with their usual production activities.

The relationship between the demand for trade credit and effective interest rate is as expected, although not statistically significant. We might venture to say that footwear manufacturers are less sensitive to the cost of credit than to access to it. This phenomenon is not entirely uncommon, especially when one deals with credit in the informal sector. Some studies have found that borrowers, especially those who are left out by the formal credit markets, are willing to pay a high interest rate provided they be given a loan they desire (see Lamberte and Lim, 1987; TBAC, 1981).

The remaining independent variables, namely, amount of loans from moneylenders and friends/relatives, do not have a significant effect on the demand for credit.

The $\bar{R}^2$ for both Model A-I and Model A-II are quite high considering the nature of the data. It is to be noted, however, that only one variable accounts for a big proportion of it.

With regard to Model A-III and Model A-IV, only the proportion of trade credits granted to total sales has a statistically significant effect on the proportion of trade credits from input suppliers to total material inputs. The

coefficient of the interest rate variable has a positive sign, although it is still not statistically significant. The overall explanatory power of the model has dropped down substantially as can be seen from the low $\bar{R}^2$.

We estimated Model A-II using the logarithmic form. The result remains basically the same, except that the $\bar{R}^2$ has increased to .61 from .42 (see Appendix A).

Since the effective interest rate is also determined by size of the firm and access to other sources of credit, we have estimated the demand for trade credit from input suppliers using two-stage least squares (TSLS) method. The results given in Appendix B are basically the same as those shown in Table IV.24.

The estimated demand for tie-in credit or trade credit from wholesalers/traders who are also input suppliers is shown in Table IV.25. As expected, the amount of trade credit granted to customers has a significant positive effect on the demand for tie-in credit as shown in Model B-I and Model B-II in Table IV.25. Again, the effective interest rate does not have a statistically significant effect on the demand for tie-in credit, although the sign appears as expected. In Model B-I, the amount of loans obtained from friends/relatives negatively affects the demand for tie-in credit. This confirms our hypothesis that availability of an alternative source of credit reduces the incentive to obtain tie-in credit.

TABLE IV.25

Estimate of the demand for tie-in credit from wholesalers/traders
(OLS Method).

Independent Variables	Dependent Variables			
	Amount of trade credits from input suppliers		Proportion of trade credits from input suppliers to total material inputs	
	Model B-I	Model B-II	Model B-III	Model B-IV
Constant	89629.483	-86015.590	-3.6256665	11.059543
Amt. of trade credits granted to customers	0.4182033 (5.5594)***	0.3879902 (4.5401)***	–	–
Proportion of trade credits granted to customers to total sales	–	–	1.0350164 (1.3984)	0.6370341 (0.8758)
Effective interest rate	-5723.0477 (1.0559)	-2431.2131 (0.5314)	-0.2681130 (0.8251)	0.0451415 (0.1565)
Amount of loans obtained from moneylenders	18.360787 (1.3213)	–	0.0017053 (1.8359)*	–
Amount of loans obtained from relatives/friends	-25.915322 (1.8431)*	–	-0.00043 (0.0549)	–
Dummy variables:				
Obtained loans from moneylenders	–	361160.58 (0.8466)	–	29.915142 (1.3060)
Obtained loans from relatives/friends	–	-381608.17 (0.9087)	–	16.033370 (0.6671)
R^2	0.706430	0.606341	0.014392	0.163667

Note: Figures in parentheses are t-values; *** Significant at 1% level; * Significant at 10% level; No. of observations = 13

The explanatory power of Model B-I and Model B-II is very high for cross-section data. In fact, it is even higher than that of Model A-I and Model A-II.

Model B-II of Table IV.25 was re-estimated using the logarithmic form (see Appendix A). Note that aside from the amount of trade credits granted to customers, access to loans from moneylenders has a significant positive effect on the demand for tie-in credit. This suggests that tie-in trade credits and loans from moneylenders are complements. The model in logarithmic form has substantially lower explanatory power than the Model B-II of Table IV.25.

Results show that the model does not perform well if the proportion of the trade credits from input suppliers to total material inputs is used as the dependent variable and the proportion of trade credit granted to customers to total sales is utilized as one of the independent variables.

The demand for tie-in credit was also estimated using two-stage least squares method, but the results are not encouraging (see Appendix C). The paucity of our observations could have seriously affected the results.

Factors Affecting the Effective Interest Rate on Trade Credits

Table IV.26 summarizes the results of testing the hypothesis regarding factors affecting the effective interest rate on trade credit charged by input suppliers. Model C-I utilizes the actual amount of loans obtained from moneylenders and relatives/friends,

TABLE IV.26

Factors affecting the effective interest rate on trade credit charged by input suppliers (OLS Method).

Independent Variables	Effective Interest Rate		
	Model C-I	Model C-II	Model C-III (logarithmic form)
Constant	111.50713	94.585440	6.2262872
Size of firm	-0.0000281 (1.8759)*	-0.0000185 (1.2009)	-0.1557230 (1.9312)*
Amount of loans from moneylenders	-6.0000622 (0.7100)	–	–
Amount of loans from relatives/friends	0.0002337 (1.5703)	–	–
Dummy variables:			
Obtained loans from moneylenders	–	21.882751 (0.9310)	0.1566598 (0.8338)
Obtained loans from relatives/friends	–	25.601925 (1.1559)	0.2234506 (1.2911)
R^2	0.041449	0.039664	0.086197

Note: Figures in parentheses are t-values; * Significant at 10%
No. of observations = 53

whereas Model C-II utilizes dummy variables for access to such sources of credit. Model C-III is actually Model C-II in logarithmic form.

All the three models have very low $\bar{R}^2$. It means that there are other variables that could help explain the variation of the effective interest rate but were excluded from the model. However, among the explanatory variables included in the model, only the size of firm represented by total assets has a significant negative effect on the effective interest rate. This is true in Model C-I and Model C-III. It means that input suppliers charge lower interest rate for their trade credits to large firms than to small firms.

Customers of large footwear manufacturers are usually large, well-established retailers such as Shoemart, Fairmart, Isetann, COD, etc. Post-dated checks issued by these customers are less risky compared to those issued by small retailers; therefore, they command lower discount rate. In addition, large footwear manufacturers have better bargaining power with their customers as well as with their input suppliers compared to small ones, and therefore, they are able to get better terms. In other words, large firms are charged lower implicit interest rate on their trade credits than small firms.

To check the degree of bargaining power footwear firms have, we regressed the proportion of trade credits granted to customers to total sales and the proportion of trade credits obtained from input suppliers to total value of the material inputs on firm size. Results indicate that the larger the footwear manufacturer's size, the lesser is the proportion of the trade credit it grants to its customers to its total sales (see Table IV.27). In other words, a large footwear manufacturer can bargain with its customers for more cash payments on the sale of its outputs compared to a small footwear manufacturer. Since a big footwear manufacturer has more cash available for working capital, it has relatively lower demand for trade credit since it can pay a greater proportion of its material input requirement in cash. The empirical result supports this view since firm size is found to be negatively correlated with the proportion of trade credit obtained from input suppliers to total value of material inputs required by a footwear manufacturer (see Table IV.27). Since a bigger footwear manufacturer can offer to pay cash for a greater proportion of its material input requirements, it can therefore bargain for a better term for the remaining portion bought on credit.

With regard to the effective interest rate charged on tie-in credit, the results do not seem to conform to our a priori expectation (see Table IV.28).

TABLE IV.27

The effect of firm size on trade credits granted
to customers and trade credits obtained by
footwear manufacturers (OLS Method)

Variable	Proportion of trade credit granted to customers to total sales	Proportion of trade credits obtained by footwear manufacturers from input suppliers to total value of material inputs
Constant	86.03049	83.995522
Size of firm	-0.00001 (1.91)*	-0.00007 (1.82)*
R^2	0.04	0.04

* Significant at 10% level.

TABLE IV.28

Factors affecting the effective interest rate on tie-in
credit charged by wholesalers/traders (OLS Method).

Independent Variables	Effective Interest Rate		
	Model D-I	Model D-II	Model D-III (logarithmic form)
Constant	56.543413	60.317454	2.8454960
Size of firm	0.0000018 (0.1851)	0.0000010 (0.0673)	0.0925403 (0.7754)
Amount of loans obtained from moneylenders	0.0020015 (3.7519)***	–	–
Amount of loans obtained from relatives/friends	-0.0001404 (0.1712)	–	–
Dummy variables:			
Obtained loans from moneylenders	–	44.271469 (1.6444)	0.6202926 (1.7543)
Obtained loans from relatives/friends	–	-12.650603 (0.4123)	-0.1577054 (0.4090)
R^2	0.496289	0.045507	0.055750

Note: Figures in parentheses are t-values; *** significant 1% level.

TABLE IV.29

Relationship between the discount rate of post-dated
checks and price differentials.

Price Differential	Discount rate on post-dated check	
	Trade Credit	Tie-in Credit
Constant	37.06384	28.22126
Price Differential	-0.06043 (2.23)**	0.09819 (0.858)
R^2	0.09	0.03

** Significant at 5% level.

Relationship Between the Explicit Interest Rate and Implicit Interest Rate

It is hypothesized that input suppliers determine first the total effective interest rate, and then adjust the relative shares of explicit and implicit interest rates. It implies that the explicit interest rate is inversely correlated with the implicit interest rate. To test this hypothesis, the discount rate on post-dated checks is regressed on the implicit interest rate arising from price differential between inputs bought in cash and inputs bought on credit. The result shown in Table IV.29 confirms this hypothesis.

The same test was applied in the case of tie-in credit. Results show that there is no significant relationship between explicit and implicit interest rate.

In general, results seem to confirm the study's hypotheses. The poor performance of the various models when applied to the case of tie-in credit arrangement may be due to the paucity of the sample.

V. LENDING BEHAVIOR OF INPUT SUPPLIERS AND THE SPECIAL CREDIT PROGRAM OF THE PHILIPPINE COMMERCIAL INTERNATIONAL BANK

A. LENDING BEHAVIOR OF INPUT SUPPLIERS

Business firms which supply material inputs to the footwear industry are a significant sector of the business community in Marikina. Although many of them have located themselves along the periphery of the public market, some have strategically situated themselves in barangays where footwear manufacturers are concentrated. On the average, 23 footwear manufacturers are serviced by one input supplier.

Aside from those located in Marikina, suppliers of raw materials for footwear-making can also be found in neighboring cities like Quezon City, Caloocan City and Manila. Some transient wholesalers/traders of footwear products who frequent themselves in Marikina likewise provide raw materials to footwear manufacturers. Although footwear manufacturers do not stick to only one supplier, they find it advantageous to develop a special business relationship ("suki" system) with one or two suppliers, not only to get the best price and/or credit terms for the supplies but also to assure themselves of continued support whenever some unexpected financial difficulty befalls upon them.

Our sampling frame consists only of input suppliers located in Marikina. In this regard, we could not examine more closely "tie-in" arrangements from the point of view of wholesalers/ traders who are also input suppliers.

Not all of the nine sample input suppliers are specializing in trading raw materials for footwear-making. Two of them are also engaged in footwear manufacturing while one has an integrated business operation that includes trading raw materials, footwear manufacturing and wholesaling/retailing of footwear products (see Table V.1).

The type of business the sample input suppliers have is single proprietorship. It is interesting to note that seven of the nine input suppliers are relatively new in the trading business. Two entered the market just a year ago. The positive net income realized by input suppliers suggests that trading in raw materials for footwear-making is a profitable venture.

As already discussed earlier, footwear manufacturers heavily rely on input suppliers for credit. There are two types of credit that may be granted by input suppliers, namely, trade credit and cash credit. Both are aimed at augmenting the working capital of footwear manufacturers.

With regard to trade credits, input suppliers had several borrowers in 1986, ranging from 10 to 80 (see Table V.2). Footwear manufacturers usually borrow several times in a year from the same input suppliers. Two of them granted trade credits in 1986 amounting to ₱5 million, while the rest granted trade credits of less than ₱1 million. Four had trade credit outstanding as of end-December, 1986.

TABLE V.I

Information about the business of input suppliers

Information	Input Suppliers								
	1	2	3	4	5	6	7	8	9
1. Mode of ownership	single proprie-torship	single proprie-torship	single proprie-torship	single proprie-torship	single proprie-torship	single proprie-torship	single proprie-torship	single proprie-torship	single proprie-torship
2. Main line of business									
2.1 Shoe Supply trading									
a. No. of years in operation	5	1	22	7	3	11	7	1	4
b. Total Capital Stock (₱)	1,300,000	1,500,000	1,000,000	2,400,000	2,000,000	2,500,000	350,000	2,300,000	500,000
c. No. of personnel	4	7	4	3	4	5	3	3	3
d. Operating cost per month (₱)	10,000	10,008	20,000	5,200	12,000	5,800	31,000	800,000	18,000
e. Net income per month (₱)	29,000	8,000	65,000	5,000	30,000	5,000	25,000	3,000	50,000
2.2 Shoe Manufacturing									
a. No. of years in operation	9	10	NAP	NAP	NAP	NAP	NAP	NAP	1
b. Total Capital Stock (₱)	3,650,000	300,000	-	-	-	-	-	-	150,000
c. No. of personnel	35	15	-	-	-	-	-	-	18
d. Operating cost per month (₱)	64,000	300,000	-	-	-	-	-	-	150,000
e. Net income per month (₱)	12,800	10,000	-	-	-	-	-	-	40,000

TABLE V.I (continuation)

Information	Input Suppliers								
	1	2	3	4	5	6	7	8	9
2.3 Shoe_Wholesale/Retail									
a. No. of years in operation	NAP	10	NAP	NAP	NAP	NAP	NAP	NAP	NAP
b. Total Capital Stock (₱)	−	50,000	−	−	−	−	−	−	−
c. No. of personnel	−	5	−	−	−	−	−	−	−
d. Operating cost per month (₱)	−	10,000	−	−	−	−	−	−	−
e. Net income per month (₱)		5,000	−	−	−	−	−	−	−

*Note: NAP means not applicable.

TABLE V.2

Credit extended to Footwear Manufacturers, 1986

		Input Suppliers								
	Type of Credit	1	2	3	4	5	6	7	8	9
1.	**Materials/Supplies**									
	a. No. of borrowers	70	80	60	50	30	80	10	15	30
	b. Loans Granted (₱)	5,000,000	50,000	500,000	500,000	5,000,000	500,000	230,000	500,000	250,000
	c. Loans Outstanding (₱) (31 December 1986)	500,000	0	9,000	0	800,800	100,000	0	0	35,000
2.	**Cash**									
	a. No. of borrowers	6	NAP	NAP	NAP	NAP	5	NAP	NAP	30
	b. Loans Granted (₱)	1,500,000	-	-	-	-	30,000	-	-	150,000
	c. Loans Outstanding (₱) (31 December 1986)	0	-	-	-	-	0	-	-	-

*Note: NAP means not applicable.

Only three out of the nine sample input suppliers granted cash loans to footwear manufacturers in 1986. The cash loans granted range from ₱30,000 to ₱1.5 million. All of the cash loans were paid before the year 1986 ended.

Since trade and cash credits granted by input suppliers to footwear manufacturing are for working capital purposes, they have shorter maturity. Most of the loans granted by input suppliers have a maturity period of less than 65 days (see Table V.3). This confirms our earlier results regarding the maturity period of the trade and cash credits obtained by the sample footwear manufacturers.

Trade credits are typically small. A great proportion of trade credits granted by input suppliers in 1986 were less than ₱15,000 (see Table V.4). However, a footwear manufacturer may obtain trade credits from input suppliers several times in one year. Two input suppliers seem to be concentrating on large trade and cash credits, i.e., loans of more than ₱15,000.

Generally, input suppliers require collateral for the loans they extend to footwear manufacturers. The most common security instrument they accept is post-dated checks issued by the custo- mers of footwear manufacturers (see Table V.5). Three input suppliers accepted counter receipts as security. Actually, coun- ter receipts are not negotiable instruments, unlike post-dated checks. However, input suppliers accept them as temporary secu- rity so that the footwear manufacturers can go on with their production schedule while waiting for the issuance of the post-

TABLE V.3

Distribution of the number of loans granted by maturity, 1986 (In percent)

Loan maturity period (days)	1	2	3	4	5	6	7	8	9
1. Materials/Supplies									
7	-	-	-	-	-	-	-	-	40
15	5	7	-	-	-	10	-	10	40
30	50	33	50	10	3	50	75	30	15
45	20	-	10	-	5	-	15	10	-
60	20	50	30	70	90	40	10	50	5
90	5	10	5	20	2	-	-	-	-
120	-	-	5	-	-	-	-	-	-
2. Cash loans									
7	100		-	-	-	-	-	-	30
15	-	-	-	-	-	-	-	-	40
30	-	-	-	-	-	50	-	-	20
60	-	-	-	-	-	50	-	-	10

TABLE V.4

Distribution of the number of loans granted by size, 1986 (In percent)

Loan Size	Input Suppliers								
	1	2	3	4	5	6	7	8	9
1. Material/Supplies (₱)									
5,000 and below	20	75	40	100	20	-	-	60	15
5,001 - 10,000	15	15	60	-	60	5	30	20	55
10,001 - 15,000	-	10	-	-	10	10	40	10	30
15,001 - 20,000	50	-	-	-	-	5	30	10	-
20,001 and above	15	-	-	-	10	80	-	-	-
2. Cash (₱)									
5,000 and below	-	-	-	-	-	-	-	-	30
5,001 - 10,000	-	-	-	-	-	-	-	80	50
10,001 - 15,000	-	-	-	-	-	40	-	20	20
15,001 - 20,000	-	-	-	-	-	10	-	-	-
20,001 and above	100	-	-	-	-	50	-	-	-

TABLE V.5

Distribution of the number of loans granted by type of security/collateral accepted for trade credit, 1986 (In percent)

Type of Security/Collateral	Input Suppliers								
	1	2	3	4	5	6	7	8	9
Real estate	–	–		–	–	30	–	–	–
Post-dated check	35	50	80	80	70	70	80	90	75
Purchase order	–	–	5	–	–	–	–	–	–
Counter receipts	15	40	15	–	–	–	–	–	–
Verbal agreement	–	10	–	–	10	–	20	5	–

dated checks from their customers. They restrict the acceptance of such paper for security to highly favored clients. To four input suppliers, verbal agreement would suffice. However, only very few of their trade credits granted in 1986 had that arrangement, and this was restricted to their prime "suki" who have an impeccable credit track record with them.

Post-dated checks are being discounted by input suppliers. The average discount rate charged by input suppliers in 1986 was 3 percent per month or 36 percent per annum (see Table V.6). Only one supplier charged a slightly higher discount rate of 4 percent per month. Old and trusted customers received lower discount rates of 2 to 2.5 percent per annum because they are considered less risky. Also, checks issued by well-known department stores are discounted at a lower rate.

Input suppliers admitted that they charged higher prices for the raw materials sold on credit than if they were sold in cash. As discussed above, this is actually an implicit interest rate on trade credits. For the six input suppliers, the price differential in 1986 was 5 percent. Two input suppliers realized a higher price differential of 10 percent and 15 percent, respectively. Note that the input supplier who charged a slightly higher discount rate on post-dated checks offered them the lowest price differential. This corroborates our earlier finding regarding the inverse relationship between explicit and implicit interest rates.

TABLE V.6

Price of credit extended by input suppliers to footwear manufacturers, 1986

		Input Suppliers								
		1	2	3	4	5	6	7	8	9
1.	Discount rate on post-dated check (% per month)	3	3	3	3	3	3	3	4	3
2.	Price differential of supplies sold on credit versus sold in cash (% higher)	5	5	10	5	5	5	15	4	5
3.	Tie-in agreement	No	No	No	No	No	No	No	No	No
4.	Interest rate on cash loans (% per month)									
	a. New customers	-	-	-	-	-	3	-	3	3
	b. Old customers	3	3	3	3	3	2.5	3	3	3

For cash loans, input suppliers charged the same interest as trade credits. Among the three input suppliers who had new borrowers in 1986, only one practised interest rate discrimination between old and new borrowers.

None of the sample input suppliers had "tie-in" arrangement with footwear manufacturers, the reason being that almost all of them are purely input suppliers. Wholesalers/traders who are also input suppliers are likely to have "tie-in" arrangement with footwear manufacturers, but they were not included in our sample.

The sample input suppliers were asked to recall the discount rates they were charging on post-dated checks from 1980 to 1987. It seems that the discount rates for all input suppliers were sticky from 1980 to 1983 (see Table V.7). They went up in 1984 when the effect of the balance-of-payments crisis that started towards the last quarter of 1983 was fully felt. From 1985 onwards, the discount rates tended to go down and hovered around 2 to 3 percent per month.

The sample input suppliers were also asked to evaluate the financial environment from 1970 to the present. This is intended to check whether they adjust the discount rate in accordance with their perception about the financial environment. The responses of the sample input suppliers hardly differ from each other. The years before 1983 were perceived as a liberal financial environment (see Table V.8). In contrast, the years 1984 and 1985 were considered to have very tight financial environment. A

TABLE V.7

Historical trend of the discount rate on post-dated checks (% per month)

Year	Input Suppliers								
	1	2	3	4	5	6	7	8	9
1980	2.5	na	2.5	2.5	na	2.5	1.5-2.0	na	na
1981	2.5	na	2.5	2.5	na	2.5	1.5-2.0	na	na
1982	2.5	na	2.5	2.5	na	2.5	1.5-2.0	na	na
1983	2.5	na	2.5	2.5	na	3.0	1.5-2.0	na	3.0
1984	4.0	-	4.0	3.0	na	4.0	2.5-4.0	na	3.0
1985	2.5	-	3.0	3.0	3.0	4.0	2.5-4.0	na	3.0
1986	2.5-3.0	3.0	3.0	3.0	2.5-3.0	3.0	2.5-3.0	2.5-4.0	3.0
1987*	2.0-3.0	2.0-3.0	2.5-3.0	2.5-3.0	2.5-3.0	2.5-3.0	2.5-3.0	2.0-3.0	2.5

*Note: "na" means no answer

* Up to August 1987.

TABLE V.8

Input suppliers' perception of the financial environment from 1970 - 1987

		Input Suppliers								
	Year	1	2	3	4	5	6	7	8	9
1.	1970 - 1972	na	moderately liberal	very liberal	na	na	na	na	na	moderately liberal
2.	1973 - 1975	na	moderately liberal	moderately liberal	na	na	na	na	na	moderately liberal
3.	1976	slightly tight	slightly liberal	slightly tight	na	na	na	na	na	moderately liberal
4.	1977 - 1979	moderately liberal	neutral	moderately liberal	na	na	na	slightly liberal	na	slightly liberal
5.	1980 - 1981	very liberal	neutral	moderately liberal	slightly liberal	na	na	very liberal	na	slightly liberal
6.	1982 - 1983	slightly liberal	slightly liberal	moderately liberal	moderately liberal	na	na	moderately liberal	slightly tight	slightly tight
7.	1984	very tight	very tight	very tight	very tight	very tight	very tight	very tight	very tight	very tight
8.	1985	very tight	very tight	very tight	very tight	moderately tight	very tight	very tight	very tight	very tight
9.	1986 - 1987	slightly tight	slightly tight	slightly tight	slightly tight	slightly tight	slightly tight	moderately tight	slightly tight	slightly tight

Note: "na" means no answer.

relaxation of the financial environment was perceived in 1986 and 1987. It seems that the discount rates moved in accordance with their perception about financial environment.

As lenders, input suppliers are not immune to loan delinquency problem. As shown in Table V.9, all of them have borrowers with arrears as of August 1987, ranging from as low as 2 borrowers to as high as 40 borrowers. The value of past due loans ranged from P5,000 to P438,892. The average time of delay is quite alarming, practically approximating the usual maturity period of the trade credits. Most input suppliers were hopeful that a great majority of those with arrearages would pay before December 1987. But there is no doubt that these arrearages had considerably reduced the effective interest rate they charged on their trade credits.

Input suppliers have very limited contact with banks as sources of additional funds. Only two of the nine sample input suppliers borrowed money from banks in 1987 (see Table V.10). One of them obtained long-term loans to finance the acquisition of fixed assets while the other secured a short-term loan to augment his working capital. Only the latter seems to link the formal credit market with the informal credit market. Perhaps, the main reason for not borrowing from banks is that input suppliers have access to trade credits. In fact, all of them availed of trade credits from manufacturers of raw materials for footwear-making in 1986 (see Table V.11). The usual term of the trade credits was 15 to 90 days. Two of them paid explicit

TABLE V.9

Loan delinquency (As of August 1987)

Loan Delinquency	Input Suppliers								
	1	2	3	4	5	6	7	8	9
a. No. of borrowers with delayed payments	40	3	20	19	15	20	2	8	11
b. Value of past due loans (P)	438,892	5,000	20,000	200,000	200,000	100,000	100,000	300,000	133,000
c. Average time of delay (days)	60	60	90	68	60	365	365	120	30
d. Penalty rate (% per month)	none	none	none	none	none	3.0	none	none	3.0

TABLE V·IO

Sources of funds and terms of the loan

		Input Suppliers								
Sources of funds	1	2	3	4	5	6	7	8	9
1. Sources of funds									
a. Own capital	100%	10%	100%	100%	100%	100%	100%	10%	100%
b. Borrowings from banks	-	90%	-	-	-	-	-	90%	-
2. Terms of the loans from banks									
a. Amount (₱)	-	1,500,000	-	-	-	-	-	2,500,000	-
b. Effective interest rate	-	28%	-	-	-	-	-	.18%	-
c. Maturity	-	5 years	-	-	-	-	-	60 days	-
d. Collateral	-	real estate	-	-	-	-	-	Promissory Note	-

TABLE V.II

Trade credits obtained by input suppliers from manufacturers of raw materials for footwear-making

		Input Suppliers								
		1	2	3	4	5	6	7	8	9
1.	Availing of trade credits	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
2.	Usual term of trade credit (days)	30	30 - 60	30	15 - 30	30 - 60	15 - 90	30 - 90	30 - 60	30 - 60
3.	Interest rate on trade credit (% per month)	none	none	none	none	none	none	none	3	1
4.	Price differential on raw materials bought on credit versus bought in cash (% higher)	3.5	10.0	5.0	5.0	2.0	na	na	none	none
5.	Security instrument	own post-dated check	own post-dated check	own post-dated check	own post-dated check	own post-dated check	own post-dated check	own post-dated check	own post-dated check	own post-dated check

Note: "na" means no answer.

interest on their trade credits while five paid implicit interest in the form of price differential. The other two claimed that they were not paying interest on their trade credits. The security instrument used was the "own post-dated check" of input suppliers.

There seems to be a chain of trade credits in this industry. Department stores and supermarkets obtain trade credits from footwear manufacturers, who in turn secure trade credits from input suppliers, who in turn acquire trade credits from manufacturers of raw materials for footwear-making. At the end of the line, linkages with the formal credit markets must have been established.

B. THE PHILIPPINE COMMERCIAL INTERNATIONAL BANK AND THE
    INFORMAL CREDIT MARKETS

The Philippine Commercial International Bank (PCIB) is known for its innovative approaches towards serving marginal clientele. During the regulated regime, the administratively fixed interest rate was not even enough to compensate for the high transactions costs of making small loans. Because of this, bank branches were not lending below ₱100,000. Thus, many small potentially good borrowers were left out by the banking system. In view of its desire to reach small clientele, PCIB responded by introducing moneyshops. These lending institutions were actually designed to mimick the behavior of moneylenders. The target clientele are the stallholders and "sari-sari" storeowners who are in need of additional working capital, not start-up capital. Moneyshops are

strategically located in public markets and/or small commercial areas and run by a small staff of 2 to 4 employees. The informality of the moneyshops has attracted a lot of people, especially those who are accustomed to making transactions without having to wear a formal attire.

Initially, the PCIB moneyshops granted small loans of between ₱500 and ₱10,000 per loan. This has been adjusted upwards to keep in line with the real value of money. The maximum maturity period of all loans is 6 months. Loans are paid on a daily installment basis. Collectors are sent only to those who are delayed in payments.

At the time when the lending rate was fixed at between 14 and 16 percent per annum, the PCIB moneyshops charged an interest of 16 percent per annum collected in advance plus a service fee of 2 percent per month. This brought the interest rate roughly to around 40 percent per annum.

The moneyshops acted as PCIB's look-out post for profitable business ventures. Some of them expanded rapidly and eventually became regular branches. With the interest rate deregulation in the 1980s, moneyshops have become less active.

The profitability of discounting post-dated checks in the Marikina footwear industry has not escaped the notice of PCIB. It set up a Shoe Industry Desk in its Marikina branch towards the later part of 1986. The target clientele of its special credit program are the footwear manufacturers, not the input suppliers.

More emphasis is given to small footwear manufacturers, i.e., those with current net worth of not more than ₱200,000. For this program, loans of up to ₱100,000 are considered small. Loans of as low as ₱3,000 are entertained. For the convenience of the clients, the PCIB Marikina branch is open on Saturdays. Loan processing takes about 5 to 7 days.

PCIB tries to compete with input suppliers in discounting post-dated checks. It usually offers 1 percentage point lower than the discount rate charged by input suppliers on post-dated checks. In 1986 when the discount rate for input suppliers was about 2.5 to 3 percent per month, PCIB offered 2 percent per month. It reduced the discount rate to 1.5 percent in the early part of 1987. As of the date of the interview, the PCIB discount rate on post-dated checks was 1.75 percent per month.

For small loans, no service and notarial fees are collected. This is intended to bring down the effective lending rate.

The input suppliers were asked to assess the impact of PCIB's entry into the business of discounting post-dated checks. The results were mixed. Three of them said that PCIB's entry helped bring down the rate in 1987. Four respondents gave a negative answer while two admitted that they are not aware of PCIB's special lending program. Thus, with the large volume of post-dated checks floating around in the Marikina Shoe Industry, the participation of PCIB in the market for post-dated checks was hardly felt by the majority of input suppliers interviewed for this study.

Even if PCIB charges 1 percentage point above the discount rate offered by input suppliers, still footwear manufacturers would be better off since they do not have to pay the implicit interest rate arising from the price differential on raw materials bought on credit versus bought in cash. This raises the question of why not all footwear manufacturers, particularly the small ones, borrow from PCIB. The lending criteria set by PCIB largely explain this situation. In the first place, PCIB accepts only post-dated checks of well-known department stores. Thus, many small footwear manufacturers catering to small retailers are automatically excluded. With this, it seems that the formal sector can effectively compete with the informal rector only in less risky financial instruments. Second, only those with valid business license and credible character reference will be entertained. Small manufacturers usually have a hard time obtaining character reference from well-known individuals, e.g., Mayor, business leaders, and institutions. And lastly, the transactions costs involved in filling up loan application forms and following up loan application can hardly compare with the ease of obtaining trade credits from input suppliers, not to mention the long-developed "suki" relationship between footwear manufacturers and input suppliers.

PCIB has just started its shoe industry lending program. It is the only bank in Marikina that discounts post-dated checks. More recently, it has extended its special program to Biñan, Laguna where the footwear industry is growing fast. Thus, PCIB with its innovative spirit is once again in harmony with the

needs of the real sector. As it gathers more experience, more improvements in its special lending program to the footwear manufacturers are expected in the future.

VI. SUMMARY, CONCLUSIONS AND POLICY IMPLICATIONS

Studies on the informal credit markets (ICMs) have focused on the rural, agricultural sector. This emphasis springs from the view that economies of LDCs are basically dualistic. That is, a modern urban, industrial sector whose markets, including the capital markets, are functioning well and fully integrated exists side by side with the traditional rural, agricultural sector whose markets are severely fragmented. This is not, however, the case in reality. Even in the so-called, "modern urban, industrial sector," markets are imperfect and incomplete. In particular, small manufacturing enterprises, like small farmers, do not have access to the formal credit markets. This, ICMs emerge to support this sector.

This study is inspired by the fact that very little is known about the ICMs operating in the urban sector. In view of the wide range of industries existing in the urban sector, it is necessary to limit the scope of this study to the footwear manufacturing sector so that an in-depth analysis of the role of the ICMs in supporting this sector can be done.

This study has attempted to characterize and analyze the existing financing schemes of the footwear manufacturing industry in Marikina, Metro Manila, with special emphasis on trade credits. It has been noted that the volume of trade credits has risen tremendously in the past 20 years, and many non-financial enterprises are engaged in one way or another in providing trade credits (Mangahas [1986]). Table VI.1 shows the growing

importance of trade credits as a source of finance for the manufacturing, particular in 1985 and 1986 when banks sharply reduced their lending activities in view of the general instability of the economy.

Primary data for this study were obtained from the 63 sample footwear manufacturers and 9 input suppliers. Secondary data were sourced from existing studies as well as from data-producing government agencies.

Despite its fairly long history, the footwear industry is mainly dominated by small- and medium-sized firms which are typically family-owned enterprises. The average total value of fixed assets is P596,051. Small shops produce almost entirely handcrafted shoes, aided by a minimum of machines.

The footwear industry has yet to fully tap its export potential. Domestic department stores and supermarkets absorbed about 64 percent of the total output of the sample footwear manufacturers in 1986. Interestingly, 14 percent of the total output were bought by wholesalers/traders who are also input suppliers. This suggests that "tie-in" arrangement or linked credit is not only prevalent in the rural, agricultural sector, but also in the urban, manufacturing sector.

Granting trade credits to customers is generally practised by the sample footwear manufacturers. About 82 percent of their total output in 1986 were sold on credit. The maturity period of the trade credit ranges from 69 to 72 days, depending on the

TABLE VI.I

TYPES OF CREDIT OF THE MANUFACTURING SECTOR
(In Million Pesos)

Year	Loans	Trade Credits	Total
1979	112,836.2 (89.3)	13,540.5 (10.7)	126,376.7 (100.0)
1980	115,553.1 (84.7)	20,894.1 (15.3)	136,447.2 (100.0)
1981	129,477.2 (86.7)	19,916.3 (13.3)	146,393.5 (100.0)
1982	140,146.7 (83.8)	27,079.0 (16.2)	167,225.7 (100.0)
1983	155,369.0 (83.0)	31,878.8 (17.0)	187,247.8 (100.0)
1984	119,154.0 (88.2)	15,891.0 (11.8)	135,045.0 (100.0)
1985	77,091.6 (73.5)	27,753.9 (26.5)	104,845.5 (100.0)
1986	79,718.4 (78.1)	22,376.0 (21.9)	102,094.4 (100.0)

Source: CB-DER, Domestic, Flow-of-Funds Bulletin (Private
Corporations, 1980-1986.

types of customers. As evidence of their intention to pay, customers issue post-dated checks. Only 22 percent of the respondents admitted that they charged implicit interest on trade credits which averages 7 percent from the period of the trade credits.

Since a great proportion of their sales is locked in a trade credits, almost all footwear manufacturers turned around and asked for trade credits from input suppliers and wholesalers/ traders who are also input suppliers. On the average, 80 percent of the value of their material inputs were bought on credit. However, in peso value, this amounts to only 38.5 percent of the value of trade credits they granted to their customers. The maturity period averages 45 to 51 days, depending on the source. The post-dated checks issued by customers of footwear manufacturers are the main security instrument accepted by input suppliers.

The effective interest rate on trade credits charged by input suppliers consist of explicit interest rate, i.e., discount rate on post-dated check and plain interest rate on trade credit, and implicit interest rate arising from price differentials. The average effective interest rate ranges from 78 to 116 percent per annum, depending on the source. This is more or less the same as those charged by informal moneylenders. Interestingly, a significant proportion of the effective interest rate is due to the implicit interest rate, accounting for 65 percent of the total effective interest rate in the case of trade credit from

input suppliers and 47 percent in the case of trade credit from wholesalers/traders who are also input suppliers.

Footwear manufacturers have also alternative sources of credit, namely, moneylenders, friends/relatives and banks. Only very few borrowed from banks in 1986.

Results suggest that the demand for trade credit by a footwear manufacturer is positively correlated with the extent of trade credit he grants to his customers. The effective interest rate on trade credit did not show significant effect on the demand for trade credits. Results further show that the smaller the footwear manufacturing firm, the higher the effective interest rate it pays on trade credit. An equally interesting result is that the explicit interest rate is negatively correlated with the implicit interest rate, implying that input suppliers determine first the total effective interest rate, and then decide on the relative shares of the explicit and implicit interest rates.

The study also analyzed the behavior of a sample of 9 input suppliers. Most of the information gathered here confirm those obtained from footwear manufacturers.

The sample input supplier had several borrowers in 1986, ranging from 10 to 80. All of them have borrowers with arrears ranging from 2 to 40 borrowers as of August 1987. The value of past due loans ranges from ₱5,000 to ₱438,892. There is no doubt that these arrearages had somewhat reduced the net effective interest rate realized from their trade credits.

Like the footwear manufacturers, input suppliers have very limited contact with banks. However, they have access to trade credits. In fact, all of them availed of trade credits from manufacturers of raw materials for footwear-making in 1986. There seems to be a chain of trade credits in this industry. Department stores and supermarkets obtain trade credits from footwear manufacturers, who in turn secure trade credits from input suppliers, who in turn acquire trade credits from manufacturers of raw materials for footwear-making. At the end of the line, linkages with the formal credit markets must have been established.

The market for post-dated check has attracted the attention of the Philippine Commercial International Bank (PCIB). In 1986, it set up a Shoe Industry Desk in its Marikina branch. It lends to small footwear manufacturers by discounting post-dated checks. This is one case wherein a formal lending institution mimicks the informal lenders. PCIB tries to compete with input suppliers by offering lower discount rate. Currently, its impact on the market is still limited. The main reason is that it honors only those checks issued by well-known buyers like Shoemart, Fairmart, and Rustans. In effect, it competes with input suppliers only insofar as prime post-dated checks are concerned. However, what is important is that it has started an innovative lending program. PCIB's shoe industry lending program has been recently introduced in Binan, Laguna where a footwear industry is rapidly growing.

The lack of access of footwear manufacturers to the formal credit markets and the exceedingly high interest rates on trade credits reflect some imperfection in the markets. The market imperfection is partly due to certain policies. In particular, the overly restrictive branching policy (see Lamberte [1987]) discourages competition, hence existing banks or branches are not motivated to innovate. A more liberal branching policy will certainly benefit not only the footwear industry but other industries as well.

Effective risk-reducing schemes must be considered seriously. Although the existing industrial Gurantee Loan Fund is supposed to do this task, it has performed miserably mainly due to poor design (see Magno [1987]). For example, the voluminous requirements unnecessarily raise the transactions cost of banks which readily shift it to borrowers. Thus, IGLF needs to be redesigned.

In addition, a good information system about the financial health of firms, big and small, regularly issuing post-dated checks as payments for the goods delivered must be available at a least cost so that banks and input suppliers can make proper assessment of the risk involved. The main reason why PCIB does not accept post-dated checks issued by small firms is that they do not know the financial conditions of those firms. On the other hand, input suppliers charge a higher discount rate for post-dated checks issued by small firms. It seems that both PCIB and input supplies equate size to stability. Since such

information partakes of a public good, it must therefore be produced by the government. Such program would have a progressive effect since more small footwear manufactures who sell their products to small retailers will be benefitted.

In view of the export potential of the footwear industry, some kind of export financing scheme must be explored. In other countries, notably Japan, Korea and the U.S., the export-import banks play a vital role in their export drive. Wholesalers/ traders who can obtain large export contracts and distribute the same to numerous small footwear manufacturers may avail of such facility. Under the scheme, the possible "tie-in" arrangement between wholesalers/traders and manufacturers can strengthen the linkage between formal and informal credit markets.

APPENDIX A

Estimate of the demand of trade credits, logarithmic form (OLS Method)

Independent Variables	Dependent Variables	
	Amount of trade credits from input suppliers	Tie-in credit from wholesalers/traders
Constant	0.9116900	0.5112068
Amt. of trade credits granted to customers	0.8632040 (8.6877)***	1.1239394 (2.6606)**
Effective interest rate	-0.1247752 (0.6199)	-1.1557325 (1.1981)
Dummy variables:		
Obtained loans from moneylenders	0.1334421 (0.5109)	2.3377026 (1.8319)*
Obtained loans from relatives/friends	0.1891543 (0.7628)	0.2657666 (0.2279)
$\bar{R}^2$	0.617016	0.283841

Note: Figures in parentheses are t-values; *** Significant at 1% level; ** Significant at 5% level; * Significant at 10% level

APPENDIX B

Estimate of the demand for trade credits from input suppliers (TSLS)

Independent Variables	Amount of trade credits from input suppliers		Proportion of trade credits from input suppliers to total material inputs	
	Model A-I	Model A-II	Model A-III	Model A-IV
Constant	224599.26	217769.83	34.784357	29.519323
Amt. of trade credits granted to customers	0.2206545 (4.2177)***	0.2429399 (4.5094)***	–	–
Proportion of trade credits granted to customers to total sales	–	–	0.3676639 (2.8858)***	0.3595194 (2.3453)**
Effective interest rate	-1416.6271 (0.3677)	-1272.9068 (0.1964)	0.1478452 (0.9622)	0.2518623 (0.8678)
Amount of loans obtained from moneylenders	0.0385458 (0.0666)	–	0.000012 (0.4699)	–
Amount of loans obtained from relatives/friends	1.4370304 (1.0552)	–	-0.00040 (0.7729)	–
Dummy variables:				
Obtained loans from moneylenders	–	-3069.0849 (0.0138)	–	-5.3839676 (0.4726)
Obtained loans from relatives/friends	–	-10856.582 (0.0435)	–	-9.886689 (0.8714)
$\bar{R}^2$	0.423117	0.390021	-0.060813	-0.515171

Note: Figures in parentheses are t-values; *** Significant at 1% level; ** Significant at 5% level; No. of observations = 53

APPENDIX C

Estimate of the demand for tie-in credit from wholesalers/traders (TSLS)

Independent Variables	Dependent Variables			
	Amount of trade credits from wholesalers/ traders		Proportion of trade credits from wholesalers/traders to total material inputs	
	Model B-I	Model P-II	Model B-III	Model P-IV
Constant	7061520.6	5258324.8	302.30843	-1286.2240
Amt. of trade credits granted to customers	0.3783364 (0.6246)	0.2856417 (0.3964)	-	-
Proportion of trade credits granted to customers to total sales	-	-	0.6475187 (0.1432)	9.6536218 (0.0835)
Effective interest rate	-125481.17 (0.3291)	-86869.544	-4.9483695 (0.1713)	7.4939101 (0.0786)
Amount of loans obtained from moneylenders	254.67790 (0.3371)	-	0.0107523 (0.1921)	-
Amount of loans obtained from relatives/friends	-42.6269 (0.3474)	-	-0.0007428 (0.1241)	-
Dummy variables:				
Obtained loans from moneylenders	-	3892155.4 (0.2476)	-	-174.49921 (0.0665)
Obtained loans from relatives/friends	-	-1441305.5 (0.2666)	-	166.85564 (0.0859)
$\bar{R}^2$	-17.20809	-16.15279	-26.32012	-97.12607

Note: Figures   in   parentheses   are   t-values;   No. of observations = 13

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