THE ROLE OF CREDIT EXTENSION PROGRAMS IN GENERATING CHANGES IN THE STRUCTURE OF PRIVATE, INFORMAL SECTOR MICROENTERPRISES: THE ADEMI PROGRAM IN THE DOMINICAN REPUBLIC

by

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ABSTRACT

This thesis is an analysis of the role of credit in the changing structures of successful informal-sector manufacturing firms and their relationships with buyers and sellers in the rest of the economy. Twenty-four firmowners, clients of the Association for the Development of Microenterprises, Inc. (ADEMI), were interviewed in-depth in Santo Domingo, Dominican Republic over a period of one and a half months. A firm's changing needs for labor, its different sources of supply, the different markets for its products and its ability to 'graduate' to commercial bank credit are analyzed over time as the firm grows. Three stages of development of a microfirm are then identified based upon these findings.

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TABLES

INTRODUCTION

The debate on urban employment problems in developing countries has recently focused upon the role of small-scale enterprises in providing earning opportunities for a growing proportion of these countries' populations. These activities have flourished into what is defined today as the "informal" sector of an economy. The literature frequently depicts self-employment in this sector as the only alternative left to persons with few resources and little or no formal education. People engaged in such activities are all assumed to be poor and to face the choice of either being unemployed or scratching up a living by setting up a business. Very few success stories are investigated or reported so that assumptions such as these are rarely challenged.

Part of the reason why such generalizations are made is due to the difficulty of researching these activities because most of them are not officially registered. It is not surprising that opinions vary widely over the growth potential of these informal small-scale firms and thus on which policies (credit or technical assistance programs, for example) are most suitable for aiding them. As will become clear in this paper, the success stories can teach us many things about the growth potential of informal sector firms and on how to improve the chances of others to succeed.

This study examines the role of a credit program in the changing structure of successful informal sector manufacturing microfirms and their relationships with other firms in the rest of the economy. The study focuses specifically upon the changes a microfirm experiences in the structure of its labor force and in its links with buyers and sellers. It intends to provide insight into how the owners of successful microenterprises approach different stages of growth, how they overcome various bottlenecks at each stage, and how they view their positions in relation to other organizations in the economy. The role of a credit program at each of these stages of development is also analyzed from the points of view of these microentrepreneurs.

The credit program chosen for the study is ADEMI* which is located in Santo Domingo, Dominican Republic. Twenty-four manufacturing firms were interviewed in-depth over a period of one and a half months. Interviews were also conducted with bankers and officials of other credit programs in the area. The field research was funded through a Masters Fellowship awarded to the author by the Inter-American Foundation. However, the views presented here are not those of the Foundation.

The Sample

The findings are based upon twenty-four manufacturing firms which were selected arbitrarily from among 41 of ADEMI's "most successful" clients. These firms were in clothing and shoe manufacture, candle manufacture, jewelry, refrigeration repair, mattress repair, ceramics, printing, bread production, and sweets production. Table A-1 compares some characteristics of these firms with those of firms used in a feasibility study carried out in 1980 in which a sample of 200 microenterprises in manufacturing and services was taken in Santo Domingo.

*Association for the Development of Microenterprises, Inc.

Using ADEMI's standards, a successful firm is one which meets one of the following criteria: 1) the business has grown to where it is eligible for the largest loans offered by the program (RD$5000 or US$1500); 2) it receives credit from other institutions while receiving credit from ADEMI; 3) it is currently on the list "a graduar" (to graduate) to the Investment Fund for Economic Development (FIDE), a program within the Central Bank which finances small industries with fixed capital assets between RD$10,000 and RD$100,000.

Firms which had grown were chosen in an effort to assess their patterns of growth and how these have changed over time. Because they have succeeded in staying around for a while, they provide a unique understanding of the different relationships and/or links they form with buyers and sellers and how these also change over time.

The reader should keep in mind as he or she goes through the paper that the findings are based upon manufacturing firms which have succeeded in growing. The experiences of firms which have not grown would probably present a rather different picture. Owners had very few negative comments about the ADEMI credit program, for example. This is not surprising when you think that they never received an unfriendly visit from ADEMI's assessors or the sheriff because they had excellent repayment records. Because the sample limits itself to manufacturing firms exclusively, the experiences of these firmowners should not be interpreted as those of successful firms involved in commerce or nonproduction-related activities.

In addition, no control group was formed so the paper makes no attempt to claim statistically that credit is a causal factor behind growth. In this case, there is no evidence to show that these firms would <u>not</u> have grown the way they did without credit, or that this growth was not caused by other factors. Instead, the discussion concentrates on showing how the ADEMI credit program has influenced (not caused) changes in the development of these firms. Data on variables such as the size of labor force, the value of fixed capital, and monthly wage bills, materials used, and sales, were gathered from ADEMI files to complement some of the empirical findings. A brief analysis of these is provided in Appendix A.

Credit: The ADEMI Program

By far the largest component of assistance from donor agencies and local institutions in developing countries to informal-sector businesses has been the provision of loans. The main objectives of these programs are to give informal sector firms access to finance they can afford and enable them to build up a credit history so they can eventually be deemed worthy risks by commercial lenders .

ADEMI is a private, non-profit institution which was organized by the private sector in the Dominican Republic in response to problems of unemployment and underemployment in the country. It began operating in April 1983 with suppport from public sector and international organizations. The most successful elements among programs in Indonesia (BKK), the Dominican Republic (Dominican Development Foundation), and El Salvador (FEDICCREDITO) were combined to form the ADEMI program. Thus, ADEMI is characterized by the minimal paperwork required, the rapidity with which loans are approved and disbursed (from one day to another), its ability to reach large numbers of clients because of its efficient bureaucracy, no collateral requirement, and reasonable interest rates compared to those charged by moneylenders. Most other programs lend at subsidized rates for long periods. This has frequently resulted in bad records of repayment among borrowers. ADEMI currently has a 92% repayment rate, an accomplishment rarely seen in the world of credit extension programs.

The study is broken into five chapters. The first examines the role of labor in the development process of successful informal-sector manufacturing firms, and the effect of credit programs on that process. The second is devoted to a discussion of linkages with input suppliers and how these change with the extension of credit. The third chapter discusses existing and potential markets for these informal sector firms. Chapter four examines the process of a firm's 'graduation' from the ADEMI program, with particular focus upon the ability to obtain loans from commercial banks. Finally, chapter five distinguishes three stages of development and examines the influences of credit at each stage. A summary of the findings is provided at the end of the paper.

The Concept of the Informal Sector

The informal-sector concept has emerged from discussions regarding the observed dualistic nature of developing economies and the growing concern over the unemployment problem. Two sectors in the economy can be distinguished: the formal sector which includes activities based on modern modes of production and organization, and the informal sector which has been defined by the ILO as "a way of doing things characterized by ease of entry, reliance on indigenous resources, family ownership of enterprises, small scale of operation, labor-intensive and adapted technology, skills acquired outside the formal school system, and unregulated and competitive markets."

The merits and drawbacks regarding the distribution between two sectors and the ILO's definition of what constitutes an informal sector activity have been discussed in the literature for almost a decade now. While there is general agreement that developing economies do exhibit a tendency toward dualism, there is substantial debate over how separate these two sectors really are and therefore over how different the growth path of an informal sector business is compared to that of one in the formal sector. One criticism questions the validity of separating the economy into a formal and informal sector because it implies that there are no links between the two (Moser, 1978). Another criticism is that economic activities exist in a continuum and that these can be divided into many different sectors, not only two (Standing, 1977). It questions the bases used for the dual distinction. A third criticism is that the two-sector economy is a temporary phenomenon; an informal sector business is in transition toward becoming a formal sector business (Emmerij, 1974).

All three criticisms have one thing in common: they all question the nature of the relationships among firms, be they small or large, informal or formal. Empirical studies have attempted to shed light on this question by analyzing the various growth constraints facing informal sector firms. Schmitz (1982) divides the studies of manufacturing firms into two categories: those emphasizing external factors and those emphasizing internal factors. The first group of studies concludes that a microfirm's inability to grow is a consequence of its lack of access to modern technology, raw materials at lower formal sector prices, credit from formal sector banks, formal sector product markets, and so on. The second group emphasizes that a firm's growth is stunted by the lack of entrepreneurial or managerial skills. Within each group there is disagreement over how "removable" or "dissolvable" these constraints or bottlenecks are and from this disagreement stems the debate over whether the growth of the informal sector will be "involutionary" or "evolutionary".

"Involutionary" growth means that employment in the informal sector will not lead to increasing incomes for workers and, therefore, the sector will not grow beyong its present markets. Those supporting this view argue that informal sector firms are unable to accumulate surpluses because they are subordinated by formal sector institutions, who crowd out their markets and monopolize their sources of raw materials, thereby squeezing these firms' profits to the point where there are none (Hart, 1970; Oshima, 1971). On the other hand, those who hold the view that the growth of the informal sector will be "evolutionary", say that informal sector firms can grow provided that the policy environment is favorable and that their growth is a result of greater linkages with formal sector firms (Mazumdar, 1976; ILO, 1972, Sethuraman, 1976).

The latter view provides a forum for discussions about how informal sector firms can be assisted. Those emphasizing internal constraints see the acquisition of technical and managerial skills as of primary importance. Those emphasizing external constraints tend to concentrate more on access to technology, raw materials, and credit as policies to lift these firms out of poverty. In practice, combinations of the two form present policies toward the informal sector. The best examples are credit extension programs which provide a firm with financing and technical assistance, combined.

By contrast, the "involutionary" growth view leaves little room for policy formulation for direct assistance since the mechanisms through which informal sector businesses can accumulate surplus are not determined within the formal sector of a developing country but by industrialized economies. This view implies that a substantial change in the prevailing international and national economic order will be required to assist the informal sector (Tokman, 1978).

This study implicitly falls within the first group of Schmitz's two categories in that it focuses upon external constraints primarily. However, it lends support to the view that informal sector growth is "evolutionary" by showing how some manufacturing firms are able to "dissolve" or "remove" these external bottlenecks.

Contrary to the hypothesis that self-employment in the informal sector will not lead to increasing incomes, this study finds that these successful firmowners left jobs, both informal and formal, to establish their business. It also finds that buying from and selling to larger formal-sector firms does not automatically mean the latter exploit the microfirm but rather that both parties develop relationships to their mutual satisfaction. The entrepreneurs in this study were able to exploit a situation efficiently and, in fact, actively sought out relationships with the larger buyers and sellers as a growth strategy. The view that informal sector growth is "involutionary" is that firms are unable to accumulate surplus, i.e., grow because of informal sector institutions.

In addition, the findings in this study tend to support the three criticisms of the informal-formal sector analytical division outlined above. First, it clearly shows that there are definite links between institutions in both sectors supporting the criticism which questions the validity of the separation.

Second, it shows how difficult it is to distinguish between economic activities on the basis of whether they are informal or formal. To cite just one example, many firms were not registered but they observed the labor laws. The first would define them as informal while the second would define them as formal. This, and many more examples, support the view that economic activities exist in a continuum.

It clearly supports the third criticism that an informal sector business is in transition toward becoming a formal sector business and that, therefore, the two-sector economy is a temporary phenomenon. As these successful firms grew, the incentive to legalize grew, they accumulated more capital, they began requiring more skilled labor, they began relying upon imported raw materials, and they began selling to the more "exclusive" markets of the rich. These characteristics are usually attributed to formal sector firms.

CHAPTER ONE: LABOR

Various studies have estimated that anywhere from 20 to 70 percent of the labor force is engaged in informal-sector activities. In the case of the Dominican Republic, 50 percent of the labor force in thought to be employed in the informal sector. While these estimates are useful to policymakers, very few studies have looked at the conditions under which this labor is absorbed and at the opportunities facing people in this sector. As a result, general assumptions are made about why and how people become self-employed.

This chapter discusses the experiences that successful microfirm owners had in getting to where they are today. It also looks at how an owner views apprentices, how he chooses them, and what their opportunities for upward mobility are within the firm. In addition, the chapter shows how a firm's need for labor changes over time, how legal status has little to do with whether the labor laws are observed, and how accumulating fixed capital equipment is viewed as a healthy sign of a firm even though some of it may lie idle. Finally, ADEMI's role is discussed in light of these issues.

A. APPRENTICESHIPS

1. Becoming self-employed

How the people surveyed for this study came to be owners of their firms varies somewhat. A few were production workers in large firms or in small formal sector businesses. After acquiring a few skills and some savings, they decided they were ready to establish their own businesses. A baker said he had always intended to be his own boss but in order to "prepare for it" he had had to work for ten years in a bakery. "I was prepared to set my business up when I had accumulated enough money to buy my first sacks of flour and my first bowls," he said.

In fact, the majority interviewed described the "preparation" in terms of accumulating enough capital to strike out on their own. When asked whether their previous employment had given them necessary skills to run the firm, the answers differed among occupations. For example, shoe manufacturers who had worked in this field for an average of fifteen years and whose previous employment was with large factories, said they learned about different machines, types of leather, quality of supplies, styles of shoes, etc., but that much of this knowledge could not be used because their own firms were at a much lower scale and level of development than that of the large companies they used to work for. For this reason, they said, they considered the ability to save some money to buy the initial supplies was the main advantage to working for someone else. It was considered a necessary step toward self-employment.

The above tends to substantiate Peattie's "guess" and "common sense" that those workers leaving large factories to set up their own shops did not necessarily do so "because they have acquired the appropriate skills in the large plants" but "that the phenomenon is accounted for by the higher wages and severance pay which make the capitalization of a rudimentary workshop more accessible."[1]

Some of those who had worked for small microenterprises before had saved enough money to begin a shoe repair business and had been able to take some of their former employer's customers away. One man commented, "This made my boss very mad but he understood that my wife had just had a baby and that I wanted a better future for my family."

Among clothing manufacturers interviewed, the average number of years in the trade was twenty-two. Unlike most shoe manufacturers, most of these people received their training working for microenterprises, or had begun sewing at a very young age (young girls sew for the family) and then struck out on their own. A few had previous jobs in other lines of business and managed to save a little to set their shops up. Several inherited the business from their mothers who could no longer manage the heavy workload. One woman went to "sewing school" and worked for the owner of the school until she had "made" enough customers to be on her own. This woman today has her own sewing school from which many young girls graduate into self-employment. "Many young girls work as maids for slave wages. I worked hard not to have to do it and now, because I can, I want to help others to live in a free way, not as maids."

Invariably, at one time or another, these microentrepreneurs had started out as apprentices in their previous places of work. For example, most of the artisans, tailors, and technicians came from apprenticeships in microenterprises. Artisans had been in the trade for an average of seven years and had been operating their businesses for an average of six years at the time of the study. Many said they had not stayed long at their previous place of employment (2 to 3 years) because they had wanted to move out on their own as soon as they could. "As an apprentice I earned very little because I was paid for each ceramic piece I made and I made very few of them. I was learning," one man explained to me. The owner of a clothing manufacturing firm told me that even once she had acquired the basic skills, being an apprentice meant that when an order came in, she was the last one to be given work. "Some days I came to work and had nothing to do all day because the owner had not received any customers or any orders for clothing." She could not live under such uncertainty, she said.[2]

2. Training ground for the young

That these microentrepreneurs acquired their most useful skills through on-the-job training in microenterprises adds to the already substantial evidence concerning the hypothesis that the informal sector provides a training ground for those with little or no education. Only two out of the twenty-four interviewed attended some kind of training college. The remainder, the majority of whom had not completed secondary school, learned their present trade as apprentices.

My own finding is supported by other studies. For example, a study of the informal sector in Freetown, Sierra Leone concluded that the "dominant trend seems to be for secondary school dropouts to undergo a period of apprenticeship for whatever type of activity they entered."[3] Another study of Kumasi, Ghana revealed that 86.6% of the workforce (excluding the proprietors) were apprentices.[4] In Lagos, Nigeria there exists a high turnover rate for labor among informal sector firms. "Fifty-six percent of the apprentices left the enterprise that taught the skills, on completion of training." Others leave to start their own business in three or four years after the training period. The study concludes that "the informal sector in

Lagos thus serves as a training ground for many ill-educated young workers who wish to become self-employed."[5]

Apprentices comprised at least 50% of the workforces of the firms in this study at one time or another. A majority of the apprentices are not beyond their teens and attend school half the day and work the other half of the day. While a few receive no remuneration, most get paid by how much they produce. Those who have dropped out of school receive slightly higher pay but nowhere near as much as do salaried, skilled workers.

These young people find out about the jobs primarily by word-of-mouth. Friends and relatives either work or shop at these firms and they are constantly inquiring about employment opportunities. Some find out that the owner is about to get a loan approved so they send their kid down to apply. Shoe manufacturers said they never had any trouble finding apprentices. "They are like flies," said one man, referring to apprentices. A clothing manufacturer said she did not like turning "so many" young girls away.

Microentrepreneurs were asked how they selected apprentices given that work experience or skill was not a valid criterion in this case. Many said they found it difficult to determine an apprentice's potential for high productivity in terms of his or her intelligence and talent until they had already been hired. Instead, the owners considered the reputation of the parents and their friends as an indicator of the kid's integrity, which seemed to be quite important to the owner. In most cases, if the apprentice received a good oral recommendation from someone already working there, he was almost guaranteed the job. Owners admitted they really had no time to sit down and evaluate each unskilled worker who came in. A shoe manufacturer offered the most succinct description, "I believe that anyone can learn how to put a heel on but I do not think just anyone can cut the upper part of the shoe and make it look nice. So when I need a man to do that job, I have to consider everyone's opinion of him, not just the opinion of one of my workers who is his friend."

Informal sector firms were seen by these young adults (and sometimes not so young adults) as the only alternative to acquiring training to get a well-paying job or set their own business up in the future.[6] In addition to being beyond the financial means of the majority of the population, universities are perceived to be out of touch with the skills required to either manage a business or produce a product. One of the artisan entrepreneurs interviewed was attending night school to study marketing. He said he had so far learned all he knows from working for other people and for himself and that the diploma would "just" give him the recognition he needed to eventually begin exporting his product.

Technical schools seem to offer better prospects in terms of acquiring basic skills for running a business than do universities but these too are beyond what most can afford to pay. Hence, many opt for training in firms. This does not imply, however, that training in a firm is second-best or a disadvantage. In industrial countries, for example, some firms prefer to train their workers on the job because the kind of work makes it desirable.[7]

An advantage cited repeatedly by people was the "contacts" an employee made while working at a firm. "My friendship with the owner of this enterprise has helped me find out about what I can do and where I can work. She has many friends whom I know now so I can go ask them for a job if I need to some day," a candy factory employee told me.

3. Growth for the firm

Owners cited the numerous advantages to hiring young apprentices "with no family responsibilities" and who are the responsibility of others, i.e., their parents. Apprentices are more likely to accept piece-work, do not require benefits such as help with medical bills, they are not entitled to severance pay, two-weeks notice, or minimum wage because they are under-age, they are less likely to band together and impose demands, they can be replaced easily because there is an "infinite" supply of them, and "they always have their parents to go to anyway."

Apprentices are seen to contribute most to the volume of production. As the firm grows these workers are placed in an assembly-line and their tasks become very specialized. A shoe manufacturer would have six to eight young boys lined up putting heels on the shoes which would be passed down from three or four men who had done the sewing of the leather parts of the shoes. Among the older clothing manufacturing enterprises, it was common to see a person sewing the main body of a dress, then passing it down to a person who only made buttonholes who passed it on to the "button sewer" who passed it on to the "hem person" who, once finished, passed it on to the "iron lady." The easier tasks were done by young girls while the cutting of the material and any accoutrements (lace,etc.) went to the more experienced people.

In each case, it seemed as if the apprentices were the ones keeping the pace up. Many owners confirmed this impression and said it was because they had more incentive to work fast since they got paid at piece-rate. The salaried workers, because they usually happened to be the most experienced or skilled or who held positions of seniority, often held things up for the rest of the workers. Part of the reluctance on the part of owners to let responsibility go to people outside the family was due to these people's alleged tendency to "not care" whether production was slow or not.[8]

B. DEGREES OF LEGALITY AND OBSERVING THE LABOR LAWS

1. Two separate issues

A firm's legal status is considered a separate issue from the decision to "legalize" an employee, i.e., to observe the labor laws. Of those interviewed, 62.5% were entirely illegal which meant they did not pay taxes, pay attention to health regulations, pay any fees for licenses, or register as businesses with the government. The remaining 36% enjoyed varying degrees of legal status meaning that some had bought only one of the "many" licenses required (and some had not renewed it) or some paid one or two types of taxes (e.g. a local business tax).

One owner went through a lengthy explanation of where in the path toward legalization he was. He bought one license that allowed him to operate as a commercial establishment for RD$45 (US$13.5)[9] because, he said, it was good for fifteen years and it was inexpensive enough so that, in his opinion, the risk of being shut down for not having it outweighed the cost of buying it. He then bought the right to a "letrero" so no one else could use his firm's name. This cost him RD$70. (US$21.) However, he still has not bought the main "patente" (license) which costs RD$75. (US$22.5). Asked why, he said that once he did, he would have to pay the "impuesto de renta" (rental tax) which was two percent of his yearly net profit. He said he could not afford it. He also said that once he was registered in "their books" they would "never forget me."

Becoming legal does not necessarily mean the firm begins to observe the labor laws. Owners of both legal and illegal firms said they "sometimes did and sometimes did not" observe these laws. One owner said, "You see, if I were to pay attention to all those regulations I would not be in existence today. So, I have a license to operate while I am unable to pay two of my workers the minimum wage." He has ten employees.

Those employees the owner decided to "legalize" received minimum wage, were entitled to severance pay, unemployment, and a two-week notice. Those who were not legal (i.e., not registered as employees of the firm if the firm was registered or not receiving the legal minimum even if others were, in an unregistered firm) sometimes received other benefits such as Christmas bonuses, occasional help to pay a medical bill,etc. In general, these benefits largely depended upon the relationship between the owner and the employee.

2. Employee turnover

A study done of a credit program in Brazil found that illegal firms preferred a high turnover of their workforces and unskilled rather than skilled workers.[10] The reasons given for this preference were that illegal firms are vulnerable to labor legislation, which tends to favor the employee when the case is taken to court. The possibility of having to pay back payroll taxes avoided in the past is enough for these owners to encourage employees to leave once they have become eligible for severance pay.[11]

The "technique" of firing employees every six months was also found to be practiced among some of the microentrepreneurs in Santo Domingo. The use of this "technique" often appeared to coincide with the level of production and development of the firm. Younger firms would attempt to avoid minimum wage, benefits, etc., with high labor turnover. Older firms tried to avoid high turnover because their production processes tended to require skilled laborers, which they preferred to retain.

Those owners adopting this method of firing workers every 3 to 6 months began doing so when their firms began to grow. At first, they said, they could not afford to pay everyone the legal minimum wage and be left with enough to buy increasing amounts of raw material. The first two to three years were described as "the most uncertain years" of their businesses during which in addition to the "day-to-day struggle," they learned about "all the clever ways employees have" to get severance pay.[12]

Many firms began observing labor laws when, as they explained, the costs of firing an employee every 3 to 6 months, before he or she became eligible for the minimum wage and benefits, outweighed the savings.

The source of these "costs" varied. For some, it was the need for skilled workers as their firms moved into a different stage of development. For others, it was the loss of important customers and/or output. When some owners decided to diversify or to improve the quality of one of their products, they found it necessary to retain those employees who were already trained. One owner explained to me, "When I decided to begin producing children's shoes I was in need of a man who was experienced. I chose two men who had been working for me already because I knew them well. I decided that if I made them legal they would be better workers and they would accept the additional workload." Making an employee "legal" means paying minimum wage and giving him the right to severance pay. In this case, the cost of firing the two employees was felt in terms of the difficulty of finding trained persons to help the firm diversify into a different line of shoes.

Some of the microentrepreneurs described their "discovery" of the need for a more skilled, less transient workforce. An artisan described how he was "so embarrassed" the time he had promised one of his clients (a shop on the main avenue) a new type of vase which required special "obra de mano" (handwork) and could not come up with the product until three or four months later because he had not foreseen that he was not going to be able to handle it alone. "I had a very difficult time finding someone who had this skill and I ended up training one of my own employees how to do it. It took him two months to learn this difficult task."

A jeweler said he began "legalizing" some of his employees when he discovered that merchandise was being stolen. "A friend of mine told me an employee could not be bonded unless I registered him. I knew this meant legalizing my employees. I ended up legalizing the whole firm. " The owner of a bakery, who had had particular trouble with his employees, said it became extremely important to retain employees for more than three or six months when he began selling to large bakeries. The latter demanded "pan bueno y sano" (good and healthy bread) which meant he had to have employees who were trained and who "cared" for the business as he did. "Those employees who stay with me for a long time receive better benefits and higher pay than those who do not. They are also the ones who, when seeing a fly in the dough, will get it out because they care. This I realized more and more as time went by." The big bakeries are more demanding in terms of health standards than individual customers so he pays more attention now to the quality of the bread than he used to, he explained to me.

Indeed, for all those older firms interviewed, the six-month firing-hiring cycle or "technique" was abandoned as soon as the lack of experienced and/or skilled workers was felt. It should be noted that when the question about turnover rates was first posed, many people complained that workers left after they were trained. However, once the conversation concentrated on an earlier episode in the history of the firm, it was discovered that high turnover rates were encouraged. This may partially explain the "curious twist on the literature" observed by Tendler (1983) who points out that the UNO case in Brazil contrasts with the case of shoe manufacturers in Colombia (Peattie, n.d.) Firm owners in the UNO study were found to encourage a high turnover rate of employees whereas those cited in the Colombian case study complained about employees leaving to set up their own shops once they had invested time in training them.

C. DEMAND GROWS FOR SKILLED LABOR

"When a skilled employee of mine leaves it means I have to train a new worker. Sometimes I cannot meet my clients' orders because of this." This is a direct quote from a shoe manufacturer who had recently experienced such a problem. After having promised to deliver an order to "one of the best clients in Santo Domingo," he found himself short of a person who could do the lasting on this special line of shoes he had just designed. The employee who would have been able to do it had left to set up his own shop.

Stories such as this one abound among the older firms in the sample. The high turnover rates once encouraged became a drain on the firm's ability to change and grow. For those firms in the clothing industry, for example, skilled workers capable of adjusting to changing fashions in their merchandise became more and more important to please new customers that had been secured as firms began to grow.

In one case, the need to have different designs required the firm to employ more skilled tailors than it had when it produced only one or two lines of clothing. For example, a tailor recently had begun selling dresses to a store in a middle-to-upper income neighborhood. He said he was lucky to have two people who were "very" good and had sewn privately for rich people before because they knew the kinds of dresses his new client would want in the future. Both these employees were paid a salary with bonuses depending on how much they produced.

One woman started her business producing only dresses for women. She later expanded into children's clothing, also female, which required more refined skills because "children's clothing is higher priced and people look at it more closely." In her case, however, she had difficulty finding workers with the desired skills.

In fact, I found her case to be similar to that of several other microentrepreneurs who complained about their inability to get or retain skilled labor. For some, it may have been a matter of paying higher wages than what they had been.[13] For others, however, it was a matter of supply: workers left to set up their own shops more often than transferring to another firm as skilled workers. Even when it was very difficult to begin a business, they did anyway, said many owners.[14]

Other studies of the informal sector have also found that these enterprises seem to face shortages in certain types of labor. In Lagos, "a third of the enterprises experienced difficulty in recruiting both skilled and unskilled workers..."[15] In a study of the informal sector shoe manufacturing industry in Bogota, Colombia, the author writes: "It was generally agreed by our informants that there is a shortage of skilled workers..."[16]

Setting up one's own shop is perceived as more lucrative than working for another firm. In addition, opportunities for upward mobility in terms of responsibility and eventual partnerships within the firm are very slim for those skilled workers who continue to work for someone else. To retain trained workers therefore requires offering higher wages and benefits, thus narrowing the gap between 'legal' and 'illegal' workers. Eventually the firm reaches a stage of development when it is less costly to 'legalize' its workers than not to.

D. MOBILITY WITHIN THE FIRM

Many owners were reluctant to let go of the major responsibilities in their firms because of their distrust in anyone else's ability and honesty. Those responsibilities considered major ones by the owners were handling the daily cash box, helping the larger and most important customers, buying supplies, paying workers, advertising, opening and closing the workshop, etc. In most cases, the spouse or a relative would take over in the owner's absence. At the time of the interviews, more than half said they were seriously thinking about grooming someone to be manager or "el encargado" (the one in charge) to leave them (the owners) more time to make new contacts with buyers and sellers, to keep the books, to be with the family, and to take a vacation once in a while.

Those who were not thinking about sharing some responsibility with their top worker(s) had several different explanations. A few had already tried and it had not worked, they said, because they spent more time trying to teach the person how to do it their way than what it was worth. The rest said they had a brother or sister or spouse who already had the responsibility and who took charge when they were away. It was common among male owners was to have their wives do the bookkeeping, pay the bills, and sometimes do the selling. Women owners more frequently had a relative (sister or brother) perform these duties if they did not do them themselves. Most did not have a spouse and if they did, he was working full time, looking for work, or did not consider it his role. By and large, however, the women felt this was not a problem because they would always find a relative or a "conocido" (friend) who would want to help out.

The nature of the firms in which owners were not considering sharing responsibilities was such that they did not require as high skills as did those whose owners were thinking of grooming a manager. For example, a candy factory owner said there was no necessity to give responsibility to anyone because the main activity was "chopping coconuts and sifting sugar." Once an employee learned that, there was very little need to supervise him or her. A refrigerator repairman, on the other hand, said that "there is always a problem which requires special attention by someone who is more experienced. When I leave the shop for something I always need a man who can solve the problem because I cannot lose any customers."

Those who were concerned about succession outside family circles and who were thinking about delegating some of the responsibility (the optimists), complained that their firm had grown to a level where they could not possibly be the only person able to make a decision. "The other day I had to be downtown to sign an order with the tienda La Sirena. That same day I had promised the man who sells me my clay that I would be able to receive him. It was out of necessity that I gave my best worker the authority to purchase the materials from this supplier," explained an artisan. He said he was glad he did because now he has more time to spend away from the shop "looking for new markets." He intends to give him more responsibility (like closing the shop) after he sees how his employee does for a while. This way he can go home earlier.

Apparently there is a fine line between seeing the lack of a manager as a constraint to growth or as a necessity. Those who complained about "not having the time to do everything" said that if only they had a person they could rely upon to take over some of their duties, they would be able to travel to Puerto Plata, Santiago, and other cities in the country to sell their merchandise and gain more customers and thus grow. In this sense, the lack was seen as a constraint to growth.

On the other hand, when asked why they had not done this yet, this answer was consistent: it was difficult to find someone who cared for the firm as much as they did. Several owners said that since they could not trust anyone to do a good and honest job, it was more dangerous or risky to let go of the responsibilities. "I still think I could lose a month's worth of sales if I were to leave decisions to someone who does not know the enterprise as well as I do," said the owner of a mattress repair shop, pondering over the question.

Most mentioned the fact that employees were "not interested" in staying because they would rather be self-employed. "The best want the best and that is to work for yourself...begin your own microenterprise," a tailor told me. If a worker has learned and become experienced in the trade he feels ready to strike out on his own. In general, in order to have accumulated enough capital with which to start the operation, the person will have worked for enough time that the owner feels he or she has invested substantially in training him or her. Being self-employed and successful means that your earning potential is on average 2.8 times higher than the legal minimum wage.[17]

The fact that experienced workers leave to set up their own firms does not offer a full explanation of why these owners supposedly cannot find people to take on added responsibilities. In fact, many owners are reluctant to bring in an outsider to manage the firm because it signifies less control over the firm. Whereas some theorists view family labor as a form of exploitation, this study indicates that its use is a medium through which to expand and at the same time retain control of the firm. As mentioned earlier, quite a few owners had their spouses or close relatives responsible for bookkeeping, sales, or were available to take over in case the owner needed to be absent.[18]

E. BUYING MACHINES: A SIGN OF GROWTH?

The general perception among these firm owners is that the more machines their firms have, the healthier they are. Many blamed the inability to meet production targets on the lack of machines. "If only I could buy one more sewing machine, my firm could be producing twice as much," was a remark made by a clothing manufacturer.

Many described buying their first machine as a "gigantic" step towards growth in which sometimes entire life savings were invested. Others borrowed from moneylenders or from friends who were in the business. For some it was a case of inheritance; the parents had the business before. Some had used an ADEMI loan to buy their first machine for they had only recently established their businesses when they joined the program.

Despite this perception, machinery lies idle. It was not unusual to find one or two machines in a shop not being used. In explaining why, owners said they had problems with employee absenteeism, they were unable to repair the machines for various reasons, they lacked the skilled labor to run the machines, or an entire shift was not present while I was there. Thus, idle machinery stemmed in many cases from shortages of skilled labor.

Power outages also represented a very significant constraint on the ability to use the machines. Many owners complained that they never knew when they would be left without electricity and for how long. Sometimes they were left without electricity for the entire day so they had to release their workers since they had no work to do. Those few who were salaried represented a significant drain on the firm on these occasions yet they were essential to keep because they were the skilled ones.

Firms have no control over power outages which are becoming increasingly frequent. The government has had to ration the use of electricity; each section of the city has its share of blackouts. Unfortunately, the system is not well organized so that some sectors get cut off more often than others and there is virtually no warning or consistency. "If I knew just a few hours in advance that I would be without light, I could tell my workers not to come," said the owner of a printing firm. That day he was particularly frustrated because he had been without electricity for six hours and had a huge order due the following day.[19]

The difficulty in repairing machines is due to two main problems: the lack of spare parts and the shortage of skilled labor with the required technical knowhow. Lack of spare parts is a common bottleneck in developing countries and the ability to get them depends upon their cost and availability. Even if the part can be afforded, it may not be available.

For these microfirms, acquiring spare parts is particularly difficult because the machines they use are usually very old, were imported decades ago, and the manufacturers have stopped making spare parts for them. A common solution is to replace a defective part with a used part, or less frequently, to build your own part; but for that you need to know something about the machines. While some of these owners learned how to repair different machines from their previous jobs, others had to hire a person or send the machine out to a repair shop. A few owners said that sometimes it was not worth it to send the machine for repair because it cost less to buy another used one.[20]

Because there are businesses failing constantly and the price of a new machine is exhorbitant, the used-machine market is a relatively abundant and thriving one. Growing informal sector manufacturing firms seem to be in constant search for different machines. As they grow, they begin to acquire machines that will do specific jobs much faster than the human hand could. For example, the "average" clothing manufacturer interviewed had at least four straight-stitch SINGER machines which are the simplest household sewing machines. As they grew, they acquired industrial machines in addition to a machine that does buttonholes, one that does hems and cufts, one that does embroidery. An industrial machine will produce ninety pairs of pants in a day compared to thirty to forty produced by a lighter machine. Having a machine that does buttonholes may mean doubling or tripling the number of dresses sewn in a day. Having a machine which crochets lace means many wedding gowns and other similar attire can be made.

The extremely high prices of new machines leave these owners with little option but to buy used machines. A brand new industrial sewing machine sells today for RD$3000. (US$900)[21] whereas a second-hand, ten year old machine can be found for RD$800.(US$240.). The latter purchase requires substantial time spent, on the part of the owner looking for the best bargains. As the firm grows, the need to spend more time doing this is one factor leading owners to worry about delegating power to someone else in the firm.[22]

Interestingly, idle machinery is not considered a cost to the firm. My own concern with the issue brought out the problems described above. Asked if they did not see idle machines as a lost opportunity to earn more, a few said they had not thought of it, some said they were keeping unused equipment to sell later in case they needed cash suddenly, thus making up for this lost opportunity. It is also possible that these firms use the machines for twice as long as their "normal" or "expected" life span, so that the marginal cost of idle machines really is nearly zero. Idle machines may also be kept for spare parts. A few said they had taken advantage of a bargain "that does not present itself every day" because "some day" the machine will be needed and be too expensive to buy.[23] In cases where two shifts would overlap, the owner made sure there would "be enough machines for everyone to use."

There were other reasons underlying owners' apparent zeal to accumulate equipment. Several people mentioned how some of the store owners to whom they sold visited them to compare the number of machines their firm had to other firms in order to assess their productive capacity. Customers wanted to make sure jobs could be done on schedule, and suppliers were more inclined to make contracts with a firm that could absorb a steady flow of raw materials "because it has the machines." Skilled people were more apt to stay with the firm if they could learn how to run different machines.[24]

F. ADEMI'S ROLE

1. Quantity versus quality of employees

Owners were very cautious about describing their changing needs for labor because they did not want "anyone" to think their firms were stagnating. Who the "anyone" was determined whether the change in the number of employees was viewed as a positive one or not. For example, owners perceived that if they reduced the number of employees, they would get pressure from ADEMI to get the number of employees back up to original levels. "When I have had to let some employees go I have almost immediately been pressured to hire some more. ADEMI looks at the number of employees, not at who they are," said a clothing manufacturer.[25]

This man described how he had to lay off three apprentices to hire a "family man" who was skilled because the store he had signed a contract with was demanding higher quality work. While it was less costly to have the three youngsters working instead of one grown man "who has to feed his family and who needs certain benefits," he decided it would be more profitable in the long run to become this store's steady supplier. His relationship with the storeowner improved; the latter considered the decision a sign of "good management."[26]

This was the only owner among those interviewed who had actually had this experience. It was difficult to determine exactly how much pressure comes from the ADEMI promoters. Credit programs, such as ADEMI strongly emphasize the number of employees as an indicator of the health of these firms and pay less attention to the skill level or productivity of the labor. When promoters were asked why they did not keep track of who was replaced by whom in a firm, the general response was that it would be too time consuming and that it didn't make a difference anyway. The important thing was to see that the workforce was growing.

The risk in overemphasizing the quantity of employed is in overlooking the quality or productivity of those employed. It may lead to erroneous assessments of the viability of the firm and thus to incorrect judgements as to who deserves a loan. If growing means that the requirements for skilled labor increase and the firm begins replacing apprentices with experienced workers, then a decrease in the number of employees might indicate an indicate in productivity. Likewise, a swollen workforce may be hiding a low level of productivity making the firm weaker than most. In the first case, an opportunity would be lost whereas in the second case, a bad loan would be made.

While many studies focus on the informal sector as a major source of employment, very little is known about the conditions under which this labor is absorbed or how productive it really is. Keeping a record of the skills levels of labor replacements would facilitate research on this subject. Secondly, we expect the average real wage and output per employee both to rise as the workforce becomes more skilled. These may be better measures of the success of the firm than simply the size of the workforce.

Finally, this analysis tends to indicate that assessing the success of firms on the basis of the capital-labor ratio of each may be particularly misleading, for two reasons. First, the measure of capital is not depreciated to show the true value of the machines. Second, the labor measure itself is not divided to reflect the lack of homogeneity between skilled and unskilled laborers.

2. Legalization

The fact that ADEMI issues loans to firms which are illegal does not make the program unique. The UNO program in Brazil even seems to discourage those who want to become legal if it feels they are not financially ready to assume the numerous costs involved in legalization.[27]

Tendler points out that, while it may be realistic to resign oneself to this fact, it is somewhat disturbing to think that if these firms were not "protected" from the law, they would not survive. The results presented above tend to indicate, however, that as firms proceed to a stage of development requiring more skilled labor, the incentives to remain illegal are diminished. In this very real sense, ADEMI loans may ultimately encourage legalization of firms by their owners.

Lack of legal standing also explains part of the problem these firms have in getting loans from formal sector banks. A couple of the firms interviewed already qualified for the smaller loans from the Banco del Comercio; the value of their capital assets covered the guarantee required, they had a good credit history with ADEMI, their products were selling well, and some already had links through savings and/or checking accounts with this bank. However, they told me they could not fill out the section of the application which asked for their "patente" number because they were not completely legalized yet.

This is one step toward "graduation" ADEMI must deal with sooner or later.[28]

3. Lending

ADEMI began lending for working capital only, a characteristic which distinguished it from other credit programs which lend for both fixed and working capital. The idea was that small loans with short payback periods and no prior client training requirement would both streamline the process and not overburden the recipient with financial debt. The experience of credit programs such as the Dominican Development Foundation which lend larger amounts, for longer periods, and require training prior to receiving the loan, was that many beneficiaries were unable (and sometimes unwilling) to pay back the loan after they had invested in machinery or other fixed capital assets. The result was a decapitalization of the fund and an inappropriate "learning process" for the beneficiaries.

When a client first joins ADEMI he or she is eligible for a RD$100 to RD$300 loan which must be paid back in 3 weeks to a month. Monthly charges are between 2% and 3% which include closing costs and administrative costs.[29] Each successive loan is larger and will only be issued once the previous one has been paid back. Firms which show signs of growth and which have good repayment records are eligible for the maximum amount. Those microentrepreneurs interviewed all reached the maximum available of RD$5000 to be paid out in installments over 5 months. The theory behind lending larger amounts over several loans instead of in one lump sum is that the client "acquires and develops in a methodical form his/her potential for growth and repayment habits."[30]

Concurrent with lending in small amounts was the rule that these loans were to be for working capital only. For those firms borrowing at the lower end of the scale, this made sense but for firms who were growing and buying machinery, the larger loans were beginning to be used for fixed capital. In its executive summary, ADEMI stipulates that financing for fixed capital will require a different policy in terms of repayment periods, interest rates, etc., but does not go into detail.

While there may not yet exist a detailed written policy on lending for fixed capital, currently there are several microentreprises which have borrowed for that purpose only. These are the firms which have made the list for "graduates" to formal sector credit. ADEMI feels that these firms have grown to a level where they can easily absorb larger loans for expanding their productive capacity and that they are, in general, beyond the "immediate needs" stage associated with the need for working capital.

Buying machines is perceived as a sign that the firm is growing and is healthy. According to those interviewed, customers who own retail stores will visit their firms to compare the number of machines they have to the number in other firms in order to assess their productive capacity. Several owners had begun investing their latest loans in machinery, they said, because they wanted to take advantage before prices went up "too much." This behavior, of course, is not surprising in an economy with recent annual inflation rates of above 30%. According to informed sources at a major industrial country embassy, the inflation rate was above 3% a month for the latter half of 1984 and beginning of 1985, which means that the real interest rate on ADEMI loans may be negative, thereby subsidizing the cost of capital to these firms.

Finally, for those who had to buy machines much before ADEMI appeared on the scene, the credit represented a release from paying high interest rates charged by people selling the goods. Under those conditions, buying machines was a "very slow process which cost a lot more than if you bought it with cash and at once," explained a tailor.

Lending for fixed capital acquisition to firms with little experience with expansion may imply additional responsibility to see that the loan is used efficiently.[31] Raising the interest rate to real positive levels would take care of the problem much more easily and at a lower cost than having ADEMI supervise these firms. ADEMI, however, is bound by law to a maximum rate it can charge clients, which limits its ability to control what is presently, under negative rates, perfectly rational economic behavior among firms, i.e., to buy equipment and leave it idle.

FOOTNOTES

1. Data from a Yale study show this is the case for the majority of shoemakers setting up their firms (Peattie,n.d.,p.222)

2. Ekpenyoung (1985:27) finds in Nigeria that some workers see self-employment as a chance to be independent and "of earning 'big man' status through material wealth."

3. Sethuraman (1981:55)

4. Ibid:92

5. Ibid:73

6. The information gathered in this study is not sufficient to determine whether these apprenticeships assure well-paying future jobs or not.

7. I am grateful to Judith Tendler for pointing this out to me.

8. Upward mobility within the firm is an issue discussed in another section.

9. All U.S. dollar figures are based on the March 1985 exchange rate of U.S.$1.00=RD$3.00 (approximate)

10. Tendler (1983:142)

11. The author notes that this "does not apply to legal firms, which have no fear of the fired employee because the severance payment is taken care of by the state, and the conditions under which an employee can be fired are not stringent." (Tendler:142)

12. Severance pay means double salary over a two-week period which can be quite taxing to the firm.

13. There were three people who said they had placed at least one worker on a salary because he had become too good and made "a lot" of money working at piece-rate. They said that even though this had increased their production, they had had substantial increases in the costs of their raw materials lately and could not afford to spend more money on wages.

14. I heard of one case where an employee found a job with a formal sector firm but I was told that it was rare because there "was more opportunity in having a business and being your own boss."

15. Sethuraman (1981:73)

16. Peattie (n.d.:221)

17. Average monthly wage earned by a firm owner was RD$500.(US$150). The legal monthly minimum wage is RD$175.(US$52.5), close to what

many public sector employees make today in the Dominican Republic.

18. Ekpenyoung (1985:24) also found that entrepreneurs preferred to retain sole control over decisions and income.

19. Few of these microentrepreneurs pay for electricity to begin with because they tap into lines without the knowledge of the local electric company.

20. It was usually when the part cost a lot that buying another machine was cheaper. This was a rare happening. Some also said using an ADEMI loan made this option more attractive.

21. Exchange rate use is US$1.00= RD$3.00.

22. Usually it is the spouse who takes up the responsibility.

23. Some people were a little confused about the concept. For example, in one case, we talked about it for a long time, and at the end, the onwer said that in any case, he believed it was not lost because he saved money by not hiring a worker to use the machine.

24. Ekpenyoung (1985) finds in his study on the craft sector in two Nigerian towns that "adequate equipment is needed to get contracts from large firms or government departments, with their quality requirements and time limit. Furthermore, the best equipped firms attract high status customers and numerous apprentices and journeymen." (1985:24)

25. One of the additional advantages to having apprentices was that one could increase the "number of employed" rapidly and thus improve the chances of being accepted by a credit program.

26. This same man said that suppliers and customers (business contacts in general) sometimes advised him to buy a machine that would do the job of several workers so he would be "more efficient."

27. Tendler (1983:137)

28. ADEMI has recently begun requiring that firms requesting loans over a certain amount pay to receive technical assistance. A similar scheme could be developed to legalize those firms who receive the larger loans.

29. This rate cannot be compared to a commercial bank's rate because the latter will not lend such small amounts for such short time periods.

30. ADEMI Document, Annex V:3

31. A study done on women's participation in ADEMI found an "I'll borrow as much as they will loan" attitude, reflecting a belief among owners "that their businesses were capable of almost infinite expansion..." (Reichmann, 1984, p. 28)

CHAPTER TWO: LINKS WITH SUPPLIERS

Lack of access to raw materials is frequently cited as a major constraint to the development of small scale enterprises in the informal sector. Studies show that difficulties arise from these microentrepreneurs' bargaining position vis-a-vis larger firms in the formal sector, their lack of working capital, government legislation which discriminates against them, etc.[1]

Most studies show that informal sector microenterprises rely on small retailers in the informal sector for their inputs. In Lagos, Nigeria, 80% of sampled firms bought their raw materials from other small enterprises.[2] In another city in Nigeria, while most inputs originated in the formal sector, there was no direct link with the sector because retail traders carried out an intermediary role. In Ghana, the direct link with the formal sector is said to be negligible also because of the presence of middlemen. Half of the enterprises sampled in Jakarta purchased their inputs from small enterprises. In Manila, a majority depended on small firms for their supplies.[3]

Unfortunately, it is rare that these kinds of studies go into depth about the nature of these links, be they with small or large, informal or formal sector firms. There also is little insight as to how the microentrepreneurs see these relationships. For example, Schmitz criticizes Gerry (1974) for talking about how many producers rely on recycled materials without explaining the significance of this. "Does it mean that the supply is unreliable, that the small producers are at the mercy of those who discard materials, or what?"[4]

The present study shows how some microentrepreneurs who have changed suppliers view their different relationships. For example, as their firms have grown, the ability to choose whom to buy from has improved. For some, this has been a change from many suppliers to one or two. The literature generally portrays this reliance on one or two suppliers as a relationship of dependency, whereas these firmowners felt they had gained more control over their suppliers.

A. Changing Relationships as Firm Grows

Firm owners who had been in operation for at least five years talked about their experiences of buying from small retail firms in the informal sector and then gradually changing to larger retail and wholesale suppliers in both the informal and formal sectors. The experiences seemed quite similar across industries. Several case studies, in fact, have already shown a tendency for the larger and older manufacturing firms to rely on formal sector suppliers.[5]

Why do they switch? Owners described the time when they first established the firm as one during which their main goal was to increase their income enough to be able to buy their raw materials from enterprises which could sell at lower prices. Several were "lucky" because they got money from a relative or were able to borrow from a friend or a moneylender. One man said he had made a deal with his "best" and newly acquired customer to buy three dozen pairs of shoes from him, "the first time anyone had bought so many from me at one time!" With that money he bought his next supplies from someone who sold materials more cheaply than his regular man but who sold in larger minimum quantities. In those days (ten years ago) it was easier to get supplies on credit, he said, so he was able to continue buying from this new supplier for a while until he began bringing in enough income to buy with cash.

One of the main advantages cited by owners of buying from small firms in the informal sector was that they sold raw materials in small quantities. When these microfirms were young, they could only absorb small quantities of inputs given their productive capacity, and could not use, in addition to not being able to afford, large quantities at one time. These small suppliers also extended credit which enabled some firm owners to produce "when times were bad."

In recalling those "days of struggle" the general feeling was one of relief that they were over. Owners said that the main drawback to having to buy from the small firms was that it was very difficult to count on a steady flow of supplies. One man described how he was always hesitant to commit himself to a customer because he could never be sure about getting the necessary materials. "The problem for me was never demand, always supply," he said.

Other disadvantages to relying upon the smaller firms in the informal sector for inputs were that their prices were higher than those of larger firms, the quality of the merchandise was not good, there was less of a variety to choose from, and it was time consuming to shop around "looking for everything."

That the prices offered by smaller retail firms in the informal sector are higher than those offered by larger firms is not surprising since as intermediaries they buy from the latter and sell at a mark-up price to make some profit. As discussed earlier, there is substantial evidence concerning the role of many very small scale enterprises and hawkers who, as "middlemen," make a living by gathering materials and selling them to firms which need them for manufacturing.

Less variety or fewer brands offered by small firms meant less control over quality and price for small manufacturing enterprises. The concern over quality of input was particularly strong among shoe, ceramic, and clothing manufacturers apparently because the quality of their inputs tended to vary more widely.

The time spent in shopping around for various materials could have been more of a disadvantage for older firms than for younger firms because the older firms described having today (now that their firms were big), many more problems related to time management than they had had when they were first starting. For both kinds of firms, reliance upon small suppliers was perceived as a disadvantage since small suppliers could not provide enough variety in materials needed for production.

Despite these drawbacks, owners said that two advantages to these smaller suppliers were that they offered closer personal relationships, which made terms more flexible when the firm was having trouble paying, and that they were located close by, thus minimizing transportation costs. For these two reasons, owners had not severed their ties completely with these firms. In fact, a few microentrepreneurs said they were buying from these firms again because the larger suppliers were "hoarding" materials to "wait until the prices go up again." Some owners also said they sometimes needed the flexibility to send a "boy down to buy a box of nails if we run out." Such action was made possible because of close proximity and the ability or willingness of these suppliers to sell in small quantities.

The disadvantages to buying from the larger suppliers provide an answer to why these owners do not initially buy from the large firms: 1) the firm is required to buy large quantities (to take advantage of the wholesale price) which it cannot when it is small; 2) firms used to be able to buy on credit but today suppliers want cash; 3) transportation costs are higher because large firms are located on the outskirts of the city. For some, the transportation required poses a significant problem, especially if they do not have private means of transportation and there is no public transportation in place.

Owners said that on the off-chance that a formal sector firm "might" ask them to fill out a sales receipt with their firm's name on it, having the firm as a supplier was a disadvantage. Some described how they got around the sales receipt requirement, if it existed, by buying the supplies at a little higher price (but still lower than what was offered by the small suppliers) in order to obtain a receipt without their name or their firm's name on it.[6] In general, however, illegality did not seem to stand in the firm's way to obtaining raw materials. Owners said that suppliers needed a market in which to sell their goods and more often than not disregarded "details" of receipts and would not insist upon them.

The advantages to buying from larger suppliers seem to outweigh the disadvantages. Their prices are considered "more affordable" because materials are purchased in bulk. Larger suppliers have a wider variety of brands from which to choose which, owners pointed out, became important when they began concentrating on the quality of their products. The same was said of being able to get better quality materials from these firms. "Knowing where they get it [leather] from is important," said a shoe manufacturer.

Several people said that in addition to saving them time by not doing the shopping around themselves, larger suppliers can be used as contacts for prospective buyers. They described having made some of their better contracts through the firms who sold them the raw materials because the larger buyers of shoes, for example, also sold raw materials which they bought from the same supplier.

The advantage most frequently cited to buying raw materials from larger and wholesale suppliers was that they were more reliable sources because since they were bigger, they carried more clout than the small suppliers which meant they had fewer problems in getting the materials. "When most 'small' enterprises are unable to get the 'good' leather, I am able to," explained a shoe manufacturer who had grown to having more than 20 employees. In times of scarcity he has an advantage over smaller firms.

B. 'Dependency' From the Firm's Point of View

Literature which discusses informal-formal sector relationships frequently depicts informal sector firms as being <u>dependent</u> upon formal sector supply sources. From the perspective of firms which have grown, however, buying from these sources was seen as reducing their dependency upon the small retail firms in the informal sector. Many described being "at the mercy" of the small firms who were unreliable, relatively expensive, and generally "disconnected" with the circles where the "good" customers were.

As discussed earlier, owners' goals were to be able to earn enough and save enough to begin buying at wholesale prices from the larger firms. The advantages of the latter outweighed the advantages of buying from retail firms. One woman used to have an arrangement in which her customers supplied the cloth and deducted its cost from the price of the finished product. She had no choice but to accept the price they quoted. This was an obvious case of 'dependency'. Nevertheless, several owners considered her to be "priveleged" and wished they had had such an arrangement when they were first starting.

The woman said that at the time, she also considered herself "better off" than others because she was getting her supplies more cheaply and she had a steady supplier as well as a customer. "My enterprise was first starting and I was looking for customers." She said that later on, however, she realized that there was "a lot of demand out there" so from that perspective, the relationship was not the most advantageous because "I wanted to sell my clothes at the prices everyone else was selling and I could not." Nevertheless, the relationship has improved over the years.[7]

A major reason why these owners of the older successful firms considered switching to fewer but larger suppliers as becoming more independent was that as they grew to where they had a "good" clientele, i.e., stores which request a steady flow of merchandise, the need for new reliable suppliers with sufficient stocks became very important. A reliable supplier was considered especially advantageous in times of scarcity, because it meant being able to produce something others could not for lack of raw materials.

C. The Role of Imports in the Changing Relationship

Several of the older firms used imported raw materials. There were a couple of firms in the shoe manufacturing industry which had been able to replace some of the domestic leather they bought with imported leather. Local leather is of poor quality so in order to improve the quality of their products these firm owners explained how they had looked for suppliers that imported.

One artisan who did ceramics had a similar story about searching for better quality clay. Imported clay is easier to work with and less costly because it doesn't crack as often as the local clay does. In this case, mixtures of both were used.

In most cases, using imported inputs (in contrast to using domestic inputs), meant that the suppliers required proof of sales. Indeed, some of those firms who were using the "better leather" and the "good cloth" were legal. There were a few firms, however, which were not legal but somehow managed to obtain imported materials anyway. They explained that some microenterprises in the area would occasionally have these materials in stock.[8] The suppliers were unreliable in terms of delivery, however, which increased the risk of losing a "good" customer.

An additional drawback to relying on small firms for imports was that "one never knows where the supplies come from." A couple of owners were sure that, once or twice, they had bought leather that had been smuggled in because there would have been "no other way" in which this microfirm owner could have obtained what he did. Owners seemed particularly concerned about inadvertantly getting materials which had been obtained in an illegal way. There were cases described to me by different people about microentrepreneurs being arrested, unaware that they had bought stolen materials.[9] Most of the time these goods were overpriced and of mediocre quality as well. The risk of tangling with the law for those using imported inputs, therefore, is a strong incentive to get registered.

Despite the desire of a few of these firms to use imported inputs to improve the quality of their products and break into the "exclusive" markets of the higher class in Santo Domingo, there are definite drawbacks to relying upon imports regardless of whether they are bought from small or large firms. First, some owners said their suppliers had problems with delays in customs and sometimes it would take two weeks to get the goods out.[10] Second, laws change all the time, making prices and/or availability unpredictable. Tariffs on imported intermediate goods and raw materials are relatively lower than tariffs on imported final consumption goods because the former are subject to substantial tariff exemptions. Large domestic producers of raw materials, however, sometimes persuade the Ministry of Commerce to disallow the regular tariff exemptions on raw materials that would otherwise lower import tariffs from 70 to 15 percent.[11] This creates uncertainty among the users of imported inputs. Third, a microfirm has difficulty competing with larger domestic manufacturers which also use imported inputs because the tariff exemptions are granted to the large firms and not to the mircrofirms. Improving the quality of a good by using imported inputs, therefore, is much more difficult for a small manufacturer than it is for a larger manufacturer. This may be why only a few in this study rely on imported inputs.

Given their present situation, as described above, microfirm owners said that they would benefit in the short-run if the government remained in what they called, the "IMF austerity mood." Under austerity, tariff exemptions on raw materials would be removed. Large producers being protected by these hidden "subsidies," would have to raise prices upon their removal. Those microenterprises which rely mostly upon domestically produced inputs would find that their costs were not rising as quickly due to the removal of such subsidies, however. The relative disadvantage of being an illegal firm, in terms of access to imported inputs, also would diminish.

D. ADEMI's Role

1. Direct effects of credit

One of the main rationales for giving loans to microenterprises in the informal sector is to lower the costs of their raw materials to enable them to accumulate surpluses to reinvest in the firm. Without access to formal sector credit, these firms borrow from moneylenders who charge exhorbitant interest rates and who offer very short terms on the loans. In Santo Domingo, rates can get as high as 20% a day.

The way a firm survives when its only access to credit is the moneylender is to purchase small quantities of raw materials, usually on a daily basis. Small firms are willing to supply small amounts but often at relatively higher costs. For example, the price per unit for wooden heels is RD$6.00 whereas when bought from larger suppliers by the dozen, they cost RD$4.00 each.[12]

All firm owners said they were grateful to ADEMI because the credit had allowed them to buy raw materials in bulk at wholesale prices. Owners said that the ability to get the materials many times depended upon whether they could buy a large quantity or not. Often times the smaller firms or hawkers did not have the goods. People described times when they had to turn "small" purchase orders down because they had not been able to purchase enough raw materials to produce enough. "If only I had those extra five hundred pesos five years ago, I could have met that man's request. I lost a very good, potential customer that way. He was testing me and I failed," said a clothing manufacturer. Another person said, "There were many opportunities missed where I could have bought a shipment of cloth from someone if only I had had the extra money."

The ability to get raw materials at the lowest possible cost was crucial to their firms' survival, owners said. The savings made through bulk purchasing often made the difference between whether there would be enough profits to reinvest in the coming month or not. Unfortunately, it was impossible to get figures on the exact change of these costs because owners had not kept records.

2. Indirect effects of credit on the relationships with suppliers

There were other reasons why the lack of credit was seen as an obstacle to growth, reasons which rarely feature in the literature. Many owners said that receiving credit from an established institution enhanced the firm's image and played an important role in increasing the confidence the larger suppliers had in the microfirm's ability to pay on time and in its regularity of demand. When suppliers needed the "flexibility" to delay an order because of a temporary shortage, they could feel confident that their clients would "survive" those times, a few people explained.

More than half of those interviewed said their experience has been that, when dealing with customers, suppliers, and fellow businessmen, it "would be very good" to owe money to an institution. A shoe manufacturer said: "I quickly figured out that I would be in a more advantageous position if I could only borrow from a bank because then my suppliers would see that if a bank trusted me enough to lend me its money, then why should not my suppliers trust me to pay them on time for their materials?" Today, he says, he is trusted by an institution but, nevertheless, people (including himself) are becoming more and more reluctant to issue credit because of the inflationary environment.

FOOTNOTES

1. Gerry, 1978; Schmitz, 1982

2. Sethuraman (1981: 63,87,98,117,126)

3. Ibid.

4. Schmitz (1982:440)

5. Sethuraman (1981:196)

6. I was unable to verify this practice by talking to suppliers so this statement is solely based on what the firmowners said.

7. She eventually "convinced" the store owners that her clothes merited higher prices and they agreed so that today they are considered her "best supplier and consumer."

8. Suppliers were not interviewed so it was impossible to determine the exact status of these firms.

9. This happened to a client of ADEMI's who was put in jail for buying wood imported from Haiti which is strictly prohibited.

10. One source of delay is that all imports must have the approval of the Dominican Consul in the country of origin. This means that when the consul is absent for a few days, the goods are not transported. (Conversation with Dominican businessman)

11. Sources at a major industrial country embassy in Santo Domingo.

12. A shoe manufacturer, personal communication.

CHAPTER THREE: UNSATURATED AND UNTAPPED MARKETS

Despite the present economic crisis in the Dominican Republic, sample entrepreneurs were very optimistic about expanding markets for their products. My own impressions as an outsider were somewhat different. A few days before my arrival in the country, President Blanco had announced price hikes for rice and other staples. Rice, being very dear to the Dominicans, brought people out into the streets to riot in protest. Stories abounded about the poor looking for leftover vegetables in the market place to feed their children with, the middle class tightening its belt and losing to inflation, and the rich unable to buy imported wine (the only kind there is) because its price is rising as import restrictions are enacted to alleviate the growing balance-of-payments deficit. All-in-all, the situation looked bleak.

A. Demand is not a Constraint

During the course of the interviews, it became a little clearer why firmowners, in general, believed demand for their products was not a constraint on expansion. Owners did say that times were difficult now but they attributed this mostly to the rising costs of inputs, the shortage of skilled labor, and the fact that because their firms were larger now, they were vulnerable to "many more things" than they used to be when they were smaller. Overall, the general perception of each microentrepreneur was that there is infinite demand among consumers within each income class but the difficulty lay in penetrating the different markets initially. Owners linked their increased vulnerability to attempts to differentiate their products and/or diversify into different products. The challenge was to overcome this "vulnerability" and once having penetrated the market, there they would find infinite demand.

A substantial portion of the interviews in which I talked about market demand was spent discussing people's goals and aspirations. Therefore, for example, while many expressed the desire to reach the upper income class markets to capture the profit made by selling their products at a higher price per unit, only two of those in my sample had achieved this goal. The advantages and disadvantages of selling to one type of customer versus another were largely based upon owners' perceptions of what their colleagues' experiences were rather than their own experiences.

The fact that there is already empirical evidence citing similar perceptions about markets among manufacturers in the developing world lends support to what these owners told me. Peattie says in her study of shoe manufacturers in Colombia that, "over and over again we heard manufacturers say that their problem was not the lack of markets, but in obtaining the capital and raw materials to satisfy the demand existing out there."[1] Tendler, writing about manufacturing firms who were clients of the UNO credit program in Brazil, says:

> For these firms, the 'constrained' market was even less of a concern than it was for the retail stores; the firms seemed to imagine a limitless market for their products and services, the only constraint being their inability to reach that market...[2]

B. Selling to the "Tiendas"

"In the first stages of shoe production," Peattie writes, "...the functions of production and distribution were linked by a single set of stores; the ordinary firm was a household-size operation with the shop in front and the workshop behind."[3] This was found to be true for shoe manufacturers in Santo Domingo and for tailors, artisans, a sweets factory, and a refrigeration repair shop, in fact, all those interviewed except for a candlemaker. Owners said that when they were "small" they found it advantageous to sell to individuals because they could not produce large quantities then, and they could use cheap materials (vinyl, polyester, domestic clay) because people in their neighborhood were poor and were willing to buy their goods. Those who were located in an area far away from the central commercial district felt they had no choice but to cater to low income clientele close by.

A common way to reach final buyers is to sell to the "buhoneros" (street vendors) who crowd the main avenues with their makeshift kiosks and blankets on the sidewalks in front of the stores. The "buhoneros" buy small quantities of dresses, shoes, ceramic vases, etc. from these workshops and make a meager profit by selling their wares to the crowds.

Owners said that as they were able to secure raw materials at bulk prices, they began producing one or two styles in larger quantities. The goal was to wean themselves from the "buhoneros" and from retailing to low income consumers. The "tiendas" also sell to low income people but they buy in large quantities. The disadvantages to selling to the "buhoneros" were that they bought in small quantities and only "when business was good," leaving the firmowners "colgando" (hanging) in bad times.

At this stage, owners began selling to the "tiendas" (large retail stores) along the main commercial strip in Santo Domingo. The advantages of selling to these new customers are that they sell the low-quality merchandise to "larger" populations of low income households; they represent a steadier demand than the "buhonero" or individual client; and the owner knows at least 15 days in advance that a certain amount of merchandise will be sold because the stores fill out "pedidos" (orders) periodically so he or she knows how much to produce.

Owners said that the "type of product" consumed by the lower income classes is such that in order to do well at selling it, it has to be produced in large quantities. For example, making dozens of pairs of plastic shoes in which maybe you vary the colors a little is "safer" than making dozens of leather shoes because "you know there are many more poor people than rich people." Owners seemed to feel that as long as they could only produce shoes of lower quality, they were better off selling to the "tiendas." One man said, "If I had a store in the rich neighborhood, nobody would buy my shoes. If I were rich, I wouldn't buy them either."

There are disadvantages, however, associated with selling to the "tiendas." First, firms must transport their products to these stores, which represents an additional cost to the firm. Second, since these stores buy at wholesale prices, the firm does not get the profit it would if it sold at the retail price as they do to "buhoneros." Some clothing manufacturers said that these stores sell their dresses for three times as much as what they buy them for. Third, several owners said they felt they had <u>less</u> power over the "tiendas" because the competition among their suppliers was keener than the competition they faced from microenterprises such as their own. "The competition used to come mainly from all the other clothing manufacturers like myself, who are small and cannot produce that much. Now, I must compete with some of the larger domestic producers because they also sell to the 'tiendas'," said one producer of jeans.

The owners of the younger firms interviewed said they still sell to individuals because some of the "tiendas" do not pay on time, their checks bounce, and "the larger microfirms already sell to them anyway." Peattie was told the same story by a workshop owner and she writes about the problems of selling to "tiendas":

> A larger producer with whom we discussed this issue said that this was a problem faced particularly by the smaller producers, who tended, in turn, to sell to small and undercapitalized distributors.[4]

One woman who had found individual customers more profitable (although "maybe not the most reliable"), said, "It is better for me to spend extra time on one item when I can get three times as much for it than I could selling at wholesale prices by the dozen."

In addition to the disadvantages, described by owners, of selling to "tiendas", changing to the new seller-buyer relationship was an ordeal. The initial contact required an extra effort to market samples of the product. Several clothing manufacturers said that convincing the store that the firm was reliable was the hardest part. Two people claimed that "tienda" owners had tried to intimidate them by saying they could buy merchandise from an importer at a comparable price and, at the same time, be sure about the quality and date of delivery. In their cases, they said they had to supply these stores for a couple of months before these were willing to sign a three-month contract.

Despite the sometimes undesirable relationship with the "tiendas," owners said they were better off than before because once the contact was made, the relationship was strong enough to where they could count on regular purchase orders. Reducing the uncertainty caused by fluctuations in demand associated with individual consumers was considered an extremely important advantage over those firms still retailing. Owners explained that while there exists an "infinite" demand for the products, it is easier to deal with steady demand than volatile demand. That the big stores could accommodate changes in volume better than their own smaller firms was the general perception.

C. Improving Quality to Reach "Boutiques"

The steady flow of requests for production coming to some of the owners in this study, has enabled them to begin concentrating more on quality and different styles, in the case of clothing, footwear, and ceramics manufacturers. These owners expressed strong desires to compete with formal sector firms which cater to the more affluent sections of the population, such as "boutiques." The advantage to this which was mentioned most frequently was that larger profits per unit of production were made because the merchandise could be sold at a much higher price than that sold to the "tiendas."

One woman decided to increase the variety of styles but continued making women's and girls' clothing. Once she had begun supplying two of the larger "tiendas" in the city, she thought it necessary to "distinguish" herself in the field. She now makes dresses for gala affairs, first communion, 15th birthdays (an important celebration in the Dominican Republic), in addition to the aprons, summer shifts, skirts and blouses she has made all along. She said that once she could count on a monthly purchasing order, she felt it safe to experiment with new styles.

A shoe manufacturer began diversifying into leather shoes of different styles after he had been supplying several distributors along the main avenue. He said it has been a dream of his to test out his own ideas. A self-taught artisan said she was taking classes to learn how to make porcelain vases which she planned to sell to some of the boutiques which are located in the luxury hotels. She said she already had interested clients. "I showed them what I could do and they liked it."

There were only a few cases in which microenterprises had begun selling higher quality goods. The majority in the sample had not tried to yet, even though it was their goal. They said that they were adjusting to the current climate and that they would have to "wait" for a while until "things got better."

Several said that their opportunities to reach the more affluent markets would improve as long as the government had to improve its balance-of-payments deficit. The recent measures taken to reduce imports of final consumption goods through devaluations of the peso were interpreted as a good sign for them because it meant that retail stores, which sell imports and therefore are the ones which cater to the rich, would be substituting these with domestic goods. The larger domestic producers of these goods would not present "too much" competition in the short run, to the extent that they rely more heavily on imported raw materials than most of these microfirms do. To the extent that their inputs will be subject to higher tariffs because of fewer exemptions, as discussed in Chapter Two, larger producers' costs of production will go up forcing them to raise prices. The increase in the share of the formal sector retail firms' market may be indirect in that the microfirms will become the suppliers of finished goods to these retailers which would, in turn, sell to the public. Thus, the austerity measures may improve the microfirms' position in relation to that of larger formal sector domestic producers who presently sell their products through the same retailers.

D. ADEMI's Role

One of the most interesting effects of the ADEMI program, and one over which owners seemed to get very excited, was the nonfinancial effect the program has had on their firms. These clients felt there was a definite relationship between being a client of ADEMI's and the ability to obtain and retain new customers.

There are three main reasons why. First, stores want references and ADEMI is considered a good one, not only as proof that the microfirm is financially sound, which was defined as "not having to suddenly ask for the payment before the products are delivered," but also that the owner was trustworthy and reliable. These two qualities, but especially the trustworthiness of an individual, were said to be a major concern among Dominicans.

Second, it was very important to these "tiendas" that their suppliers have some kind of contact with an institution. As one man described it:

> The fact that I can give them a phone number through which to contact me, or that I can give them a downtown address, or the knowledge that I can get professional advice from people educated in universities, gives me an identity very few people like myself can achieve in this city. (clothing manufacturer)

Third, the knowledge that, as long as the loans are paid back on time there will be more coming, has contributed to a feeling of confidence among these microentrepreneurs. Several people commented on how much more secure they felt knowning they would have the cash with which to buy the materials and meet the buyers' contracts.

FOOTNOTES

1. Peattie (n.d:212)
2. Tendler (1983:126)
3. Peattie (n.d.:126)
4. Ibid.

CHAPTER FOUR: GRADUATION

One of the objectives of the ADEMI program is to "train microentrepreneurs in the experience of credit" so that they may "graduate" to a bank or another lending institution. One aim behind lending in small but increasing amounts and for short periods is to minimize the risk of default to the client (and the institution) so that he or she may establish a good credit record and be considered a worthy risk by commercial lenders.

ADEMI staff stress the importance of direct contact between a client and a bank. After a staff person visits the business and completes an application for the client, the recommended loan amount is sent to the director of ADEMI for approval. It takes only a few days for approval and disbursement of the check from ADEMI's account at the Banco Popular, a private local bank, at which the agency maintains a revolving loan fund. The first time, a client is accompanied by a staff person to the bank to familiarize him or her with the procedures and to open a savings account, which is required in order to receive a loan.[1] The client receives subsequent loans at the ADEMI office and may cash the checks at any one of the Banco Popular's four branches throughout the city.

The fact that ADEMI does not handle the financial transactions for the client but a bank does instead, is a way of involving private banks and "educating" them for different kinds of clients. It also reinforces ADEMI's image of an institution which is providing an answer to the problems of unemployment and lack of growth through private sector initiatives. ADEMI sees itself as a complement to institutional credit but as an alternative to informal sector credit.

A. Releasing the "Good" Clients

ADEMI began by lending only for working capital because its founders considered it risky to fall into the same "liquidity trap" other credit programs had fallen into by lending large amounts for long periods for fixed capital. The reasons were that 1) ADEMI would forego the possibility of having an efficient revolving fund which was essential if it became a "massive lending program"; 2) the fund would decapitalize rapidly and ADEMI would never become self-sufficient, a goal which is still taken very seriously; 3) the effects of the first two outcomes would be "demoralizing and disastrous," from which the organization would not recover; 4) ADEMI would forego the opportunity to "collaborate" with other programs which lend for fixed capital.[2] In other words, ADEMI would not be graduating its clients to other institutions.

It was stressed that the first few loans to a client were not expected to satisfy his or her needs for capital, but were intended to "educate the client in the use of credit." The feeling was that if the client was not "trained" to use credit, ADEMI would be unable to have a high repayment rate. This was because the risk was greater to the client when he/she got the first loans and it was felt that risking RD$100 instead of RD$500 was more judicious. Exceptions to these rules would create precedents, making it more difficult to say "no" to the next client who might "really" need a loan for fixed capital.[3]

Six months after opening its doors, ADEMI was issuing short-term loans for fixed capital. Several firmowners had requested loans with which to buy second-hand machines and these were granted. ADEMI said that as long as these loans were for less than RD$4000 and for no longer than 4 months, they would not affect the institution's cash flow, would not raise its transactions or administrative costs,[4] nor limit the market which ADEMI could serve. With regard to the last point, ADEMI emphasizes that the majority of the institutions serving microenterprises in the country work with loans for fixed capital for periods of a year or more. Since, according to ADEMI, the majority of microfirms do not need "that type of credit," by offering short-term loans, ADEMI believes it is working with those at the lowest level.[5] A four-month loan still qualifies as short-term and therefore, ADEMI has not excluded firms from the market it originally began to serve.

Today, they are still making exceptions to a declared maximum. There are clients who have received loans between RD$7000 and RD$15,000 for a period of 6 months. This represents between a 21% and a 159% real increase in the maximum amount ADEMI will loan to a client.[6] This has set a precedent for ADEMI to keep raising the maximum on loans and could theoretically threaten to create the kinds of problems ADEMI's founders foresaw two years ago. Nonetheless, because ADEMI has maintained a 92% loan recovery rate and those firms receiving the larger loans have proven so far that they are able to pay them back on time, the institution feels justified in continuing to raise the ceilings on the amount of each loan it makes.

That ADEMI has been issuing increasingly larger loans, however, gives the impression that it is reluctant to let go of the best clients and actually see them "graduate" to other banking institutions. Several months ago, it drafted a list of 50 microenterprises which 1) required more than RD$5000 (US$1500) or 2) were "eligible for a RD$10,000 (US$3000) from the Central Bank's

Investment Fund for Economic Development (FIDE)." Seven of these, while remaining as clients of ADEMI's, have received credit from the Association for Investment and Employment (ASPIRE), a non-profit Christian development organization affiliated with the International Institute of Development, Inc. (IIDI) in Washington, D.C. One woman got a loan from what is popularly known as the Banco de la Mujer, an affiliate of Women's World Banking, and one person obtained credit from the Banco Popular, the private bank through which ADEMI issues loans to its own clients.[7]

B. Alternatives Available to Microenterprises

There are, essentially, four layers of credit markets in the Dominican Republic: commercial banks regulated by the Central Bank, nonbank financial intermediaries not subject to portfolio regulations, private development banks ("financieras"), and moneylenders in the informal sector. An inflexible ceiling of 12 percent on the official interest rate has led to differing rates between these sectors. The "financieras" charge an effective rate of around 36% annually while commercial banks are allowed to charge up to 17% per year (the 5 points above the ceiling are charged through fees and commissions). Informal sector moneylenders are unlimited in the interest rates charged.

From the perspective of a microentrepreneur, there are three sources of credit available: programs such as ADEMI, which are regulated by official markets, the private banks, and moneylenders.

Programs, such as ADEMI, which are specifically intended for microentrepreneurs, do the lion's share of the work in the informal sector. Several firmowners had not tried to approach the commercial banks because they said they had ADEMI already, and as long as the loans kept getting larger, they would remain as ADEMI clients. Another problem is that commercial banks typically will not lend small amounts for short periods (less than one year). A third problem stems from a general scarcity of loanable funds due to low real interest rates.

Strictly speaking, ADEMI does not offer subsidized credit. In fact, by issuing one to six-month loans, it currently charges an effective annual rate of around 30% instead of the 17% to 18% charged on loans of one year or more by commercial banks. A commercial bank will offer a minimum loan of RD$10,000 to be paid in a year at a 12% interest rate plus 5-6 percentage points to cover closing costs. On a RD$4000 loan to be paid back in 4 months, ADEMI clients pay RD$160 (4%) in interest and RD$240 (6%) in closing costs.

Since the inflation rate is currently running at some 3% per month (36% on an annual basis), however, the real interest rates charged both by commercial banks and ADEMI may be negative. Typically in this situation, some form of credit rationing must occur. Thus a good case can be made that commercial bankers will tend to provide loans to longstanding clients, at the expense of microentrepreneurs. This is especially true given that smaller loans require higher closing costs per amount lent.

Penalties for late payment of loans at ADEMI are considered comparable to a bank's penalities, according to various bank officials. As discussed earlier, a client who is late for 1-15 days pays between RD$2.00-RD$5.00 a day plus a 3% monthly interest charge. After 15 days, legal proceedings begin. The "pagare," a document the client has signed in which he or she agrees to terms of the loan, can be used in court to take legal possession of a client's belongings if full payment is not made.

According to ADEMI's part-time lawyer, the threat that legal action will be taken is sufficiently real that very rarely do clients default on their payments.[8] "The cases which have occurred have been good examples for people," she said. If a client does not reach a verbal agreement with the lawyer, the case is taken to court. For loans under RD$1000, the hearing is scheduled with the Justice of the Peace and for loans above RD$1000, the case is taken to the Tribunal Court. The client is given a date on which the loan must be paid.

There have been some cases where clients have missed the deadline set by the court and ADEMI has sent the sheriff out to the client. A notice announcing that their belongings will be auctioned off, and stating the reasons why, is placed on the door "for the neighbors to see." According to the staff, there has not been a case where the person has actually lost their belongings. "The person realizes that he will lose everything if he doesn't pay the loan when he sees his furniture in our office, ready to go to the auction market," said one staffperson. One client did have a sewing machine confiscated, however, said another member of the staff.

Its interest rate policy and strict measures to deal with default loans have reinforced ADEMI's image in the community as a financial institution, rather than as an organization with social goals. This image is constantly emphasized by the staff, who argue that it is part of the process of educating microentrepreneurs in the ways of the formal sector. Another program, ASPIRE, which is targeted specifically to microenterprises in the informal sector, however, shares quite a different image among firmowners in this sample (specifically, as being a social organization), which may explain why several who "graduated" from ADEMI did so to this institution rather than to a formal sector bank.[9]

Those firmowners who did look for other sources of credit beyond ADEMI said they needed larger amounts and longer repayment periods than what ADEMI offered.[10] The longer repayment periods at ASPIRE were more flexible and "you don't have to pay so much in interest," said one person. A few of those who received loans from ASPIRE said they had not previously known that they could get a loan of RD$2000 for one year, "only pay 2% a month," and get technical assistance for "free."[11] They felt they were getting a "fairer" deal, although they still stayed with ADEMI "because you can get the money faster."[12]

It also seems as if ASPIRE's image as a "social" organization was linked with the relatively longer repayment periods on its loans. Owners said they did not worry so much about being "a little" late on their payments because if they did not pay anything for an "entire" year, several weeks more would not make much of a difference. This perception that leniency is associated with long term loans may provide a partial answer to high default rates experienced by other credit programs. It is also a clear example of the need to "educate" someone with the use of credit.

Asked why they had not gone to ASPIRE first, some owners said that they had to fill out a questionnaire which asked that their fixed assets be placed as a guarantee against the loan, and they had not passed the test. One said that he had wanted to start with a smaller loan (ASPIRE's minimum is RD$1000) in case he couldn't pay it back, and others said they had not heard of the program until after they had borrowed from ADEMI. All said they thought ADEMI was more efficient and less intimidating because they had almost no paperwork to fill out and they were given the loan "immediately." Efficiency in loan disbursements and the lack of intimidation seem to be very important to these owners. They all said that being able to request a loan one day and get the check the following day was very necessary in their business because there were times when they would suddenly need the cash to buy raw materials or a machine that was on sale, and they could rely on ADEMI to provide them with it.

The fact that they were not required to fill out "mountains of paperwork like at other banks" avoided embarrassing moments, they said. Some said they could not write too well because they had not "practiced enough." Some said that since they did not know how much their machines or houses were worth "in detail," they could not give that kind of information. "If I go to a bank I will be too ashamed to let them know I cannot answer their questions. They will then think I am not good enough for the loan," explained one man.

C. The Transition to Banks

It is difficult to determine at this stage when these successful firms will be able to become clients of formal sector banks. First, the fact that some of them see successive loans as a cushion to weather slumps in demand and price hikes in supply may signal to a bank that their firms are not entirely financially sound because they are not making enough to save, or the owner has not been "educated in the habit of saving."[13] Second, the fact that a bank regulated by the government has no choice but to require the "paperwork" may mean that in order to "graduate," these owners will have to be taught or convinced that they must fill it out. Third, it might be necessary to wait until the firm accumulates enough capital assets with which to meet the matching guarantee criterion banks have. A bank will loan RD$10,000 minimum against RD$10,000 worth in capital assets. To date, forty percent of those interviewed had met this criterion. Finally, there is the issue of scarcity of funds due to negative real interest rates, which may be inducing commercial banks to engage in some form of credit rationing, to the exclusion of smaller, poorer borrowers.

The issue, in ADEMI's case, may be whether these firms will <u>want</u> to go to formal banks or not. As long as ADEMI continues to raise its maximum real amount per loan and to lengthen its repayment periods, it will have satisfied firmowners' two major complaints about the program. The longer the loan periods, the less incentive there is to go to commercial banks. In fact, a bank would represent a less desirable alternative because it would require a guarantee which ADEMI presently does not.

FOOTNOTES

1. For each loan, a minimum savings account balance of approximately 20% of the loan is required.

2. ADEMI files, April 1983, p. 3.

3. Ibid, p. 2.

4. Issuing a check four times in four months is not more costly than issuing a check once for one month.

5. ADEMI files, October 1983, p. 2.

6. Real increases were calculated using a price deflator based on the average inflation rate for 1983 of 7.7%, estimated by the Central Bank. Only one client has actually received RD$15,000 (US$4500).

7. ADEMI staff were, in general, pessimistic about the ability of these fifty microentrepreneurs to get financing from the formal sector. My conversations with the Director of ADEMI on this subject were extremely brief but, overall, she was optimistic about their ability, once times got better for all Dominicans.

8. This may be a factor contributing to ADEMI's 92% loan recovery rate.

9. In a study of women's participation in ADEMI, the author found that clients were unhappy with the repayment periods because they were too short (Reichmann, 1984: p.40).

10. I was unable to interview the one person who did get credit from a bank (Banco Popular).

11. ASPIRE charges an annual interest rate of 12% on the outstanding balance plus a 12% fixed fee on the principal per year which goes toward technical assistance. They are lumped together and since clients do not pay a monthly fee (as they do for technical assistance at ADEMI), they think it is free.

12. It sometimes takes 4-5 weeks to get a loan from ASPIRE because applications must be approved by their Washington office. It takes 2 days at most to get the check from ADEMI.

13. Even though ADEMI requires clients to keep a savings account, these are often drawn down to RD$50.00 (US$15.00 at US$1.00 = RD$3.00) regardless of the amount of the loan. Some clients save 1.5% of their loans instead of the 20% required.

CHAPTER FIVE: STAGES OF GROWTH

This chapter provides an analysis of a microfirm's development process from the time it is conceived as an idea by the owner to where it has secured contracts with formal sector firms for its supplies of raw materials and markets for its products. Three stages of growth were defined based upon the findings presented in Chapters One through Four. Firms were divided into these three stages according to how long they had been in operation. Owners consistently related the various changes their firms experienced to this length-of-operation criterion. The stages were also defined by who the firms' suppliers were, to whom the firms sold their products, and what the firms' needs were for labor.

The first stage is defined to include firms which have been in operation for an average of 1.5 years with a range of one to two years. The eight firms in the sample which fell into this group were selling primarily to street vendors and individuals within their neighborhood, were buying from small local retail suppliers, and depended heavily upon nonremunerated family labor and young apprentices. They were using their loans primarily for raw materials.

The second stage is comprised of firms which have been in operation for an average of 5.2 years with a range of 3 to 8 years. The ten firms in the sample which fell into this group had begun selling to medium-sized stores or "tiendas" in the central commercial district of Santo Domingo, and had begun buying their supplies at wholesale prices from larger firms. Some of the firms in this stage had adopted the hiring-firing "technique" described in Chapter One in which employees are released before they become eligible for the legal minimum wage and benefits.

Stage Three includes firms in operation for an average of 16 years with a range of 12-25 years. The four firms in the sample which fell into this group had had contracts with the "tiendas" for a while and some of the firms had begun selling to boutiques, stores which cater to the upper classes in Santo Domingo. Firms in this group had solidified their relationships with the larger suppliers and some even bought supplies from importers. These firmowners were found to use credit more frequently to raise a worker's salary or hire a new skilled worker than did owners of firms in the other two stages.

Following the analysis of a microfirm's development process, the role of a credit program in each of these stages is examined. This portion of the analysis is also based upon the findings discussed in Chapters One through Four.

A. Preparing for Self-Employment

For those who had previously worked in large factories, the average number of years of experience in the field before they started their own business was less than for those who had worked in smaller formal sector firms or informal microfirms. The main reason seemed to be due to the difference in the ability to accumulate capital. Most shoe manufacturers in the sample were previously employed by larger factories and had an average of 15 years work experience whereas clothing manufacturers and artisans who came primarily from microenterprises, had an average of 22 years of experience in the field. A factory worker is more likely to get severance pay than a microfirm worker and often times this is collected to start a firm. Another factor which seemed to play an important role in the decision to set up a business was the ability to attract customers. Many owners began their businesses while still working. Those who had worked in microenterprises considered the lack of customers as a more important problem than those who had had a higher paying job. The extra capital seemed to provide the security or, at least the feeling of security, that those coming from the microenterprises did not have. Instead, the latter emphasized the ability to "steal" the customers away as the crucial "turning point" at which they decided to leave the job and devote themselves entirely to the new business. Taking business away from a microenterprise is probably a more realistic endeavor than from a factory, anyway. A worker in a factory has little, if any, direct contact with the clientele, unlike someone working in a microenterprise. Furthermore, the market which a new informal sector business is likely to sell to is not the same one the larger factory is catering to. Indeed the "contacts" made was seen as a unique advantage to working as an apprentice in a microfirm.

B. Stage I: The Birth of the Firm and its "Days of Struggle"

1. "Natural Advantages"

The first years of a firm's life are marked by a unique reliance upon what can be called its "natural advantages:" the availability of family labor, second-hand equipment, neighborhood markets, recycled raw materials, flexibility, and lack of administrative complexity. Owners describe these times, which lasted from one to two years as "days of struggle," where the family works many hours to keep the business going and "keep the bread on the table." Family members carry out the tasks that workers hired from outside take on in later stages. More frequently one of the spouses does the selling while the other makes the product with the sons and/or daughters. The workshop is set up in the back and customers drop by to have tea and purchase a pair of shoes or a dress they have ordered. Sometimes wives spend entire afternoons attending one customer. Business is done locally where customers come to the shop instead of the shop seeking out the customers. There is no time to look for customers, owners explain, because "... then who would make the shoes?"

One of the advantages to selling to local customers is that they buy goods which are made out of cheap, lower quality, and often recycled materials, the only kind the firm at its early stages can afford to purchase. The shoemaker's ability to create "everything out of anything" means the firm is able to generate enough to buy more raw materials and cover basic family expenses. No salaries are paid because family members contribute their labor when they get home from a job or if unemployed, devote themselves full time to it. Some sons and daughters even leave jobs to help the parents with the business. The owner devotes himself entirely to production because there is little need for administration.

The earliest stage of a firm generally means no more than a subsistence wage for the owner. The owner is challenged with daily problems but the belief that the firm will eventually bring in more income than what the owner was making before self-employment encourages him or her to continue. As the microentrepreneur learns more about his competitors who, at this stage, are microfirms of similar size, he begins to find out where others buy their materials and how to get the "good" customers. The psychological benefit of being "your own boss" weighs heavily in favor of hanging on and eventually "subsistence" becomes the way of life of other microentrepreneurs.

2. Beyond Subsistence and toward Stabilization

Probably the greatest change a firm experiences is when it begins to replace family labor with paid workers from outside. Members, particularly the offspring, often go on to other things if they have the opportunity, once the firm begins to generate enough income to hire people. The prime motivation for hiring non-family members is that the product is selling well and the owner wants to increase production to meet the growing demand and needs more help. When relatives do stay around they assume positions of responsibility, which generally means leaving the production process. They will do the bookkeeping, or handle the cash, take over the selling duties, etc.

One of the factors which allows a microentrepreneur to hire wage labor is the large number of youth and unemployed persons seeking a way to make a living. These groups are willing to take very low wages and accept no guarantee of job security in exchange for employment as apprentices. Another factor is the ability to break away from microfirm suppliers who are unreliable and costly providers of raw materials. In some cases, this involves relationships with new customers.

The hypothesis that microenterprises survive because they do not observe minimum wage and social security laws, do not pay fringe benefits or observe the eight hour work day, and so on, is certainly found to be true for these microentrepreneurs. At this stage, when the firm is just barely beyond subsistence, "reaching for stability" as one interviewee described it, apprentices are brought in to do the work and the firmowner teaches them and supervises them. Often times one will find the owner carrying out the more complex tasks in the production process while one or two boys do the simpler tasks. For example, shoe manufacturers described when they used to design the shoes, cut the leather, sew the uppers and the apprentices put the heels on, maybe sewed the uppers to the soles, shine the shoes and package them. Among artisans, apprentices mixed the clays, cleaned the shop, put the clay into the molds and the owner would glaze and paint the pieces.

Once the firm brings in people from the outside it begins to rely on them. Losing an employee when there are only two or three can set a firm back considerably, yet the owner is unable to pay more in wages to entice them to stay. This seems to be a true matter of survival for the firm and not a deliberate policy of exploitation on the part of the owner.

As increased production of the firm brings in more income, the owner typically invests it in more labor. This is where the hiring-firing "technique" described in Chapter One seems to be adopted by some. Rather than retain workers by paying them higher wages, owners hire more and tend to keep them until they become eligible for severance pay, fringe benefits, or the legal minimum wage. The rationale given is that once an employee is earning the minimum, the owner no longer has the flexibility to lower the wage in bad times. Firing an employee after he or she gets double the equivalent of a two-week salary in one lump sum is an impossible payment for the firm given its illiquid state.

It seems that the hiring-firing "technique" is a reaction to the firm's slight loss in one of its "natural advantages": flexibility. Owners cope with seasonal slumps in demand by buying fewer raw materials. This amounts to a reduction in the cost of production. When labor becomes part of these costs, the firm needs the same kind of flexibility. In this case, in order to reduce the cost of the labor input, owners must avoid the penalty associated with it once it becomes more "fixed" in nature, which is when a worker becomes legally eligible for certain minimum benefits. So, owners keep apprentices until they have worked for six months at which time they become "operarios" (skilled workers), eligible for the minimum wage and thus "fixed." At this time they are released.

Many apprentices agree to less than the minimum in exchange for various Christmas bonuses, family help when needed, and emergencies. Some owners were proud to tell me about how they had "conspired" with their employees not to tell the authorities that they had been working there for more than three months. The ability to do that means the owner has a good relationship with his workers, something to be proud of. It is when the firm has a larger labor force that the hiring-firing "technique" described in Chapter One seems necessary because the owner has less time to nurture his relationships with the workers.

Another factor which allows a microenterprise to add to its labor force is its ability to lower the costs of raw materials. This means acquiring some "extra" income which the owner can use to buy materials in larger quantities at wholesale prices. Often times the way a firm gets this "extra" income is to find a customer who will buy more than one or two pairs of shoes or who will order a couple of dozen dresses. Some owners take the merchandise to stores, trying to get these to place an order. Others sell to the "buhoneros," street vendors, who sit in front of the stores along the main avenues. While these do not buy as much as stores do, they do represent an improvement over the occasional customer from within the neighborhood.

Sometimes getting enough money together to buy a large order of cloth or leather requires resorting to a friend, relative or the infamous neighborhood moneylender. Herein lies the main rationale behind credit programs such as ADEMI. Without access to institutional credit, owners must pay daily interest rates of up to 20%, which often leaves them without any money to reinvest, defeating the whole purpose behind setting aside the "extra" income. With programs that are willing to lend at lower rates such as 2%-3% a month, the firm is able to secure raw materials at bulk prices thereby lowering its costs and after paying the loan back, the firm is left with enough profit with which to reinvest and actually expand its production.

C. Stage II: Stabilization

Once a firm is able to buy raw materials in such quantities so as to reduce the per unit cost of this input, it is on its way toward stabilization. The "days of struggle" come to an end when an owner no longer is solely reliant upon buying small quantities of inputs at small retail firms or individuals. As discussed in Chapter Two, these firms work to the advantage of the manufacturer in his early stages because they are willing to sell in small quantities, the buyer-seller relationship is close and informal providing the flexibility (for example, credit) needed in times of trouble, and their close proximity minimizes transportation costs. However, the reliance upon these small suppliers maintains the firm at the subsistence level because it can barely cover the costs of the materials at the prices offered. The goal of the owner is to break away from these firms, which as "middlemen," cover the costs of dealing in small quantities by selling raw materials at prices above those offered by larger retail or wholesale firms in either sector.

Owners said that half the battle was over once they were able to buy raw materials from larger stores. The wider variety stocked by larger suppliers cuts down on the numerous trips across the city in search of one thing or another. Owners worry less over whether they will be able to get certain items because these suppliers carry more clout than smaller ones which means they have less difficulty with obtaining the materials. Larger suppliers also provide an opportunity to make contact with larger stores who buy products sold by these microenterprises. For those firms which use imported raw materials, buying from larger suppliers means more reliable delivery dates, fewer chances of getting stolen goods, and relatively lower prices.

Along with a gradual switch to larger suppliers, growing firms reach out beyond the neighborhood in search of larger markets. The lower cost of raw inputs and the growing number of apprentices in these workshops push the firms' production possibilities curve to where they are able to produce larger and larger quantities. In general, it selects one or two variations of the same product, for example, two styles of ladies' footwear, and produces these in volume for the longer stores. The firm continues to sell to individual customers the styles it always produced but this market is no longer its only source of income.

The market that is sought after is the growing working class which includes low and middle income populations. These consumers do their shopping primarily along the Avenida Duarte, a commercial strip lined with "tiendas" (medium size stores) and bustling with street vendors. The "tiendas" sell at prices considered affordable by many Dominicans, thus satisfying the needs of the majority of the population. It is to these that firmowners turn to sell their products.

Chapter Three describes the various advantages and disadvantages associated with this move and, at first glance, one might think the firm is worse off supplying these "tiendas." First, most of these firms are located far from the central commercial district where the larger stores are found. In order to deliver the goods, then, firms need transportation which is often difficult to obtain. Second, these stores buy from the microfirms at wholesale prices, retaining the profit the microfirms would get if they sold retail. Third, competition is keener when selling to the "tiendas," according to owners, because the large domestic producers of shoes clothing, etc. also sell to these "tiendas." Fourth, some of the younger firms interviewed complained that the "tiendas" often do not pay on time or that their checks bounce. They had not switched to "tiendas" because they were less profitable or because "the larger microfirms already sell to them anyway."

From the perspective of owners of older firms, however, buying from larger suppliers and selling to the "tiendas" is highly desirable and necessary if the firm is to bring in the kind of money that will improve the owner's standard of living and that of the workers. Securing contracts with these stores is a means through which a microfirm controls its environment. "Tiendas" reduce the uncertainties caused by seasonal fluctuations in demand because they will buy enough merchandise from the firm to allow it to continue at a steady rate of production. Having reached this "plateau" in which a firm can count on a minimum monthly income, it is able to diversify into more lucrative markets.

D. Stage III: The Safe Road of Expansion

By this stage, a firm has begun generating sufficient income to provide for the owner's family, to keep investing in increasing amounts of raw materials, to continue hiring more workers, and to begin accumulating fixed capital. Selling to the "tiendas" means improving the quality of the product above that of what is produced for local neighborhood markets because the microfirm is now competing with formal sector producers. This change requires the use of more skilled labor which leads to discontinuing the hiring-firing "technique" practiced by some. The loss of trained workers through this method becomes too costly for the firm. In addition, some firms want to use imported raw materials to improve the quality of the goods. In order to gain access to these inputs a firm must purchase them from formal sector importers who require proof of sales. This is a strong incentive to become legalized.

Chapter One describes how firm owners began "discovering" the costs of not paying employees the minimum wage and benefits required by law and improving general working conditions when they had decided to improve the quality of their product or they needed to delegate some responsibility or, as in one case, the owner needed to protect his merchandise. "Legalizing" an employee is the way owners reduce costs such as stolen merchandise or lack of skilled emloyees to make a product of a higher quality which, from their perspective, outweigh the additional costs incurred by increasing wages and providing benefits. Even so, owners find it difficult to retain skilled employees because many leave to up set their own shops. Other cases studies have found similar shortages of skilled labor facing microfirms.

While it is certainly true that self-employment leads many skilled workers away from microfirms (the same owners are an example of that), it is also plausible that workers leave because of the limited opportunities for upward mobility within these firms. This hypothesis is supported by what owners themselves described in interviews. Owners who do not think about sharing responsibilities with their top worker(s) say they would rather have a family member take over the major duties such as cash and sales because they cannot trust any outsiders. They say employees are not interested in more responsibilities but the employees, in turn, say they never consider it because they are never asked. With two exceptions, owners who were thinking about delegating responsibility outside family circles had not done it yet and when employees were casually asked if they aspired to becoming assistants to the owner, they said they did but that they had no hope for any change in their present status because they had been there for years and nothing had happened yet. One employee said the owner had complained about management problems periodically for as long as he could remember, and to this day he was in the same position he was three years ago.

The reluctance of owners to reduce their control over the enterprise is more noticeable at this stage of a firm's growth because it is here that the managerial and administrative tasks of handling 20-40 employees, numerous contracts with "tiendas" and suppliers, and now the introduction of credit (ADEMI) are often overwhelming for a single owner to handle. It is at this stage that an owner feels the most need for someone to take over some of the tasks such as handling the daily cash box, for example.

Accumulation of machinery is considered a healthy sign of growth among firm owners, as was described in Chapter One. Owners may accumulate machines to the point where there may be several that lay idle. Many invest their loans directly into a machine that will carry out a specialized task. The "natural advantage" of using second-hand machinery allows this firm to produce at a lower cost than a firm using the higher priced "modern" machine. It also allows the firm to gain a competitive edge over other microfirms who are not yet beyond the stage of "sustenance." Machines not only increase labor productivity but they attract the "good" customers and suppliers who apparently keep a watchful eye over these firms, they provide security to the owner in the sense that the machines can be sold, and they attract the better workers who look for chances to learn new skills.

When a firm leaves the neighborhood in search of larger markets, it walks directly into formal sector territory. From the firm owner's perspective, the first "penetration" into this territory occurs when he or she secures contracts with some of the "tiendas" to whom the larger domestic producers also sell. This is followed by a period in which the firm "consolidates" its position as a reliable supplier of goods to a number of stores which, as time goes by, develop "close" relationships with the microfirm and become its "loyal" customers. Those owners who live to tell of the experience are very proud of being a good friend of Mr. X on the Avenida. Firms still keep their makeshift stores in the front of their homes but the sales from these are minimal.

The second "penetration" occurs when the firm is ready to sell a line of shoes or clothing of finer quality to the "boutiques" in the city. These retail stores are special because they sell to the more affluent middle and upper classes. They pay much more than the "tiendas" do because they sell their merchandise at much higher prices than those afforded by lower and middle income Dominicans. Selling to boutiques means competing with imported goods in addition to those produced by larger domestic producers. While only a few firms in the sample have actually sold some of their product to boutiques, owners are generally optimistic about facing the new competition. As discussed in Chapter Three, owners see their chances improving as long as the government continues its present policies to alleviate the balance of payments deficit. Reducing imports of final consumption goods means that these boutiques will begin substituting domestically produced goods. The microfirms' "natural advantages" of using domestic and recycled raw materials will allow them to undercut larger firms' prices. To the extent that tariff exemptions on imported intermediate inputs are removed and that larger firms depend more heavily on these imported inputs and therefore on this "subsidy," larger manufacturing firms' costs of production will rise forcing them to raise prices in the short run.

Perhaps, theoretically, these microfirm owners have a good case. Realistically, however, the competition is by no means easy. Those firms in the sample which have contracts with the "tiendas" have been operating for at least five years. The two firms which have recently begun selling small amounts of merchandise to the boutiques have been in operation for 16 years. A monthly inflation rate of 3% in 1985 and repeated devaluations of the peso have caused sharp rises in the cost of these microfirms' inputs to where many firms have adopted a "sit and wait" attitude, i.e., they are happy to keep selling enough to live off of and not expanding their workshops or their labor force. Interestingly, the recession has had little effect in changing the common perception that there is an "infinite" demand within each income class. The difficulty is still perceived as being the initial entry or "penetration" to the market.

E. THE ROLE OF CREDIT

Having outlined the stages of a microfirm's development process, we now turn to an analysis of the effects of a credit program upon each of these stages.

In the first few years of a microfirm's existence one can expect credit to be used both for the purchase of raw materials and for family or personal consumption. The amount of raw materials purchased would be limited by how much assistance the owner gets from the family in terms of labor and by how much of the loan is used to satisfy urgent personal needs. Based upon interviews, owners recalled having to borrow money from neighborhood lenders to feed their family because they had spent what little they had on making their product and this had not been sold yet. Using the loans for family emergencies, however, would not automatically imply defaulting on the loans because there are cases in which the owner holds on to a job during these early years of the business. Also, spouses may contribute to household income by dividing their time between the business and a job outside the home. The challenge is to maintain a minimum level of liquidity so that access to a loan from an institution like ADEMI, i.e., at more affordable rates than those offered by the moneylender, would mean the owner would have cash left over to invest in more raw materials without jeopardizing his family's well-being.

As word gets around the neighborhood about the new establishment, business picks up and sales increase. At this point, credit can expect to contribute increasingly to enlarging the workforce of the firm because at this stage paid labor, mostly in the form of apprentices, gradually replaces family labor. Owners who had been in business for an average of 19 years described how in their first years in business, they invested every "chele" (penny) into hiring more workers so they could keep up with the demand they had no idea existed in their neighborhoods. Owners who had been in business for an average of 2 years at the time of the study said they had used the loans primarily to hire "many workers and buy more raw materials."

A firm which has been successful in its early stages can also be expected to invest the credit in increasing amounts of raw materials in an effort to begin purchasing at wholesale prices. The push away from a reliance on small retail suppliers is an attempt to reduce the cost of this input as the firm increases the total cost of the other variable input, labor. Owners of older firms described how they were "lucky" to have borrowed money from the local lender or a relative or had sold a larger volume than usual because with the "extra" income they had been able to buy raw materials at a lower cost. Programs such as ADEMI, dissolve the microfirm's "natural disadvantage" of having to borrow from a moneylender and enable it to reduce this cost sooner than it could without such a program.

The search for larger markets beyond the neighborhood is in part a firm's response to the same "natural disadvantage" it has of not having access to affordable credit. The "extra" income is sought by securing contracts with the "tiendas," as was discussed earlier. At this point, credit plays a role in the firm's ability to secure these contracts. The fact that the owner owes money to an organization enhances his image as a trustworthy and reliable individual. Microfirm owners are more willing to accept an order from the "tiendas" because they can be confident that they (the owners) will have the money with which to buy the raw materials. Credit, in this case, would facilitate the expansion of a microfirm by improving its chances to establish or strengthen links with larger businesses.

Selling to the "tiendas" involves a change in the quality of the goods being produced. The result is a growing need for skilled labor which marks the end of the hiring-firing "technique" practiced in some firms. The accumulation of fixed capital has already begun and owners become increasingly preoccupied over finding the skilled workers to run the machines. The incentive to legalize becomes stronger to the extent that it attracts the better workers and it facilitates dealing with importers from whom some microfirms begin to purchase their raw materials (to increase the quality of the merchandise). Owners also feel more "vulnerable" to the penalties associated with violating the law as their firms grow larger and become more intricately involved with formal sector economic institutions.

There seem to be more variations in the way credit is used among firms which are in Stage III. Some firms invest a portion of their loans in workers' salaries in an effort to keep the "good" employees. Others use them to repair or buy machinery. A few spend the loans on imported raw materials which in some cases are more expensive than the domestic equivalents. Some owners buy their licenses to become legal. Loans are also spent on marketing the products such as newspaper or radio advertising or buying fancier packaging materials.

<u>CHAPTER SIX: SUMMARY OF FINDINGS</u>

This thesis is an analysis of the role of credit in the changing structures of <u>successful</u> informal-sector manufacturing firms and their relationships with buyers and sellers in the rest of the economy. Twenty-four firmowners, clients of the Association for the Development of Microenterprises, Inc. (ADEMI), were interviewe in-depth in Santo Domingo, Dominican Republic over a period of one and a half months. A firm's changing needs for labor, its different sources of supply, the different markets for its products and its ability to 'graduate' to commercial bank credit are analyzed over time as the firm grows. Three stages of development of a microfirm are then identified based upon these findings. The following is a summary of the findings discussed in Chapters One through Five.

A. <u>CHAPTER ONE: LABOR</u>

1. Owners who had worked as apprentices in factories or larger firms prior to setting up their own businesses found that the training provided by their former employers was, in general, inappropriate for running their own firms. Their own firms were at a much smaller scale and level of development than were the larger firms they used to work for. The ability to accumulate savings for start-up capital was considered the main advantage to working for someone else.
2. Owners who had worked as apprentices for microenterprises before self-employment found their training useful but had more difficulty accumulating capital, given the lower wages offered by these firms relative to those offered by larger factories. The

ability to attract customers away from their former employers, however, was considered a substantial advantage to having worked as apprentices for microfirms.

3. Young apprentices comprised at least 50% of the workforces of the firms in this study. Firm owners based their decisions to hire an apprentice primarily upon the latter's honesty and integrity. The reputation of the apprentice's parents and his friends influences the owner's judgement about the young person's honesty and integrity.

4. By and large, apprentices work faster than do the trained workers because the former are paid at piece-rates whereas the latter are salaried.

5. A firm's legal status is considered a separate issue from the decision to "legalize" an employee, i.e., to observe the labor laws. The decision to "legalize" an employee was influenced by the firm's labor requirements and its ability to pay the minimum wage, and benefits.

6. Most firms are unable to pay minimum wage and benefits in their earlier stages of development. Some of them adopt what is referred to in the text as the "hiring-firing" technique in which employees are released every 3 to 6 months before they become "operarios" or skilled workers, entitled to the legal wage and benefits. As these firms grow and begin supplying stores which require merchandise of a higher quality, they abandon the "technique" because they can no longer afford to release the trained workers.

7. When asking a firmowner about employee turnover, the interviewer should know which stage of the firm's growth the owner is referring to. In this study, when the question about turnover rates was first posed, everybody <u>complained</u> that workers left after they were trained, also found to be true among UNO clients in Brazil (Tendler, 1983). Once the interview focused on an earlier episode in the history of the firm, however, it was discovered that high turnover rates were <u>encouraged</u>, a finding consistent with that of Peatties (n.d.) study of Colombian shoe manufacturers.

8. A firm may have difficulty retaining skilled employees because a) it may not be paying high enough wages relative to other firms; b) the firm offers limited opportunities to employees for upward mobility into, for example, managerial responsibilities, because the owner is reluctant to relinquish control of the firm; and c) workers leave to set up their own shops because of the high potential earnings relative to those of a wage earner and the psychological appeal of being your own boss.

9. Male owners had their spouses do the bookkeeping, pay the bills, and sell the product whereas female owners more frequently had a relative other than their spouses perform these duties or did them themselves.

10. The general perception among firmowners is that the health of their firm is reflected by the number of machines it has. Machinery is accumulated as a hedge against inflation, currently running at 36% a year. Fixed capital is used to attract the larger contracts from suppliers and buyers who, according to firmowners, visit their workshops to assess their firm's

productive capacity. Machinery also attracts the better workers who look for the opportunity to learn new skills.

11. In most of these microfirms machinery lies idle. This is due to employee absenteeism, an inability to repair the machines due to the lack of space parts and/or the know-how, a shortage of skilled labor, and frequent power outages. Idle machinery, however, is not considered a cost to the firm because of the role it plays in attracting clients and workers and because the machines are used for twice as long as their "normal" or "expected" life span, so that the marginal cost of idle machines may really be nearly zero.

12. ADEMI, as do other credit programs, strictly relies upon the number of employees as an indicator of a firm's grwoth and pays little, if any, attention to the skill level or productivity of labor. Firmowners in this study, on the other hand, pay closer attention to the productivity of their employees. The result is that firmowners feel pressured to hire more employees to remain in good standing as clients even though hiring more workers may not make economic sense to them.

13. The risk in overemphasizing growth of numbers of employed and in disregarding the skill level of a firm's employees is that incorrect decisions can be made as to who is worthy of a loan and who is not. Slow growth of a firm's labor force might be due to the replacement of apprentices with experienced workers. A loan criterion which emphasizes enlargment of the workforce may conceal a low level of productivity. In the first case, an

opportunity would be lost and in the second case a bad loan would be made.

B. CHAPTER TWO: LINKS WITH SUPPLIERS

1. When informal sector manufacturing firms are first established, they often are solely reliant upon buying small quantities of inputs at small retail firms or from individuals. The advantages of buying from these small suppliers are that they are willing to sell in small quantities, the buyer-seller relationship is close and informal providing flexibility (for example, credit) needed in times of trouble, and their close proximity minimizes transportation costs.

2. The goal of firmowners in manufacturing, however, is to break away from the small retail suppliers and to purchase their raw materials from larger stores. In later stages of growth, firms buy from larger suppliers due to their ability to offer quantity discounts, their reliability of supply, their diversity of supply, the quality of their merchandise, and because they can provide introductions to customers. Those interviewed did not view the relationship with large suppliers as one of dependency but in fact felt then when their firms were young they were at the mercy of the smaller retail suppliers.

3. Smaller firms may increase their market shares relative to large firms due to he introduction of IMF austerity programs. Large domestic manufacturers are granted exemptions on import tariffs which is a way of subsidizing these firms. Microfirms, on the other hand, are not granted exemptions which means they do not

get access to low-tariff inputs. In other words, they do not benefit from the subsidy. Under austerity measures, the government would be reducing the number of imported inputs eligible for exemptions. In the short run, large firms using these inputs would see their costs rising and would be forced to raise their prices. Microfirms which rely mostly upon domestic inputs would find that their costs were not rising as quickly due to the removal of such subsidies, however. The ability to keep their prices below those of larger firms would enable the microfirms to penetrate markets previously controlled by the larger firms.

4. Loans for raw materials help microfirms lower their input costs by enabling them to gain access to larger suppliers. The ability to get contracts with larger suppliers is often based upon whether a microfirm can buy larger quantities of raw materials. The lack of money to purchase these is often a severe bottleneck to the firm's development.

5. The link with a lending institution increases the confidence among these larger suppliers to sign contracts with microfirms. For example, microfirmowners said that some suppliers were more likely to extend credit once in a while now that they (the owners) had become ADEMI clients.

C. <u>CHAPTER THREE: UNSATURATED AND UNTAPPED MARKETS</u>

1. The general perception among microentrepreneurs is that there is "infinite" demand for their products. The challenge lies in penetrating the market initially. Supply factors such as the

rising costs of inputs and the shortage of skilled labor make diversification into new products to be sold in new markets a very difficult task for the firm.

2. When the firm is first established, it sells to individual customers and street vendors. As it grows, it begins selling to medium sized stores because these represent a steadier demand than do individual customers: the owner knows at least 15 days in advance that a minimum amount of merchandise will be sold.

3. The goal of some firmowners is to begin selling to the boutiques which cater to the higher income classes. These stores buy products at higher prices than do the "tiendas" (larger retail stores) because they sell these products at higher prices to people who are willing to pay more than those shopping at the "tiendas."

4. Opportunities to reach these stores, which cater to the more affluent markets of Santo Domingo, were believed to improve under austerity measures because boutiques would begin replacing imported final goods with domestic equivalents. The larger domestic producers would see the cost of their inputs rising, and to the extent that this would force them to raise their prices, they would present significantly less competition to microfirms in the short run than under normal circumstances.

5. Having contact with a formal sector credit institution such as ADEMI gives a firmowner an identity which facilitates contact with formal sector buyers of his goods. First, buyers want references as proof that the microfirm owner is a trustworthy and reliable individual. This increases the likelihood that contracts will be honored. Second, the difficulty of contacting

the owner of a microfirm who otherwise would be hard to reach, because he either has no phone or he is located far from the buyers, is reduced when he is linked to an institution which is located downtown and can be reached by phone. Third, the access to credit (provided each loan is paid back) gives the microfirm owner confidence that he will be able to meet an order from a buyer because he will have the cash with which to buy the necessary raw materials.

D. CHAPTER FOUR: GRADUATION

1. ADEMI gives the impression that it is reluctant to let go of its best clients and see them "graduate" to other banking institutions because it keeps satisfying clients' only complaint of the program by lengthening the repayment periods and enlarging the amounts of the loans, a policy which was strictly avoided by ADEMI's founders two years ago. ADEMI began by lending short-term loans (1-3 months) of small amounts (RD$100-300) and for working capital only with the intention of passing its clients onto other insitutions once they required larger loans for fixed capital. To date, however, ADEMI continues to raise the maximum amount it lends and to lengthen the repayment periods and has begun lending for fixed capital. Some of ADEMI's best clients are currently borrowing up to RD$15,000 for a period of over six months. Given this policy, clients have had no reason to graduate.
2. A few of those firmowners who did seek loans from other institutions, went to the Association for Investment and

Employment (ASPIRE), a non-profit development organization in Santo Domingo, which offers relatively larger loans for even longer repayment periods. The long repayment period (minimum of one year) was considered a sign of leniency by owners, who believed that being "a little" late on their payments would not make much of a difference if they had had the loans for over a year. That leniency is associated with long term loans may provide a partial answer to high default rates experienced by other credit programs. It is also an example of the need to "educate" borrowers with the use of credit.

3. It is difficult to determine whether successful firms can graduate to commercial or public sector banks. Bankers are reluctant to lend to firmowners who talk about using their loans to carry them through slumps in demand or price hikes in supply, because this indicates a severe problem of liquidity. Paperwork, which firmowners are reticent or unable to complete, must be processed and the risky nature of the firms forces a bank to stick to its minimum matching guarantee criterion in which a firm must match the amount of the loan with the value of its fixed capital assets. Most commercial banks are bound to this rule by government law. Finally, the shortage of loanable funds in the economy, caused by negative real interest rates, may be inducing banks to engage in some form of credit rationing to the exclusion of smaller, poorer borrowers.

E. CHAPTER FIVE: STAGES OF GROWTH

This chapter provided an analysis of a microfirm's development process through time. Three stages were defined based upon the findings discussed in Chapters One through Four.

1. Stage I of the firm's life is marked by a unique reliance upon its "natural advantages": the availability of cheap and/or unpaid family labor, second-hand equipment, neighborhood markets, recycled raw materials, and administrative flexibility. These are the "days of struggle" in which a firm buys raw materials in small quantities at high unit costs and sells to individuals and small firms in small quantities. The main advantage of selling to local customers is that they buy goods which are made out of cheap, lower quality, and often recycled materials, the only kind the firm at its early stages can afford to purchase. The small suppliers also work to the advantage of the manufacturer in his early stages because they are willing to sell in small quantities, as discussed earlier.
2. Stage II is defined as the period of stabilization in which a microfirm secures contracts with larger suppliers and larger customers. These changes mean a more reliable and cheaper supply of inputs and a more reliable source of demand for the microfirm. Larger suppliers stock a wider variety of inputs, have less difficulty obtaining materials than do smaller firms, and provide an opportunity for microfirm owners to make contact with buyers from larger stores. Larger stores, i.e., the "tiendas" described in Chapter Three, reduce the uncertainty caused by seasonal fluctuations in demand because they will buy enough merchandise

from the firm to allow it to continue at a steady rate of production. The change to supplying these larger stores requires the use of more skilled labor (because they demand a higher quality product) which leads to discontinuing the hiring-firing "techniques" practiced by some, as described in Chapter One.

3. By Stage III, the firm has cemented its links with formal sector firms which form the basis for a secure path of expansion into different markets, such as "boutiques" which cater primarily to the upper-middle class in Santo Domingo.

4. Credit seems to play different primary roles depending on the stage of development of a firm. In its early stages, one can expect credit to be used for the purchase of raw materials and for personal consumption. In Stage II, firms spend their loans on hiring more workers and buying raw materials. Credit also seems to facilitate securing contracts with larger stores because being affiliated with an institution enhances the credibility of an owner with the buyer. ADEMI, in this case, provides an identity to its clients and the fact that ADEMI is willing to issue loans to them is usually enough proof to the buyer that his supplier (the microfirm owner) is a trustworthy and reliable individual. Firms in Stage III seem to invest a larger portion of their loans in worker's salaries in an effort to keep the skilled employees. A few spend their loans on more expensive imported raw materials and a few invest them in marketing and packaging their products.

APPENDIX A: ANALYSIS OF ADEMI DATA

Data on microenterprises funded by ADEMI were analyzed using statistical techniques to provide empirical underpinnings to the findings of this research. Briefly, cross-sectional data were obtained on each of 41 ADEMI firms at the time of the receipt of each loan (see Table A-3). Each of the firms studied had received at least 9 loans, ranging in period of repayment of from one to four months.

Generally longer repayment periods were awarded once the borrower had successfully repaid several short-term loans. Variables observed for each firm included the loan value (or debt, since the borrower was interviewed in each case after having completely retired the previous loan) and dates on which the loans were disbursed and due. At the beginning of each loan disbursement, owners were questioned concerning the size of their workforces, the value of their fixed capital, monthly wage bills, materials used, and sales.

Variables were stated in current pesos, so that construction of an inflation index was necessary. Both the IMF International Financial Statistics and the United Nations Bulletin of Statistics were used to calculate monthly index figures. When these were not available, figures were interpolated. The latter four months of 1984 and the first two months of 1985 were estimated based upon a 36% annual inflation rate calculated by sources at a major industrial country embassy in Santo Domingo. (The inflation index which was constructed is included in Table A-2.)

The statistical procedure used was designed to test the effects of the loan program upon participating firms. For this purpose, a "before" and "after" approach was undertaken in which economic data on each firm at the time of disbursement of the first loan were compared with the same variables at the time of disbursement of the ninth loan. Normally the former occurred in early 1983 while the latter occurred in late 1984 to early 1985. Comparison of means from this type of "paired" sample is a standard statistical technique. The null hypothesis is that the two means are not statistically different, or that their difference is zero. The alternate hypothesis in each case is that the mean has changed, and, where hypothesized a priori, changed in the expected direction. Each of the variables reported in pesos was deflated prior to being tested.

The hypothesis that ADEMI loans over the period were associated with a change in the structure of the average firm involving more skilled labor was validated in two separate tests. First, the average wage, in 1982 pesos, rose as expected, showing a t-statistic significant at 95% levels under a one-tailed test (1.857). Second, sales per worker among (skilled plus unskilled) rose significantly, as expected, at 95% levels under a one-tailed t-test (1.730). This result was obtained despite the recessionary impact upon inventories which might have been expected to cause sales per worker to remain stagnant. (The ideal ratio would have been output per worker, or labor productivity. However, this could not be derived, since data on inventories were not compiled by ADEMI until recently.)

These results, taken together, indicate that the firms' expansion under the ADEMI program required hiring more skilled laborers, lending support to several of the hypotheses put forward in previous sections. In contrast, the capital-labor ratio showed no significant change, lending support to the finding that this measure may be misleading.

(Recall that capital reported has not been depreciated, while labor has not been classified into skilled and unskilled components.)

Wage payrolls per unit of capital rose significantly, however, with a t-statistic of 1.960, justifying in yet a third manner the hypothesis that firms will use more skilled labor with respect to capital. Sales per unit of capital did not change significantly; this result is not unexpected, however, since under the skilled labor hypothesis, owners will have had to hire workers at higher wages in order to increase sales.

Finally, real values of capital, wage payrolls, sales and materials usage all rose in real terms along with the real value of debt of the 41 firms, as expected.

STAGES OF DEVELOPMENT OF A MICROFIRM

	STAGE I "Days of Struggle" →	STAGE II Stabilization →	STAGE III Expansion
LABOR REQUIREMENTS	.nonrenumerated family labor .begins to hire apprentices at below minimum wage	.hiring-firing "technique" adopted as firm increase workforce	.hiring-firing "technique" discontinued .increased rate of accumulation of capital equipment .increases in labor productivity through hiring more skilled workers
INPUT SUPPLIES	.small informal-sector retail firms	.larger wholesale suppliers	.imported inputs
OUTPUT DEMAND	.individual customers .street vendors (low icome groups)	First "penetration" .medium-sized stores "tiendas" (lower to middle income groups)	Second "penetration" ."boutiques" (upper income groups)
EFFECTS OF CREDIT PROGRAM	.gives "extra" income needed to begin buying from wholesale suppliers .used for personal family consumption	.invested in hiring workers and buying raw materials .serves as contact for new customers	.used for salaries to retain skilled workers .used for marketing product

TABLE A-1

MICROENTERPRISES OF THE FEASIBILITY STUDY* AND

SAMPLE OF ADEMI FIRMS COMPARED.

Characteristics	Study	ADEMI Clients Interviewed**
	N=200	N=24
Average age of owner	40	37
Has other sources of income	11%	22%
Has tenure	34%	40%
Has license to operate (patente)	12.5%	31%
Average number of employees (includes owner)	2.6	5.8

*Gross (1980)

**When they made first contact with ADEMI

TABLE A-2

MONTHLY INFLATION INDEX

	UN Bull. of Stats. (1970: 12 = 100)	IMF/IFS (1980: 12 = 100)
1982:12	153.5	115.8 ***
1	153.0	
2	152.3	
3	151.0	119.4 ***
4	151.4	
5	152.3	
6	152.3	119.2 ***
7	153.0	
8	155.0	
9	154.7	121.0 ***
10	157.4	
11	159.7**	
12	162.0**	125.4
1984: 1	164.4	131.5**
2	171.4	137.1
3	170.1	136.1
4	173.9	134.9***
5	181.5@**	
6	189.5@	151.6
7	193.8@	155.0
8	197.3@	157.8
9	202.8*	
10	208.5*	
11	214.3*	
12	220.3*	
1985: 1	226.5*	
2	232.8*	

*estimated based upon 36% annual inflation rate calculated by sources at a major industrial country embassy in Santo Domingo.

**interpolated

@ calculated from IMF/IFS data

***quarterly figures

TABLE A-3

SIGNIFICANCE TESTS

Variable (monthly figures)	Expected Sign of Change	t-statistic	Significance Level
Change in Average Real Wage	≥ 0	1.857	95%
Change in Sales Per Average Worker (skilled plus unskilled)	≥ 0	1.730	95%
Change in Capital-Labor Ratio	?	-1.172	insignificant
Change in Wage Payrolls Per Unit of Capital	≥ 0	1.960	95%
Change in Sales Per Unit of Capital	?	1.115	insignificant
Change in Real Value of Capital	≥ 0	2.871	99%
Change in Real Wage Payrolls	≥ 0	3.83	99%
Change in Real Sales	≥ 0	3.445	99%
Change in Materials Consumption	≥ 0	3.471	99%
Change in Real Loan Value	≥ 0	9.499	99%

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