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STUDIES ON THE WOOD BASED FURNITURE,  
LEATHER PRODUCTS AND FOOTWEAR  
MANUFACTURING INDUSTRIES  
OF THE PHILIPPINES

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The Research Team\*

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## I. INTRODUCTION

These studies on the wood-based furniture, leather products, and footwear manufacturing industries of the Philippines were undertaken by the U.P. Business Research Foundation, Inc. (UPBRF), under a research grant from the Philippine Institute for Development Studies. In addition, the leather tanning industry was studied, as this latter industry bears upon the leather products and footwear manufacturing industries. The studies were completed with additional financial assistance from the SGV Foundation, Inc. and the Premiere Financing Corporation.

### A. Objectives and Scope of the Studies

#### 1.0 Objectives of the Studies

- 1.1 To conduct an analysis of each industry's status and future prospects, particularly in the areas of organization and general management, operations management and technological development, market structures and prospects, financial performance, and socio-economic benefits and costs.
- 1.2 To provide inputs to government planning and policy formulation for each industry, including such areas as institutional development, industry rationalization and technological development, among others.
- 1.3 To provide the private sector with a fairly comprehensive review of each industry.
- 1.4 To generate useful experiences and insights in the conduct of industry studies.

## 2.0 Scope of the Studies

These studies covered the major sectors of each industry as defined in the next section. The sample population for each industry was drawn from Metro Manila, Bulacan, Rizal and Laguna, with the exception of that for the wood-based furniture industry, which included Cebu and Pampanga as well.

The studies covered the following primary aspects of each industry:

- 2.1 Organization and general management, including managerial practices and capabilities of firms in the industry;
- 2.2 Production facilities, systems and capabilities, as well as technological development trends in the industry;
- 2.3 Market factors and marketing problems and prospects, particularly in the areas of supply and demand, market structures, and pricing;
- 2.4 Financial growth and performance in terms of profitability, investment and financing problems and trends;
- 2.5 Input factors and related issues; and
- 2.6 Socio-economic impact in terms of employment and foreign exchange generation, as well as other environmental implications.

(All references to operations and status of each firm in the survey were based on calendar year 1980, unless otherwise specified.)

Findings were used to evaluate future prospects of the industry, and, wherever possible, make policy recommendations.

### 3.0 Limitations of the Studies

The restriction of the coverage of each study to Metro Manila, Bulacan, Rizal and Laguna (and Pampanga and Cebu in the case of the wood-based furniture industry) was necessitated by limited budgetary resources. The PIDS indicated, however, a possibility for future extension to a nationwide coverage. While such expansion of coverage is not yet attainable, the results obtained would principally apply only to the areas above-mentioned, except where availability of secondary data allows for extension of such findings to a nationwide scope/magnitude.

In general, financial information derived by way of a field survey have proven to be relatively spotty, thereby limiting, or even preventing, much of the financial analysis initially contemplated.

The study team realizes that, resources permitting, further analysis of the data generated in the survey of firms conducted by the team is desirable, and may lead to further significant findings and/or policy recommendations.

## B. Method

### 1.0 Definition of Terms

1.1 "Wood-Based Furniture Industry" refers to five of the six sub-classifications under Philippine Standard Industry Classification (PSIC) code # 332 (Manufacture and repair of furniture and fixtures, except primarily of metal). These are:

3321(0)<sup>1/</sup> - Manufacture and repair of wood furniture, including upholstery

3322(0) - Manufacture and repair of rattan furniture (reed, wicker and cane), including upholstery

3323(0) - Manufacture of box beds and mattresses

3323(0) - Manufacture of partitions, shelves, lockers, and office and store fixtures

3329(0) - Manufacture and repair of furniture and fixtures, except primarily of metal, not elsewhere classified.

1.2 "Leather Products Industry" refers to the following sub-classifications under PSIC code #323 (Manufacture of leather and products of leather, leather substitutes and fur, except footwear and wearing apparel):

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<sup>1/</sup> A PSIC code presented in the form xxxx(0) is used to denote a four-digit classification whose only five-digit sub-classification is itself.

32321 - Manufacture of luggage, handbags and  
wallets

32329 - Manufacture of products of leather and  
leather substitutes, not elsewhere  
classified.

This study, however, has been restricted to only those leather products manufacturers which use genuine leather as raw material input for at least some of their products. In addition, "leather tanning" covers PSIC code #3231(0) - Tanneries and leather finishings.

1.3 "Footwear Industry" refers to all classifications under PSIC code #324 (Manufacture of footwear, except rubber, plastic or wood footwear) and one sub-classification under each of PSIC code numbers 355 (Manufacture of rubber products), 356 (Manufacture of plastic products not elsewhere classified), and 331 (Manufacture of wood and wood and cork products, except furniture), as follows:

3241(0) - Manufacture of leather shoes

32491 - Manufacture of slippers and sandals

32492 - Manufacture of other footwear, except  
rubber, plastic or wood footwear, not  
elsewhere classified

3552(0) - Manufacture of rubber footwear

35602 - Manufacture of plastic footwear

33193 - Manufacture of wooden footwear and  
accessories

- 1.4 "Establishments" or "firms" within the industries refer to those actually engaged in the manufacture of the products as defined above. While manufacturing is a minimum requirement, the establishments or firms may, in addition, be engaged in subcontracting and/or purchase for sale and/or resale, as well as any other activity (e.g., repair), apart from manufacturing.
- 1.5 "Employees" refers to personnel of the firm, excluding household members and/or helpers, whether or not the latter are paid salaries and/or other compensation for work undertaken for the firm.
- 1.6 "Labor force" refers to employees and those household members and/or helpers directly participating in the production process (i.e., directly involved at some or all stages of the transformation of raw or semi-finished goods into finished products).
- 1.7 "Borrowings" includes all forms of indebtedness of the firm, including supplier's credit, and is understood to refer to the average aggregate amount outstanding throughout CY 1980.
- 1.8 "Types of market outlet" includes all types of buyers transacting directly with the firm, ranging from endusers to retailers, wholesalers and others. In the case of leather tanning, this would also include manufacturers of leather products.

1.9 "Wholesaler", as used in this study, refers to a buyer who buys a firm's product primarily for resale, while as "retailer" refers to one who buys primarily for sale to endusers. For instance, a buyer of leather from a tannery who sells primarily to manufacturers of leather products is treated as a wholesaler, without regard to the quantity of leather actually sold to these manufacturers. Accordingly, "wholesaler" and "retailer", as used in this study, depart from their common volume-based usage.

## 2.0 Sampling Procedures

### 2.1 Sampling Frame

The sample population was arrived at by a superposition of three listings, as follows:

2.1.1 1978 Preliminary List of Large Establishments<sup>2/</sup> - This is a publication of the National Census and Statistics Office (NCSO), containing a list of establishments employing, in the case of industrial establishments, 10 or more people. It contains the industry, region and address of each firm.

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<sup>2/</sup>The use of the term "large" in this publication (10 or more employees) is inconsistent with the standard definition of 20 employees or more.

2.1.2 NACIDA List of Registered Firms - This is a compilation of all firms in the three industries which registered as cottage industries with the National Cottage Industries Development Authority (NACIDA) from 1963 until 1979. This was generated from NACIDA's registry of firms, which contains each firm's year of registration, name of proprietor, address and number of employees upon registration.

2.1.3 NCSO Computer Printout - This is a census list prepared in 1977, based on a 1975 census of establishments. It contains among others, coded data relative to size of employment and revenue of each firm.

List 2.1.1, apart from being only preliminary, excludes establishments with less than 10 employees. On the other hand, list 2.1.2 includes a number of firms which have become non-existent, transferred to other locations, grown in size of labor force, or changed proprietors. NACIDA does not update its registry, inasmuch as NACIDA registration is valid for five (5) years and non-renewable. It is believed that many NACIDA-registered firms, however, transfer the ownership, and registration in the name of another person (usually a member of

the family or a friend) to enable the firm to be re-registered (under another proprietor) and continue to avail of privileges usually accorded to NACIDA-registered firms. Finally, list 2.1.3 has not been updated for the years 1976 through 1979.

Since each of lists 2.1.1 through 2.1.3 has inherent and relative weaknesses, it was decided that a combination of the three lists would best serve the purposes of the studies, with some of the overlaps traced and eliminated. <sup>1/</sup>The elimination process, as expected, was not quite thorough: that some firms were double-counted in the composite list was established in the course of the survey. Nonetheless, such cases of double-counting, apparently due to the above-cited multiple registrations with NACIDA, proved to be manageable (4.2% of final sample size).<sup>2/</sup>

In order to attain consistency in treatment of size of labor force, the definition in list 2.1.1 of "large" establishment (10 employees or more) was adopted for purposes of classification. Thus, three classifications were used for size of labor force: small (less than 10 employees), large (10 employees or more), and unclassified (number of employees unknown).<sup>3/</sup>

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<sup>3/</sup>The standard classifications, unorganized (less than 5 employees), small (5 to 19 employees) and large (20 employees or more), were used in the analysis of survey data, however.

The sample populations were, accordingly, classified by area and by size. [Refer to Tables I.2, I.3, I.4 and I.5 for summaries of the sample populations of the wood-based furniture, leather tanning, leather products and footwear establishments, respectively, classified according to area and size. Table I.1 presents a summary of all four sample populations by area.] Stratified samples were then drawn separately out of each of the four populations, sample points being drawn at random for every stratum (each stratum being a size versus area listing of the establishments).

## 2.2 Sample Size

Sample size per stratum was determined by proportion to total, except in certain cases where adjustments were necessary owing to the small sizes of certain strata in the sample population. [Table I.6 presents the sample size, as determined, per industry, broken down by area. Tables I.7, I.8, I.9 and I.10, on the other hand, summarize determined sample sizes for the wood-based furniture, leather tanning, leather products and footwear establishments, respectively, each broken down by area and by size.]

Final sample sizes, however, were in general smaller than the derived sample sizes due to operating constraints. In particular, a very large

TABLE I.1 SUMMARY OF SAMPLE POPULATIONS OF MANUFACTURING ESTABLISHMENTS  
(BY INDUSTRY AND BY AREA)

Area	I n d u s t r y				Total (by area)
	Wood-Based Furniture	Footwear	Leather Products	Leather Tanning	
Metro Manila <sup>1/</sup>					
1st District	1185	25	50	0	260
2nd District	300	788	198	0	1,286
3rd District	162	18	50	4	234
4th District	185	32	24	0	241
Laguna	55	423	4	0	482
Bulacan	86	24	37	25	172
Rizal	57	43	6	0	106
Cebu <sup>2/</sup>	265	-	-	-	265
Pampanga <sup>2/</sup>	<u>236</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>236</u>
Total (by industry)	<u>1,531</u>	<u>1,353</u>	<u>369</u>	<u>29</u>	<u>3,282</u>

<sup>1/</sup> First District: City of Manila

Second District: Quezon City, San Juan, Mandaluyong, Pasig, Marikina

Third District: Caloocan City, Malabon, Navotas, Valenzuela

Fourth District: Pasay City, Makati, Las Piñas, Parañaque, Muntinlupa,  
Taguig, Pateros

<sup>2/</sup> Only for wood-based furniture industry.

TABLE I.2 DISTRIBUTION OF SAMPLE POPULATION, WOOD-BASED FURNITURE  
MANUFACTURING ESTABLISHMENTS (BY AREA AND BY SIZE)

	<u>Size of Labor Force</u>			<u>Total (by area)</u>
	<u>Small</u>	<u>Large</u>	<u>Unclassified</u>	
Metro Manila				
1st District	142	41	2	185
2nd District	153	116	31	300
3rd District	107	54	1	162
4th District	72	106	7	185
Cebu	168	87	10	265
Pampanga	146	84	6	236
Bulacan	51	34	1	86
Laguna	35	16	4	55
Rizal	<u>32</u>	<u>25</u>	<u>0</u>	<u>57</u>
Total (by size)	<u>906</u>	<u>563</u>	<u>62</u>	<u>1,531</u>

TABLE I.3 DISTRIBUTION OF SAMPLE POPULATION, LEATHER TANNING ESTABLISHMENTS (BY AREA AND BY SIZE)

<u>Area</u>	<u>Size of Labor Force</u>			<u>Total (by area)</u>
	<u>Small</u>	<u>Large</u>	<u>Unclassified</u>	
Bulacan	9	16	0	25
Metro Manila				
1st District	0	0	0	0
2nd District	0	0	0	0
3rd District	0	2	2	4
4th District	0	0	0	0
Laguna	0	0	0	0
Rizal	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
Total (by size)	<u>9</u>	<u>18</u>	<u>2</u>	<u>29</u>

TABLE I.4 DISTRIBUTION OF SAMPLE POPULATION, LEATHER PRODUCTS  
MANUFACTURING ESTABLISHMENTS (BY AREA AND BY SIZE)

<u>Area</u>	<u>Size of Labor Force</u>			<u>Total (by area)</u>
	<u>Small</u>	<u>Large</u>	<u>Unclassified</u>	
Metro Manila				
1st District	39	6	5	50
2nd District	150	43	5	198
3rd District	37	10	3	50
4th District	20	4	0	24
Bulacan	25	11	1	37
Laguna	3	1	0	4
Rizal	<u>4</u>	<u>2</u>	<u>0</u>	<u>6</u>
Total (by size)	<u>278</u>	<u>77</u>	<u>14</u>	<u>369</u>

TABLE I.5 DISTRIBUTION OF SAMPLE POPULATION, FOOTWEAR  
MANUFACTURING ESTABLISHMENTS (BY AREA AND BY SIZE)

<u>Area</u>	<u>Size of Labor Force</u>			<u>Total (by area)</u>
	<u>Small</u>	<u>Large</u>	<u>Unclassified</u>	
Metro Manila				
1st District	9	7	9	25
2nd District	232	60	496	788
3rd District	7	1	10	18
4th District	12	7	13	32
Laguna	278	33	112	423
Rizal	35	5	3	43
Bulacan	<u>17</u>	<u>6</u>	<u>1</u>	<u>24</u>
Total (by size)	<u>590</u>	<u>119</u>	<u>644</u>	<u>1,353</u>

TABLE I.6 SUMMARY OF DERIVED SAMPLE SIZES  
(BY INDUSTRY AND BY AREA)

<u>Area</u>	<u>Industry</u>				<u>Total (by area)</u>
	<u>Wood-Based Furniture</u>	<u>Footwear</u>	<u>Leather Products</u>	<u>Leather Tanning</u>	
Metro Manila					
1st District	17	4	6	0	27
2nd District	29	90	23	0	142
3rd District	11	2	4	0	17
4th District	11	1	5	0	17
Laguna	2	70	0	0	72
Bulacan	6	4	5	10	25
Rizal	5	10	1	0	16
Pampanga	19	-	-	-	19
Cebu	<u>17</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>17</u>
Total (by industry)	<u>117</u>	<u>181</u>	<u>44</u>	<u>10</u>	<u>352</u>

TABLE I.7 DISTRIBUTION OF DERIVED SAMPLE, WOOD-BASED FURNITURE  
MANUFACTURING ESTABLISHMENTS (BY AREA AND BY SIZE)

<u>Area</u>	<u>Size of Labor Force</u>			<u>Total (by area)</u>
	<u>Small</u>	<u>Large</u>	<u>Unclassified</u>	
Metro Manila				
1st District	10	6	1	17
2nd District	16	10	3	29
3rd District	6	4	1	11
4th District	6	4	1	11
Pampanga	11	7	1	19
Cebu	10	6	1	17
Bulacan	3	2	1	6
Rizal	3	2	0	5
Laguna	<u>1</u>	<u>1</u>	<u>0</u>	<u>2</u>
Total (by size)	<u>66</u>	<u>42</u>	<u>9</u>	<u>117</u>

TABLE I.8 DISTRIBUTION OF DERIVED SAMPLE, LEATHER TANNING  
ESTABLISHMENTS (BY AREA AND BY SIZE)

<u>Area</u>	<u>Size of Labor Force</u>			<u>Total (by area)</u>
	<u>Small</u>	<u>Large</u>	<u>Unclassified</u>	
Bulacan	3	7	0	10
Metro Manila	0	0	0	0
Laguna	0	0	0	0
Rizal	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
Total (by size)	<u>3</u>	<u>7</u>	<u>0</u>	<u>10</u>

TABLE I.9 DISTRIBUTION OF DERIVED SAMPLE, LEATHER PRODUCTS  
MANUFACTURING ESTABLISHMENTS (BY AREA AND BY SIZE)

<u>Area</u>	<u>Size of Labor Force</u>			<u>Total (by area)</u>
	<u>Small</u>	<u>Large</u>	<u>Unclassified</u>	
Metro Manila				
1st District	3	2	1	6
2nd District	12	9	2	23
3rd District	2	1	1	4
4th District	3	2	0	5
Bulacan	3	1	1	5
Rizai	1	0	0	1
Laguna	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
Total (by size)	<u>24</u>	<u>15</u>	<u>5</u>	<u>44</u>

TABLE I.10 DISTRIBUTION OF DERIVED SAMPLE, FOOTWEAR  
MANUFACTURING ESTABLISHMENTS (BY AREA AND BY SIZE)

<u>Area</u>	<u>Size of Labor Force</u>			<u>Total (by area)</u>
	<u>Small</u>	<u>Large</u>	<u>Unclassified</u>	
Metro Manila				
1st District	2	0	2	4
2nd District	39	8	43	90
3rd District	1	0	1	2
4th District	1	0	0	1
Laguna	31	6	33	70
Rizal	5	2	3	10
Bulacan	<u>2</u>	<u>1</u>	<u>1</u>	<u>4</u>
Total (by size)	<u>81</u>	<u>17</u>	<u>83</u>	<u>181</u>

number of firms listed in the sample population of leather products manufacturing establishments did not actually use leather (only leather substitutes) as input. [As a result, by the time the target date of completion of field survey operations arrived, only 29 leather products manufacturers (66% of the desired sample size of 44) had been successfully interviewed, notwithstanding the fact that a full 315 establishments (85% of the total sample population) had been sought and/or visited by interviewers.]

### 3.0 Data Gathering Procedures

#### 3.1 The Interview Schedule

The study team developed an 18-page interview schedule, which was finalized after a pre-test was undertaken on some of the more critical/problematic variables. [Most of the more than one hundred questions were given pre-coded responses; only a small number were left open-ended.]

The interview schedule involved hundreds of variables, regarding some of which certain hypotheses had been formulated beforehand. A number of these hypotheses were discussed in part in the preliminary report submitted by the study team to the PIDS. [Some of these hypotheses had to be abandoned as the data were being put together and analyzed because of the insufficiency of both primary and secondary data, in terms of quantity and/or quality.]

### 3.2 The Field Survey

The conduct of the field survey was initially passed on to a private firm with expected capability (largely owing to past experience in related undertakings). The study team, however, undertook cross-checking activities by way of sampling firms already interviewed. The sampled firms were asked selected questions, classified according to two major types (the first type, those questions responses for which are deemed highly unlikely to be subject to memory lapses, or simple questions requiring little or no explanation by the interviewer; and the second type, all other questions).

Due to major discrepancies noted in a significant number of cases, the study team decided to suspend the field survey and to conduct a total resurvey.

The lessons drawn from the initial conduct of the field survey pointed to a strong need for in-depth and early on-the-job training of interviewers, as well as a continuous monitoring and review of their work. Supervision was directly provided by the study team, which also edited completed interview schedules. In spite of the intensive training and close supervision, interviewers still had to return to the respondents in many cases, to clarify and/or rectify certain responses.

The study team's statistical consultant devised a scheme for automatic replacement of a "primary respondent" (i.e., a firm included in the original list of establishments to be interviewed) by one in a fixed sequence of substitutes. In general, each primary respondent was assigned a sequence of these substitutes, to be tapped one after another should an interview fail to materialize. For instances where the sequence of substitutes was exhausted, an alternative automatic substitution procedure was applied. This system of automatic substitution effectively eliminated the possibility of interviewer-based bias in the choice of a substitute if, say, a pool of substitutes were to be left open to the interviewer.

The resurvey (including training of interviewers), undertaken with an average of 10 full-time interviewers, lasted little more than 4 months, with 333 successful interviews (94.6% of the desired aggregate sample size of 352). The field operations had to be given a specific cutoff date due to the marginality of success in the latter stages, largely brought about by the preponderance of manufacturers using leather substitutes only as input (as discussed in section 2.2 above), in addition to other factors. Refer to Table I.11 for a summary of results of field operations. Such

TABLE I.11 SUMMARY OF RESULTS OF FIELD SURVEY OPERATIONS

	<u>Distribution by Industry</u>					<u>% to Total Sample Population</u>				
	<u>Wood-Based Furniture</u>	<u>Leather Tanning</u>	<u>Leather Products</u>	<u>Footwear</u>	<u>Total</u>	<u>Wood-Based Furniture</u>	<u>Leather Tanning</u>	<u>Leather Products</u>	<u>Footwear</u>	<u>Total</u>
Total sample population	1,531	29	369	1,353	3,282	100.0%	100.0%	100.0%	100.0%	100.0%
Derived sample size	117	10	44	181	352	7.6	34.5	11.9	13.4	10.7
Firms sought/visited	342	15	315	332	1,004	22.3	51.7	85.4	24.5	30.6
	<u>Frequency</u>					<u>% to Total No. of Firms Sought/Visited</u>				
	<u>Wood-Based Furniture</u>	<u>Leather Tanning</u>	<u>Leather Products</u>	<u>Footwear</u>	<u>Total</u>	<u>Wood-Based Furniture</u>	<u>Leather Tanning</u>	<u>Leather Products</u>	<u>Footwear</u>	<u>Total</u>
Successful interviews	115	10	29	179	333	33.6%	66.7%	9.2%	53.9%	33.2%
Cannot be located	86	0	80	59	225	25.2	0	25.4	17.8	22.4
Transferred location	18	0	26	6	50	5.3	0	8.3	1.8	5.0
Closed/stopped operations	35	0	26	43	104	10.2	0	8.3	13.0	10.4
Non-manufacturer (dealer only)	8	0	1	5	14	2.3	0	0.3	1.5	1.4
Not in industries as defined (different product lines)	13	0	126	10	149	3.8	0	40.0	3.0	14.8
Not operating in 1980	3	0	2	1	6	0.9	0	0.6	0.3	0.6
Refused to be interviewed outright	27	1	15	17	60	7.9	6.7	4.8	5.1	6.0
Difficult to interview (dropped after 3 or more visits)	24	1	5	11	41	7.0	6.7	1.6	3.3	4.1
Inconsistent/insufficient data	4	1	2	1	8	1.2	6.7	0.6	0.3	0.8
Double counted in list	9	2	3	0	14	2.6	13.3	1.0	0	1.4
Total firms sought/visited	<u>342</u>	<u>15</u>	<u>315</u>	<u>332</u>	<u>1,004</u>	<u>100.0%</u>	<u>100.0%</u>	<u>100.0%</u>	<u>100.0%</u>	<u>100.0%</u>

marginal success rate, it was felt, did not justify the incremental costs involved.

Table I.11 shows an overall success rate of 33.2% (the highest success rate was at 66.7% for leather tanning, and the lowest at 9.2% for leather products). In the case of leather products, 40% of the total number of firms sought/visited turned out to be using purely leather substitutes as raw material, while another 33.7% either could not be located or had transferred location (per information provided by people at or in the vicinity of the original address).

At the close of field operations, there were 115 successful interviews of wood-based furniture firms (98.3% of the 117 desired sample size), 10 of tanneries (100% of 10), 29 of leather products manufacturers (65.9% of 44), and 179 of footwear establishments (98.9% of 181).

### 3.3 Secondary Data

In addition to primary data gathered from the survey of 333 establishments, secondary data were gathered, principally from the National Census and Statistics Office (NCSO), the National Economic and Development Authority (NEDA), the Central Bank of the Philippines (CBP), the Ministry of Trade and Industry (MTI), and various industry associations. Certain publications were likewise used in this respect.

#### 4.0 Analytical Tools

##### 4.1 Statistical Considerations

Stratification of the samples according to area and size (as was done) would have allowed stratified analysis of data, except for the observation, early on in the analysis, that distribution of the sample population and, hence, the sample according to size of labor force did not necessarily match with actual interview results.

For instance, Table I.7 indicates at least 56.4% (66 out of 117) of the sample for wood-based furniture to be in the "small" category (less than 10 persons employed). Interview data, however, yielded only 36% (41 out of 115) in this category. This discrepancy shows a weakness in the data on employment indicated in the listings used to arrive at the sample population. Accordingly, the basis for stratification according to size collapses. (This discrepancy is probably brought about by the growth of firms which have remained in the business, as the data would suggest, a situation that could not possibly be taken account of when NACIDA's registry or NCSO's lists have not been updated. On the other hand, it is highly likely that firms registering with NACIDA would tend to understate employment (and other) data in order to qualify as cottage industries.)

In view of the above, analysis of data could not be made to proceed along the size strata identified in the sampling frame. Nevertheless, the study team's statistical consultant indicated that the original sample derived for each industry would still be representative of the sample population; a sample derived without stratifying according to size would likely have the same composition as the original sample so stratified, considering the sampling procedure discussed in Section 2.0 above.

#### 4.2 Computations

Computerization of data was initiated at the University of the Philippines Computer Center, but had to be tentatively put off after financial resources of the project proved inadequate. The computer work was resumed after the SGV Foundation, Inc. provided the UPBRF with a grant for computer services (extended by the SGV Development Center).

Due to the enormous volume of data generated from the field survey, most of the computer outputs possible within the limited budget were in the form of frequency tabulations and cross-tabulations. As a result, data analysis was principally limited to chi-square tests. The study team feels that further data analysis (e.g., correlation analysis), with additional resources, may lead to further significant findings and/or policy recommendations.

Chapter II of this report presents the findings of our study on the wood-based furniture industry, while Chapter III deals with the footwear industry. Chapters IV and V discuss the leather tanning and leather products manufacturing industries. While each of these chapters contains a section discussing our major conclusions and recommendations relative to the industry concerned, Chapter VI summarizes the same over all these industries.

## II. WOOD-BASED FURNITURE INDUSTRY

### A. Overview of the Industry

The dulang (low table), bangkito (low stool) and papag (low bed made primarily of bamboo slats) were already in use in the Philippines even prior to the arrival of the Spaniards (Amio [17]), indicating that wood-based furniture manufacturing has been here for as long as one would care to consider.

Today, the Chamber of Furniture Industries of the Philippines (CFIP) estimates that there are from 4,000 to 5,000 establishments engaged in the manufacture of wood-based furniture and fixtures, providing employment, directly or indirectly (by subcontracting), to some 50,000 persons (Cody [37]). Such statistics, however, may not be all that reliable due to the believed presence of many unregistered "backyard" manufacturers. One estimate states as many as 15,000 furniture manufacturers in 1977 (World Bank [67]).

The wood-based furniture industry is taken to refer to five of the six sub-classifications under Philippine Standard Industry Classification (PSIC) code number 332 (manufacture and repair of furniture and fixtures, except primarily of metal), as follows:

3321(0)<sup>1/</sup> - Manufacture and repair of wood furniture, including upholstery.

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<sup>1/</sup>The format xxxx(0) is intended to indicate a one-to-one correspondence between four- and five-digit sub-classifications.

- 3322(0) - Manufacture and repair of rattan furniture (reed, wicker and cane), including upholstery
- 3323(0) - Manufacture of box beds and mattresses
- 3324(0) - Manufacture of partitions, shelves, lockers, and office and store fixtures
- 3329(0) - Manufacture and repair of furniture and fixtures, except primarily of metal, not elsewhere classified.

One sub-classification, 3325(0) - manufacture of window and door screens, shades and venetian blinds, was disregarded.

In 1980, the industry generated a gross value added of ₱192 million at constant 1972 prices (₱474 million at 1980 prices), or roughly 0.81% of gross domestic product for manufacturing.<sup>2/</sup>

"The industry is widely-dispersed throughout the entire country, but the larger and export-oriented firms are located mainly in Metro Manila and Cebu, because of their proximity to the major sources of raw materials, as well as the requisite shipping and trading facilities." (Cody [3]). Firms engaged in the export of rattan furniture are mostly located in Cebu and, to a lesser degree, Angeles City. Cebu, in particular, is characterized by proximity to Mindanao, the principal source of rattan, and the presence of an international seaport. The greater number of wooden furniture

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<sup>2/</sup> The National Accounts Staff, Statistical Coordination Office, NEDA has data showing that gross value added (at constant 1972 prices) increased from ₱88 million to ₱192 million between 1970 and 1980, indicating a modest increase in share of gross domestic product for manufacturing from 0.74% to 0.81%. This share was decreasing from 1972 to 1977, though. (Refer to Table II.1).

TABLE II.1

GROSS VALUE ADDED TO GROSS DOMESTIC PRODUCT (MANUFACTURING),  
WOOD-BASED FURNITURE AND FIXTURES,  
(1970-1980, AT CONSTANT 1972 PRICES)<sup>1/</sup>

<u>Year</u>	<u>Gross Value Added, Wood-Based Furniture and Fixtures (Pmillion)<sup>2/</sup></u>	<u>% to Gross Domestic Product (Manufacturing)</u>
1970	88	0.74%
1971	98	0.78
1972	86	0.64
1973	90	0.59
1974	88	0.55
1975	74	0.45
1976	79	0.45
1977	90	0.46
1978	157 <sup>3/</sup>	0.74
1979	167 <sup>3/</sup>	0.74
1980	192 <sup>3/</sup>	0.81

<sup>1/</sup> Source: National Accounts Staff, Statistical Coordination Office, NEDA.

<sup>2/</sup> At constant 1972 prices.

<sup>3/</sup> As revised in the 1982 Philippine Statistical Yearbook (a NEDA publication).

exporters are located in Metro Manila. (See Amio 117.)

Exports of wood-based furniture and fixtures grew from \$6.3 million in 1976 to \$46.9 million in 1980, in FOB US \$ values, or an equivalent average annual growth rate of 65% over the period. However, these amounts accounted for only 0.25% and 0.85%, respectively, of total Philippine exports in 1976 and 1980. The aggregate amount for 1976-1980 was \$116.3 million, or 0.60% of aggregate Philippine exports over the same period. (See Table II .2.)

The bulk of wood-based furniture and fixtures exports, however, has been in rattan (as principal raw material), accounting for 86.7% of aggregate exports over the period 1970-1979, reaching a high of 92.4% in 1979. The share of wood furniture and fixtures to total exports of wood-based furniture and fixtures has dropped from a high of 37.6% in 1974 to a measly 0.8% in 1978 and 1.1% in 1979. Buri, bamboo and other materials, in contrast have relatively picked up in 1978 and 1979. (Refer to Table II .3.)

Bautista, Power and Associates 127 estimated the domestic resource cost (DRC) for wood and rattan furniture and fixtures at 6.99, using NCSO's input-output table of the Philippine economy for 1969. The DRC figure for 1974 was even lower at 5.77, which compares favorably with the 8.88 weighted average DRC for manufacturing. They observed that "it would appear also that a vast export potential remained untapped for such non-import competing industries in 1969 having low DRCs as ... furniture and fixtures (both metal

TABLE II.2 PHILIPPINE EXPORTS OF WOOD-BASED FURNITURE AND FIXTURES  
AS A PERCENTAGE OF TOTAL PHILIPPINE EXPORTS  
(1976-1980, IN FOB \$ VALUES)

<u>Year</u>	<u>Total Philippine Exports</u>	<u>Philippine Exports of Wood-based Furniture, and Fixtures <sup>1/</sup></u>	<u>% to Total Philippine Exports</u>	<u>Philippine Exports of Wood-based Furniture and Fixtures, Including <sup>1/</sup> Builder's Woodwork</u>	<u>% to Total Philippine Exports</u>
1976	\$2,573,675,684	\$6,325,137	0.25%	\$16,424,207	0.64%
1977	3,150,886,989	13,266,247	0.42	22,883,437	0.73
1978	3,424,876,025	16,500,050	0.48	29,806,314	0.87
1979	4,601,189,916	33,343,792	0.72	52,808,160	1.15
1980	5,487,787,554	46,856,143	0.85	61,217,616	1.12
Total (1976-1980)	<u>\$19,238,416,168</u>	<u>\$116,291,369</u>	0.60%	<u>\$183,139,734</u>	0.95%

<sup>1/</sup> Source: National Census and Statistics Office

TABLE II.3 PERCENTAGE DISTRIBUTION OF  
 PHILIPPINE EXPORTS OF WOOD-BASED FURNITURE AND FIXTURES  
 ACCORDING TO PRINCIPAL RAW MATERIAL <sup>1/</sup>  
 (1970-1979, IN FOB \$ VALUES)

<u>Percentage Distribution by Principal Raw Material</u>				
<u>Year</u>	<u>Wood</u>	<u>Rattan</u>	<u>Buri, Bamboo and Others</u> <sup>2/</sup>	<u>Total</u>
1970	5.3%	87.5%	7.1%	99.9% <sup>3/</sup>
1971	6.6	91.1	2.3	100.0
1972	16.6	81.9	1.4	99.9 <sup>3/</sup>
1973	28.2	71.6	0.1	99.9 <sup>3/</sup>
1974	37.6	60.4	2.1	100.1 <sup>3/</sup>
1975	21.6	75.6	2.8	100.0
1976	15.9	83.7	0.3	99.9 <sup>3/</sup>
1977	12.2	85.6	2.2	100.0
1978	0.8	90.8	8.4	100.0
1979	1.1	92.4	6.6	100.1 <sup>3/</sup>
1970-1979 (Aggregate)	8.4%	86.7%	4.9%	100.0%

<sup>1/</sup> Based on data of the National Census and Statistics Office.

<sup>2/</sup> Excluding furniture and fixtures primarily of metal.

<sup>3/</sup> With roundoff error; should equal 100.0%.

and wood)...". So much has been said for shifting away from the traditional, primary exports (e.g., logs, sawn lumber, plywood and rattan poles) towards processed goods (e.g., wood-based furniture and fixtures). With the relative efficiency of the wood-based furniture industry as exhibited by the low DRC, it appears that the government ought to encourage further exports in that sector.

Whether the government should at all develop an export promotion program for the industry, and what components such a program should involve, remain to be seen, however. It is imperative that the firms in the industry, who, along with the entire economy, would be the expected beneficiaries of such a program, should be given special attention, not only in terms of capabilities and potentials for addressing the export market, but also in terms of the expected benefits and costs associated with so doing. Many an export promotion program will probably fail to attain its objectives unless this is done.

## B. General Characteristics of the Sample

The sample population used in this study consisted of 1,531 establishments spread over Metro Manila, Bulacan, Pampanga, Rizal, Laguna and Cebu. A final sample size of 115 (compared to a derived sample size of 117) was arrived at, out of a total of 342 firms sought and/or visited. (Tables I.2 and I.7 present summaries of the sample population and the derived sample, respectively, broken down by area and by size of labor force. On the other hand, the geographic distribution of the 115 respondents is presented in Table II.4). 60% of the respondents are located in Metro Manila, 13.9% in Cebu, 13% in Pampanga, and the remaining 13.1% in Rizal, Bulacan and Laguna.

The success rate in the field survey suggests that only some 56% of our sample population actually represents wood-based furniture and fixtures manufacturers in actual operation (assuming that the firms which could not be located during the survey mostly represent firms which have closed down as well).

### I.0 Size Distribution of Establishments

Of the 115 firms successfully interviewed, 14% are in the unorganized sector (with a labor force of from 1 to 4), 40.4% are small (5 to 19 workers), and 45.6% large (20 or more workers). Table II.5) gives a distribution of respondents by size of labor force. This distribution differs highly significantly from the expected distribution as

TABLE II.4 LOCATION OF RESPONDENTS<sup>1/</sup>

<u>Location</u>	<u>Frequency</u>	<u>%</u>
Metro Manila <sup>2/</sup>		
1st district	18	15.65%
2nd district	29	25.22
3rd district	10	8.70
4th district	12	10.43
Pampanga	15	13.04
Cebu	16	13.91
Rizal	7	6.09
Bulacan	6	5.22
Laguna	2	1.74
	<u>115</u>	<u>100.00%</u>
Total		

<sup>1/</sup> Based on address of main office. Of the 115 firms surveyed, 16 have their manufacturing facilities in locations different from the main offices. Only 6 of 115 respondents have more than one manufacturing facility.

<sup>2/</sup> First District: City of Manila  
 Second District: Quezon City, San Juan, Mandaluyong, Pasig, Marikina  
 Third District: Caloocan City, Malabon, Navotas, Valenzuela  
 Fourth District: Pasay City, Makati, Las Piñas, Parañaque, Muntinlupa, Taguig, Pateros

TABLE II.5 DISTRIBUTION OF RESPONDENTS  
BY SIZE OF LABOR FORCE<sup>1/</sup>

Size of Labor Force	Employees Only <sup>2/</sup>			Including Household Labor <sup>3/</sup>		
	Frequency	% <sup>4/</sup>	Cumulative %	Frequency	% <sup>4/</sup>	Cumulative %
None	2	1.8%	1.8%	-	-	-
1 - 4	23	20.2	21.9	16	14.0%	14.0%
5 - 9	17	14.9	36.8	25	21.9	36.0
10 - 14	11	9.6	46.5	11	9.6	45.6
15 - 19	9	7.9	54.4	10	8.8	54.4
20 - 29	19	16.7	71.1	19	16.7	71.1
30 - 49	15	13.2	84.2	13	11.4	82.5
50 - 99	6	5.3	89.5	7	6.1	88.6
100 - 199	6	5.3	94.7	7	6.1	94.7
200 or more	<u>6</u>	<u>5.3</u>	100.0	<u>6</u>	<u>5.3</u>	100.0
Total	<u>114</u>	<u>100.2%</u> <sup>5/</sup>		<u>114</u>	<u>99.9%</u> <sup>5/</sup>	

<sup>1/</sup>Based on headcount only.

<sup>2/</sup>The term "employee", as used in the study, excludes household members/helpers.

<sup>3/</sup>Labor force is defined to include, other than employees, only those household members/helpers directly participating in production.

<sup>4/</sup>Percentages are based on 114 of 115 respondents. One respondent employs labor only by contract.

<sup>5/</sup>With roundoff error.

shown in Table I.7, in which at least 56.4% of respondents have a labor force of less than 10 persons. The sample, however, yielded only 36% of respondents as falling within this category. This result, as discussed in Section I.B.2, may have been due to the use of NACIDA's registry of firms, which is not updated. On the other hand, it is highly likely that firms registering with NACIDA (63.5% of the respondents reported being registered with this agency) tend to understate employment (and other) data in order to qualify as cottage industries. Accordingly, the study team had to abandon the idea of stratified analysis of survey data, owing to the collapse of the basis for stratification. Notwithstanding this problem, the sample is still believed to be representative of the sample population by virtue of the sampling procedure. Data analysis, however, had to proceed on the basis of the entire sample.]

The 1977 NCSO Survey of Manufacturing Establishments, on the other hand, indicated (for the same area) a distribution in 1977 of 13.2% in the unorganized sector, 66.1% small firms, and 20.7% large. Possible implications of this difference in findings between the NCSO survey and ours are discussed in the immediately succeeding section.

Our sample of 115 firms yielded a total estimated labor force of 5,294 (excluding one firm employing labor exclusively by contract), yielding a mean size of 46.4, with standard deviation of 103.5. The largest reported size of labor force was 800, while smallest was 2.

Assuming that our sample is indeed representative of the sample population, the above figures would suggest a total employment of close to 40,000 in the areas covered by our survey alone (applying a 56% "legitimacy rate" to the sample population size).

Some 43% of our sample employ household labor. Table II.6 indicates the extent to which household members/helpers are employed in the production process, according to size of labor force. It shows that the practice is more prevalent among the smaller-sized firms, as is to be expected. There are even two firms in our sample which use household labor only.

Gross sales estimates for 1980 were provided only by 96 firms (83.5% of the sample). A full third estimated sales at ₱100,000 or less, while 82.3% of respondents reported sales at no more than ₱1 million. Only 6.3% reported sales in excess of ₱5 million. (Refer to Table II.7 ) It is not clear whether these gross sales estimates are meaningful, however. Some respondents, for instance, read off their sales

TABLE II.6

USE OF HOUSEHOLD LABOR,  
BY SIZE OF LABOR FORCE

Size of Labor Force	Frequency			%		
	Using Household Labor	Not Using Household Labor	Total	Using Household Labor	Not Using Household Labor	Total
1 - 5	11	9	20	55.0%	45.0%	100.0
6 - 10	19	3	22	86.4	13.6	100.0
11 - 15	5	11	16	31.2	68.8	100.0
16 - 20	1	13	14	7.1	92.9	100.0
21 - 30	3	9	12	25.0	75.0	100.0
31 - 50	5	5	10	50.0	50.0	100.0
51 - 100	2	6	8	25.0	75.0	100.0
101 - 800	<u>3</u>	<u>9</u>	<u>12</u>	<u>25.0</u>	<u>75.0</u>	<u>100.0</u>
Total	<u>49</u>	<u>65</u>	<u>114</u>	<u>43.0%</u>	<u>57.0%</u>	<u>100.0</u>

TABLE II.7  
DISTRIBUTION OF RESPONDENTS  
BY GROSS SALES<sup>1/</sup>

<u>Estimated 1980 Gross Sales (\$000)</u>	<u>Frequency</u>	<u>%</u>	<u>Cumulative Frequency</u>	<u>Cumulative %</u>
25 and below	11	11.5	11	11.5%
26- 50	6	6.2	17	17.7
51- 100	15	15.6	32	33.3
101- 200	13	13.5	45	46.8
201- 500	25	26.0	70	72.9
501- 1000	8	8.3	78	81.2
1001- 2000	5	5.2	83	86.5
2001- 5000	6	6.2	89	92.7
5001-10000	4	4.2	93	96.9
10000-15000	2	2.1	95	99.0
15001-20000	0	0	95	99.0
20001-25000	<u>1</u>	<u>1.0</u>	96	100.0
Total	<u>96<sup>2/</sup></u>	<u>99.8%<sup>3/</sup></u>		

<sup>1/</sup> Per respondents' estimates.

<sup>2/</sup> 19 respondents either could not make an estimate or refused to answer.

<sup>3/</sup> With roundoff error.

figures from income tax returns, which may, by and large, be questionable.

(At any rate, gross sales estimates provided by these 96 respondents yielded a mean of ₱1.2 million with a standard deviation of ₱3.1 million. The median, however, is only ₱240,000. The sales distribution would, therefore, appear to be skewed to the right, with mean sales pushed upward by the few firms with relatively high sales estimates.)

In view of the difficulty in getting fairly accurate financial data from the respondents, size of labor force has been chosen as a substitute for size of the firm in the analysis of data.

## 2.0 Product Lines

Six major product types have been identified and used in this study: wood-based home furniture; wood-based office furniture; wood-based fixtures and accessories; builder's woodwork; rattan and buri furniture; and rattan and buri fixtures and accessories. Any further level of disaggregation would have made the survey of establishments less manageable, even unwieldy.

While every single respondent is a wood-based furniture manufacturer, our survey took into account the possibility that a respondent may as well be engaged in the subcontracting and/or purchase for resale of wood-based furniture and fixtures.

Accordingly, Table II.8 shows the number of respondents engaged in manufacture, subcontracting and/or resale in the above-mentioned six major product types. Our survey reveals that 25 respondents, or 21.7% of the sample, subcontract/pass on production of certain products to other firms. On the other hand, 13.9% (or 16 respondents) purchase products from other manufacturers for resale.7

The distribution of respondents by location and principal raw material used is given in Table II.9. 82.6% of respondents use wood as principal raw material, 14.8% rattan (as well as buri, bamboo and similar material), and 2.6% undetermined combinations of wood and rattan. The rattan furniture manufacturers are located principally in Pampanga and Cebu, although the latter area includes a larger proportion of respondents using wood as principal raw material.

Only 29 (or 25.2%) of the 115 respondents reported ever having exported any of their products or selling to exporting firms. However, during the period 1976-1980, only 25 of these firms (21.7% of sample) actually had any exports. The four other firms (three using wood as principal raw material and one using rattan) had no exports during the period, but presumably did export prior to 1976. Two of these latter four firms are located in Pampanga, one in the fourth district of Manila, and one in Rizal.7

TABLE II.8 NUMBER OF RESPONDENTS ENGAGED IN THE  
MANUFACTURE, SUBCONTRACTING AND/OR RESALE OF  
WOOD-BASED FURNITURE, BY MAJOR PRODUCT TYPE

<u>Product Type</u>	<u>Frequency</u>				<u>% to Total Respondents</u>			
	<u>Manu- facture</u>	<u>Sub- contract</u>	<u>Re- sale</u>	<u>Any Mode</u>	<u>Manu- facture</u>	<u>Sub- contract</u>	<u>Re- sale</u>	<u>Any Mode</u>
Home Furniture (Wood)	83	14	10	85	72.2%	12.2%	8.8%	74.6%
Office Furniture (Wood)	43	5	2	44	37.7	4.4	1.8	38.6
Fixtures and Accessories (Wood)	55	7	2	56	48.2	6.1	1.8	49.1
Builder's Woodwork	25	3	1	26	21.9	2.6	0.9	22.8
Rattan and Buri Furniture	22	5	3	24	19.3	4.4	2.6	21.1
Rattan and Buri Fixtures and Accessories	15	2	1	15	13.2	1.8	0.9	13.2

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Valid cases = 115 respondents

TABLE II.9 DISTRIBUTION OF RESPONDENTS  
ACCORDING TO LOCATION AND PRINCIPAL RAW MATERIAL

Location of Firm	Principal Raw Material			Total	%			
	Wood	Rattan <sup>1/</sup>	Wood and Rattan		Wood	Rattan	Wood and Rattan	Total
Metro Manila								
1st District	17	1	0	18	94.4%	5.6%	0%	100.0
2nd District	27	1	1	29	93.1	3.4	3.4	99.9
3rd District	10	0	0	10	100.0	0	0	100.0
4th District	9	2	1	12	75.0	16.7	8.3	100.0
Cebu	12	4	0	16	75.0	25.0	0	100.0
Pampanga	6	9	0	15	40.0	60.0	0	100.0
Rizal	7	0	0	7	100.0	0	0	100.0
Bulacan	6	0	0	6	100.0	0	0	100.0
Laguna	<u>1</u>	<u>0</u>	<u>1</u>	<u>2</u>	<u>50.0</u>	<u>0</u>	<u>50.0</u>	<u>100.0</u>
Total	<u>95</u>	<u>17</u>	<u>3</u>	<u>115</u>	<u>82.6%</u>	<u>14.8%</u>	<u>2.6%</u>	<u>100.0</u>

<sup>1/</sup> Includes buri, bamboo and other such material.

<sup>2/</sup> With round-off error.

Of the 25 firms which did export within 1976-1980 (Table II.10 gives a distribution of these respondents according to location and principal raw material), only 10 were able to do so throughout the five years covered, while the remaining 15 exported in anywhere from 1 to 4 years. See Table II.11 for a distribution of the 25 respondents according to number of years (1, 2, 3, 4 or 5 years) within the period 1976-1980 in which they actually exported, and to principal raw material. In fact, only 21 respondents exported in 1980, 22 in 1979, 20 in 1978, 15 in 1977, and 12 in 1976. Tables II.12 and II.13 indicate the major product types exported and years of first export, respectively, of the 25 firms who ever exported.

The data is indicative of a shift towards exports made of rattan (as well as buri, bamboo and other similar material), away from exports made primarily of wood. Even the FOB \$ values of exports of the 25 respondents over the period 1976-1980 supports such observation. For instance, of the 21 respondents who exported in 1980, 11 are rattan furniture manufacturers, 9 use wood primarily, while one uses a combination of wood and rattan. While only 8 of the first category could furnish estimates of export sales (direct exports plus sales to exporting firms), equivalent FOB \$ value, exclusive of exporting firms' markups, aggregated \$6.38 million (with a mean of \$797.8 thousand). On

TABLE II.10 DISTRIBUTION OF RESPONDENTS  
WHO EXPORTED DURING THE PERIOD 1976-1980,  
BY LOCATION AND PRINCIPAL RAW MATERIAL

<u>Location</u>	<u>Principal Raw Material</u>			<u>Total</u>
	<u>Wood</u>	<u>Rattan<sup>1/</sup></u>	<u>Wood and Rattan</u>	
Metro Manila				
1st District	1	1	0	2
2nd District	4	0	1	5
3rd District	0	0	0	0
4th District	2	2	1	5
Pampanga	2	5	0	7
Cebu	2	4	0	6
Rizal	0	0	0	0
Bulacan	0	0	0	0
Laguna	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
Total	<u>11</u>	<u>12</u>	<u>2</u>	<u>25</u>

<sup>1/</sup> Includes buri, bamboo and other similar material.

TABLE II.11 DISTRIBUTION OF RESPONDENTS  
WHO EXPORTED DURING THE PERIOD 1976-1980,  
ACCORDING TO NUMBER OF YEARS ACTUALLY EXPORTING  
IN THE PERIOD, AND TO PRINCIPAL RAW MATERIAL

<u>Number of Years Actually Exporting<sup>1/</sup> in 1976-1980</u>	<u>Principal Raw Material</u>			<u>Total</u>
	<u>Wood</u>	<u>Rattan<sup>2/</sup></u>	<u>Wood and Rattan</u>	
1	2	1	0	3
2	1	0	1	2
3	3	3	1	7
4	3	0	0	3
5	<u>2</u>	<u>8</u>	<u>0</u>	<u>10</u>
Total	<u>11</u>	<u>12</u>	<u>2</u>	<u>25</u>

<sup>1/</sup>"Actually exporting" may refer to either direct exports or sales to exporting firms, or both.

<sup>2/</sup>Includes buri, bamboo and other similar material.

TABLE II.12 NUMBER OF RESPONDENTS WHO HAVE AND/OR  
ARE ENGAGED IN EXPORT OF WOOD-BASED FURNITURE,<sup>1/</sup>  
BY MAJOR PRODUCT TYPE

<u>Product Type</u>	<u>Frequency</u>	<u>% to Total Exporters</u>
Rattan and Buri Furniture	14	48.3%
Rattan and Buri Fixtures and Accessories	9	31.0
Home Furniture (Wood)	8	27.6
Fixtures and Accessories (Wood)	7	24.1
Builder's Woodwork	5	17.2
Office Furniture (Wood)	1	3.4

<sup>1/</sup>Only 29 (or 25.2%) of 115 respondents reported ever having exported/  
sold to exporting firms.

TABLE II.13 DISTRIBUTION OF YEARS  
IN WHICH RESPONDENTS FIRST EXPORTED<sup>1/</sup>

<u>Year of First Export</u>	<u>Frequency</u>	<u>%</u>
1976-80	16	55.2%
1971-75	7	24.1
1966-70	2	6.9
1961-65	2	6.9
1948	1	3.4
Cannot recall	1	3.4
Total	<u>29</u>	<u>99.9%</u>

<sup>1/</sup>Only 29 (or 25.2%) of 115 respondents reported ever having exported/  
sold to exporting firms.

the other hand, 8 exporters of wood furniture provided an aggregate estimated FOB \$ value of \$1.29 million, or a mean value of only \$161.3 thousand.

(See Table II 44.) It would seem, then, that values of exports of rattan furniture manufacturers have substantially been greater, on the firm level, than exports of wood furniture.

At the same time, total Philippine wood-based furniture exports have grown heavily in favor of rattan furniture, as will be discussed in a latter section of this report.

### 3.0 Organizational Characteristics

81.7% of the 115 respondents are single proprietorships, and the remaining 18.3% are corporations. (PDCP [5] reports that newly registered furniture manufacturers over the period 1970-1976 were distributed as follows: single proprietorships, 76.0%; corporations, 16.5%; and partnerships, 7.5%. It noted, however, that registrations of single proprietorships to total newly registered furniture manufacturers had shown an increasing trend over that period.)

30.4% of respondents have been in operation for five years or less. Moreover, 60% of the firms have been operating for no more than 10 years, indicating a predominance in the industry of relatively young firms. Only 15.7% of the respondents are more than 20 years of age.

12.2% of the firms sampled are being operated by other than the original owners, while 87.8% continue to be under original ownership. (Refer to Table II.14.)

A cross-tabulation of age of the firm versus size (in terms of labor force) yields a highly significant chi-square result that these two variables are not independent. The data, in fact, suggests that size and age are positively correlated (though not necessarily linearly). This may indicate either a general tendency for firms to grow in size over time, or for smaller firms to close down after a few years in operation. (The survey data suggests that as much as 35.4% of registered firms in our sample may have ceased operations.) If the former possibility were to prevail, it may somehow explain the lack of correspondence between the distributions of size of labor force of the derived sample (Table I.7) and the actual sample (Table II.5) noted in Sections I.B.2 and II.B.1. It would seem that size of labor force may increase over the years, whereas data in NACIDA's registry indicate, among others information, number of employees at the time of registration (which is anywhere between 1963 and 1979). Of course, as was earlier mentioned, it may simply have been an offshoot of the possible understatement of employment figures, among other data, to qualify for registration with NACIDA and avail of the privileges that go with such registration.

TABLE 11.14 DISTRIBUTION OF RESPONDENTS  
BY NUMBER OF YEARS IN OPERATION<sup>1/</sup>

No. of Years in Operation	Frequency			%		
	Original Ownership	Acquired	Total	Original Ownership	Acquired	Total
1-5	29	6	35	28.7%	42.9%	30.4%
6-10	31	3	34	30.7	21.4	29.6
11-15	14	3	17	13.9	21.4	14.8
16-20	9	1	10	8.9	7.1	8.7
21-25	3	1	4	3.0	7.1	3.5
More than 25	14	0	14	13.9	0	12.2
Unknown <sup>2/</sup>	1	0	1	1.0	0	0.9
Total	<u>101</u>	<u>14</u>	<u>115</u>	<u>100.1%<sup>3/</sup></u>	<u>99.9%<sup>3/</sup></u>	<u>100.1%<sup>3/</sup></u>

<sup>1/</sup> As of yearend 1980.

<sup>2/</sup> Respondent cannot recall year established.

<sup>3/</sup> With roundoff error

C. Production Inputs and Practices

1.0 Production Facilities and Major Practices

1.1 Plant and Equipment

Cody [ 3 ] had observed that most factories and workshops in both solid wood and rattan sub-sectors of the industry are poorly equipped for mechanized production. Furthermore, both plant and equipment are generally dilapidated.

Our survey showed that 51.3% of all respondents have plants housed or located in residences or the immediately adjoining areas. This suggests somewhat "backyard type" operations, which may be susceptible only to limited expansion. Some 28.7% of respondents are renting their plant structure.

Cody further notes:

"Although any general purpose factory would be suitable for the manufacture of furniture, the bulky nature of the product and its susceptibility to damage in handling require that factory premises should be relatively spacious, free from obstructions and should have flat floors. xxx Because the quality of the finish often greatly affects the saleability of the product, separate enclosed finishing areas with extractor fans are of considerable importance. Only a small minority of Filipino factories have any of those desiderata."

Out of 115 respondents, 22 (or 19.1%) have plants in different locations than the main office. Six of these 22 actually have two plants,<sup>3/</sup> while

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<sup>3/</sup>The remaining 109 respondents (94.8% of sample) have only one.

the sixteen others simply have their main offices and plants separately located.

Seven respondents (6.1% of the sample) report having no equipment whatsoever, except possibly for hand tools and other similar implements, while four respondents have only one piece. An additional three respondents (this brings the total to 7) have only one major type/category of equipment. (See Tables II.15 and II.16 for distributions of respondents according to number of types and number of pieces of equipment, respectively.) The mean number of types across the sample is 4.6, compared with a median of 4. On the other hand, the mean number of pieces is 9.9, as against a median of 8.

Table II.17 lists equipment/machinery, by major type/category, in common use among the respondents. The most common type of equipment are the specialized saw and cutters, which are, understandably, very basic to the industry. Only a little more than half of the respondents, however, have routers and planers or compressors, which ought to be standard machinery in milling and finishing, respectively. Fewer than 30% have any equipment for shaping/moulding, jointing, lathing and other operations which ordinarily would require a fairly high degree of precision, and, desirably, mechanization. This suggests that the industry is, by and large, labor-intensive.

TABLE II.15 DISTRIBUTION OF RESPONDENTS  
 ACCORDING TO NUMBER OF TYPES OF EQUIPMENT,  
 BY PRINCIPAL RAW MATERIAL USED

Number of Types of Equipment	Principal Raw Material									All Types of Principal Raw Material (Total)		
	Wood			Rattan <sup>1/</sup>			Wood and Rattan			Total Exporting	Total Non- Exporting	Grand Total
	Exporting	Non- Exporting	Sub Total	Exporting	Non- Exporting	Sub Total	Exporting	Non- Exporting	Sub Total			
0	-	3	3	-	3	3	-	1	1	-	7	7
1	-	5	5	-	1	1	-	-	-	-	6	6
2	-	11	11	2	-	2	-	-	-	2	11	13
3	-	11	11	2	-	2	-	-	-	2	11	13
4	1	13	14	-	1	1	-	-	-	1	14	15
5	6	9	15	-	-	-	-	-	-	6	9	15
6	-	14	14	1	-	1	-	-	-	1	14	15
7	-	7	7	1	-	1	1	-	1	2	7	9
8	1	2	3	2	-	2	-	-	-	3	2	5
9-11	-	2	2	1	-	1	-	-	-	1	2	3
All Types <sup>2/</sup>	3	3	6	-	-	-	1	-	1	4	3	7
Total	<u>11</u>	<u>80<sup>3/</sup></u>	<u>91</u>	<u>9<sup>4/</sup></u>	<u>5</u>	<u>14</u>	<u>2</u>	<u>1</u>	<u>3</u>	<u>22</u>	<u>86</u>	<u>108</u>

<sup>1/</sup> Includes buri, bamboo and other similar material.

<sup>2/</sup> Respondent claims that firm has "all types" of machinery/equipment "necessary for the business," but refuses to go into any detail.

<sup>3/</sup> Four wood furniture manufacturers refused to provide information.

<sup>4/</sup> Three exporters of rattan furniture refused to provide information.

TABLE II.16 DISTRIBUTION OF RESPONDENTS  
 ACCORDING TO NUMBER OF PIECES OF EQUIPMENT,  
 BY PRINCIPAL RAW MATERIAL USED

Number of Pieces of Equipment	Principal Raw Material Used									All Types of Raw Material Used (Total)		
	Wood			Rattan <sup>1/</sup>			Wood and Rattan			Total Exporting	Total Non- Exporting	Grand Total
	Exporting	Non- Exporting	Total	Exporting	Non- Exporting	Total	Exporting	Non- Exporting	Sub- Total			
0	-	3	3	-	3	3	-	1	1	-	7	7
1	-	3	3	-	1	1	-	-	-	-	4	4
2	-	5	5	1	-	1	-	-	-	1	5	6
3-5	1	15	16	-	-	-	-	-	-	1	15	16
6-9	3	27	30	3	1	4	-	-	-	6	28	34
10-14	2	20	22	1	-	1	1	-	1	4	20	24
15-19	1	4	5	2	-	2	-	-	-	3	4	7
20-29	1	3	4	1	-	1	1	-	1	3	3	6
30 or more	1	2	3	1	-	1	-	-	-	2	2	4
Total	<u>9</u> <sup>2/</sup>	<u>82</u> <sup>2/</sup>	<u>91</u>	<u>9</u> <sup>3/</sup>	<u>5</u>	<u>14</u>	<u>2</u>	<u>1</u>	<u>3</u>	<u>20</u>	<u>88</u>	<u>108</u>

<sup>1/</sup> Includes buri, bamboo and similar material

<sup>2/</sup> Three wood furniture manufacturers (two of them exporting) refused to provide information.

<sup>3/</sup> Three rattan furniture exporters refused to provide information.

TABLE II.17 COMMON TYPES OF EQUIPMENT/MACHINERY IN USE<sup>1/</sup>

Type of Equipment Machinery	No. of Respondents Reporting as Using This Type <sup>2/</sup>	% to Total <sup>3/</sup> Respondents	Average Number of Pieces per Respondent Using This Type	Age Range (Years)	Average Age (Years) <sup>4/</sup>		Median Age (Years) <sup>4/</sup> Across Respondents
					Across Respondents Using This Type	Weighted	
Specialized saw/ cutter	101	90.2%	2.9	2-30	7.5	7.5	6
Planer	65	58.0	1.4	1-20	7.4	7.4	5
Router	58	51.8	1.8	1-15	4.5	4.6	4
Compressor	57	50.9	2.0	1-20	5.2	6.5	4.5
Drill	39	34.8	1.9	1-30	8.9	9.6	7
Sewing machine	34	30.4	2.1	1-25	8.1	7.9	4
Sanding machine	33	29.5	1.7	1-20	5.6	5.7	4
Jointer/joint planer	30	26.8	1.2	2-30	6.8	6.8	5
Press machine	28	25.0	1.2	2-20	5.6	5.2	5
Moulder/shaper	24	21.4	2.1	1-20	7.1	6.9	5.5
Lathe machine	17	15.2	1.2	3-50	13.4	11.8	7.5

<sup>1/</sup>Seven (or 6.1%) of respondents reported not having any equipment/machinery other than hand tools. Four respondents have only one piece, while an additional three have only one type.

<sup>2/</sup>Includes 7 respondents reporting having "all types of equipment/machinery in the business", and refusing to go into any detail.

<sup>3/</sup>Percentages are based on 112 respondents who replied to the question regarding equipment/machinery.

<sup>4/</sup>Taken over set of respondents using the given type of equipment/machinery, excluding cases where age is unknown/cannot be estimated by respondent.

Some pieces of machinery are old (20 to 50 years), but the mean and median ages are relatively on the low side. This may indicate a fairly recent shift from traditionally manual operations towards mechanization, although perhaps at a painfully slow pace. Even among respondents who have decided to mechanize, only a handful would claim to have an essentially complete line of equipment/machinery.

62.6% of respondents (72 out of 115) report acquiring some major piece or pieces of equipment over the period 1976-1980. Sources of financing employed were: own capital (52 out of 72, or 72.2%), banks (23.6%), supplier's credit (6.9%), relatives/friends (4.2%), financing company and private moneylender (1.4% each).

Out of 63 respondents who provided estimates of current resale value of fixed assets, 17.5% indicated an aggregate amount of ¥10,000 or less; 42.9%, ¥50,000 or less; and 60.3%, ¥100,000 or less. It is highly doubtful, however, whatever such estimates may be meaningful at all, as these estimates seem to be far from reasonably approximating the value of fixed assets. Accordingly, the usual capital-labor ratio approach fails.

Instead, an alternative measure for relative extent of mechanization was developed: ratio of number of pieces of equipment to size of labor

force. (See Table II.18.) 13.2% of respondents have machine to worker ratios of 1:10 or worse, while 28.3% have 1:4 or less. A large 56.6% of respondents fall within 1:2 or less. Only 14.2% had better than a 1:1 ratio. The generally low ratios are more pronounced in the case of rattan furniture manufacturers, suggesting that latter are even more labor-intensive than wood furniture manufacturing. This is to be expected owing to the relative applicability of machines in wood furniture production compared with the requirements of rattan furniture.

The number of types and of pieces of equipment<sup>4/</sup> both exhibit a general tendency to increase with the size of the firm (whether it be measured in terms of size of labor force or via estimated gross sales), but certainly not proportionately. In fact, no direction can be established for machine to worker ratios in relation to size of firm; i.e., such ratios do not exhibit an increasing trend as size of labor force or gross sales increases. This would imply that relative extent of mechanization does not necessarily improve as the firm grows in size. Not even among the firms exporting wood furniture is such a trend perceptible, when that would

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<sup>4/</sup> The same may be said of aggregates estimated resale value of equipment.

TABLE II.18 DISTRIBUTION OF RESPONDENTS ACCORDING TO RATIO OF NUMBER OF PIECES OF EQUIPMENT TO SIZE OF LABOR FORCE, BY PRINCIPAL RAW MATERIAL USED

Ratio of Number of Pieces of Equipment to Size of Labor Force	Frequency according to Principal Raw Material Used				%			
	Wood	Rattan	Wood and Rattan	Total	Wood	Rattan	Wood and Rattan	Total
0.00 - 0.10	6	6	2	14	6.7%	42.9%	66.7%	13.2%
0.11 - 0.25	12	4	-	16	13.5	28.6	-	15.1
0.26 - 0.50	27	3	-	30	30.3	21.4	-	28.3
0.51 - 0.75	14	1	1	16	15.7	7.1	33.3 <sup>1/</sup>	15.1
0.76 - 1.00	15	-	-	15	16.9	-	-	14.2
1.01 - 1.50	8	-	-	8	9.0	-	-	7.5
1.51 - 2.00	5	-	-	5	5.6	-	-	4.7
2.01 or more	2	-	-	2	2.2	-	-	1.9
Total	<u>89</u> <sup>1/</sup>	<u>14</u> <sup>1/</sup>	<u>3</u>	<u>106</u>	<u>99.9%</u> <sup>2/</sup>	<u>100.0%</u>	<u>100.0%</u>	<u>100.0%</u>

<sup>1/</sup> Ratios could not be derived for 6 wood and 3 rattan furniture and fixtures manufacturers due to missing data.

<sup>2/</sup> With roundoff error.

seem to be the expectation.<sup>5/</sup>

### 1.2 Number of Workshifts and Working Hours

Presumably owing to demand factors, 97.4% (112 out of 115) of our respondents use only one workshift daily. Only 3 respondents (2.6%) have two workshifts. 82.6% use eight-hour workshifts ("workdays" may be more appropriate considering that there is generally only one workshift), while the remaining 17.4% are spread over the rest of a 5 to 13 hours range. Mean length is 8.09 hours. Most respondents (88.4%), however, apply a six-day working week, while 2.7% use seven working days, 5.4% five, and 3.6% less than five, averaging at 5.87 days.

### 1.3 Subcontracting

Subcontracting appears to be a relatively common practice among firms (51, or 44.3% of all respondents). 44 firms (38.2%) pass on production of certain components to other firms, while 25 (21.7%) subcontract entire products. Among the major reasons given for subcontracting are that certain operations are not within the capability

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<sup>5/</sup> It is only in the mean number of pieces of equipment (19.3) that firms exporting wood furniture would seem to have an edge over the entire sample (9.9). But such is likewise the case with all exporting firms (16.4), whether using wood or rattan as principal raw material. This situation may simply be a result of the fact that exporting firms are generally larger (mean gross sales of ¥3.7 million; mean labor force of 147.2), compared with the entire sample (mean gross sales of ¥1.2 million; mean labor force of 46.4). The edge in number of pieces of equipment, therefore, seems to arise merely out of the stated general tendency to own more equipment as size of the firm increases.

of the firm, and the insufficiency of machinery/equipment. In addition, a significant number of respondents passing on production claim that it turns out cheaper to do so. (See Table II.19.) This seems to suggest that firms do not feel a need to purchase certain machinery/equipment, as production volumes may not be sufficient to justify such decision.

There are, of course, certain tradeoffs that a firm would have to consider in deciding to subcontract. 22 of the 51 firms (43.1%) complain that quality of output is not as specified/expected, while 19 (37.3%) report that the output is usually not delivered on time. Moreover, 2 firms (3.9%) state that subcontracting/passing on production turns out to be even more expensive.

At any rate, the practice of subcontracting in effect solves, at least to some extent, two problems: a) lack of resources on the part of the firm passing on the work, and, b) underutilized capacity<sup>6/</sup> on the part of the firm taking on the subcontracted production.

#### 1.4 Job Order Versus Standard Production

As will be discussed later, production is generally in the custom-made, job order area. In fact, 48.7%

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<sup>6/</sup> This matter is discussed in the immediately succeeding section.

TABLE II.19 REASONS GIVEN FOR SUBCONTRACTING/PASSING ON PRODUCTION OF CERTAIN PRODUCTS/COMPONENTS

<u>Reason Given</u>	<u>Entire Product(s)</u>		<u>Component(s)</u>	
	<u>Frequency</u>	<u>% to Respondents Passing on<sup>1/</sup> Production<sup>1/</sup></u>	<u>Frequency</u>	<u>% to Respondents Passing on<sup>2/</sup> Production<sup>2/</sup></u>
Turns out cheaper	19	43.2%	4	16.0%
Certain operations not within capability of the firm	19	43.2	1	4.0
Insufficient quantity of labor force	10	22.7	6	24.0
Insufficient quality of labor force	11	25.0	3	12.0
Insufficient machinery/equipment	11	25.0	2	8.0
Rush jobs/limited time to produce	4	9.1	3	12.0
Lack of space	2	4.5	-	-

<sup>1/</sup>44 respondents subcontract/pass on production of certain components.

<sup>2/</sup>25 respondents subcontract/pass on production of certain (entire) products.

of respondents produce entirely according to job orders. The mean sample proportion of job orders to total production is in excess of 70%. (See Table II.20 for a distribution of respondents according to proportion of job orders to total production.)

## 2.0 Production Capacity and Capacity Utilization

The study team found the notion of production capacity in the industry a particularly difficult one to handle. Considering that the firms are generally labor-intensive and that, even where firms have a large number of equipment/machinery, operations are a far cry from the essentially fully-mechanized, assembly-type sort, it becomes inappropriate to speak of rated capacity.<sup>7/</sup>

In the survey, each respondent was asked to provide two estimates of production capacity (either in terms of inputs or outputs), with the respondent being asked to consider a situation where all possible output would be sold. While both estimates are based on the respondent's perception relative to maximizing use of plant (including working space) and equipment (as of 1980), the first estimate is based on actual labor complement in 1980, while the second estimate is based on an "ideal" labor complement. This distinction was felt to be relevant, the industry being largely labor-intensive, and volume of output, therefore, dependent on size of labor force.

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<sup>7/</sup>Mr. de Lange, president of the CFIP for 1983, cites this difficulty in, for instance, CFIP's coming up with actual raw material requirements of the industry to support the association's requests for cutbacks in log and lumber exports.

TABLE II.20      DISTRIBUTION OF RESPONDENTS  
 ACCORDING TO PROPORTION OF  
 JOB ORDERS TO TOTAL PRODUCTION<sup>1/</sup>

<u>Job Orders to Total Production (%)</u>	<u>Frequency</u>	<u>%<sup>2/</sup></u>
0 %	6	5.3%
1-20	7	6.1
21-40	13	11.4
41-60	14	12.3
61-80	11	9.6
81-99	7	6.1
100	<u>56</u>	<u>49.1</u>
Total	<u>114</u>	<u>99.9%<sup>3/</sup></u>

<sup>1/</sup>In terms of total peso sales.

<sup>2/</sup>Based on 114 valid responses .

<sup>3/</sup>With roundoff error.

Measures for capacity used were either "input-based" (board feet of lumber, meters or pieces of rattan poles, pieces of plywood) or "output-based" (peso value based on sales, peso value based on total cost of goods, number of cabinets). The respondent was given much latitude in the choice of what measure to apply.

The most commonly used measures were: (i) board feet<sup>8/</sup> of lumber processed per month (n=51); and (ii) peso value of sales per month (n=22). The rest of the respondents either were unable to provide estimates or used any one of a sprinkling of various capacity measures.

For the 50 or so respondents using board feet of lumber processed per month, capacity estimates based on 1980 labor complement averaged 6,838, with a standard deviation of 11,789. This yields a 95% confidence interval of 3,602 to 10,074 for the true mean of the sample population.<sup>9/</sup> The sample median, however, is 2,000. On the other hand, capacity estimates based on ideal labor complement averaged 8,550, with a standard deviation of 12,010, yielding a 95% confidence interval of 5,286 to 11,814 for the true population mean. The median capacity estimate for the sample is 4,000.

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<sup>8/</sup> While the metric system is being pushed, this measure still prevails in the industry.

<sup>9/</sup> Assuming that 83% of all firms in the sample population use wood as principal raw material and 81% are legitimate and existing firms in the industry as of 1980, this would translate into between 3.7 and 10.4 million board feet of lumber aggregate monthly capacity within the area covered.

Using the above-cited 73 valid cases, capacity utilization was computed by dividing estimated actual 1980 output by estimated capacity (see Table II.21). Mean (unweighted)<sup>10/</sup> capacity utilization of the sample based on 1980 labor complement is 63.6%, with a standard deviation of 25.6%. A 95% confidence interval for capacity utilization over the entire sample population would be from 57.7% to 69.5%. Sample median is at 50%.

Based on ideal labor complement, sample unweighted<sup>11/</sup> mean capacity utilization is much lower, at 44.6%, with a standard deviation of 25.2%; median for the sample is 48%. The corresponding 95% confidence interval for population capacity utilization is 38.8% to 50.4%.

(A comparison of weighted and unweighted mean capacity utilizations would suggest that larger firms, in terms of larger outputs, tend to have better capacity utilization rates.)

Admittedly, estimates developed for production capacity and capacity utilization are nowhere far from rough. Nonetheless, they are indicative of a situation where firms in the wood-based furniture industry in general

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<sup>10/</sup> A weighted mean utilization rate based on board feet of lumber processed (n=51) is a proximate 67.7%. Based on \$ value of sales (n=22), it is at 73.9%.

<sup>11/</sup> A weighted mean utilization rate based on board feet of lumber processed (n=52) is somewhat higher, at 51.7%. Based on \$ value of sales (n=20), it is at an even higher 62.4%.

TABLE II.21 ESTIMATED 1980 CAPACITY UTILIZATION<sup>1/</sup>

Capacity Utilization	Capacity Based on 1980 Labor Complement <sup>1/</sup>			Capacity Based on Ideal Labor Complement <sup>1/</sup>		
	Frequency <sup>2/</sup>	%	Cumulative %	Frequency <sup>3/</sup>	%	Cumulative %
1 - 9%	1	1.4%	1.4%	3	4.2%	4.2%
10 - 19	1	1.4	2.7	4	5.6	9.7
20 - 29	3	4.1	6.9	15	20.8	30.6
30 - 39	9	12.3	19.2	11	15.3	45.8
40 - 49	4	5.5	24.7	5	6.9	52.8
50 - 59	14	19.2	43.8	16	22.2	75.0
60 - 69	12	16.4	60.3	6	8.3	83.3
70 - 79	6	8.2	68.5	2	2.8	86.1
80 - 89	8	11.0	79.5	5	6.9	93.1
90 - 99	1	1.4	80.8	1	1.4	94.4
100	<u>14</u>	<u>19.2</u>	100.0	<u>4</u>	<u>5.6</u>	100.0
Total	<u>73</u>	<u>100.1%</u> <sup>4/</sup>		<u>72</u>	<u>100.0%</u>	

<sup>1/</sup> Capacity Utilization =  $\frac{\text{Estimated Actual 1980 Output}}{\text{Estimated Capacity}}$

Respondents were asked to provide two estimates of "capacity" (both based on 1980 plant and equipment): one using 1980 labor complement, and the other using an "ideal" labor complement that they perceive would maximize use of plant and equipment.

<sup>2/</sup> Out of 115 respondents, a total of 73 yielded valid responses for both estimated output and estimated capacity based on labor complement, in terms of board feet of lumber processed (51 respondents) or peso value of sales (22 respondents).

<sup>3/</sup> A total of 72 respondents yielded valid responses for both estimated output and estimated capacity based on an "ideal" labor complement: 52 in terms of board feet of lumber processed and 20 in terms of peso value of sales.

<sup>4/</sup> With roundoff error.

produce below maximum possible levels of production.

The majority of respondents (80%) believe that their labor force is sufficient. Yet, capacity estimates differ significantly when expressed in terms of actual 1980 labor complement as against some "ideal" labor complement. It would seem, therefore, that firms have generally maintained a labor complement lower than the perceived "ideal" (or maximum) complement. This may be due to one or a number of possible factors. Among others, a dearth in inputs (primarily raw material) or generally low sales volumes (in turn owing to one or some of several possible factors) appear to be some of the more plausible explanations.

Notwithstanding the observation that actual 1980 labor complement is, in many cases, lower than the maximum possible complement, capacity utilization estimates based on the former would still point to a relatively inefficient use of the labor force. This situation may be inevitable, though, owing to seasonality of sales and, consequently, of fluctuating production levels.

### 3.0 Labor Force

#### 3.1 Size of Labor Force

As was discussed in Section II.B.1 above, the respondents are distributed according to size of labor force as follows: 14% in the unorganized sector (1 to 4 employees), 40.4% small (5 to 19 employees) and 45.6% large (20 or more workers).

Compared with the footwear and leather products manufacturing industries, the wood-based furniture industry has a relatively larger size of labor force at the firm level. Our sample yielded a mean of 46.4 employees (with a standard deviation of 103.5) and a median in the range 15-19. Nevertheless, use of household labor is still relatively prevalent, with 42.6% of our sample employing household members/helpers in the production process. (Two respondents, in fact, use household labor exclusively.) This practice extends even to fairly large firms (see Table II.6 ), although the extent apparently becomes less pronounced as firms increase in size. [Only 55.1% of firms using household labor pay the latter any salary. Payment of salaries to household members/helpers for participation in the production process tends to be practiced more, however, in the larger firms than in the smaller ones. (Refer to Table II.22.)]

### 3.2 Supply of Labor

Eighty per cent of respondents state that total number of employees is sufficient.<sup>12/</sup> Of those who feel that they need more workers, skilled manual labor was principally mentioned (18 of 22 respondents),

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<sup>12/</sup> A plausible interpretation of such sufficiency, relating to utilization of a firm's labor complement, was discussed in the immediately preceding section.

TABLE II.22 COMPENSATION FOR HOUSEHOLD LABOR,  
BY SIZE OF LABOR FORCE

Size of Labor Force	Firms Using Household Labor	Frequency		% <sup>1/</sup>	
		Paying Salaries	Not Paying Salaries	Paying Salaries	Not Paying Salaries
1 - 5	11	3	8	27.3%	72.7%
6 - 10	19	8	11	42.1	57.9
11 - 15	5	4	1	80.0	20.0
16 - 20	1	1	0	100.0	0
21 - 30	3	2	1	66.7	33.3
31 - 50	5	5	0	100.0	0
51 - 100	2	2	0	100.0	0
101 - \$00	<u>3</u>	<u>2</u>	<u>1</u>	66.7	33.3
Total	<u>49</u>	<u>27</u>	<u>22</u>	55.1	44.9

<sup>1/</sup>Based on row totals.

and, only to a certain extent (5 respondents), skilled machine operators were called for.

While most respondents would prefer to employ workers who have prior experience or skill in the industry, more than 20% would opt for in-house training/apprenticeship as a first choice, and an additional 42.6% as a second choice. This seems to be consistent with the declaration of 80% of the respondents on sufficiency of their labor force. It would appear that prior experience/skill is desirable, though not absolutely necessary since in-house training/apprenticeship is easily practicable from the manufacturers' point of view.

(Only an insignificant number of respondents rely on training programs conducted by trade/vocational schools, or by NMYC or other government agencies.)

### 3.3 Specialization

75.7% of respondents report some degree of specialization, in the sense that one worker performs one or some, but not all, operations in making one unit of finished product. (Almost the same level of specialization is reported by manufacturers of rattan furniture.) Of the 24.3% who do not practice specialization, it is often declared that such practice is only for the big, and not the small manufacturers.

Specialization and size of labor force are not independent at a 5% level of significance. The data suggests that specialization is more practiced in larger than smaller firms, as expected.

### 3.4 Modes of Payment

Table II.23 below shows the number of firms using (whether exclusively or in combination with other modes) each of the modes of payment for services of their employees. The most commonly used modes is a daily wage (used by 50.4% of the firms), followed closely by piecerate (47.8%). However, 21.7% of the firms use piecerate exclusively, as against 18.3% paying purely on the basis of daily wage rates. Moreover, 36.5% of the firms report that more than 50% of total payroll goes to piecerate workers, while 35.7% say the same thing about daily wage earners.

Table II.23 NUMBER OF FIRMS USING VARIOUS MODES OF PAYMENT FOR SERVICES OF EMPLOYEES

<u>Mode of Payment</u>	<u>Number of Firms Using this Mode*</u>	<u>% to Total Respondents</u>
Daily	58	50.4%
Piecerate	55	47.8
Monthly	31	27.0
Batchwork	25	21.7
Weekly	20	17.4
Hourly	1	0.9

\* Whether exclusively or in combination with other modes.

A total of 78 firms (67.8% of sample) use the piecerate and/or batchwork modes of payment. (Table II.24 summarizes the major reasons given for the use of either or both of these modes of payment.) This situation might be better appreciated in light of seasonality of sales (and, accordingly, production) as discussed in Section II.D.2 below.

#### 4.0 Raw Material

Except for a few items, such as fittings, accessories and similar hardware, which may be imported, most of the raw material requirements for the manufacture of wood-based furniture are locally available (PDCP [5]). Lumber can account for 41-50% of total raw material cost of wood furniture, and rattan poles 61-70% of total raw material cost of rattan furniture.<sup>13/</sup> On the other hand, total raw material cost can account for as much as 50-60% of total production costs (Cody [3]).

Narra seems to be the most preferred material for wood furniture (Cody [3]), and manufacturers are convinced that only narra is suitable for wood furniture exports (World Bank [6]). While it is believed that furniture made of narra has found substantial acceptance and demand in the export market due to its special qualities (PDCP [5]), Cody [3] notes that, at least in

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<sup>13/</sup> Based on the 1978 PDCP Survey on the Furniture Industry, covering the wood furniture and four rattan furniture manufacturers. (PDCP [5]).

TABLE II.24 REASONS FOR USE OF PIECERATE/BATCHWORK  
AS MODE OF COMPENSATION OF WORKERS<sup>1/</sup>

<u>Reason for Using Piecerate/Batchwork</u>	<u>Frequency</u>	<u>% to Users<sup>1/</sup></u>	<u>% to Total Respondents</u>
Irregular/Fluctuating demand	32	41.0%	27.8%
Greater productivity	26	33.3	22.6
Better quality of work/easier quality control	19	24.4	16.5
Preferred by workers	15	19.2	13.0
Easier to determine compensa- tion of workers	7	9.0	6.1
Less supervision needed	6	7.7	5.2
Common practice	6	7.7	5.2

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<sup>1/</sup> 78 (or 67.8%) of the 115 respondents reported using either piecerate or batchwork as a mode of compensation, 55 (or 47.8%) use piecerate, while 25 (or 21.7%) use batchwork.

Europe, narra as a furniture wood is virtually unknown. The Forest Products Research and Industries Development Commission (FORPRIDECOM) has for some time been looking for adequate substitutes for narra, but has met little success if at all (Cody [3], World Bank [6]).

The government had banned the export of narra, fearing that forest reserves of this hardwood might ultimately disappear. Moreover, it has imposed severe restrictions on amounts that can be felled, particularly the species from Northern Luzon which is preferred due to its grain, texture, and low contraction and expansion coefficients (World Bank [6], Cody [3], PDCEP [5]). These have made it more and more difficult to obtain narra, and made narra more expensive as well.

Other wood species that are locally used (for the domestic market) include red and white lauan, tanguile, almon, mayapis, bagtikan, and yakal (PDCEP [5]).

Even the export of rattan poles has been banned, but this ban is being circumvented (World Bank [6]). A major problem is a lack of reliable information on available quantities, although some quarters feel that supplies will not last unless greater efforts are exerted to regulate and regenerate the same (Cody [3]).

59.1% of our sample feel that raw material supply is a major problem. While other species are available for domestic furniture, narra is apparently still much sought

after. 34 respondents (or 34.7% of 98 firms in our sample which manufacture wood furniture) have identified narra specifically, as against 23 (23.5%) pointing to wood/lumber in general. On the other hand, 16 of 20 respondents manufacturing rattan furniture cite rattan/rattan poles. Major factors specified are: unreliability of delivery by suppliers (61.8% of respondents with raw material supply as a major problem); tendency of prices to increase unreasonably (50%); government restrictions (22.1%); and unsatisfactory conformance with quality specifications (23.5%). All these factors may somehow be tied into the dwindling supply of these raw materials.

Perhaps owing to the unreliability of delivery of raw material by suppliers, 71.3% of respondents have more than three major sources of their principal raw material, while 16.5% have three, and only 9.6% and 2.6% have two and one, respectively. 91.8% of wood furniture manufacturers in our sample usually buy lumber from lumber yards or saw mills.

47.8% of respondents usually accept prices set by their usual suppliers of raw material, while 46.1% usually canvass prices and buy from the lowest-priced source.

The need for adequate and appropriate lumber drying facilities is mentioned as a critical factor, particularly for exports, due to the high moisture content of Philippine lumber which is hardly suitable for furniture, especially in less humid climates. (Code 13).

## 5.0 Product Design/Technology

Table II.25 presents usual sources of information in four areas of technology application: production process, product design, quality, and choice of machinery. It shows a general tendency for owners, mainly as entrepreneurs, to exercise much influence in product design and technology, even if he may not be technically competent to do so.

The Bureau of Standards issued in 1976 the Philippine Standard Specification for Wooden Furniture (PS No. 821-01-09), which specifies minimum standards and procedures for wooden furniture relative to material requirements, structural parts construction, finish, sampling, performance tests, and marking. Firms seem to be largely unfamiliar with this set of standards, and those who are do not seem to fully comply with these standards.

It is little wonder that the Philippines cannot make much headway in wood furniture exports, considering that the export market calls for well-designed and quality products, with designs carried out essentially according to specifications (not only in appearance, but in the entire make of the product).

As Cody [3] would have it, product design must take into account "the production facilities of the firm, the skills of its workforce, an understanding of the nature and characteristics of the materials used,

TABLE II.25 SOURCES OF INFORMATION ON TECHNOLOGY

<u>Source of Information</u>	<u>Area of Technology Application</u>			
	<u>Production</u>	<u>Product Design</u>	<u>Quality</u>	<u>Choice of Machinery</u>
Owner's Ideas	102	75	92	99
Customers' Ideas	13	74	26	1
Journals/other publications	30	69	9	6
Foreman's/other workers' ideas	30	16	28	21
In-house design staff	9	22	5	1
Consultants	7	3	4	7
Industry association	5	3	2	2
Other manufacturers	4	6	4	1
Relatives/friends	3	4	2	0
Professional designers	1	7	0	0
Design Center of the Philippines	4	1	0	0

the forms and colors of the article, its tactile beauty, its fitness for the purpose, its decoration and its acceptability to the consuming public." He regrets that "only the last two appear to have ever received more than passing attention in the industry." Accordingly, "the industry as a whole lacks any understanding of the place and function of design in relation to its products."

#### 6.0 Production Support Facilities and Practices

##### 6.1 Quality Control

83.5% of our sample do not maintain a separate staff to check on the quality of in-house production. In 87.5% of these cases, the owner himself checks on quality. In some, it is the production foreman or supervisor (22.9% of cases), the production workers themselves (11.5%), buyers (4.2%), or a member of the family (1.1%).

Quality inspections are usually undertaken in between work stations (in 40.9% of all respondent firms); after each operation (28.7%), after each major operation (21.7%), and/or before delivery/after all operations have been completed (37.4%). In only 12.2% of respondents are calibration tools used for quality control purposes; quality inspection instruments are available in only 7% of firms in the sample. One lone respondent applies laboratory tests, while the rest (at

least 80%) rely solely on visual inspection.

It is, therefore, highly unlikely that firms which are at all aware of, say, the Philippine Standard Specification for Wooden Furnitures, would be able to comply, considering the above statistics in relation to quality control procedures/requirements that have been established.

#### 6.2 Equipment Maintenance

Only about half (55 out of 108) of the respondents with at least one piece of equipment follow a regular maintenance schedule. This need not be bad, however, since more than half of the respondents have eight pieces of equipment or less which may be fairly simple to maintain.

Nonetheless, some 35.2% (38 out of 108) still complain of machinery breakdown as a problem for one reason or other. The reasons given behind breakdown constituting a problem are summarized in Table II.26 below. 30 of these 38 respondents state that breakdowns often disrupt production while 14 report that repairs take time to undertake.

Table II.26 REASONS GIVEN AS TO WHY MACHINERY  
BREAKDOWN CONSTITUTES A PROBLEM

<u>Reason</u>	<u>Frequency</u>	<u>% to Respondents Reporting Breakdown to be Problem*</u>	<u>% to Total Respondents with Equipment**</u>
Often disrupts pro- duction	30	78.9%	27.8%
Repairs take long to undertake	14	36.8	34.1
Spare parts diffi- cult to find	10	26.3	9.3
Repairs are expen- sive	8	21.1	7.4
Qualified repair- men difficult to find	7	18.4	6.5
Equipment of low quality	1	2.6	0.9

\* 38 respondents.

\*\* 108 respondents.

### 6.3 Inventory Management

62.6% of respondents report that they generally stock up on raw material, 24.3% on spare parts and accessories, 20.9% on work in process, and 47.8% on finished goods. Of those who maintain one type of inventory or other, stocks are commonly replenished when inventory reaches a minimum level (43 cases, or 37.4% of total respondents). On the other hand, 30 respondents (26.1% of total respondents) report that

they acquire and maintain stocks only if there are job orders.

However, 14 out of 72 (19.4%) do not have adequate storage facilities for their raw material inventory, 4 out of 24 (16.7%) do not have space for work in process inventory, and the same can be said of 16 out of 55 (29.1%) for finished goods inventory. This inadequacy in storage space is easily attributable to the bulky nature of furniture, both in terms of raw material and product.

47.8% of respondents (55 cases) are able to borrow to maintain inventories. Sources of inventory financing are summarized in the table below.

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Table II.27 SOURCES OF FINANCING TO MAINTAIN INVENTORIES,  
OTHER THAN OWN CAPITAL

Source of Financing	Frequency	% to Respondents* Who Borrow to Acquire Inventories	% to Total Respondents
Supplier's credit	25	45.5%	21.7%
Banks	19	34.5	16.5
Relatives/friends	9	16.4	7.8
Private money- lenders	2	3.6	1.7

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\* 55 cases.

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The role of supplier's credit becomes more pronounced as financing sources are expanded to include

acquisition of raw material in general (not necessarily for maintaining raw material stock). This will be discussed, however, in the section on financing.

Several problems are encountered in maintaining adequate inventory levels, the more common of which are lack of financing (76 cases, or 66.1% of total respondents), non-availability of raw material (33.0%) and unpredictability of orders (32.2%). Only 13.9% of respondents seem to have no problem in keeping inventory at an adequate level.

#### 6.4 Other Support Facilities and Practices

Cody [3] observes that most firms require plant relaying, as well as dust extraction facilities. In spite of the general lack of the latter facilities, 88.7% of respondents claim to have no problems with waste disposal. Only 11.3% cite problems with irregularity or lack of garbage collection, or with having to pay "tong" to collectors to ensure regular removal of raw material wastes.

97.4% of respondents have only one source of energy (the electric company). The remaining 2.6% have, in addition, their own generator. This would mean that certain mechanized operations would generally be at a complete standstill when power disruptions occur.

Only 5.2% of respondents claim that they do not experience rejects of their products. Of those who do, 89% (97 out of 109) generally resort to rework. A further 22% would at times be able to sell to other parties (other than the person who placed the order), oftentimes on bargain terms.

D. Marketing Practices and Export Market Prospects

1.0 Channels of Distribution

Cody [ 3 ] had observed that most manufacturers sell directly to the public on the basis of job orders, with few exceptions. In effect, there is hardly any retail-selling from standard stocks.

Close to half the respondents (49.1%) have job orders accounting for 100% of total production, as may be gleaned from Table II.20, while, on the other extreme, only 5.3% produce entirely according to standard stocks. Moreover, 72.2% of respondents sell directly to end-users, either by way of their own show-rooms (in the case of the larger manufacturers) or simply through their front office. In fact 37.4% of respondents use this type of distribution exclusively, while 53% have this as main outlet (i.e., the highest percentage of sales to any single type of market outlet is to own retail/end-users). [Please refer to Table II.28 for a summary of types of market outlet used.] In contrast, only 24.3% of respondents sell some or all of their products to retailers, 14.8% to wholesalers, another 14.8% to importers, 7% to exporters and 6.1% to middlemen. Table II.29 shows to what extent these types of market outlet are used as main outlet, while Table II.30 indicates percentages of sales to these various types of outlet.

TABLE II.28

## TYPES OF MARKET OUTLET USED

Type of Outlet	Respondents Using This Type		No. of Respondents			% to Respondents Using This Type		
	Frequency	% to Total Respondents	Using This	With This	Ranking	Using This	With This	Ranking
			Type Exclusively <sup>1/</sup>	Type as Main Outlet	This Type First	Type Exclusively	Type as Main Outlet	Type First
Own Retail/ End-users	83	72.2%	43	61	62	51.8%	73.5%	74.7%
Retailers	28	24.3	5	17	17	17.9	60.7	63.7
Wholesalers	17	14.8	5	10	12	29.4	58.8	70.6
Importers	17	14.8	4	11	11	23.5	64.7	64.7
Exporters	8	7.0	1	3	3	12.5	37.5	37.5
Middlemen/ Agents	7	6.1	0	3	3	0	42.9	42.9

<sup>1/</sup> While 58 respondents reported using one type of outlet exclusively, 48 and 8 reported using two and three types of outlet respectively.

TABLE II.29 TYPES OF MARKET OUTLET,  
USED AS MAIN OUTLET <sup>1/</sup>

<u>Type of Outlet</u>	<u>No. of Respondents With This Type as Main Outlet</u>	<u>% to Total Respondents</u>	<u>Mean Percentage of Sales to this type of Outlet, to Res- pondent's Total Sales <sup>2/</sup></u>
Own Retail/ End-users	61	53.0%	91.4%
Retailers	17	14.8	76.7
Importers	11	9.6	81.0
Wholesalers	10	8.7	93.8
Exporters	3	2.6	80.3
Middlemen/ Agents	3	2.6	68.8

<sup>1/</sup> Main outlet is defined to be the type of market outlet with the respondent's highest percentage of sales.

<sup>2/</sup> Only for respondents using this type as main outlet.

TABLE II.30 TYPES OF MARKET OUTLET USED, BY PERCENTAGE OF SALES

Type of Outlet	Frequency According to Percentage of Sales								% <sup>1/</sup>							
	1-10%	11-20%	21-30%	31-50%	51-80%	81-99%	100%	Total	1-10%	11-20%	21-30%	31-50%	51-80%	81-99%	100%	Total <sup>2/</sup>
Own Retail/End-users	7	6	5	6	9	7	43	33	8.4%	7.2%	6.0%	7.2%	10.8%	8.4%	51.8%	99.8%
Retailers	5	1	1	6	7	2	5	27	18.5%	3.7	3.7	22.2	25.9	7.4	18.5	99. <sup>n</sup>
Middlemen/Agents	2	1	1	0	1	2	0	7	28.6	14.3	14.3	0	14.3	28.6	0	100.
Wholesalers	1	2	3	1	0	5	5	17	5.9	11.8	17.6	5.9	0	29.4	29.4	100.
Exporters	2	0	1	1	1	1	1	7	28.6	0	14.3	14.3	14.3	14.3	14.3	100.
Importers	0	1	2	3	5	1	4	16	0	6.2	12.5	18.8	31.2	6.2	25.0	99.

<sup>1/</sup> Based on row totals

<sup>2/</sup> Should be equal to 100%, except for round off errors.

Out of 115 respondents, 58 (or 50.4%) reported using one type of market outlet exclusively while 41.7% use two types and 7%, three. While more than half use only one type of outlet, the reasons give by such respondents are varied. The predominant responses are given in Table II.31 below. It would appear that volume of sales is not a major consideration in the decision to use only one type of outlet.

Table II .31 MAJOR REASONS GIVEN FOR USING ONE TYPE OF MARKET OUTLET EXCLUSIVELY

	<u>Frequency</u>	<u>% to Respondents Using Only One Type of Outlet</u>
Limited capital	19	32.8%
Convenience	9	15.5
Own outlet expensive	6	10.3

A cross-tabulation of type of outlet preferred by the respondent versus type of main outlet in use shows an almost one-to-one correspondence between these two variables. In fact, in only 3 of 105 valid cases was it the case that the respondent's preference differed from the type of main outlet in use. This would seem to suggest that the manufacturers are essentially satisfied with the channels of distribution in current use.

Respondents using two or more types of market outlet were asked to state their reasons corresponding to the

most preferred and least preferred types of outlet.

Tables II.32 and II.33 indicate these reasons.

Table II.32 MAJOR REASONS GIVEN FOR MOST PREFERRED TYPE OF MARKET OUTLET

<u>Reason</u>	<u>Frequency</u>	<u>% to Total Respondents Using More Than One Type of Outlet</u>
Big sales volume	19	33.9%
Bigger profits	10	17.9
Sales certain	8	14.3
Convenient.	8	14.3

Table II.33 MAJOR REASONS GIVEN FOR LEAST PREFERRED TYPE OF MARKET OUTLET

<u>Reasons</u>	<u>Frequency</u>	<u>% to Total Respondents Using More Than One Type of Outlet</u>
Low sales volume	16	28.6%
Lower price/mark-up/profit.	14	25.0
Risky; irregular sales	11	19.6
Less convenient:	11	19.6

Among respondents using more than one type of market outlet, direct sales to end-users appears to be preferred due to higher profits and more stable sales. However, respondents who prefer wholesalers, importers and retailers cite big sales volume for their preference. On the other hand, respondents who least prefer selling

direct to end-users point to low sales volume, unstable sales and less convenience. (Here is a situation, therefore, where some respondents talk of stable sales to end-users, while others mention unstable sales.) Further, lower price/markup/profit is attributed to sales to retailers, while bad debts are mentioned in relation to retailers and middlemen.

Table II.34 presents the modes of transport/delivery used by the respondents.

## 2.0 Seasonality of Sales

A total of 93 respondents (80.9% of sample) pointed to a seasonality of sales. Sales would seem to be highest in December, starting to build up in October (see Table II.35 below). This is attributed by respondents to the Christmas season. Likewise, the month of May is also cited as having a relatively high volume of sales, presumably owing to 'fiestas' and other such occasions, as well as the completion of housing construction projects. In all, 56 respondents (or 60.2% of those recognizing seasonality in sales) cite Christmas and other occasions as accounting for peak sales. The next most commonly cited reason for peak sales was the construction/housing period, which only accounted, though, for 10 respondents reporting seasonal sales.

TABLE II.34 MODES OF TRANSPORT/DELIVERY  
TO MARKET OUTLETS

<u>Mode of Transport/ Delivery Employed<sup>1/</sup></u>	<u>Frequency</u>	<u>% to Total Respondents</u>
Own vehicle	81	70.4%
Pick up by customer	26	22.6
Hire vehicle	25	21.7
Shipping	16	13.9
Pay for pick up service	6	5.2
Public transport	1	0.9

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<sup>1/</sup>79 respondents reported using only 1 mode, while 35 use 2 or more modes.

Table II.35 MONTHS WITH PEAK SALES,  
AS CITED BY RESPONDENTS

Month	No. of Respondents Citing Month as Having Peak Sales	% to Respondents Reporting Seasonal Sales*
December	56	60.2%
November	49	52.7
October	38	40.9
May	35	37.6

\* 93 of 115 respondents.

The above findings would tend to support the widely-held views that furniture sales are highly correlated with the level of disposable income, and also that such sales increase with an upsurge in construction activity. While the study never established a relatively higher level of disposable income during the period October to December, it is not all too unreasonable to surmise that the Filipino homeowner has a natural flair for exhibiting such a situation, whether real or not, during the Christmas season.

On the other hand, the months of June, July and August were the most frequently cited (34.4% of respondents reporting seasonal sales) as lean months in terms of sales. The opening of school was pointed to by 25 respondents as the principal factor behind low sales volume, followed by bad weather (18 respondents) and

"no money" (17 respondents). These factors would strongly suggest drops in the level of disposable income, even if only possibly remotely in the case of the second one.

It would appear, therefore, that the volume of furniture sales is highly dependent on the level of disposable income, which may tend to have relatively pronounced periods of high and low in the Philippine setting. This may have far-reaching implications on the level of operations of firms in the industry, considering that there is generally little standard production (Code [3]). It would, accordingly, be nowhere near reasonable to assume a possible levelling of production and, corollarily, a more or less uniform utilization of capacity. Seasonal production volumes may imply either an inefficient use of the labor force or a need to maintain varying numbers of workers, or both.

Of the 93 respondents reporting seasonal sales, only 12.9% adjust prices during peak and low periods (generally an increase in prices during peak periods and a decrease during periods of low sales). Such adjustments generally do not go beyond 20%, but may go to as high as 50% in some cases. That the other 87.1% of respondents reporting seasonal sales do not adjust prices during peak and low periods may simply suggest a prevailing sentiment that such adjustments

do not achieve the expected results. In effect, demand may be relatively price inelastic during periods of expected low sales, and relatively price elastic during peak periods.

### 3.0 Pricing Practices

Table II.36 below shows the pricing practices of the 115 respondents.

<u>Pricing Practice</u>	<u>Frequency</u>	<u>%</u>
Variable pricing	63	56.5%
Fixed markup	46	40.0
Equal to prevailing prices	3	2.6
Prices set by buyer	<u>1</u>	<u>0.9</u>
T o t a l	<u>115</u>	<u>100.0%</u>

Analysis of the data provides no reason to believe that the type of main outlet in current use has anything to do with prevailing pricing policy. It would seem, therefore, that furniture manufacturers are able to exercise some freedom in the choice of pricing practice, except in some cases, without regard to the type of outlet used.

Likewise, pricing policy does not seem to be dependent on size of labor force, as the usual chi-square test fails to show any such dependence. It

appears, therefore, that choice of pricing practice is not significantly affected by size of the firm (as measured in terms of labor force).

Of the 65 respondents who use variable pricing, 34 reported that markups vary across types of market outlet. Moreover, 45 mentioned that markups vary predominantly based on design, as well as according to type of raw material and the purchasing power of the intended buyers.

#### 4.0 Credit Sales

78 respondents (67.8%) sell on credit terms. Credit sales range from 5% to 100% total sales with a mean of 48.6% and a standard deviation of 7.0% (across 73 respondents who were able to provide estimates of credit sales as a percentage of total sales). Refer to Table II.37 for a distribution of respondents according to percentage of credit sales to total sales. Table II.38 shows credit terms on sales, by buyer type.

With the average firm having close to 50% of sales on credit and a credit period of 31-45 days, it would appear that a significant amount of working capital is tied up with credit sales. 60 respondents (52.2% of the sample) report that receivables, purchase orders and/or checks of buyers (refer to Table II.39) are used to borrow for working capital requirements, in particular from raw material suppliers (44 out of

TABLE II.37 DISTRIBUTION OF RESPONDENTS  
 ACCORDING TO PERCENTAGE OF CREDIT SALES  
 TO TOTAL SALES

<u>Credit Sales to Total Sales (%)</u>	<u>Frequency</u>	<u>% to Total Respondents</u>
None	37	32.2%
Less than 10%	3	2.6
10-19%	3	2.6
20-29	15	13.0
30-39	6	5.2
40-49	7	6.1
50-59	17	14.8
60-69	1	0.9
70-79	5	4.3
80-89	3	2.6
90-99	10	8.7
100	3	2.6
Unknown	5	4.3
Total	<u>115</u>	<u>99.9%</u> <sup>1/</sup>

<sup>1/</sup> With roundoff error.

TABLE II.38 CREDIT TERMS ON SALES,  
BY BUYER TYPE

<u>Buyer Type</u>	<u>Frequency</u>	<u>% to Respondents Selling on Credit<sup>1/</sup></u>	<u>% to Total Respondents</u>	<u>Average Credit Period (Days)</u>
Direct Users	44	56.4%	38.3%	31-45 <sup>2/</sup>
Retailers	27	34.6	23.5	31-45 <sup>3/</sup>
Wholesalers	13	16.7	11.3	31-45 <sup>4/</sup>
Exporters	3	3.8	2.6	16-30
Government Offices	2	2.6	1.7	91-180

<sup>1/</sup> Out of 115 respondents, 78 (or 67.8%) sell on credit terms, while 37 (or 32.2%) do not.

<sup>2/</sup> 39 of 44 cited this credit period.

<sup>3/</sup> All 27 cited this credit period.

<sup>4/</sup> 10 of 13 cited this credit period.

60 cases). While supplier's credit is generally collateral-free, equivalent interest rates imputed based on discount rate and credit period are relatively high (see Table II.56). Moreover, such imputed rates do not take into account implicit costs associated with higher prices when materials are sold on credit. It is, accordingly, quite a distinct possibility that firms are forced to take on unavoidably high financing costs, simply because credit has to be extended to increase sales. To what extent this situation affects the overall profitability of the business is subject to further study, though.

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Table II.39 APPLICATION OF RECEIVABLES, PURCHASE ORDERS AND/OR POSTDATED CHECKS TO SUPPLIER'S CREDIT OR OTHER FINANCING

<u>Source of Financing</u>	<u>Frequency</u>	<u>% to Total Respondents Using Receivables, Purchase Orders, Postdated Checks for Refinancing*</u>
Supplier's credit	44	73.3%
Banks	9	15.0
Packing credit	4	6.7
Private moneylenders	3	5.0
Others	2	3.3

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\*Based on 60 of 115 respondents.

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## 5.0 Downpayment on Sales

Of 115 respondents, 90 (or 78.3%) require downpayment/advances on at least some of their sales, generally between 25% and 50%. (See Table II.40.) While 50% was a clear modal value of downpayment, the extent to which downpayment affects the firm's financial operations could not be determined, since the proportion of sales for which downpayments are required was not investigated.

## 6.0 The Export Market: Some Problems, Issues and Prospects

### 6.1 Magnitudes of Philippine Exports

Philippine exports of wood-based furniture and fixtures have grown at a faster rate than total Philippine exports from 1965 through 1980 (refer to Table II.41). The former exhibited an equivalent annual growth rate of 37% over the period, compared with 14% for the latter. (The corresponding figures for the period 1976-1980, as discussed in section II.A, are higher, at 65% and 21%, respectively.)

In spite of the faster growth rate, however, exports of wood-based furniture and fixtures have continued to constitute a minuscule portion of total Philippine exports (0.25% in 1976 and 0.85% in 1980, aggregating 0.60% over the period 1976-1980). This share in total Philippine exports pales in comparison with that of log

TABLE II.40 DISTRIBUTION OF RESPONDENTS  
ACCORDING TO USUAL DOWNPAYMENT ON SALES

Usual Downpayment (%) <sup>1/</sup>	<u>Frequency</u>	<u>%<sup>2/</sup></u>
None	25	21.9%
1 - 10	4	3.5
11 - 20	9	7.9
21 - 30	21	18.4
31 - 40	10	8.8
41 - 50	44	38.6
More than 50	<u>1</u>	<u>0.9</u>
T o t a l	<u>114</u>	<u>100.0%</u>

<sup>1/</sup> Usual downpayment percentage applies only to some (i.e., not necessarily all) customers, for whom downpayments/advances on sales are required.

<sup>2/</sup> Based on 114 valid cases (out of 115 respondents).

TABLE II.41

GROWTH IN PHILIPPINE EXPORTS OF WOOD-BASED FURNITURE AND FIXTURES  
 IN COMPARISON WITH GROWTH OF TOTAL PHILIPPINE EXPORTS  
 (1965-1980, IN FOB \$ VALUES)

Year	(A) Exports of Furniture and Fixtures <sup>1/</sup>	Increase Over Previous Year (%)	(B) Exports of Builder's <sup>1/</sup> Woodwork	Increase Over Previous Year (%)	Total: (A) and (B)	Increase Over Previous Year (%)	Total Philippine Exports	Increase Over Previous Year (%)
1965	\$ 450,952	(0.3)	\$ 338,492	478.0%	\$789,444	54.5%	\$795,734,890	2.1%
1966	511,893	13.5	68,119	(79.9)	580,012	(26.5)	877,405,702	10.3
1967	643,780	25.8	141,700	108.0	785,488	35.4	891,502,116	1.6
1968	842,182	30.8	341,708	141.1	1,183,890	50.7	962,114,110	7.9
1969	984,544	16.9	1,064,489	211.5	2,049,033	73.1	983,172,917	2.2
1970	1,190,954	21.0	1,055,689	(0.8)	2,246,643	9.6	1,142,191,237	16.2
1971	1,211,382	1.7	1,865,110	76.7	3,076,492	36.9	1,189,247,194	4.1
1972	3,189,958	163.3	2,859,658	53.3	6,049,616	96.9	1,168,433,138	(1.8)
1973	3,365,469	5.5	5,728,394	100.3	9,093,863	50.3	1,837,188,097	57.2
1974	5,774,001	71.6	8,379,663	46.3	14,153,664	55.6	2,724,986,237	48.3
1975	4,520,229	(21.7)	8,138,716	(2.9)	12,658,945	(10.6)	2,294,470,333	(15.8)
1976	6,325,137	39.9	10,099,070	24.1	16,424,207	29.7	2,573,675,684	12.2
1977	13,266,247	109.7	9,617,190	(4.8)	22,883,437	39.3	3,150,886,989	22.4
1978	16,500,050	24.4	13,306,264	38.4	29,806,314	30.3	3,424,876,025	8.7
1979	33,343,792	102.1	19,464,368	46.3	52,808,160	77.2	4,601,189,916	34.3
1980	46,856,143	40.5	14,361,473	(26.2)	61,217,616	15.9	5,487,787,554	19.3

<sup>1/</sup> Source: National Census and Statistics Office

exports (4.2% in 1977), or the totality of log, sawn lumber and plywood exports (7.6% in 1977).<sup>14/</sup>

The bulk of wood-based furniture and fixtures exports, however, has been in rattan which accounted for 86.7% of the aggregate for 1970 through 1979 (see Table II.3). This share was 92.4% in 1979. On the other hand, the share of wood furniture and fixtures exports has dropped from a high of 37.6% in 1974 to a measly 0.8% in 1978 and 1.1% in 1979, aggregating only 8.4% over the period 1970-1979.

Major countries of destination of Philippine exports of wood-based furniture and fixtures are listed in Tables II.42 and II.43 (with the latter including builder's woodwork, which often accounts for a significant portion of exports of furniture and fixtures manufacturer-exporters). As may be noted, the United States, Australia and Japan are the principal importing countries of Philippine wood-based furniture and fixtures, accounting for 67.2% of aggregate wood-based furniture and fixtures exports of the Philippines over the period 1976-1980. (The United States alone accounted for 45.8% over the period, Australia 11.2%, and Japan 10.2%.)

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<sup>14/</sup>Based on exports of \$133 million in logs, \$66.6 million in sawn lumber, and \$40 million in plywood (World Bank [67]).

TABLE II.42 MAJOR COUNTRIES OF DESTINATION OF  
PHILIPPINE EXPORTS OF WOOD-BASED FURNITURE AND FIXTURES <sup>1/</sup>  
(1976-1980, IN FOB \$ VALUES) <sup>2/</sup>

Major Country of Destination	1976 - 1980 (Aggregate)		1980		1979		1978		1977		1976	
	Rank	% to Total	Rank	% to Total	Rank	% to Total	Rank	% to Total	Rank	% to Total	Rank	% to Total
U.S.A. <sup>3/</sup>	1	45.8%	1	44.0%	1	44.8%	1	50.9%	1	48.6%	1	44.7%
Australia	2	11.2	4	7.5	3	11.2	2	15.4	2	15.0	2	19.8
Japan	3	10.2	2	12.8	2	12.8	4	5.1	4	5.0	3	6.6
West Germany	4	7.7	3	7.7	4	9.5	3	6.5	3	7.2	6	2.8
Netherlands	5	3.6	6	4.3	5	4.5	7	2.6				
Sweden	6	3.2	5	4.4	7	2.8	8	2.4	10	1.5	5	3.1
Canada	7	2.9	7	2.6	6	3.6	6	3.0	9	2.0	8	2.6
Belgium	8	2.2			8	1.7	5	3.2	5	4.7	7	2.7
Italy	9	1.6	10	1.5			10	1.2	8	2.6	4	5.1
France	10	1.3	9	1.8	10	1.1						
Denmark	11	1.3					9	1.5	7	2.8	9	2.5
United Kingdom	12	1.1			9	1.3						
Hongkong	13	0.9									10	1.1
Lebanon	14	0.8	8	2.0								
Puerto Rico	15	0.8										
Bahamas	16	0.6							6	3.3		
Total FOB												
\$ Value		\$116,291,369		\$46,856,143		\$33,343,792		\$16,500,050		\$13,266,247		\$6,325,137

<sup>1/</sup> Excluding builder's woodwork

<sup>2/</sup> Source: National Census and Statistics Office

<sup>3/</sup> Including Hawaii, which counted for 2.3% of exports over the period 1976-1980 (1.7% in 1980, 2.7% in 1979,

TABLE II.43 MAJOR COUNTRIES OF DESTINATION OF EXPORTS  
 PHILIPPINE EXPORTS OF WOOD-BASED FURNITURE AND FIXTURES  
 INCLUDING BUILDER'S WOODWORK  
 (1976-1980, IN FOB \$ VALUES)<sup>1/</sup>

Major Country of Destination	1976-1980 (Aggregate)		1980		1979		1978		1977		1976	
	Rank	% to Total	Rank	% to Total	Rank	% to Total	Rank	% to Total	Rank	% to Total	Rank	% to Total
U.S.A. <sup>2/</sup>	1	43.4%	1	38.9%	1	45.0%	1	49.0%	1	45.8%	1	42.2%
Australia	2	13.1	2	8.9	2	11.6	2	15.6	2	17.9	2	22.7
Japan	3	7.5	5	3.7	3	8.6	3	8.6	3	10.1	3	12.4
West Germany	4	5.0	4	6.0	5	6.0	5	3.7	4	4.4	10	1.2
Canada	5	4.3	8	3.3	4	6.4	4	4.8	7	2.0	5	3.6
France	6	2.8	3	6.4	9	1.3						
United Kingdom	7	2.7	9	3.2	6	3.2	6	3.2			8	1.6
Netherlands	8	2.4	6	3.3	7	3.1	9	1.6				
Sweden	9	2.1	7	3.3	8	1.8					9	1.2
Guam	10	2.0			10	1.1	7	2.5	5	3.7	4	5.2
Belgium	11	1.4					8	1.8	6	2.8		
Denmark	12	1.2					10	1.5	8	2.0	7	1.8
Hongkong	13	1.1							9	1.5		
Italy	14	1.0							10	1.5	6	2.0
Spain	15	0.9	10	2.3								
Total FOB \$												
Value		\$183,139,734		\$61,217,616		\$52,808,160		\$29,806,314		\$22,883,437		\$16,424,207

<sup>1/</sup> Source: National Census and Statistics Office

<sup>2/</sup> Including Hawaii, which accounted for 1.6% of exports over the period 1976-1980 (1.3% in 1980, 1.8% in 1979, 1.7% in 1978, 1.4% in 1977, and 1.3% in 1976).

## 6.2 Magnitudes of the Export Market

Total furniture imports of member-countries of the Organization for Economic Cooperation and Development (OECD), which account for the bulk of world trade, grew by an average of 25% annually between 1965 and 1974, and remained at a high level in 1975 despite the world economic recession which affected furniture production in many countries severely. In 1974 alone, total imports of furniture by OECD countries was estimated at \$3.1 billion. Since wood furniture is estimated to represent, on the average, between two-thirds and three-quarters of total furniture imports (the proportion ranges from 48% in the United States to 81% in Japan), imports of wood furniture by these countries would be between \$2.08 and \$2.33 billion. Approximately 80% of this is in household furniture. In spite of the recession, OECD imports in 1975 still grew by 9% over the 1974 level, and growth rates ranging from 4% to 8% were forecast for 1976-1980. (ITC-UNCTAD/GATT [ 47]).

Philippine wood-based furniture and fixtures exports grew at an equivalent annual growth rate of 33% (or a simple annual average of 39%) over the period 1965-1974, dropped by 22% in 1975, presumably as a result of the recession, then grew again, at a higher equivalent annual rate

of 65% over the period 1976-1980. It would seem, therefore, that Philippine exports, growing at a faster rate than OECD imports, should have been able to account for a larger share of the latter. However, as of 1974, a share of between 0.25% and 0.28% of total OECD wood furniture imports is indicated for total Philippine exports of wood-based furniture. Moreover, if strictly wood furniture (excluding rattan, buri and similar material) were considered, then the Philippines' share would hardly warrant any attention, particularly in view of the fast declining share of wood furniture in Philippine wood-based furniture and fixture exports.

### 6.3 Critical Factors in the Export Market

It is worthwhile mentioning that developing countries accounted for only 7% (\$226 million) of total furniture imports (\$3.126 billion) of OECD countries in 1974, as against 87% (\$2.715 billion) from industrialized market economies and 6% (\$186 million) from socialist countries. This share of developing countries had increased from 5% in 1972, but dropped again to 6% in 1975. (ITC-UNCTAD/GATT [47]).

[The Philippines ranked fifth, behind Taiwan, Hongkong, China and South Korea, in terms of total OECD imports of furniture of all categories from developing countries in 1975. It accounted for 6% of such total, compared to Taiwan's 43%. (ITC-UNCTAD/GATT [47]).

Transport cost is cited as one of the major handicaps to growth of furniture exports from developing countries. Wooden furniture usually consists of bulky items that are heavily affected by freight rates because of their volume or weight. Since most developing countries are located at considerable geographical distances from the European markets, in particular, they are generally at a competitive disadvantage price-wise compared to exporters in developed countries. This competitive disadvantage is less important in the case of deliveries to the United States and Japan, and this explains why these two are the OECD countries most open to imports from developing countries. (ITC-UNCTAD/GATT [4]).

Imports of wood furniture from developing to OECD countries are fairly diversified and now include sizable quantities of living and dining room furniture, including upholstered furniture, and also furniture of rattan. Mass-produced cheap furniture, in cheap wood-based materials, is also in demand in OECD countries especially by the low and medium income groups. However, because of the high incidence of transport cost, as earlier discussed, and the low-price, low-margin, high-volume nature of these markets, manufacturers in developing countries like the Philippines will

most likely not be able to compete price-wise in such markets. It would then seem more advisable for wood furniture manufacturers in developing countries to concentrate on exports of more expensive items, thereby reducing the incidence of transport costs on the final price to the consumer. (ITC-UNCTAD/GATT [4])

Cody [3] agrees with this view when he concluded that "the future of the Philippine industry does not appear to lie in large series production methods common in the United States and Europe, but rather in the production of classical furniture of above average quality."

ITC-UNCTAD/GATT [4], however, cautions that "the marketing approach required for wooden household furniture exports must focus attention on quality and design, and thus place particular emphasis on product planning and product adaptation". Cody [3] defines design as "the process of planning the development of each new product to its ultimate shape and usefulness", and "must take account of the production facilities of the firm, the skills of its workforce, an understanding of the nature and characteristics of the materials used, the forms and colour of the article, its tactile beauty, its fitness for the purpose, its decoration and its acceptability

to the consuming public". He laments that, in the Philippine experience, only the last two items mentioned seem to have received "more than passing attention in the industry".

#### 6.4 Manufacturer-Exporters in our Sample

25.2% of our sample (29 out of 115) reported ever having exported and/or sold to exporting firms. Only 25 of them, however, did so in at least one of the years from 1976 to 1980: 12 of them in 1976, 15 in 1977, 20 in 1978, 22 in 1979, and 21 in 1980. Table II.44 shows a distribution of these respondents according to export sales for each of the years from 1976 to 1980.

We were able to generate estimates of total export sales (direct exports and sales to exporting firms) for 7 of 12 exporter-respondents in 1976, 13 of 15 in 1977, 14 of 20 in 1978, 17 of 22 in 1979, and 16 of 21 in 1980. It may be noteworthy that, in spite of these low numbers of valid cases of export sales estimates, they account for, respectively, \$3.464 million (or 21.1%) of total Philippine exports of wood-based furniture and builder's woodwork in 1976, \$4.913 million (or 21.5%) in 1977, \$5.059 million (or 17.0%) in 1978, \$7.333 million (or 13.9%) in 1979, and \$7.672 million (or 12.5%) in 1980. This would seem to suggest that, over the five year period, total number of manufacturers selling in the export market has increased.

TABLE II.44

DISTRIBUTION OF RESPONDENTS<sup>1/</sup>  
 ACCORDING TO EXPORT SALES  
 (1976-1980)

FOB Value (\$000) <sup>2/</sup>	Direct Exports					Sales to Exporting Firms <sup>3/</sup>					Total Export Sales				
	1976	1977	1978	1979	1980	1976	1977	1978	1979	1980	1976	1977	1978	1979	1980
10 or less	2	1	2	3	2	-	-	-	1	-	2	1	2	4	2
11 - 25	-	-	-	-	2	-	-	1	-	-	-	-	1	-	2
26 - 50	-	1	-	-	1	-	-	1	3	2	-	1	1	3	3
51 - 100	-	1	1	2	1	-	-	-	-	1	-	1	1	2	2
101 - 250	2	3	3	3	3	1	1	2	-	1	1	3	2	2	2
251 - 500	-	2	2	-	-	-	-	-	1	-	1	3	3	-	1
501 - 1000	2	3	3	1	2	-	-	-	-	-	2	3	3	2	2
1001 - 5000	1	1	1	4	2	-	-	-	-	-	1	1	1	4	2
Don't know/ can't recall	<u>4</u>	<u>2</u>	<u>3</u>	<u>2</u>	<u>2</u>	<u>1</u>	<u>1</u>	<u>3</u>	<u>4</u>	<u>4</u>	<u>5</u>	<u>2</u>	<u>6</u>	<u>5</u>	<u>5</u>
Total Firms	<u>11</u>	<u>14</u>	<u>15</u>	<u>15</u>	<u>15</u>	<u>2</u>	<u>2</u>	<u>7</u>	<u>9</u>	<u>8</u>	<u>12</u>	<u>15</u>	<u>20</u>	<u>22</u>	<u>21</u>

<sup>1/</sup> Based on 12 respondents who exported in 1976, 15 in 1977, 20 in 1978, 22 in 1979 and 21 in 1980.

<sup>2/</sup> Peso estimates were converted to \$ values using the following annual average conversion rates:

1976	\$1.00 = ₱7.4550	1979	\$1.00 = ₱7.3711
1977	\$1.00 = ₱7.3978	1980	\$1.00 = ₱7.4852
1978	\$1.00 = ₱7.3710		

<sup>3/</sup> Based only on manufacturer's selling price to exporting firm.

Nonetheless, a relatively small total number of exporters is indicated. In fact, a 1978 study (PDCCP [57]) notes the existence of only 64 members of CFIP in Metro Manila (68.8%) and Cebu (31.2%) which are in some way oriented towards the export market. Our survey yielded the following distribution: 48% in Metro Manila, 24% in Cebu, and 28% in Pampanga. However, the manufacturer-exporters based in Cebu are by any standard much larger than those in Pampanga, whose export sales are fairly small. According to principal raw material, 44% use wood, 48% use rattan, and 8% use both wood and rattan (in undetermined combinations). [Refer to Table II.10.] This distribution does not differ significantly from that in the 1978 study, where 37.5% use wood, 46.9% use rattan, and 15.6% use both wood and rattan, even with our addition of Pampanga in the area of coverage. There were about as many single proprietorships as corporations among the exporters, but the larger ones in terms of gross sales and exports were the corporations.

The manufacturer-exporters were generally larger than the manufacturers in the entire sample, as may be gleaned from Table II.45 below. In fact, in 1980, exporting respondents had a minimum of 6 pieces of equipment, whileas some 30.6% of the entire sample have less than 6 pieces. In

addition, firms exporting more than ₱1 million worth of their products have at least 16 pieces of equipment. However, there is no clear pattern for exporting firms insofar as relative mechanization (measured in terms of a machine to worker ratio) is concerned. This ratio, in fact, seems to get smaller as the firm gets larger, hinting that certain types of workers in the industry are not machine-substitutable, particularly for rattan furniture manufacturers (which constitute among the larger exporting firms in our sample).7

Table II.45 GENERAL CHARACTERISTICS OF EXPORTER-RESPONDENTS COMPARED TO ENTIRE SAMPLE

<u>Characteristic</u>	<u>Entire Sample</u>	<u>Exporter-Respondents</u>
Size of labor force		
Mean	46.4	147.2
Median	15	85
Estimated gross sales (₱000)		
Mean	1,211.2	3,720.5
Median	240	700
Equipment/machinery		
Number of types/categories		
Mean	4.6	5.5
Median	4	5
Number of pieces		
Mean	9.9	16.44
Median	8	11

While there are almost the same rattan furniture as wood furniture exporting firms in our sample, FOB \$ values of rattan furniture exports are much greater than for wood furniture exports. This can be explained by the fact that, in general, 1980 export sales of rattan furniture exporting firms were from 90% to 100% of gross sales estimates, while corresponding percentages for wood furniture exporting firms were generally much lower (often less than 50%), notwithstanding inclusion of builder's woodwork.

Among our 29 respondents who reported ever having exported, 41.4% complain that raw material do not meet export quality (presumably in terms of grain, color and moisture content, among other factors); 24.1% that it is difficult to obtain market information and establish contact with buyers; 20.7% that their production capacity is limited; and 20.7% that they often encounter problems in shipping. Surprisingly, only 13.8% report financing problems, while 48.7% of all respondents do so.

#### 6.5 Prospects

As has been discussed, the export market seems to hold tremendous prospects for the Philippine wood-based furniture industry. But while Philippine exports of rattan furniture have continued to grow at a fairly high rate,

exports of wood furniture have substantially declined, not only in percentage share to total Philippine wood-based furniture and fixtures exports, but even in FOB \$ values, particularly in 1978 and 1979 when wood furniture accounted for only 0.8% and 1.1% of total, respectively (refer to Table II.3).

Transport cost would seem to be one of the major competitive disadvantages of Philippine wood furniture, particularly in the European markets where the Philippines has been unable to gain much headway. However, it is not the only apparent barrier to expansion of our meager wood furniture exports. It was already pointed out that the marketing approach must focus attention on quality and design, which are of paramount significance in the export market.

For instance, finishing is very important in the United States market, where consumers are particularly concerned with clarity of the finish, depth of the finishing style, highlighting and many other finishing features. "To achieve all these effects, special finishing techniques in terms of glazing, padding, distressing, etc. have been introduced xxx. This kind of styling is well developed in North America, and to market furniture in these areas with the proper markup, there is no way out but to learn and be an expert in these stylings." (Zung, [7])

It is far from easy, therefore, for Philippine manufacturer-exporters of wood furniture to heed the recommendations of ITC-UNCTAD/GATT [4] and Cody [3] that exports should be concentrated on more expensive items, to offset the competitive disadvantage brought about by relatively higher transport costs, in particular, on classical furniture of above-average quality.

Certainly, such a move would entail the conduct of fairly comprehensive studies if it should meet with any success whatsoever. For one, markets will have to be properly identified, within a strong product-market orientation, and their magnitudes determined. Products so identified will have to be matched with local manufacturing capabilities, both current and potential. Where necessary, the nature and extent of upgrading of capabilities (e.g., production technology, skilled manpower, among others) will need to be determined, along with the corresponding costs. And then, of course, the matter of financing arises.

However, it just should not end with government stepping in and providing investment financing. Oftentimes, the well-being of the individual firm is taken for granted in export promotion schemes that are built upon projected foreign exchange earnings and other macroeconomic considerations.

An honest-to-goodness benefit-cost analysis ought to be undertaken for every single firm that wishes to participate, based on fairly reliable market and other technical information.

If the government feels that there truly is much to be gained, both by the economy as a whole and by the firms in the wood-based furniture industry, through further tapping the export market (which appears to hold great potential), it will probably need to consider investing in in-depth market and technical studies as outlined above, the nature of which suggests that it can hardly be undertaken by the CFIP, or individual furniture firms for that matter. Export development schemes can then be formulated, which can serve as basis for assistance to interested current and potential exporters.

Unless the above is done, the experts' (ITC-UNCTAD/GATT and Cody) recommendations will likely make little sense to the firms in the industry who have barely any appreciation for the export markets, the technological imperatives for tapping such markets, and the potential return on investments associated with the same.

Perhaps, then, the Philippines shall have to continue to rely upon markets for rattan furniture if it hopes to increase furniture exports at all. However, while "there is no

shortage of orders for rattan furniture" (World Bank [6]), difficulties being experienced by rattan furniture manufacturers in obtaining rattan poles as gathered in our survey and mentioned in earlier studies (Cody [3], World Bank [6]) point to the reality that supplies of rattan are not unlimited. While the ban on exportation of rattan poles, which was heavy until the early part of 1977 (PDGP [5]), somehow eases supply problems, a more critical problem is a basic lack of information on quantities still available (Cody [3]). There seems to be a general consensus that unless current rates of consumption are paralleled by reforestation efforts, supply will not last (Amio [1], Cody [3], World Bank [6]). Apparently, production of rattan furniture can only continue to grow (or simply continue, for that matter) to the extent that rattan supply would permit. Moreover, the markets for rattan furniture do not seem to have been clearly delineated nor magnitudes of demand effectively determined. It would appear that the rattan furniture sector has been thriving until now since "there is no shortage of orders." To what extent there will be orders, so it seems, has yet to be known.

## E. General Management

### 1.0 Major Managerial Functions

The distribution of respondents according to single proprietorships (81.7%) and corporations (18.3%) tends to suggest a high level of entrepreneurial activity within the wood-based furniture industry. This hypothesis is substantiated by the extent of participation and responsibility of the owner in five major managerial functions: general administration/personnel, marketing, production, purchasing and finance/accounting. Of the 115 respondents, the owner is credited with primary responsibility in each of these five areas from a low of 64.3% (finance/accounting) to a high of 73.9% (general administration/personnel). Moreover, the owner alone has primary responsibility in from 55.7 to 61.7% of the cases, except in finance/accounting (39.1%) where he generally shares responsibility with an accountant or similar person. (Refer to Table II.46.)

Likewise, only one person is primarily responsible in each area in from 79.1 to 89.6% of the cases, except in finance/accounting (66.1%). This situation is indicative of a dearth in middle to top management positions, as well as, corollarily, a lack of delegation of authority. (Refer to Table II.47.)

Attempts were made to establish relationships between the number of persons primarily responsible for each area (per the last table cited) and the size

of the firm (in terms of labor force). Only in the area of finance/accounting were the two variables shown to be significantly not independent (using the chi-square test). In this instance, the data suggests some movement towards more than just one person being primarily responsible as size of the firm increases. Chi-square tests on production, purchasing, marketing and general administration/personnel versus size of firm did not lead to any rejection of independence, suggesting that the number of persons primarily responsible in each of these areas is probably independent of size of the firm.

As was mentioned in Section II.C.5 above, owners tend to exercise much influence even in such highly technical areas as product design and technology. While there is no intention to imply that owners in general would not possess the requisite technical knowledge, there is nonetheless a possibility that some, if not many, of them may not have the necessary technical knowhow and merely rely upon their feel for the market, the products and the production processes. In particular, attempts to tap the export market for wood furniture would need to face up to the sensitivity of such market to proper product design and quality, which can hardly be dealt with using "gut feel" alone.

for magnitudes and directions of the firm, financial performance, cost efficiency, profitability and return on investments, among other relevant information associated with preparation of profit plans/budgets and monitoring of actual result of operations on such basis. More often than not, this bears significantly on overall profitability and other measures of financial performance.

Even in the matter of entry into the business, there is often not much analysis relative to feasibility. In less than one out of every five respondents was a feasibility study ever conducted, and usually without outside assistance. This is mainly due to "the ease of entry to the trade, which encourages employees with little capital to set up on their own" (Cody [3]).

It is, in fact, this same ease of entry that probably also leads to an ease of exit. As suggested by our survey operations, somewhere near 35% of the sample population<sup>15/</sup> may have already ceased operations, for some reason or other.

### 3.0 Institutional Linkages

Cody [3] mentions that the CFIP "is the only national organization to represent the interests of the Philippine furniture industries. It is composed of furniture, joinery and other secondary wood processors and by virtue of its membership claims to account for

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<sup>15/</sup> A 95% confidence interval for the true mean of the sample population would be from 30.5% to 40.6%.

about 85% of the industry's total production". He adds: "In addition to its major activity of representing the interests of the industry, particularly at government level, the CFIP actively supports and encourages the upgrading of quality, design and productivity, in order to fully exploit the export potential of its members."

Of the 115 respondents in the sample, however, only 30.4% report membership in CFIP.<sup>16/</sup> It does not seem to be all too clear to the firms in the industry what distinct advantages membership in the CFIP would provide.

On the other hand, 63.5% of respondents appear to appreciate benefits made available by registration with NACIDA, and reported their being so registered. (A picture of registration with NACIDA and other government agencies is given in Table II.50.) Some firms even go to the extent of transferring title of ownership (though only simulated) to a close relative or friend in order to continue to be registered with NACIDA as a cottage industry and enjoy the benefits attendant to being so registered.<sup>17/</sup>

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<sup>16/</sup> Other than the CFIP, a measly 3.5% of the sample are members of a Chinese association, and 1.7% of each of some "local" association and the Confederation of Philippine Exporters (COPE).

<sup>17/</sup> Registration with NACIDA is good for five years, and is non-renewable. Firms are able to circumvent this regulation through the change in name of owner, which affords them the chance to register as a totally "new" cottage industry.

TABLE II.50 REGISTRATION WITH GOVERNMENT AGENCIES

<u>Government Agency</u>	<u>No. of Respondents Registered</u> <sup>1/</sup>	<u>% to Total Respondents</u>
NACIDA	73	63.5%
Bureau of Domestic Trade/ Ministry of Trade	24	20.9
Municipality	20	17.4
BOI	15	13.0
SEC	8	7.0

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<sup>1/</sup> Out of 115 respondents, 15 firms (13% of respondents) are not registered with any government agency.

F. Sources of and Problems in Financing

1.0 Sources of Financing

84 of 115 respondents (73%) report having borrowed in 1980 from some source of financing or other. Average total borrowings ranged between ₱1,000 and ₱5 million, with close to 50% of the respondents borrowing ₱10,000 or less at any single time. (See Tables II.51 and II.52 for the distributions of respondents according to average total borrowings in 1980, and according to sources of financing.)

Supplier's credit as a source of financing is so prevalent, however, that only 49 respondents (42.6% of total) have borrowings other than supplier's credit. 35 respondents (30.4% of sample) have no borrowings except for supplier's credit, in fact. Accordingly, a full 57.4% of respondents (66 cases) would have no reported borrowings whatsoever if supplier's credit were left out. On the other hand, only 22 of the 84 respondents with any reported borrowings did not avail of supplier's credit. (Table II.53 presents a distribution of respondents showing supplier's credit as a percentage of total borrowings.)

Other than supplier's credit, banks provided financing to 34 respondents (29.6% of total respondents and 40.5% of respondents with reported borrowings). Other sources were relatives and friends, and private moneylenders.

TABLE II.51 AVERAGE TOTAL BORROWINGS IN 1980

Amount (P000)	Frequency		% to Total Respondents	
	Excluding Supplier's Credit	Including Supplier's Credit	Excluding Supplier's Credit	Including Supplier's Credit
None	66	31	57.4%	27.0%
1- 5	8	13	7.0	11.3
6- 10	6	9	5.2	7.8
11- 20	2	10	1.7	8.7
21- 30	2	5	1.7	4.4
31- 50	7	7	6.1	6.1
51- 100	4	10	3.5	8.7
101- 200	2	4	1.7	3.5
201-1000	10	12	8.7	10.4
1001-5000	4	3	3.5	2.6
Unknown	<u>4</u>	<u>11</u>	<u>3.5</u>	<u>9.6</u>
Total	<u>115</u>	<u>115</u>	<u>100.0%</u>	<u>100.1%<sup>1/</sup></u>

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<sup>1/</sup>With roundoff error.

TABLE II.52 SOURCES OF FINANCING

<u>Source of Financing</u>	<u>Frequency</u>	<u>% to Respondents With Borrowings<sup>1/</sup></u>	<u>% to Respondents With Borrowings Other Than Supplier's Credit<sup>2/</sup></u>	<u>% to Total Respondents</u>
Supplier's Credit	62	73.8%	NA	53.9%
Banks	34	40.5	69.4%	29.6
Relatives and Friends	11	13.1	22.4	9.6
Private Moneylenders	7	8.3	14.3	6.1
Others	2	2.4	4.1	1.7

<sup>1/</sup> Based on 84 respondents (73% of 115) with reported borrowings (including supplier's credit).

<sup>2/</sup> Based on 49 respondents (42.6% of 115) with reported borrowings other than supplier's credit.

TABLE II.53 SUPPLIER'S CREDIT AS A  
PERCENTAGE OF TOTAL BORROWINGS

<u>Percentage</u>	<u>Frequency</u>	<u>%<sup>1/</sup></u>
None	22	26.2%
1-15%	8	9.5
16-45	6	7.1
46-75	4	4.8
76-99	3	3.6
100	35	41.7
Unknown	<u>6</u>	<u>7.1</u>
Total	<u>84</u>	<u>100.0%</u>

<sup>1/</sup> Based on 84 respondents (out of 115) with reported borrowings in 1980.

A chi-square analysis of our data on average total borrowings versus percentage of supplier's credit to total borrowings shows that the two variables are not independent at a 5% level of significance. In fact, the data suggest that the smaller the total amount of borrowings, the higher the percentage of supplier's credit to total borrowings. At the same time, average total borrowings and size of firm (as measured by size of labor force) are also not independent at a 1% level of significance. Data likewise suggest that these two variables tend to be positively correlated, though not necessarily linearly. These two results would seem to suggest a situation where small firms, unable to tap other sources of financing, are forced into relatively greater dependence on supplier's credit.

Moreover, average total borrowings, exclusive of supplier's credit, and size of firm (as measured by size of labor force) are as well not independent at a 1% level of significance. Again, the data suggest that non-supplier's credit borrowings tends to increase disproportionately as the firm is larger in size. This would appear to imply a greater ability on the part of larger firms to borrow from banks and sources other than supplier's credit in relation to the smaller firms, which is not all too surprising.

## 2.0 Major Problems in Financing

The study team found particular difficulty in generating fairly reliable (and usable) financial data, either because firms do not have easily accessible financial information (except primarily the income statements submitted for income tax purposes which may, by and large, not provide a true picture of performance) or do not look favorably upon disclosing such financial information (and, oftentimes, choose to give highly doubtful and probably highly erroneous responses, as our consistency checks bore out). We have had to decide on dropping some respondents due to the pitiful lack of financial and other information (refer to Table III), and, in the course of our analysis of the basic data, totally rejecting some variables or developing reasonably acceptable surrogates. By and large, we failed to establish sufficient financial performance indicators and have had to rely upon essentially non-quantitative approaches to identify certain problems and prospects.

(This is not to say that generation of reasonably meaningful financial data at the firm level is not at all possible. On the contrary, the same should be very much possible, but would require special attention, effort and resources of the sort that we could not devote in our conduct of the field survey.)

Table II.54 summarizes major problems in financing as cited by respondents. The most cited problem area is collateral as a requirement in financing (Table II.55 shows collateral requirements according to source of financing), followed by interest rates and by the general financing condition/performance of the business.

We failed to arrive at a significant finding that the absence of borrowing problems (as stated by respondents) is dependent on the size of the firm (again measured by size of labor force), in a manner that the larger firms would be less likely have borrowing problems than the smaller ones.

27 respondents (23.5% of 115) reported having no problems in financing. At least 2 respondents have never tried to borrow, while 5 others state that they do not like to borrow. Of the remaining 81 respondents (70.4% of the sample), 63 (54.8% of sample and 77.8% of the respondents reporting to have financing problems) report that such problems prevent them from acquiring the desired levels of borrowing/financing. Only 45 of these 63 (71.4%) are able to adequately meet their requirements either from their own capital or, to a lesser extent, from other sources (e.g., relatives and friends), while the remaining 18 (28.6% of 63) are unable to do so.

TABLE II.54 MAJOR PROBLEMS IN FINANCING <sup>1/</sup>

Problem Area	Frequency				% to Total Respondents			
	Rank 1	Rank 2	Rank 3	Total	Rank 1	Rank 2	Rank 3	Total
Collateral	31	5	2	38	27.0%	4.3%	1.7%	33.0%
Interest Rates	16	16	5	37	13.9	13.9	4.3	32.2
Financing Condition/ Performance of Business/Loan Repayment	15	11	4	30	13.0	9.6	3.5	26.1
Documents Required	9	2	4	15	7.8	1.7	3.5	13.0
Processing Costs/Time	7	2	7	16	6.1	1.7	6.1	13.9
Maturity	2	5	5	12	1.7	4.3	4.3	10.4
Don't Like Borrowing	4	1	0	5	3.5	0.9	0	4.3

<sup>1/</sup> 27 respondents (23.5% of 115) reported having no problems in financing.  
At least 2 respondents have never tried to borrow.

TABLE II.55 COLLATERAL REQUIREMENTS  
ACCORDING TO SOURCE OF FINANCING

Source of Financing	Frequency <sup>1/</sup>			%		
	Require Collateral	No Collateral	Total	Require Collateral	No Collateral	Total
Supplier's Credit	1	49	50	2.0%	98.0%	100.0%
Banks	28	4	32	87.5	12.5	100.0
Relatives and Friends	1	9	10	10.0	90.0	100.0
Private Money- lenders	1	6	7	14.3	85.7	100.0
Others	1	1	2	50.0	50.0	100.0

<sup>1/</sup> Based on valid responses only.

Some of the problems cited would seem to be procedural in nature and can easily find solution.<sup>18/</sup> Collateral requirements, interest rates, maturity and financing condition/performance of the business would appear to deserve some attention, though, if some form of financial assistance to the industry were to be contemplated by the government.

Earlier studies have pointed to "a chronic shortage of capital for development and expansion" (Cody [37]) in the industry, calling for "more finance for equipment, working capital, and export promotion" (World Bank [67]). Cody explains that the financial weakness of most firms has two principal causes - the ease of entry into the business which allows the establishment and operation of firms with very limited capital, and the intensive competition, in part brought about by such ease of entry, which brings about very low levels of profitability (if at all) and provides very little funds for reinvestment in the business.

It may be important to point out that our sample indicated the following set of priorities if additional financing were to be made available to the business: acquisition of equipment/machinery (53 respondents

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<sup>18/</sup> 14 respondents report obtaining adequate assistance from banks and 11 from government agencies in, among others, the preparation of documentation requirements and/or the facilitation of processing.

or 46.1% of sample), acquisition/stocking up of raw material (50 respondents), construction or expansion of plant (28), opening of own retail outlet (17), hiring of more workers (16), and general (unspecified) expansion of the business (31). It is highly unlikely, however, that such aspirations would ever find fulfillment for at least a significant number of those who seek to achieve them, considering the necessarily restrictive barriers to financing (principally, collateral) that the smaller firms would find almost close to impossible to hurdle.

Such relative inability of the smaller firms to avail of financing that would otherwise be accessible to the larger firms, as some of the analysis (earlier discussed) would tend to show, force the former to rely on supplier's credit financing and private moneylenders. It is common knowledge that interest rates charged by private moneylenders are atrociously high. Table II.56 shows imputed interest rates on supplier's credit based on the 62 firms in our sample which avail of supplier's credit financing. At first glance, already a large number of cases would suggest relatively high financing costs. This does not yet take into consideration the further costs (implicit) associated with the likely overstatement of prices of raw material by suppliers preying upon the hapless manufacturers, who would not have much choice but

TABLE II.56 IMPUTED INTEREST RATES ON SUPPLIER'S CREDIT<sup>1/</sup>

<u>Imputed Interest Rate</u>	<u>Frequency</u>	<u>%</u>
0%	5	8.1%
1-6	20	32.3
7-12	6	9.7
13-24	2	3.2
25-36	3	4.8
37-48	4	6.5
49-72	6	9.7
73-150	10	16.1
151-350	0	0.0
351-400	4	6.5
Unknown	2	3.2
<b>Total</b>	<u>62</u>	<u>100.1%</u> <sup>2/</sup>

<sup>1/</sup> Interest rates were imputed using the conversion:

$$\text{Interest rate} = \frac{\text{Discount rate}}{100 - \text{Discount rate}} \times \frac{365}{\text{Credit period}} \times 100\%$$

hence, these would represent only the explicit cost of supplier's credit financing.

<sup>2/</sup> With roundoff error.

accept such prices in the face of certain extinction.

Regrettably, the higher costs of financing would seem to be borne by the very firms who could ill afford the same, forcing them to be all the less financially efficient and profitable, if only to survive.

G. Major Conclusions and Recommendations

1.0 Financing for the Small Manufacturers

The Philippine wood-based furniture industry is characterized by a relative ease of entry that allows manufacturers to operate with little, if any, capital investments. This has led to a proliferation of small, "backyard-type" firms. The industry is, by any standard, highly labor-intensive, notwithstanding recent indications that more and more firms are introducing equipment/machinery in at least some operations.

Lack of capital/financing, inadequate supply of raw material, and fluctuating domestic demand for furniture, which are the major problems most commonly cited by our respondents (see Table II.57), have been consistently identified in earlier studies (Amio [17], Cody [37], PDCP [57], World Bank [67]). In particular, the first problem has allowed the smaller firms little progress, if at all, in the areas of production technology and design, as well as marketing of products. This, along with fluctuating demand, may lead to a significant degree of underutilization of capacity (which is primarily labor-based) and, accordingly, relatively more inefficient operations than the larger firms.<sup>19/</sup> Moreover, small firms generally do not have access to the more formal sources of financing, owing to their

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<sup>19/</sup> Firms with larger production capacities, based on our survey, tended to have better utilization rates.

TABLE II.57 MAJOR PROBLEMS  
CITED BY RESPONDENTS<sup>1/</sup>

<u>Major Problem Area</u>	<u>Frequency</u>	<u>% to Total Respondents</u>
Lack of capital/financing	56	48.7%
Lack of supply of raw material	30	26.1
Unstable/fluctuating/ seasonal demand	26	22.6
Increasing costs	18	15.7
Lack of workers	13	11.3

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<sup>1/</sup> Only 3 of 115 respondents mentioned that they did not have any major problem.

inability to meet collateral requirements. Consequently, they would tend to be more susceptible to financing via supplier's credit or private moneylenders, which more often carry high effective costs. In addition, the inadequate supply of raw material compounds the financing problem if used by suppliers as leverage in imposing more unfavorable terms upon the hapless manufacturer.

It would seem, therefore, that, all factors taken into consideration, the smaller firms would be at a grossly disadvantageous competitive position relative to the larger firms. An obvious question that arises is whether or not some form of financing scheme is appropriate to alleviate the small manufacturers from their plight. The World Bank [67], for instance, calls for "more finance for equipment (and) working capital"<sup>20/</sup> for the development of the furniture industry.

In spite of the seemingly formidable barriers to success that plague the smaller firms (at least, much more than the larger ones), these have continued to exist, and in large numbers. This probably indicates that, somehow, the small firms are able to provide the owners with some measure of returns sufficient to support their families, while at the same time providing gainful employment for their workers, notwithstanding the opportunity costs associated with informal financing and inefficient operations, primarily due to the low-overhead nature of their operations.

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<sup>20/</sup> As well as for export promotion.

At any rate, our data, as was earlier pointed out, suggests a direct relationship between size and age of the firm. Moreover, a somewhat high percentage of firms in the population have ceased operations at some time or other.<sup>21/</sup> This would seem to be indicative of a situation where many small firms close down after some time, with the exception of a few which manage to grow. By and large, a high rate of exit would make the firms in this sector of the industry even more risky than they would at once appear from the point of view of a financing institution. To infuse these firms with collateral-free, low-interest medium to long-term financing (as would seem to be indicated) in the expectation that they would perform creditably,<sup>22/</sup> be able to repay their loans, and make substantial profits, may prove not to be viable over the long run, unless the government would be willing to treat such a scheme eventually as a subsidy.<sup>23/</sup>

It appears, then, that it would be best for the moment to "leave well enough alone" insofar as the small manufacturers are concerned.

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<sup>21/</sup> As discussed in sections II.B.3 and II.E.2.

<sup>22/</sup> In the first place, there are no indications that there are existing capabilities for managing expanded operations. On the contrary, Cody 3 observed otherwise.

<sup>23/</sup> The possible implications of a subsidy scheme were not investigated.

Undoubtedly, recommendations made by experts, such as Cody [37], relative to "improvement of factory and workshop buildings, and of bad working conditions" and the provision of "basic wood-working machinery and ancillary equipment" would only be relevant for the larger firms which could afford, as well as properly and adequately utilize, such facilities. Nevertheless, these should need some looking into first in terms of costs and benefits.

## 2.0 Export Promotion

The domestic demand for furniture is low (World Bank [67]). It may have begun to pick up with the current rise in housing construction, but to what extent the latter has affected domestic furniture sales is, on the whole, still to be determined.

The export market would seem to hold the key to growth of the industry by virtue of its sheer size. However, over the past several years, exports have been principally in rattan furniture, the magnitudes of which will ultimately depend on the availability of rattan. Wood furniture, on the other hand, deserves some consideration.

Since the Philippines is at a competitive disadvantage owing to the high transport costs for furniture in the principal markets (Europe, particularly), it has had to rely primarily on the United States, Australia and Japan for its exports. Mass-produced furniture and

fixtures, characterized by high volume, low costs and low margins, have been essentially ruled out in favor of the higher value, classical type of wood furniture. However, the export markets for wood furniture, particularly for the type indicated, call for a high level of quality and design which has been achieved by few, if any, local manufacturers.

The necessary upgrading of production facilities and technical capabilities may call for significant capital investments, which ought not be made in the absence of sound market information and technical assistance.

Market research and development appears to be a must in pushing for exports of wood furniture. Identification of products and markets is critical, as well as the determination of technological requirements for tapping such markets. Investment requirements can then be assessed on the basis of fairly reliable information, and the viability and profitability of every single proposed venture evaluated accordingly.

This kind of effort, however, would require substantial investments, the magnitudes of which can not be expected of individual firms, or even industry associations such as the CFIP. It is in this area where the government may decide to step in.

Otherwise, in the absence of strong marketing and technical assistance programs, it would be dangerous to

promote exports simply by calling for upgrading of facilities, technology and design, and providing an attractive financing program for the same. In the final analysis, both prospective wood furniture exporters and the government may end up on the losing end.

Towards this objective of coming up with a rational export development program, establishment of a development council of more or less the nature suggested by Cody [3] seems appropriate. Formulation of such a program will apparently require effective direction and proper mobilization of resources.

The call for the establishment of a Furniture Trade Exporters Corporation (World Bank [6]) may be premature in the absence of such an export development program, as with the idea of an industrial estate-type wood-working project if such is intended to address the export market.

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### III. FOOTWEAR INDUSTRY

#### A. An Overview of the Industry

The footwear manufacturing industry is composed of the following product categories:

PSIC Code 32410	Leather shoes
32491	Slippers and sandals
32492	Footwear parts
32499	Other footwear, except rubber, plastic or wood footwear, n.e.c.
35520	Rubber footwear
35602	Plastic footwear
33193	Wooden footwear and accessories

The first Filipino leather shoe shop is said to have been established by the now famous Kapitan Moy (Don Laureano Guevarra) in the town of Marikina in the latter part of the Spanish era (PDCF, 5). The industry then was in the hands of the Chinese artisans in the Parian. Pioneers in the leather footwear sector include the Esco Shoe Company and Ang Tibay. In the 1930's, rubber shoe manufacturing established a foothold, led by Elpo, or the El Porvenir Rubber Products.

The 1977 Annual Survey of Establishments reported 1,294 footwear firms in the country, employing some 9,600 people, curiously all in the organized sector, i.e., firms with a labor force of 5 or more. There was no firm reported in the so-called "unorganized" sector, i.e., firms with less than 5 labor force. However, our survey shows that this sector accounts for 19% of total footwear firms.

Estimates of the size of the industry vary, one report (REDC, 6) cites that in 1974, there were 1,991 footwear firms with a total labor force of 20,000. On the other hand, one publication reports that in 1975, the industry employed an estimated 50,000 cobblers and factory workers, with 35,000 in Marikina alone (JPS, 7).

It is however acknowledged that the centers of the industry are Marikina for leather footwear and Laguna for wooden footwear. The Marikina Shoe Trade Commission reports some 759 firms in Marikina, with a labor force of 6,289. The industry is concentrated in three regions: Metro Manila, Southern Tagalog, and Central Luzon (Table III.1). The three regions account for 91% of the country's footwear establishments.

The industry is predominantly small-scale, and are typically family businesses, notwithstanding the fairly long history of the industry. Production technology for the significant majority still follow traditional lines. Thus, industrial promotion programs that seek to touch the cross-section of the footwear industry must necessarily deal with small establishments, and the corresponding concerns of the cottage and small-scale industry sector.

The industry however has a significant proportion of large firms where for some, a fair degree of mechanization has been developed. Many such large firms have geared themselves to the export market, the largest employing some 7,000 production workers with 60% of production for exports.

TABLE III 1 REGIONAL DISTRIBUTION OF FOOTWEAR MANUFACTURERS, 1977

		<u>Number of Firms</u>		<u>Labor Force</u>		<u>Gross Output</u>	
		<u>Frequency</u>	<u>%</u>	<u>No.</u>	<u>%</u>	<u>₱ 1,000</u>	<u>%</u>
I.	Ilocos	4	0.3%	32	0.3%	₱ 268	0.2%
II.	Cagayan Valley	5	0.4	20	0.2	169	0.1
III.	Central Luzon	124	9.6	419	4.4	2,197	1.8
IV.	Metro Manila	614	47.4	5,951	62.0	74,596	60.2
IV-A.	Southern Tagalog	440	34.0	2,671	27.8	42,050	33.9
V.	Bicol	2	0.2	2	-	7	-
VI.	Western Visayas	22	1.7	94	1.0	363	0.3
VII.	Central Visayas	52	4.0	263	2.7	3,364	2.7
VIII.	Eastern Visayas	4	0.3	21	0.2	121	0.1
IX.	Western Mindanao	7	0.5	31	0.3	205	0.2
X.	Northern Mindanao	8	0.6	56	0.6	293	0.2
XI.	Southern Mindanao	6	0.5	30	0.3	240	0.2
XII.	Central Mindanao	<u>6</u>	<u>0.5</u>	<u>15</u>	<u>0.2</u>	<u>35</u>	<u>-</u>
	Total Philippines	1,294	100.0%	9,605	100.0%	₱123,908	100.0%

Source: Annual Survey of Manufacturers, 1977  
NCSO

The industry's value added reached ₱903 million in 1980 (at constant 1972 prices). This constituted 3.9% of output in the country's manufacturing sector (Table III.2). Over the entire decade of the 1970's, this share has been maintained; the footwear industry has simply kept pace with the rest of the manufacturing sector. This has meant an average annual growth rate of 7.7% during this period.

Such a growth pattern however involves a discernible uptrend in the export sector, significant gains were first established in 1979, though footwear exports remain a miniscule component (1.2% in 1980) of total Philippine exports. Growth of Philippine footwear exports are nonetheless encouraging, even as it is premised on a small base. In 1980, the Philippines exported some 25 million pairs with a total export value of \$67 million. The country's major market, accounting for over half of footwear exports, is the United States.

A previous study of the industry (Bautista, 1) has shown that the leather footwear industry has a low domestic resource cost, (while rubber footwear is on the high side) and therefore has a definite export potential. The realization of such a potential however needs to be explored. Unlike other manufacturing sectors, the footwear industry is past the import substitution stage, and must therefore look towards the export market and further expansion of the domestic market for its impetus for growth. In either case, it is necessary to identify the barriers to growth. There are no published

TABLE III.2 GROSS VALUE ADDED OF THE FOOTWEAR INDUSTRY, 1970-1980  
(In ₱million at constant 1972 prices)

<u>Year</u>	<u>Gross Value Added<sup>1/</sup></u>	<u>Annual Growth Rate</u>	<u>GDP Manufacturing Annual Growth Rate</u>	<u>GVA as % of GDP Manufacturing</u>
1970	₱447	-	-	3.8%
1971	491	9.8%	6.7%	3.9
1972	431	(12.2 )	6.2	3.2
1973	533	23.7	13.9	3.5
1974	544	2.1	4.8	3.4
1975	591	8.6	3.5	3.6
1976	628	6.3	5.7	3.6
1977	682	8.6	11.7	3.5
1978	787	15.4	7.3	3.8
1979	845	7.4	5.7	3.8
1980 <sup>P</sup>	903	6.9	5.1	3.9

<sup>1/</sup> Survey covers only establishments employing 5 or more workers.

<sup>P</sup> Preliminary estimates as of December 1980.

Source of Basic Data: National Accounts Staff  
Statistical Coordination Office, NEDA

statistics on footwear production but it is believed that total production in 1976 reached 32 million pairs, of which 6.7 million pairs were of leather (World Bank, 8).

B. General Characteristics of the Sample

A total of 179 footwear firms compose the sample for this study. The original target was for 181 firms, or some 13.4% of 1,351 firms prelisted in the study's geographic scope. About 332 firms were eventually visited or sought out for the study.

1.0 Location

As previously discussed, the survey of footwear manufacturing firms covered the areas of Metro Manila, and the adjoining provinces of Bulacan, Rizal and Laguna (excluding Cavite however). The 179 firms account for 13.2% of the 1,351 firms prelisted in these areas. A breakdown of respondents by location of main office is shown on Table III.3. As is expected, the great majority are in Laguna and the Second District of Manila, 38.6% and 51.4% respectively, or a combined share of 90% of the sample. The latter area includes Marikina, acknowledged as the center of the country's footwear industry, particularly leather footwear. Laguna is the other major center, primarily known for its high concentration of wooden footwear firms.

There are really no other major centers for the footwear industry. As is shown in NCSO statistics, the geographic distribution of the industry is highly

TABLE III.3 LOCATION OF RESPONDENTS, FOOTWEAR INDUSTRY

<u>Location of Main Office</u>	<u>Frequency</u>	<u>%</u>
1. First District, Metro Manila <sup>1/</sup>	4	2.2%
2. Second District, Metro Manila <sup>1/</sup>	92	51.4
3. Laguna	69	38.6
4. Rizal	10	5.6
5. Bulacan	<u>4</u>	<u>2.2</u>
T o t a l	179	100.0%

<sup>1/</sup>First District is the City of Manila. Second District is composed of Marikina, Pasig, Quezon City, Mandaluyong, San Juan.

TABLE III.4 DISTRIBUTION OF RESPONDENTS BY YEARS OF OPERATION, FOOTWEAR INDUSTRY

<u>Years of Operation</u>	<u>Frequency</u>			<u>%</u>		
	<u>Original Ownership</u>	<u>Acquired</u>	<u>Total</u>	<u>Original Ownership</u>	<u>Acquired</u>	<u>Total</u>
1- 5	53	4	57	31.9%	36.4%	32.2%
6-10	52	4	56	31.3	36.4	31.6
11-15	29	1	30	17.5	9.1	16.9
16-20	16	2	18	9.6	18.2	10.2
21-25	10		10	6.0		5.6
25 and over	<u>6</u>	—	<u>6</u>	<u>3.6</u>	—	<u>3.4</u>
Total	166	11	<u>177</u>	100.0%	100.0%	100.0%

concentrated in the three regions of Metro Manila, Southern Tagalog, and Central Luzon. A likely explanation is the location of the leather tanning industry in the region, and the presence of a large pool of experienced labor.

## 2.0 Years of Operation

Table III. 4 shows the distribution of respondents according to the number of years they have been operating (as of 1980). This is further broken down into firms that had been acquired from previous owners, and firms still being operated by the original owners. Almost one third of all firms have been operating for 5 years or less, and a similar number have been operating from 6 to 10 years. The presence of so many young firms provide some evidence that the industry is capable of attracting new firms.

## 3.0 Type of Business Organization

The respondent firms are almost all single proprietorships (Table III.5), a finding quite consistent with known industry patterns. Only 2.2% are corporations and another 1.7% partnerships, suggesting that many large manufacturers (including exporting firms) continue to operate as single proprietorships.

## 4.0 Size Distribution of Respondents: Labor Force and Output Levels

The single distribution of firms (Table III.6) shows that 19% of respondents have less than five employees (including unpaid family labor) - the "unorganized"

TABLE III.5 TYPE OF BUSINESS ORGANIZATION, FOOTWEAR INDUSTRY

<u>Type of Organization</u>	<u>Frequency</u>	<u>%</u>
1. Single Proprietorship	172	96.1%
2. Partnership	3	1.7
3. Corporation	<u>4</u>	<u>2.2</u>
Total	179	100.0%

TABLE III.6 DISTRIBUTION OF RESPONDENTS BY SIZE OF LABOR FORCE, <sup>1/</sup> FOOTWEAR INDUSTRY

<u>Size of Labor Force</u>	<u>Frequency</u>	<u>%</u>	<u>Cumulative</u>	<u>%</u>
1- 4	34	19.0%	19.0%	100.0%
5- 9	81	45.2	64.2	81.0
10- 19	32	17.9	82.1	35.8
20- 49	24	13.4	95.5	17.9
50- 99	5	2.8	98.3	4.5
100-500	<u>3</u>	<u>1.7</u>	100.0%	1.7%
Total	179	100.0%		

TABLE III.7 DISTRIBUTION OF FIRMS BY OUTPUT CAPACITY, FOOTWEAR INDUSTRY

<u>Capacity (Pairs per week)</u>	<u>Frequency</u>	<u>%</u>	<u>Cumulative</u>
			<u>%</u>
1- 75	15	8.7%	8.7%
76-180	38	22.1	30.8
181-480	58	33.7	64.5
481-960	41	23.8	88.3
961 and over	<u>20</u>	<u>11.6</u>	99.9%
Total	172	99.9%	

sector under NCSO definitions. The footwear industry is predominantly "small" (5-19 employees), as reflected by the 63% share of this size category in our sample. Only about 18% may be considered "large" (at least 20 employees). The largest firm in the sample has a labor force of 500. The total labor force of the sample is 2,864.

Noteworthy too is that most of the "small" firms are actually at the lower end of the size category. Thus, fully 64% of all respondents have a labor force of less than ten (10). There are even a few cases (n = 6) of firms without any hired labor, including businesses which are nothing more than a husband-wife operation. Actually, at least 81% of sample firms are NACIDA-registered firms, officially placing this sub-group in the cottage industry. Another 3.9% are not registered with any government agency. Only 3 respondents (1.7%) are BOI-registered firms.

The preponderance of small firms is likewise reflected in the size distribution according to capacity levels<sup>1/</sup> (Table III. 7). Industry leaders interviewed have suggested that a footwear firm must be capable of producing 1,000 pairs per week or more to be able to tap the export market. Our survey shows that only 11.6% of footwear firms fall in this size category.

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<sup>1/</sup> As reported by respondents, based on existing equipment and labor force.

## 5.0 Product Type Distribution

Table III. 8 shows the profile of product types sold by the respondent firms. While all undertake manufacturing operations, a few respondents also buy finished footwear products for resale; and some subcontract certain products to other manufacturers. The latter activities however are not very extensive.

The most frequently cited product types (each reported by about 25% of all respondents) are men's shoes or boots primarily of leather, and ladies' sandals primarily of synthetic/rubberized leather. In general, it appears that most respondent firms are into ladies' footwear. About 6% of respondents reported manufacturing children's shoes.

In all, about 41% of respondents are in leather footwear.

## C. Production Inputs and Practices

### 1.0 Sectoral Distribution of Output

While there are many highly mechanized and fairly large footwear firms already in operation, the survey data suggest that large firms are not as yet the dominant sector in the industry. On the other hand, while the unorganized sector appears significant in terms of number of firms, its impact is substantially less in terms of employment and output. The dominant sector appears to be the small-scale firms (i.e., 5-19 employees). Table III.9 shows that this sector accounts for slightly over

TABLE III.8 NUMBER OF RESPONDENTS ENGAGED IN MANUFACTURE,  
SUBCONTRACTING, AND RESALE OF FOOTWEAR,  
BY PRODUCT TYPE

<u>Product Type</u> <sup>1</sup>	<u>Number of Firms</u> <sup>2/</sup>				<u>% to Total Respondents</u>			
	<u>Manu- facture</u>	<u>Sub- contract</u>	<u>Re- sale</u>	<u>Any</u>	<u>Manu- facture</u>	<u>contract</u>	<u>Re- sale</u>	<u>Any</u>
1. Men's shoes/ boots, leather	45	2		45	25.1%	1.1%		25.1%
2. Men's slippers, leatherette/ synthetic	12			12	6.7			6.7
3. Men's footwear, rubber/canvass	5			5	2.8			2.8
4. Ladies' shoes, leather/snake- skin	15	1	1	16	8.4	0.6	0.6	8.9
5. Ladies' shoes, synthetic	33	1	1	34	18.4	0.6	0.6	19.0
6. Ladies' step- in, leatherette /synthetic	33	1	1	33	18.4	0.6	0.6	18.4
7. Ladies' sandals, synthetic/ rubberized leather	45	3	3	45	25.1	1.7	1.7	25.1
8. Ladies' slip- pers, leather- ette/synthetic	13		1	13	7.3		0.6	7.3
9. Ladies' shoes, wood/synthetic	11		1	11	6.1		0.6	6.1
10. Children's shoes, synthe- tic	10			10	5.6			5.6

<sup>1/</sup> Other footwear products mentioned (but of minimal frequency) include men's slippers (leather, rubber, canvass), ladies' sandals/slippers/step-in leather, children's shoes leather.

<sup>2/</sup> A firm can be in more than one product type.

TABLE III.9      OUTPUT SHARE OF RESPONDENTS BY SIZE OF  
LABOR FORCE      FOOTWEAR INDUSTRY

<u>Size of Labor Force</u>	<u>Number of Firms</u>	<u>Total Output (Pairs/Week)</u>	<u>%</u>	<u>Cumulative %</u>	
1 - 4	32	4,403	6.8%	6.8%	100.1%
5 - 9	76	19,266	29.8	36.6	93.3
10 - 19	33	14,120	21.8	58.4	63.5
20 - 49	23	13,415	20.7	79.1	41.7
50 - 99	5	5,350	8.3	87.4	21.0
100 - 500	<u>3</u>	<u>3,200</u>	<u>12.7</u>	100.1%	12.7%
Total	172	64,754	100.1%		

Average Output Per Firm      -    376 pairs/week  
Estimated Total Annual Output- 3.23 million pairs

50% of total output. Note that in the large sector, the bulk of their share in total output is also explained by the firms in the lower end of the size category. However, this may not be true of at least one sub-sector: rubber footwear. Our survey data does not reveal it, but it is believed that the rubber footwear sector is dominated by large, highly mechanized manufacturing establishments.

## 2.0 Production Equipment

Table III.10 shows the profile of equipment owned by respondent firms. As expected, the sewing machine is the most basic equipment of the footwear industry, not including simple handtools. About 83% of respondents report owning this equipment. It is noteworthy that 15.6% of all respondents report that their only piece of equipment is a sewing machine. Overall, 17.6% report owning only one piece of equipment. The second most frequently mentioned type of equipment is a finishing machine (40.2% of respondents). Nonetheless, 71.5% of respondents feel their equipment are sufficient to meet their sales potential.

Clearly, the footwear industry has by and large, a low level of mechanization. The shift to mechanizing traditionally manual operation it would seem is limited to large firms (18% of our sample). A previous study (ISSI, 3) has estimated that the traditional hand-operated process has a degree of mechanization<sup>2/</sup> ranging from

<sup>2/</sup> Mechanization was measured as the percentage of total number of processes mechanized. The total number was 24 processes.

TABLE III.10 MACHINERY/EQUIPMENT OF FOOTWEAR FIRMS

<u>Type of Machinery</u> <sup>1/</sup>	<u>No. of Respondents with Machinery</u>	<u>% to Total Respondents</u>
1. Sewing Machine	148	82.7%
2. Finishing Machine	72	40.2
3. Sander <sup>2/</sup>	41	22.9
4. Skiving Machine <sup>3/</sup>	34	19.0
5. Splitting Machine	27	15.1
6. Stitching Machine <sup>4/</sup>	18	10.1
7. Specialized Saw	16	8.9
8. Heavy Duty Sewing Machine	13	7.3
9. Trimming Machine	10	5.6

<sup>1/</sup> Other types mentioned but not tabulated (n less than 10) include upper sewing machine, press machine, folding machine, die-cutting machine, eyeletting machine, upper leather splitter, sole splitting machine.

<sup>2/</sup> Gasgasan, bulihan, lihaan

<sup>3/</sup> Dasdasan

<sup>4/</sup> Alamodahan, side/sole stitching machine

4% to 12.5%. The peak is achieved by the use of pedal driven stitching machine and hand cranked splitting machines. The motivation for increasing mechanization, the study points out, is to reduce labor cost, achieve greater uniformity in products, and meet large volume orders.

Semi-mechanized operations would then involve using machines in most of the cutting operations (using a clicker press). The other principal targets are the skiving, bottom scouring, and various finishing processes. It was also estimated that semi-mechanization described above would reach a 58% degree of mechanization. Existing technology allows the use of machines in all major processes.

The age of the equipment is also one indicator of the degree of mechanization, especially considering the pace of technological developments. About 26% of sewing machines are at least 10 years old (Table III.11). A significant proportion (42.3%) are however of fairly recent vintage, i.e., 1-5 years old. This appears to be the pattern of the major types of equipment. The proportion of machines in the 1-5 years age category range from 30% to 54%, while that of the over-10 years age category range from a low of 6.3% to a high of 50%.

The "oldest" type are the heavy duty sewing machines, followed by finishing machines. On the other hand, the splitting machines are generally of recent vintage, with

TABLE III.11 AGE DISTRIBUTION OF PRINCIPAL MACHINERY, FOOTWEAR INDUSTRY<sup>1/</sup>

Type of Machinery	AGE (in Years)											
	Frequency						%					
	1-5	6-10	11-15	16-20	Over 20	Total	1-5	6-10	11-15	16-20	Over 20	Total <sup>2/</sup>
1. Sewing machine	60	45	17	7	13	142	42.3	31.7	12.0	4.9	9.2	100.1%
2. Finishing machine	29	21	10	3	8	71	40.8	29.6	14.1	4.2	11.3	100.0%
3. Sander	12	16	4	3	3	38	31.6	42.1	10.5	7.9	7.9	100.0%
4. Skiving machine	15	12	5	0	1	33	45.5	36.4	15.2	0.0	3.0	100.1%
5. Splitting machine	14	5	3	2	2	26	53.8	19.2	11.5	7.7	7.7	99.9%
6. Stitching machine	5	8	1	1	2	17	29.4	47.1	5.9	5.9	11.8	100.1%
7. Specialized Saw	10	5	0	1	0	16	62.5	31.3	0.0	6.3	0.0	100.1%
8. Heavy duty sewing machine	4	2	4	1	1	12	33.3	16.7	33.3	8.3	8.3	99.9%
9. Trimming machine	5	3	1	0	1	10	50.0	30.0	10.0	0.0	10.0	100.0%

<sup>1/</sup> For firms with more than one machine for any particular type, only the youngest machine was tabulated. See Table III.12 for age distribution of all machines.

<sup>2/</sup> Due to round off error

over half (53.8%) 5 years or below in age.

Overall, 43.4% of all equipment are from 1 to 5 years old (Table III.12). About 7-8% are at least 20 years old however, and almost one-fourth (22.7%) are at least 10 years old.

The above findings point to a generally low level of mechanization in the industry. Where machines are utilized, a significant portion are fairly old equipment.

About 39% of respondents report that machinery breakdown is a major problem in their operations. Obviously, age is a primary factor here.

On the matter of equipment maintenance, 71.5% of respondents report that they do not undertake regular maintenance of their equipment.

### 3.0 Other Facilities

A typical footwear firm is a "backyard" operation. About 91% of respondents operate within the premises of the owner's residence. This of course permits a significant cost advantage to footwear firms but it also suggests the limited capacity of the industry to undertake expansion or modernization of operations.

### 4.0 Labor Force

Labor is not generally perceived as a problem by the respondents. About 86% expressed that they had a sufficient number of manpower complement. Where deficiencies are reported, these are generally for manual, though "skilled" workers. Not surprisingly, a very

minimal number reports a lack of skilled machine operators.

The predominant mode of contracting labor is on a piece rate basis (83.8%). About 12.3% use the batch work arrangement. Less than 10% of respondents resort to regular or time-based arrangement.

Labor skills are apparently acquired through on the job experience. Very few firms undertake any formalized system of training. In part, this may be due to the fairly large pool of experienced labor available. Thus, 85.5% of respondents say that they require previous experience in employing labor.

As is typical of the small and medium-scale sector, the use of household labor is a widespread practice. Overall, about 64% of all firms use household labor (Table III.13). There is a definite pattern of declining use of household labor as the size of the firm increases. Thus, 70% of firms in the unorganized sector utilize household labor, the ratio declining to 43.8% for the large sector.

Of those who utilize household or family labor, only about half (53%) pay these labor on a regular basis. Again, the practice varies according to the size of the firm, with 46% of firms in the unorganized sector regularly paying wages.

It is frequently mentioned that the small and medium-scale industry sector (SMI) plays an important

TABLE III.13 USE OF HOUSEHOLD LABOR BY SIZE OF LABOR FORCE, FOOTWEAR INDUSTRY

<u>Size of Labor Force</u>	<u>Use of Household Labor</u>					
	<u>Frequency</u>			<u>% to Firms in Size Category</u>		
	<u>Using</u>	<u>Not Using</u>	<u>Total</u>	<u>Using</u>	<u>Not Using</u>	<u>Total</u>
1- 4	24	10	34	70.6%	29.4%	100.0%
5- 9	59	22	81	72.8	27.2	100.0
10- 19	18	14	32	56.2	43.8	100.0
20- 49	11	13	24	45.8	54.2	100.0
50- 99	2	3	5	40.0	60.0	100.0
100-500	<u>1</u>	<u>2</u>	<u>3</u>	<u>33.3</u>	<u>66.7</u>	<u>100.0</u>
Total	115	64	179	64.2%	35.8%	100.0%

TABLE III.14 COMPENSATION FOR USE OF HOUSEHOLD LABOR BY SIZE OF LABOR FORCE, FOOTWEAR INDUSTRY

<u>Size of Labor Force</u>	<u>Compensation for Household Labor</u>					
	<u>Frequency</u>			<u>% to Firms Using Household Labor</u>		
	<u>Pay Salary</u>	<u>Don't Pay Salary</u>	<u>Total</u>	<u>Pay Salary</u>	<u>Don't Pay Salary</u>	<u>Total</u>
1- 4	11	13	24	45.8%	54.2%	100.0%
5- 9	31	28	59	52.9	47.5	100.0
10- 19	9	9	18	50.0	50.0	100.0
20- 49	7	4	11	63.6	36.4	100.0
50- 99	2	0	2	100.0	0	100.0
100-500	<u>1</u>	<u>0</u>	<u>1</u>	<u>100.0</u>	<u>0</u>	<u>100.0</u>
Total	61	54	115	53.0%	47.0%	100.0%

role in tapping otherwise potentially unemployed labor. The utilization of household labor in the family enterprise is clearly one natural mechanism. Overall, household labor accounts for 10.4% of total labor force in our sample. It has been pointed out earlier that the unorganized and small firms account for 39% of the total labor force in our sample. However, 76.6% of total household labor are in these sectors. Thus, about 1 out of 5 workers (20%) in the unorganized and small sectors is household labor. The corresponding proportion among large firms is 4%. Indeed, the small sector is an important instrument for absorbing household labor in the footwear industry.

#### 5.0 Raw Material Inputs

In the case of leather footwear manufacturers, about 35.6% indicate that leather is a problem. The principal complaints are the unreliability of supply, poor quality in such aspects as thickness, color, and/or texture, and unreasonable price increases.

As will be discussed in the report on the leather tanning industry, these problems have their roots in part, in the inability of the livestock industry to deliver quality rawhide to the leather tanning industry. At the same time, there is evidence that the industry lacks cost competitiveness. There does not seem to be much prospect of an immediate solution to this problem unless import policies for leather are liberalized.

Otherwise, the footwear industry can only wait for a rationalization of the leather tanning industry. As has been pointed out (Bautista, 1), the existing protection structure imposes these penalties on the leather footwear industry.

Overall, about 45% of the sample indicate that raw materials supply is a major problem. The principal concern is the unreliability of supply. This is followed by complaints of unreasonable price increases.

Storage of raw materials does not appear to pose a problem for footwear firms. This is not unexpected since the types of raw material inputs (e.g., leather, nails, adhesives, etc.) do not require special storage requirements, or consume significant amounts of storage space.

#### 6.0 Production Practices

The predominant practice is job-order production, with practically half (49.7%) of respondents working exclusively on this basis. Another 16.2% however operate exclusively on a standard product basis. The rest (34%) combine both schemes. In an industry such as footwear, job-order production is to be expected due to the variability of designs, and rapid changes in fashion for many types of footwear. This is likely coupled by a problem of financing which limits the capability of footwear manufacturers to carry uncommitted inventory that is implied in a system of standard production.

Thirdly, it does not seem likely that set-up costs are significant. However, the potential gains from continuous production are also lost.

Practically all (99%) of respondents are on a one-shift operation. On the average, this appears to be at least one full 8-hour shift. Table III.15 shows the distribution of firms according to length of workshift. Table III.16 shows the distribution according to working days.

TABLE III.15      DISTRIBUTION OF RESPONDENTS BY  
LENGTH OF WORKSHIFT, FOOTWEAR INDUSTRY

<u>Length of Workshift (Hours)</u>	<u>Frequency</u>	<u>%</u>	<u>Cumulative %</u>
Below 8 hours	11	6.5%	6.5%
8	65	38.5	45.0
9	10	5.9	50.9
10	50	29.6	80.5
11	4	2.4	82.5
12	25	14.8	97.7
Over 12 hours	<u>4</u>	<u>2.4</u>	100.1%
Total	169	100.1%	

TABLE III.17 AVERAGE CAPACITY UTILIZATION OF RESPONDENTS  
BY SIZE OF LABOR FORCE, FOOTWEAR INDUSTRY

<u>Size of Labor Force</u>	<u>Number of Firms</u>	<u>Average Capacity Utilization (Weighted Average in %)</u>
1 - 4	32	59.0%
5 - 10	76	68.5
11 - 19	33	68.3
20 - 9	23	69.5
50 - 99	5	67.3
100 - 500	3	66.7
	<hr/>	<hr/>
Total	172	67.6%

On the matter of specialization, about 45% report that they undertake some specialization in operations. The more popular reason for not specializing is that the firm is too small to warrant specialization. Another factor cited was that labor is hired on a piece-rate basis, i.e., of the complete product.

#### 7.0 Quality Control

Among the quality features which are of concern in the footwear industry are uniformity of size and style, and for leather footwear in particular, the color, size, and texture of the leather.

About 47% of respondents say they are not aware of specific quality standards for their products; and in fact only 4% of all firms maintain a separate quality control staff. In 92% of cases, it is simply the owner who oversees the quality of the worker. Some 6% report that production workers themselves check on the quality.

The system of quality checks are spotty in many instances. At least 28% report that quality checks are made only after all operations have been completed. Quality control itself simply consist of visual inspection. There are virtually no quality control instruments among footwear firms.

This low degree of quality control is indicative of a low level of technological capability in the footwear sector. However, we cannot discount the possibility that the firm deliberately avoids the additional costs of

higher quality standards. Apparently, poorly manufactured footwear do not necessarily result in a total loss. About 54% of respondents report that they rework "rejects". At least 47% of respondents are able to sell poorly worked footwear, albeit at "bargain" prices. Nevertheless, a significant portion, 24%, report that they dispose of rejects as gifts, or are put aside for own consumption. Unfortunately, the extent of "rejects" are not quantified.

Nonetheless, it is clear that a footwear firms are not used to the industrial discipline of rigorous quality control and in general, do not as yet possess the technology for quality control beyond visual inspection.

#### 8.0 Sources of Information on Technology

Data on primary sources of information on various production aspects suggest that footwear firms are still oriented along established, traditional practices. This is evidenced by the dependence of firms on the owner's experience/ideas (Table III.18). Other external sources are significant only in product design, where some amount of influence is exerted by customers and journals/other publications.

Noteworthy is the fact that footwear firms have not been tapping the services of industry associations, or of government agencies. In general, there is virtually no institutional help being availed of by respondent firms in the area of sourcing of technology. We should note however, that in the case of industry affiliations,

TABLE III.18 SOURCES OF INFORMATION ON TECHNOLOGY,  
FOOTWEAR INDUSTRY

	Area of Technology Application							
	Frequency <sup>1/</sup>				% to Total Respondents			
	<u>Produc- tion</u>	<u>Product Design</u>	<u>Quality</u>	<u>Choice of Ma- chinery</u>	<u>Produc- tion</u>	<u>Product Design</u>	<u>Quality</u>	<u>Choice of Ma- chinery</u>
1. Owner's ideas/ experience	160	141	160	161	89.4%	76.8	89.4	89.9
2. Journals/ Publications	20	76	5	3	11.2	42.5	2.8	1.7
3. Customers	8	32	12	0	4.5	17.9	6.7	0
4. Industry Associa- tion	0	6	2	0	0	3.4	1.1	0
5. Observa- tions of display, shows, exhibits	11	36	7	2	6.1	20.1	3.9	1.1
6. Foreman's/ other work- er's ideas	8	1	8	3	4.5	0.6	4.5	1.7
7. Design Center Phils.	0	1	0	0	0	0.6	0	0

<sup>1/</sup>A firm may report more than one source.

over 84% of the sample do not belong to any industry association, whether local or national. Only 1.7% (n = 3) are members of a national industry association, while 10.6% belong to some local industry association, e.g., Marikina Shoe Manufacturer's Association.

#### 9.0 Summary

The principal bottlenecks in the production aspects of the footwear industry appear to be:

1. unreliability of raw materials supply and in the case of leather, the poor quality of leather;
2. low degree of mechanization, both in terms of number of equipment and quality (as indicated by the age of equipment); coupled by inadequate maintenance of equipment;
3. limited capacity; and
4. inadequate system of quality control

On the other hand, the industry offers certain advantages:

1. A pool of craftsmen which is able to supply at least the domestic market with limited capital requirements;
2. Significant capacity to absorb household labor; and
3. In general, the industry is geared to utilization of the country's natural endowments in terms of labor and raw materials, e.g. wood, fibers, etc.

D. Marketing Practices

1.0 Channels of Distribution

Footwear manufacturers sell their products at various points of the distribution stream. There are those who directly sell retail, others sell to establishments who undertake the retailing, e.g., retail shoe stores, including "palengke" outlets, department stores, boutiques, etc. The most frequently used were wholesalers. A few firms report direct export and sales to exporting firms, and sales to agents and other middlemen buyers.

About 60% of respondent firms report transacting with only one type of outlet (see Table III.19 and categories listed). In general, footwear firms are dependent on only one type of outlet. About 73% of respondent report at least 90% of sales going to one type of outlet, and 98% of firms report at least 50% of sales going to just one type.

Own retail sales constitute a smaller sales base for footwear manufacturers, even as it is a fairly prevalent distribution channel, i.e., 42% of respondents retail (Table III.19). This small base is evidenced by the fact that of those who sell retail, 34% claim retail transactions account for at most 10% of total sales whereas for other types of outlets, a much smaller percentage (3%) fall in the lowest sales bracket. (Table III.20) Furthermore, only 8.4% of respondent firms sell exclusively on a retail basis.

TABLE III.19 TYPES OF MARKET OUTLETS, FOOTWEAR INDUSTRY

Type of Outlet <sup>1/</sup>	Frequency <sup>2/</sup> Using this Type	% to Total Respondents	Number of Firms			% to Respondents Using this Type		
			Using this Type Ex-clusively A	Ranking this Type First B	With this Type as Main Outlet <sup>4/</sup> C	A	B	C
1. Own Retail	75	41.9%	15	31	31	20.0%	41.3%	41.3%
2. Other Retailers <sup>3/</sup>	64	35.8	38	55	54	59.4	85.9	84.4
3. Wholesaler	91	50.8	48	77	79	52.7	84.6	86.8

<sup>1/</sup> Other types of outlets reported (but not tabulated, n less than 5) were exporting firms, importers, government agencies, agents, middlemen.

<sup>2/</sup> A firm may be using more than one type of outlet.

<sup>3/</sup> Other retailers refer to buyers who resell on a retail basis. These include department stores, retail shoe stores, supermarkets, boutiques.

<sup>4/</sup> By definition, main outlet is that type with the largest sales for each respondent.

TABLE III.20 DISTRIBUTION OF FIRMS BY PERCENTAGE OF SALES, BY TYPE OF MARKET OUTLET USED, FOOTWEAR INDUSTRY

Type of Outlet	Percentage of Sales											
	Frequency						%					
	1-10%	11-40	41-70	71-99	100%	Total	1-10%	11-40	41-70	71-99	100	Total
1. Own Retail	25	15	12	6	15	73	34.2	20.5	16.4	8.2	20.5	100.0%
2. Other Retailers	2	6	9	8	38	63	3.2	9.5	14.3	12.7	60.3	100.0%
3. Wholesalers	3	7	5	27	48	90	3.3	7.8	5.6	30.0	53.3	100.0%

The survey suggests that the predominant outlets are wholesalers. Almost 27% of total respondents sell exclusively to wholesalers. Of the footwear firms who transact with wholesalers, almost 84% of such firms report that wholesale transactions account for at least 70% of sales (versus 29% of firms with own retail reporting this sales range).

Though not captured by the survey data, it is generally acknowledged that "wholesalers" are large traders controlling not only the buying but also retailing end of the footwear industry. It is clear from the survey results that the footwear manufacturers are heavily dependant on this sector.

Respondent firms indicated their preferences across the various types of outlets, including firms who utilized only one type of outlet. Single-outlet firms (59% of respondents) cite "limited capital" as the leading reason for use of only one outlet. This was followed by "bigger mark-up" and "bigger volume". Crosstabulations over the entire sample however reveal that in 95% of cases, the preferred outlet was actually the outlet with the biggest share of sales.

It is interesting to note however, that while "own retail" was ranked first in preference by only 17.3% of respondents, among the outlets indicated as second preference, it obtained the highest relative<sup>3/</sup> preference

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<sup>3/</sup> In the respective subgroup of the outlet which did not indicate the outlet as first preference.

of 27.7%, as compared to 6.5% for "other retailers" and 10% for "wholesalers". This may simply suggest an inherent desire of footwear manufacturers to manage retail distribution themselves.

## 2.0 Seasonality

There are seasonal swings in sales of footwear manufacturers (Table III. 21). The peak period appears to start in June, reach its peak in August and extend to September. The seasonal peak is attributed by almost all respondents to the Christmas season and similar holidays/occasions. It is noteworthy that the October-December is reported as a seasonal low by respondents. This is of course not surprising, considering our respondents are footwear manufacturers. As is suggested by the preceding section, the bulk of their sales will be for inventory of the subsequent layers in the distribution stream. Thus it would seem that the manufacturers' peak period precede the retail peak by 2-3 months. Comparison of reported peak and low months suggests that the January-February period is not considered either a peak or low period.

One significant factor mentioned as contributing to the seasonal low is the rainy season, particularly for leather footwear. Many respondents noted that retail sales fall off during this period.

Footwear manufacturers report that there are generally no significant price adjustments in response to

TABLE III.21 SEASONALITY OF SALES OF FOOTWEAR MANUFACTURERS

<u>Month</u>	<u>Reported as Seasonal Peak</u>		<u>Reported as Seasonal Low</u>	
	<u>Frequency</u>	<u>% to Total Respondents</u>	<u>Frequency</u>	<u>% to Total Respondents</u>
January	23	12.6%	3	4.5%
February	19	10.6	11	6.1
March	9	5.0	35	19.6
April	7	3.9	40	22.3
May	15	8.4	33	18.4
June	36	20.1	39	21.8
July	68	38.0	9	5.0
August	83	46.4	3	1.7
September	45	25.1	20	11.2
October	12	6.7	77	43.0
November	3	1.7	145	81.0
December	4	2.2	149	83.2

seasonal swings. This would mean that the industry is generally able to adjust and smooth out supply-demand imbalances due to seasonal factors. The likely reasons for these are the fairly long shelf life of the product, the short production cycle, and also a high degree of predictability about the timing of the seasonal swings.

### 3.0 Credit Sales

It is a predominant practice among footwear manufacturers to sell on credit terms. About 84% of respondents report selling on credit. As is expected, practically all buyers classified as "other retailers", e.g., department stores, and 85% of wholesalers buy on credit. Only 16% of those who sell directly on a retail basis sell on credit to such types of buyers.

The maximum credit period cited is 91-180 days, i.e. 3-6 months, and this occurred in both "wholesale" and "other retailer" buyers. However, in 5.6% of cases, the credit period had no definite limit and again, these are for the above type of buyers.

The distribution of credit periods is difficult to gauge in terms of volume of credit sales. However, information can be summarized in terms of credit period for each type of buyer. Overall, about 13% of buyer types are extended 1-15 days, and about 27% get up to 30-day credit terms. Up to 57% get credit of up to 60 days, and up to 84% get credit of up to 90 days.

Again, these practices are indicative of the disadvantage of manufacturers vis-a-vis their buyers. Buyers are able to extract fairly long credit terms from these generally small manufacturers.

As expected, own retail sales have the shortest credit period, with the maximum reported at 61-75 days. In addition, it may be pointed out that the volume of credit sales is likely of a lesser magnitude for own retail sales. The data indicate that "other retailers", e.g., department stores, are slower in payments than "wholesalers". The two types of buyers account for all credit sales with the longest credit period, i.e., over 75 days.

One positive aspect is the fact that some footwear manufacturers are able to request a down payment from customers. This is reported by 31.8% of the sample. However it appears these are mostly on retail sales. About 85% of those who get a down payment report a percentage down payment of 26-50%.

A manufacturer who extends credit may receive a post dated check. The footwear firm is frequently able to use such checks by discounting it with moneylenders or suppliers. Thus, the firm is able to generate some form of financing of the spontaneous type, but as will be discussed in the following sections, these credits charge very high rates.

#### 4.0 Pricing Practices

Some 54% of respondents report that prices are negotiated with buyers and/or based on generally variable mark-ups (Table III. 22 ). Almost half (45.6%) of the group also concede that variations are in part dependent on the type of buyers.

On the other hand, about 36% of the sample indicate that they basically apply a fixed mark-up over product costs.

Another 2.8% report that prices are set by the buyer.

A principal issue is whether there exist undue advantage by buyers in terms of pricing. The dependence of footwear manufacturers on middlemen suggests this is a strong possibility. The type of data available however are unable to confirm or negate this proposition. What is widely accepted though is the wide spread between retail prices and ex-plant prices.

#### 5.0 Modes of Transport

Table III.23 indicates the various modes of transport for delivery of final goods to the buyer. About 18% of respondents indicate that goods are picked up by the customer; this will include many retail sales. A fairly high percentage (43.6%) report owning their own transport vehicle.

The low volume of some orders are reflects in the report that about 7.8% of respondents have resorted to using public transport. In the town of Marikina, where

TABLE III.22 PRICING PRACTICES, FOOTWEAR INDUSTRY

<u>Pricing Practice</u>	<u>Frequency</u>	<u>%</u>
1. Variable mark-up over production costs/negotiated prices	97	54.2%
2. Made equal to prevailing market price	9	5.0
3. Price set by Buyer	5	2.8
4. Fixed mark-up over production costs	65	36.3
5. Others	<u>3</u>	<u>1.7</u>
Total	179	100.0%

TABLE III.23 MODES OF TRANSPORT/DELIVERY TO MARKET OUTLET, FOOTWEAR INDUSTRY

<u>Mode of Transport</u>	<u>Frequency</u>	<u>% to Total Respondents</u>
1. Own truck/vehicle	78	43.6%
2. Hire truck/vehicle	76	42.5
3. Picked up by customer	32	17.9
4. Use public transport	14	7.8
5. Pay for pick-up service	10	5.6

density of footwear manufacturers is highest, pick-up services can sometimes be arranged. In this scheme, a truck simply goes around collecting orders.

## 6.0 Export Market

### 6.1 Volume and Composition of Exports

In 1960, the Philippines was still importing more footwear than she was exporting. The value of imports for that year was \$76,000 compared to footwear exports of \$15,000. Exports first exceeded imports in 1967, and in 1970 hit the million dollar mark (Table III. 24).

The country is dependent primarily on local production of footwear; in 1980, total imports of footwear was a mere 108,000 pairs with a value of \$186,000. However, imports of equipment and raw materials reached at least \$8.3 million.<sup>4/</sup>

In contrast, exports in 1980 totalled some 25 million pairs valued at \$67 million. The absolute volume of Philippine footwear exports is still a very modest level, constituting a mere 1.2% of total Philippine exports. However, growth has been very encouraging in recent periods, albeit from a very small base. Over the period 1976-1980, footwear exports grew at an average annual growth rate of 78% in volume, and 100% in value.

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<sup>4/</sup> This is a minimum estimate since it is not possible to quantify the share of footwear in other imported inputs such as leather, adhesives, etc.

TABLE III.24 EXPORTS AND IMPORTS OF THE PHILIPPINE FOOTWEAR INDUSTRY

Year	EXPORTS					IMPORTS					Trade Balance	
	Quantity (1,000 pairs)		FOB Value (\$1,000)			Quantity (1,000 pairs)		FOB Value (\$1,000)				Total Import Value
	Shoes	Other Footwear <sup>1/</sup>	Shoes	Other Footwear	Total Export Value	Shoes	Other Footwear	Shoes	Other Footwear	Com-ponents <sup>2/</sup>		
1960	2	17	\$ 5	\$ 10	\$ 15	8	22	\$28	\$ 48	\$ 527	\$ 603	\$ (588)
1961	-	5	1	7	8	1	74	1	245	181	427	(419)
1962	0	333	0	69	69	0	50	0	170	251	421	(352)
1963	5	37	5	32	38	20	24	48	39	340	427	(389)
1964	20	615	29	51	80	42	23	102	43	254	398	(318)
1965	2	39	5	47	52	22	20	36	38	301	375	(323)
1966	18	30	16	35	51	19	17	33	48	374	455	(404)
1967	82	157	71	146	217	20	11	47	28	240	315	( 98)
1968	212	234	204	171	375	21	107	30	38	323	391	( 16)
1969	500	314	385	202	587	19	59	27	53	155	235	352
1970	1,227	136	1,019	658	1,085	4	14	32	39	307	378	707
1971	831	209	747	116	863	3	9	8	33	151	192	671
1972	992	126	1,083	169	1,253	1	6	8	26	2,622	2,656	(1,403)
1973	1,232	583	1,814	316	2,130	1	4	4	30	366	402	1,728
1974	1,769	1,148	3,008	715	3,723	2	3	14	20	44	78	3,645
1975	1,418	523	2,483	522	3,005	1	1	4	12	3	19	2,986
1976	2,720	251	4,812	342	5,154	2	3	12	34	790	836	4,318
1977	4,518	791	9,469	781	10,250	6	3	48	34	6,064	6,146	4,104
1978	8,533	5,553	25,326	7,946	32,356	3	28	18	49	3,046	3,113	29,243

1979	9,714	10,575	35,121	15,476	50,500	44	65	32	107	4,548	4,687	45,813
1980	10,398	14,675	\$39,720	\$27,356	<u>\$67,077</u>	14	94	\$ 31	\$155	\$8,338	<u>\$8,524</u>	<u>\$58,553</u>

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<sup>1/</sup>Other footwear include rubber shoes, slippers and house footwear, gaiters, spats, leggings, and puttees.

<sup>2/</sup>Components include footwear machine, rubber sheeting and soling, heels, soles, shoe lasts, shoe laces, straps, cork fillers, etc., or materials exclusively traceable to footwear manufacturing. Hence, includes imports of such materials as leather, canvass, adhesives, nails, etc.

Sources: Journal of Philippine Statistics, January-March 1978.

The greater bulk of total footwear exports continue to be rubber, plastics and rubber/textile footwear. This group accounted for at least 72.4% of the more than 20 million pairs exported in 1979, and 56% of the value of exports (Table III.25). Leather footwear on the other hand, accounted for 4.6% of pairs exported, and 14.8% of export value. There is however another group which may also be classified as primarily of leather, i.e., footwear with uppers of leather and outer soles of rubber or plastic. This sector accounted for another 10.1% of volume and 19.6% of value of exports.

Wooden footwear, and footwear with outer soles such as straw, rushes and palm leaf accounted for 8.3% of volume and 6.5% of value of exports.

TABLE III. 25 COMPOSITION OF FOOTWEAR  
EXPORTS, 1979

<u>Product Group</u>	<u>Quantity</u> (in 1,00 pairs)	<u>Value</u> (\$1,000 FOB)	<u>% Distribution</u>	
			<u>Quantity</u>	<u>Value</u>
1. Footwear with uppers of textile/rubber and outer soles of rubber/plastic	15,006	\$28,271	72.4%	56.0%
2. Footwear wholly or mainly of leather/composition leather	948	7,469	4.6	14.8
3. Footwear with uppers of leather and outer soles of rubber/plastic	2,101	9,915	10.1	19.6
4. Footwear with outer soles of wood or cork, palm, etc.	1,711	3,287	8.3	6.5
5. Other footwear	<u>970</u>	<u>1,558</u>	<u>4.7</u>	<u>3.1</u>
Total	20,736	\$50,500	100.1%	100.0%

## 6.2 Rubber Footwear Sector

It is important to consider subsectors in the industry, particularly when speaking of exports. As has been pointed out, the rubber footwear sector has been the principal export product. However, rubber footwear firms are relatively few (2.8% of sample respondents and only one out of 12 respondents who have exported). Furthermore, it is believed (neither our primary or published data can verify this) that the sector is dominated by one large firm, and its subsidiaries/affiliates. As previously pointed out, the firm has a labor force of more than 7,000. The dominance of the firm is not only felt in the export market, but in the domestic market for rubber footwear as well.

It would seem useful to classify rubber footwear as a separate area for investigation. As a previous study has shown (Bautista, 1), this sector is heavily protected. Using 1974 data, the study notes that the effective protection rate to the sector is 454%, as compared to leather footwear of 18%, and an overall average of the sectors under study of 36%. The domestic resource cost tended to be high at 20.36, as compared to a weighted average of 8.88 for all sectors and 6.47 for the leather footwear industry. This suggests some cost inefficiency, and potential difficulties in

competing in the world Market.

However, it is quite clear that the rubber footwear sector does compete in the world market, and in fact is performing better than the other sectors in the footwear industry. It is possible that the rubber footwear sector has grown more efficient since the last period of study. It is also possible that other policies, particularly BOI incentives, have been effectively utilized by the sector. The above factors may in fact be exerting simultaneous influences, particularly since the sector seems so dominated by just one firm. At any rate, the sector should perhaps merit special attention which unfortunately, our data is unable to support.

### 6.3 Problems in Non-Rubber Footwear Sector

In the case of leather footwear, much of the data gathered by the survey are relevant. As has been pointed out, this sector is a low protection, low domestic resource cost sector. It should therefore offer much potential for exports. Excluding rubber footwear, some 6.3% of respondents have exported within the five-year period 1976-1980.

One-fourth of these firms (3 out of 12) are small firms, exported only once in the past 5 years in very limited volume, and only indirectly through exporting firms. The consistent exporters are all

large firms. In the footwear industry, export volumes per order tend to be large, this is not necessarily a stumbling block for small firms, if one understands "small" primarily in terms of size of the labor force. The key elements for the "small" firms are the degree of mechanization and the productivity of labor. A small firm can, on its own, penetrate the export market if output per head is high. As our survey suggests however, this does not appear to be the case for the footwear industry. Thus, it is not surprising that exporting firms tend to be large firms. Volume is achieved by sheer number of the labor force and/or some fair degree of mechanization.

It is noteworthy that among the frequently cited suggestions for penetrating the export market is through "joint marketing efforts", i.e., pooling resources of several footwear manufacturers. This in fact is a major premise of the Marikina Shoe Marketing Corporation established in 1968. A related concept is "cooperative production".

Though such suggestions may prove effective in generating the necessary volume, it must be complemented by efforts to resolve another major factor in the export sector: that of quality. It is acknowledged, and this is shown in survey results, that a major problem of local firm is

meeting quality requirements of the export market. In the case of leather footwear, quality of the principal import, leather is often considered of poor quality. Though the local leather tanning industry may be able to produce quality leather, it has been noted that the high cost of such leather renders the footwear exporter uncompetitive in the foreign market. Seven of the nine large exporters in our sample export leather footwear, among others. Of the seven, five or 71% cited quality as their biggest problem.

The problem of quality of raw materials of course affect all size groups in the leather footwear sector. However, in the case of small firms pursuing a cooperative production effort, an additional dimension is added to the problem of quality that of consistent quality in workmanship. This is a major stumbling block of such efforts. Cooperating firms who are able to produce quality products have become wary of this mechanism since they take the risk of a shipment rejected because of failure of other firms in the venture to conform to quality standards. Meeting the volume requirements for exports is obviously not a simple matter of aggregating the output of a number of small firms.

Another oft-mentioned problem in export marketing is the presence of middlemen. Most of the

consistent exports in the sample transacted through "exporting firms". No doubt these agents serve as useful purpose in relieving footwear manufacturers of the burden and costs of export marketing where costs are probably high, e.g., in market information, promotion, transactions cost, shipment, etc. An issue to resolve is whether these agents exercise monopsonistic tendencies and whether the footwear manufacturing sector can develop sufficient capabilities to compete against such influences.

#### 6.4 Principal Markets for Footwear Exports

Philippine footwear exports have the U.S. as the principal market. Over the 5-year period 1976-1980, the U.S. market accounted for 62.7% of total exports. The second largest market is Australia, which accounted for 8.5% of exports over the same period (Table III. 26).

Exports to these two countries have been growing at a steady rate. Other countries that have been tapped include Canada and the European countries. In the Asian region, only Japan and Hongkong have had significant shares.

Outside of the U.S. and Australia, the countries which have recently expanded their share of Philippine footwear exports are West Germany, UK and North Ireland, and Canada.

TABLE III.26 TOP TEN COUNTRIES OF DESTINATION FOR PHILIPPINE  
FOOTWEAR EXPORTS, 1976-1980

Country	1980		1979		1978		1977		1976	
	Rank	Share	Rank	Share	Rank	Share	Rank	Share	Rank	Share
1. United States	1	56.5%	1	66.9%	1	78.5%	1	48.9%	1	34.0%
2. West Germany	2	8.0	5	5.1	8	0.6	5	3.4		
3. United Kingdom and North Ireland	3	7.2	3	6.2	4	2.0	6	2.8	6	6.0
4. Canada	4	6.9	4	5.5	3	4.9	9	2.0	8	2.9
5. Australia	5	6.5	2	7.0	2	8.1	2	22.9	2	22.5
6. Hong Kong	6	3.9	6	1.8	5	2.0	3	6.6	5	7.4
7. Japan	7	3.6	7	1.4	7	0.6	10	1.3	7	3.2
8. Netherlands	8	2.9	8	1.2						
9. Ireland (EIRE)	9	1.2	10	0.6						
10. Austria	10	0.4			6	0.6	7	2.1		
11. Guam									9	1.8
12. Thailand					9	0.5	4	3.6	4	7.4
13. Puerto Rico					10	0.4			3	8.4
14. Belgium			9	0.7						
15. France							8	2.0		
Total Footwear Exports FOB (\$1,000)		\$67,077		\$50,500		\$32,356		\$10,250		\$5,154

## 7.0 Summary

The primary problems of the industry in the marketing area are:

1. Dependence of footwear manufacturers on "wholesalers" /middlemen in the distribution process. Survey data is inadequate in verifying monopolistic pricing tendencies, but it seems accepted that there exists a wide spread between retail prices and ex-plant prices. The data does confirm that non-retail buyers extract very favorable credit terms from footwear manufacturers.
2. Previous studies and interviews with industry representatives confirm that similar problems are faced in the export marketing process.
3. Export capability is clearly present in the rubber footwear sector. Outside of this product group however, the footwear industry is saddled by problems of limited capacity, low quality materials and unreliability of supply, and as in many non-traditional export products, by problems of limited market information about the export market.

E. General Management Practices

As previously mentioned, about 96% of footwear firms are single proprietorships and most firms are small establishments. One would expect that managerial responsibility is primarily lodged in the owner. This is verified in Table III.27 and III. 28. The owner in general runs all aspects of the business. His managerial role is most frequently cited in the management of production operations, followed by administration of personnel. His presence is least likely in the area of finance, followed by marketing. It appears that the distinct competence or experience of the owner/manager is in the area of production. This is indicated by his managerial responsibilities, and the primary dependence of the firm on the owner in the various areas of technological application.

There is little planning undertaken by individual firms. Only 10.7% conducted studies prior to establishing their business. Over 85% of firms do not undertake any form of financial or production planning (Tables III.29 and III.30). While various forms of operating and financial reports are prepared, there are typically not for evaluation and decision-making. At most, 80% prepare standard financial statements such as the income statement and balance sheet; and of those who do prepare, a mere 7.7% and 6.9%, respectively, utilize the reports for evaluating performance. More than 90% say these reports are prepared for submission to government agencies. About 9% use these to apply for loans.

TABLE III.27 NUMBER OF PEOPLE PRIMARILY RESPONSIBLE FOR MAJOR MANAGERIAL FUNCTIONS, FOOTWEAR INDUSTRY

Functional Area	Number of People with Primary Responsibility					
	Frequency			%		
	1 Person	2 or more Persons	Total	1 Person	2 or more Persons	Total
1. Production	141	38	179	78.8%	21.2%	100.0%
2. Finance	115	64	179	64.2	35.8	100.0
3. Purchasing	139	40	179	77.7	22.3	100.0
4. Marketing	135	44	179	75.4	24.6	100.0
5. Administration/ Personnel	131	48	179	73.2	26.8	100.0

TABLE III.28 EXTENT OF OWNER RESPONSIBILITY IN MAJOR MANAGERIAL FUNCTIONS, FOOTWEAR INDUSTRY

Functional Area	Extent of Owner Responsibility							
	Frequency				% to Total Responsibility			
	Sole Responsibility	Co-Responsible	Not Directly Responsible	Total	Sole Responsibility	Co-Responsible	Not Directly Responsible	Total
1. Production	125	36	18	179	69.8%	20.1	10.1	100.0
2. Finance	85	56	38	179	47.5	31.3	21.2	100.0
3. Purchasing	112	38	29	179	62.6	21.2	16.2	100.0
4. Marketing	106	39	34	179	59.2	21.8	19.0	100.0
5. Administration/ Personnel	118	42	19	179	65.9	23.5	10.6	100.0

TABLE III.29 EXTENT OF PREPARATION OF BUSINESS REPORTS,  
FOOTWEAR INDUSTRY

Type of Report	Extent of Preparation					
	Frequency			%		
	Prepare	Don't Prepare	Total	Prepare	Don't Prepare	Total
1. Production & Inventory	73	106	179	40.8%	59.2	100.0%
2. Sales & Collections	94	85	179	52.5	47.5	100.0
3. Purchases	74	105	179	41.3	58.7	100.0
4. Statement of Income and Expenses	143	36	179	79.9	20.1	100.0
5. Statement of Assets and Liabilities	131	48	179	73.2	26.8	100.0

TABLE III.30 REASONS FOR PREPARATION OF BUSINESS REPORTS,  
FOOTWEAR INDUSTRY

Type of Report	Reasons							
	Frequency <sup>1/</sup>				% to Firms Preparing Report			
	For Record-Keeping	Eva- luation/ Decision Making	Sub- mission to Gov't. Agencies	Secure Loans	For Record-Keeping	Eva- luation/ Decision Making	Sub- mission to Gov't. Agencies	Secure Loans
1. Production & Inventory	57	18	5	4	78.1%	25.2%	6.8%	5.5%
2. Sales and Collections	80	14	11	3	85.1	14.9	11.7	3.2
3. Purchases	66	12	7	0	89.2	16.2	9.5	-
4. Statement of Income & Expenses	49	11	131	13	34.3	7.7	91.6	9.1
5. Statement of Assets & Liabilities	54	9	118	12	41.2	6.9	90.1	9.2

<sup>1/</sup> A firm may have more than one reason for preparing report.

Preparation of reports on production and inventory, sales and collection, and purchases, are undertaken by 41%-53% of respondent firms. Of those who prepare, at most 25% utilize these for decision-making.

The absence of planning and evaluation activities reflect a low level of managerial capability. It might be argued that small firms have lesser demands in terms of such capabilities. Secondly, it may be that the environment particularly of the small industry sector is so unpredictable as to forestall any reasonable attempt at planning.

These may be valid arguments, but it is clear that formalized practices are more often than not, absent among sample firms. Managerial guidance rests primarily on the owner.

It is therefore not clear whether footwear manufacturers will be in a position to respond in terms of managerial capabilities as the firms grow in size.

#### F. Sources of and Needs for Financing

##### 1.0 Sources of Financing and Working Capital

Table III.31 shows the sources of external financing of footwear firms. Only 23% of total respondents borrowed from formal sources of credit, almost all of which were banks.

About 19% of respondents did not have any source of credit, depending exclusively on owners' capital. While it is possible that some footwear firms prefer, and are able to operate on an all-equity base, the extent of

TABLE III.31. SOURCES OF FINANCING, FOOTWEAR INDUSTRY

<u>Source</u>	<u>Frequency</u>	<u>% to Total Respondents</u>
1. Suppliers/trade credit	111	63.6% <sup>1/</sup>
2. Banks	39	21.8
3. Private moneylender	20	11.2
4. Relatives/Friends	12	6.7
5. Others <sup>2/</sup>	3	1.1
6. No borrowings	34	19.3 <sup>3/</sup>

<sup>1/</sup> Number of valid cases is 174, due to 5 respondents who gave a "Don't Know" response.

<sup>2/</sup> NACIDA, local credit union, customer

<sup>3/</sup> Total valid cases (borrowers and non-borrowers) is 176.

TABLE III.32 SIZE DISTRIBUTION OF BORROWINGS, FOOTWEAR INDUSTRY

<u>Amount (in ₱1,000)</u>	<u>Supplier's Credit</u>		<u>Formal Sources</u>		<u>Other Informal</u>	
	<u>Frequency</u>	<u>%</u>	<u>Frequency</u>	<u>%</u>	<u>Frequency</u>	<u>%</u>
₱ 1-10	74	69.8%	17	44.7%	23	79.3%
11-20	12	11.3	4	10.5	2	6.9
21-30	6	5.7	6	15.8	0	
31-40	3	2.8	2	5.3	1	3.4
41-50	2	1.9	3	7.9	1	3.4
Over ₱50	9	8.5	6	15.8	2	6.9
Total	106	100.0%	38	100.0%	29	99.9%
Average Borrowings:	₱19,200		₱45,500		₱21,200	

<sup>1/</sup> Due to rounding-off error.

non-borrowers suggest a significant inability, to acquire debt financing.

Footwear firms are primarily dependent on suppliers' credit, as may be expected. About 64% of all respondents use this spontaneous source of credit, or about 78% of the borrowers group. It is noteworthy that 52% of the borrowers group depend solely on supplier's credit to supplement owner's capital.

It is clear from the size distribution and mean levels<sup>5/</sup> of borrowings, that supplier's credit, while the most popular source of credit, allow for relatively smaller loan values. The average level of bank borrowings are approximately twice that of supplier's credit, though 45% of bank borrowings are still below ₱10,000.

Bank loans tend to have longer maturities as well. In fact, the survey results show that bank loans are largely medium- and long-term credits. About 67.6% of bank borrowings have maturities between 2-10 years, with at least 35% with maturities of 5 years or more.

In contrast, 80% of financing sources, not counting supplier's credit, were short-term loans (maturity of less than one year). Supplier's credit in particular, is 100% short-term. (Table III.33). About half (52% of respondents using supplier's credit report credit periods of up to 30 days, and 88% report credit of up to 90 days.

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<sup>5/</sup> Mean levels tended to be brought up by several very high amounts, relative to the size distribution.

TABLE III.33 MATURITY OF SUPPLIER'S CREDIT

Credit Period/Maturity (in Days)	Frequency	%	Cumulative %
1 - 30	48	52.2%	52.2%
31 - 60	17	18.5	70.7
61 - 90	16	17.4	88.1
91 - 180	4	4.3	92.4
180 - 365	7	7.6	100.0%
Over one year	<u>0</u>	<u>0.0</u>	
Total	92	100.0%	

As a source of working capital, are such terms reasonable? Since credit in this particular case is directly linked to the acquisition of raw materials, the value of credit received cannot exceed the value of inventory acquired, i.e., there cannot be "excess" financing, i.e., for labor and overhead, but then again it is 100% financing of the raw materials thus obtained. However, we must consider the possibility that if the stocks can be produced and sold well within the credit period, then in fact supplier's credit can be made to finance receivables and even perhaps another production cycle. The turnover of inventory should be quite fast given the typical production cycle<sup>6/</sup> but insofar as receivables are concerned, 27% of those who extend credit

<sup>6/</sup> Interviews with industry members suggest that the production cycle is fairly short, generally a maximum of one week.

terms on sales report up to 30-day terms, and 84.4% report selling up to 90-day terms. Thus, it seems likely that supplier's credit allow for some financing of receivables, in addition to inventory, but perhaps not as much as manufacturers would want to. Note that it seems reasonable to expect that inventories are more within the control of the firm than receivables, and therefore inventories will tend to be sacrificed with limited working capital. The limited evidence available suggest that this may in fact be the case. Only 43% of all respondents generally stock up on inventories, and of these, more than half (55%) stock up only if there are job orders. On the other hand, about 84% of all respondents reply that they sell on credit terms. More to the point, 63% of respondents report lack of financing as the primary problem<sup>7/</sup> in maintaining adequate levels of inventories. Finally, it may be pointed out that inventories topped the list (34%) when respondents were asked to rank the possible uses of any additional financing that may be made available. Thus, the evidence suggests that financing for working capital are among the significant problems of footwear manufacturers in both receivables and inventory financing.

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<sup>7/</sup> Another 26.5% report unpredictability of orders, while 7.3% complain about non-availability of raw materials.

## 2.0 Financing of Equipment

As pointed out in a preceding section, a significant portion (28.5%) of respondents feel their machineries are inadequate. To some extent, this again may be traced to inadequate financing. Of those who expressed insufficiency of equipment, 72.5% believe they would be unable to finance additional acquisitions. In response to a question on how they would use any additional financing, equipment purchases was the second most frequently cited priority (next to inventory), with 23.5% of respondents citing this use.

As previously discussed, about 54% of total respondents acquired additional equipment in the last 5 years. Of these, only 12.6% reported having used bank financing. Another 9.5% borrowed from relatives and friends. Fully 67.4% had to depend solely their own savings and/or earnings generated by the business. About 7.4% used some combination of internal and external sources.

Lease financing is apparently minimally used in the industry with only 3% reporting having leased equipment.

## 3.0 Other Problems in Financing

Respondents were asked to identify their problems in obtaining credit, in the order of priority. The problem of collateral requirements and the high interest rates emerged as the dominant problems, with 28.2% and 23.6% of respondents citing these factors, respectively.

(Table III.34)<sup>5/</sup>.

Table III.35 shows the extent of collateral requirements for each source of financing. As may be expected, banks in general have the most stringent collateral requirements. About 95% of bank loans reported were collateralized. In 81% of such cases, real estate was the collateral. In another 14% of these cases, chattel mortgage was resorted to.

In contrast, supplier's credit is generally uncollateralized. At most, suppliers require postdated checks. Among others, the uncollateralized nature of supplier's credit explain the pervasive use of this source of financing. In general, informal sources of credit do not require collateral. The most liberal, as may be expected, are loans from relatives and/or friends, wherein none of the creditors required collateral.

Table III.36 shows the annual interest rate of borrowings of respondents, for each type of financing source. It shows that a significant proportion (43.4%) of all credit transactions carried interest rates in excess of 24% p.a., and that about 37% of loans carry rates in excess of 36%. These are undoubtedly very high rates affecting a large sector of the industry. Only 22% of credits carry interest rates of 12% and below, and these are largely bank loans, and practically all of the loans reported as coming from relative/friends.

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<sup>8/</sup> 41.4% and 39.1% respectively, cited these two aspects as problems either ranked first, second, or third.

TABLE III.34 PROBLEMS IN BORROWING, FOOTWEAR INDUSTRY

<u>Problem</u> <sup>1/</sup>	<u>Frequency</u>			<u>% to Total Respondents</u> <sup>2/</sup>		
	<u>Ranked First</u>	<u>Ranked Second</u>	<u>Ranked Third</u>	<u>Ranked First</u>	<u>Ranked Second</u>	<u>Ranked Third</u>
1. Inadequate/lack collateral	49	14	9	28.2%	8.0%	5.2%
2. High interest rates	41	21	6	23.6	12.1	3.4
3. Financial condition/performance of business	12	9	2	6.9	5.2	1.1
4. Documents required for loan	6	10	5	3.4	5.7	2.9
5. Maturity	2	4	4	1.1	2.3	2.3
6. Delay in processing	3	1	1	1.7	0.6	0.6

<sup>1/</sup> Other problems mentioned include perceived problem in repaying debt, need for guarantors and/or personal trust in the cases of moneylenders.

<sup>2/</sup> Numbers of valid cases for this table is 174.

TABLE III.35 USE OF COLLATERAL BY SOURCE OF FINANCING

FOOTWEAR INDUSTRY

Source	Frequency			% <sup>1/</sup>		
	With Collateral	Without Collateral	Total	With Collateral	Without Collateral	Total
1. Supplier's/trade credit	6 <sup>2/</sup>	85	91	6.6	93.4	100%
2. Banks	36 <sup>3/</sup>	2	38	94.7	5.3	100%
3. Private Moneylenders	3	17	20	15.0	85.0	100%
4. Relatives/Friends	0	12	12	0	100	100%
5. Others	3	0	3	100	0	100%

<sup>1/</sup>% applies to row total, i.e., total respondents using each source.

<sup>2/</sup> Collateral used were in 5 cases post-dated checks, and in one case, the purchase order.

<sup>3/</sup> In 80.6% of cases, real estate was used; in another 13.9% chattel mortgage was used. Others mentioned include one case of bank deposit.

TABLE III.36

III-63

INTEREST RATES ON BORROWINGS, BY SOURCE OF FINANCING  
FOOTWEAR INDUSTRY

Source	Frequency								Total
	0%	1-6	7-12	13-18	19-24	25-30	31-36	37 & over	
1. Supplier's/trade <sup>1/</sup> credit		1	1	2	5		4	29	42
2. Banks			10	13	10	1		6	40
3. Private moneylender	2		1	1	7		2	7	20
4. Relatives/ friends	<u>10</u>				<u>1</u>				<u>11</u>
	12	1	12	16	23	1	6	42	113

Source	%								Total
	0%	1-6	7-12	13-18	19-24	25-30	31-36	37 & over	
1. Supplier's/trade credit	0	2.4		4.8	11.9	0	9.5	69.0	100.0%
2. Banks	0	0	25.0	32.5	25.0	2.5	0	15.0	100.0%
3. Private moneylender	10.0%	0	5.0	5.0	35.0	0	10.0	35.0	100.0%
4. Relatives/ friends	<u>90.9</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>9.1</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>100.0%</u>
	10.6	0.9	10.6	14.2	20.4	0.9	5.3	37.2	100.1%

Source	Cumulative %								Total
	0%	1-6	7-12	13-18	19-24	25-30	31-36	37 & over	
1. Supplier's/trade credit	0	2.4	4.8	9.6	21.5	21.5	31.0	100.0%	
2. Banks	0	0	25.0	57.5	82.5	85.0	85.0	100.0%	
3. Private moneylender	10.0	10.0	15.0	20.0	55.0	55.0	65.0	100.0%	
4. Relatives/ friends	<u>90.9</u>	<u>90.9</u>	<u>90.9</u>	<u>90.9</u>	<u>100.0%</u>				
	10.6	11.5	22.1	36.3	56.7	57.6	62.9	100.1%	

<sup>1/</sup> In 41 cases, the explicit cost could not be computed due to lack of cash discount rate and/or specific credit period.

It is noteworthy that supplier's credit account for 69% of borrowing which carry interest rates in excess of 36% p.a., with banks and private moneylenders accounting, in roughly equal proportions, for the balance. Note that suppliers' credit may in fact account for a high proportion, since in 41 cases (36% of loan sample with interest rate data) no explicit cost could be computed.<sup>9/</sup>

#### 4.0 Summary

The principal problems in financing are:

1. Limited access to sources of financing. This apparently stems from the small-scale nature of footwear operations and collateral requirements.
2. The high cost of available financing, e.g., supplier's credit.
3. Significant requirements for working capital, as evidenced by the requirements for receivables financing. It is quite likely that desired levels of inventory are not maintained because of inadequate financing.

The survey solicited information on indicators of operating performance (sales, profit margins, cost breakdown, etc.) but the data generated tended to be spotty and was subsequently set aside.

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<sup>9/</sup>Explicit interest cost on suppliers' credit is the equivalent cost of cash discounts foregone on delayed payments. Where no cash discount is offered, it may be presumed that the supplier has tacked on the selling price the cost of financing.

G. Conclusion and Recommendations

The study has relied for the most part on a cross-sectional view of the industry. Notwithstanding its long history, the footwear industry, as revealed in the survey, continues to be primarily a small-scale sector. It is labor-intensive and characterized by a low degree of mechanization. It is also an industry which exploits the indigenous resources of the country.

As such, the industry reflects many typical attributes of small-scale industries: backyard type of operations using for the most part traditional manual methods, inadequate financing, limited and owner-dependent management, and limited capabilities to market its products in the face of a well-developed marketing infrastructure for consumer products.

On the other hand, there are now a significant number of large firms in the industry, some of which have successfully penetrated the export market. A very notable example of this is the rubber footwear sector.

The heterogeneity of the industry is such that it would appear much more meaningful to view it, in terms of specific problems and policies, using finer sub-classifications. A more useful approach, for one, is to consider separately the rubber, wood-based, and leather footwear sectors. The former in particular, is dominated by large firms, and footwear exports is dominated by rubber footwear products. It would appear in fact, that footwear exports will continue to depend on the rubber footwear sector in the immediate future. The survey results suggest:

that the number of footwear firms is a fairly small proportion of total footwear firms. Thus, data is very limited to investigate in greater detail the rubber footwear sector.

Survey data is mostly descriptive of the non-rubber footwear sector. Our subsequent discussion primarily applies to this sector.

Major issues that need to be addressed are: the manner by which the industry (in the limited sense suggested) will develop, and how the constraints will be met.

It is clear that the constraints are somewhat difficult. In the past, many manufacturing industries, particularly those in the consumer industries, grew rapidly through the policy of import substitution. Such a growth process is not relevant to the footwear industry. For a long time now, the country has been dependent on local production. The industry must therefore look for the impetus for growth elsewhere - in the growth of domestic demand, and to the export market.

#### 1.0 The Domestic Market

In the domestic market, the nature of the product provides shelter to small firms. Footwear products trace much of their appeal to differentiation and constantly evolving fashions. This aspect encourages orders of small lot sizes:

a distinct design, fast moving, and posing little risk of market obsolescence. In a limited but design conscious domestic market, footwear manufacturers in such product lines must be prepared to receive relatively small order quantities, and product features which change at frequent intervals.

With their long tradition of craftsmanship and labor intensive operations that have a minimum of overhead costs (through hiring on a piece-rate basis and limited mechanization), small firms are well-positioned to meet domestic requirements. Large orders are tackled by hiring more workers and/or subcontracting (the latter being a less dominant practice). Manual-type of operations are viable in part because quality requirements are less demanding in the domestic market.

A principal problem of firms servicing the domestic market, particularly small establishments, is the dominant position of "wholesalers" (i.e. middlemen) and large retailers, e.g. department stores. There appears a need to examine closely whether more efficient distribution systems can be developed. The current practice of "shoe houses" should be studied closely to evaluate possibilities of expansion and further replication in major urban centers. This will necessitate detailed studies on a product by product level, of the size and location of consumer markets, the various distribution processes and practices, and the cost structure of distribution. The key objectives of developing a domestic marketing program should be to:

1. reduce distribution costs;
2. substantially reduce if not eliminate any monopolistic profits that current wholesale/trading operations may be enjoying;

3. provide a more efficient mechanism by which manufacturers obtain market information on the domestic market; and
4. bring efficient footwear manufacturers under the umbrella of such a distribution system.

## 2.0 Export Market

As previous studies have shown, the leather footwear sector is cost competitive and therefore offers much potential as an export industry. A major problem faced by leather footwear exports however is the quality and cost of locally produced leather. The chapter on the leather industry addresses itself to this problem. Suffice it to say at this point that not much progress can take place in exporting leather footwear unless a rationalization of the supply sector takes place.

Apart from this problem however, and if exports on non-leather footwear are considered, there is also the problem of limited capacities of individual firms. "Joint production" efforts is one scheme to meet the volume requirements of the export sector. But if simply addressed to the capacity problem, such efforts tend to be short-lived. Such ventures must be capable of managing consortia type of operations, and achieving uniformity in design and quality is the first major stumbling block.

The practical problems of tapping the export market go beyond considerations of cost effectiveness. While the Philippines has a long history of exports, these were pri-

mary products. Export marketing of manufactured products pose more difficulties and in a sense demand more skills - something that even large firms are probably only beginning to develop. Marketing skills are required in obtaining and evaluating market information, design, standardization, quality control, penetrating the foreign market, setting up channels of distribution and a foreign sales organization, providing credit arrangements, etc.

Clearly, some form of government assistance is needed here:

1. Perhaps under the umbrella of existing exports promotions program, further studies should be undertaken to develop export market information in the aforementioned areas. Such studies should proceed on a country by country, and product by product analysis. Part of this investigation should be to develop an information monitoring system and product promotions scheme.
2. The tasks that will need to be undertaken are:
  - a. Identification of specific products with export potential;
  - b. Market studies by product and by potential country of destination, with particular emphasis of the above mentioned areas of export marketing;

- c. Development of institutional mechanisms by which such information is periodically monitored and evaluated, and disseminated to the industry;
- d. Development of specific promotions programs.

### 3.0 Additional Considerations for Growth

Whether for the domestic or foreign markets, what is desired is an environment whereby efficient firms are rewarded. Individual firms must be permitted to grow (and this is particularly crucial to export-oriented firms) but what needs to be emphasized is that the growth process should not lead to a loss of efficiency.

The following approaches are suggested:

1. Small-scale labor intensive firms play a useful role. Nonetheless, they should also be encouraged to increase productivity through technical assistance, e.g. training. The fact that money wages are low is no assurance of low costs if output per labor is correspondingly low. Mechanization is perhaps necessary to increase productivity but in the form of manually operated machines, e.g. hand cranked splitting machine. Apart from servicing domestic requirements for low cost footwear, the potential of small-scale firms to produce hand-crafted (highly labor intensive), high-quality and premium priced footwear should be pursued, particularly for the export market. The latter strategy has been suggested before (REDC, 7). Perhaps what is needed is a more concrete action plan.

2. The expansion of firms will likely require tapping the labor pool in the unorganized and small-scale sectors. With the current wage policies and structure in the organized sector, e.g. social security contributions, large firms must realize increased labor productivity in order to maintain cost efficiency. This is no doubt the product of various factors: training of workers, appropriate work attitudes and discipline, improved managerial capabilities, and the appropriate choice of technology for medium- and large-scale operations.

It is noteworthy that there are already on-going efforts in training of footwear workers. Such efforts should be sustained. It should also be emphasized that training in management, particularly production management and quality control, is likewise essential.

3. Mechanization should be viewed as one alternative, to be subjected to evaluation in terms of economic benefits and costs. Firms should be encouraged to adopt machine-labor combinations that complement, rather than displace, labor. Equipment and process technology should be chosen that tend to increase output per head. Technical assistance should perhaps be extended in this area. Studies should be undertaken to identify the appropriate process technology at various scales of operation and the corresponding machine requirements.

Such studies should already begin to consider the possibilities of large-scale specialization and the development of footwear components manufacturers. It is not just footwear firms who stand to benefit from such information. Financial institutions no doubt will find some reassurance in the technical and correspondingly, market feasibility of projects proposed for financing.

4. The problem of financing is not unique to the footwear industry. Any financing program for the industry must be viewed in a wider context relative to on-going reforms in the Philippine financial system. The financial problems cited appear to stem in part from the high risk, high transaction cost of dealing with small-scale establishments.

Measures may be explored to reduce actual or perceived risks. Some of these measures may include:

As previously suggested,

- a. feasibility studies of appropriate levels of output. This should perhaps be undertaken by industry associations, for access by lending institutions and footwear firms;
- b. Other forms of information sharing with lending institutions, such data as industry performance, evaluation of industry prospects, some form of credit information on both footwear manufacturers and buyers.

- c. Dialogue with lending institutions to explore such possibilities as use of purchase orders in lieu of traditional types of collateral; and
- d. Studies of possible export financing schemes, especially for budding exporters such as guarantee schemes.

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#### IV. THE LEATHER INDUSTRY

##### A. Overview of the Industry

This study is directed at presenting the current state of business for the leather tanning industry in the Philippines. The industry has been criticized as one of the more inefficient Philippine industries, surviving only because of high rates of effective protection and in quite of poor and inadequate raw materials, under utilization of capacity and dependence on imports. (Bautista / 1 /, Jamaluddin / 1 /, World Bank / 8 /) In fact, user industries (footwear and leather products industry) have criticized the high cost, poor quality and unreliable supply of leather from domestic tanneries.

##### 1.0 Origins and Structure

The leather tanning industry in the Philippine began in 1903 in Meycauayan, Bulacan when Chinese craftsmen started making low quality leather. By 1918 there were about 50 such units making leather. The industry flourished so that at one time there were nearly 150 small manufacturer. But gradually these gave way to bigger establishments and presently there are only 13 or so big, organized tanneries and an unaccounted number of small backyard type tanneries (known in the industry by the vernacular term "sipa-sipa"). (Jamaluddin / 3 /) The relationship between the large scale operators and the small ones is one of the issues in the leather industry.

## 2.0 Economic Significance - Value Added, Exports and Imports

Table IV.1<sup>1/</sup> shows the gross value added in the leather and leather products industry. In nominal terms the increase in gross value added between 1981 and 1970 is tremendous, but in real terms it has increased by only 80% compared to the increased in value added for the whole manufacturing sector of 111%. As a result its share in the gross value added by the manufacturing sector has dropped over the decade.

Table IV.2 shows exports of leather and leather products. Export of leather products have been more continuous and are clearly more significant. Export of leather have been very erratic. Table IV.3 shows imports of hides and skins, leather and leather products. Imports of hides and skins have been increasing because of the domestic shortage of the material. Bautista attributes the shortage of hides and skins to the disincentive effect of the tariff structure on domestic hides and skins. Hides and skins could be imported with a duty of only 10% whereas leather had a duty of 100%. The table shows a marked decrease in leather imports over time.

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<sup>1/</sup> Some caution should be exercised in interpreting the published statistics as they lump together the leather and leather products industry. But if there is one conclusion to be drawn from this study it is that the characteristics of the leather tanning firm are very different from that of the leather products firm whether this be in size, production process, or problems.

TABLE IV.1

GROSS VALUE ADDED IN THE LEATHER  
AND LEATHER PRODUCTS INDUSTRY, 1970-1981  
(in million pesos)

<u>Year</u>	<u>Current Prices</u>	<u>Constant Prices in 1972</u>
1970	17	30
1971	20	24
1972	22	22
1973	26	25
1974	36	26
1975	42	30
1976	50	31
1977	61	34
1978	51	26
1979	108	48
1980	130	51
1981 <sup>P</sup>	157	54

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<sup>P</sup> Preliminary estimates as of January 1983

SOURCE: Philippine Yearbook 1982 and 1974, NEDA

TABLE IV.2

## FOB \$ VALUES OF PHILIPPINE EXPORTATION OF LEATHER AND LEATHER PRODUCTS

	Total Philippines Exports (A)	Leather Exports (B)	Leather Products Exports (C)
1960	₱535,437,477	-	280,946
1961	540,748,369	-	214,267
1962	582,933,024	1,261	154,860
1963	770,570,492	-	803
1964	779,375,569	-	3,998
1965	795,734,890	-	5,608
1966	877,405,702	3,685	1,500
1967	891,502,116	-	-
1968	962,114,110	-	-
1969	983,172,917	-	2,199
1970	1,142,191,237	-	6,819
1971	1,189,247,194	-	5,931
1972	1,168,433,138	22,184	15,515
1973	1,837,188,097	136,156	38,654
1974	2,724,989,237	31,202	219,001
1975	2,294,470,333	600	157,073
1976	2,573,675,684	38,685	436,277
1977	3,150,886,989	-	624,587
1978	3,424,876,025	7,378	1,698,418
1979	4,601,189,916	235,683	1,862,693
1980	5,487,787,554	304,883	2,967,757

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SOURCE: Foreign Trade Statistics, NCSO

TABLE IV.3

PHILIPPINE IMPORTS OF LEATHER AND LEATHER  
 GOODS 1950-1976  
 (f.o.b. value in thousand U.S. dollars)

<u>Year</u>	<u>Hider and Skins</u>	<u>Leather</u>	<u>Leather Footwear</u>	<u>Leather Products</u>
1950	n.a.	4070.7	721.7	60.4
1951	n.a.	4530.7	433.	1114.7
1952	35	2670.1	524.9	120.6
1953	22	5140.0	268.5	80.0
1954	113	5049.1	297.7	56.1
1955	398	4142.9	301.5	44.0
1956	357	3428.6	156.2	17.4
1957	578	3534.5	137.5	12.8
1958	206	2933.0	242.6	53.6
1959	526	2620.8	33.6	48.6
1960	334	2190.3	25.2	16.4
1961	186	1664.3	39.7	23.9
1962	104	659.9	71.8	14.3
1963	135	422.4	34.3	101.1
1964	463	485.5	73.0	84.8
1965	436	298.8	24.8	12.1
1966	610	282.0	27.8	10.7
1967	682	312.3	32.3	6.9
1968	663	306.7	21.1	16.7
1969	634	256.1	22.1	6.2
1970	600	137.9	30.3	5.0
1971	371	177.9	29	1.9
1972	123	111.2	4.8	2.8
1973	426	193.1	4.2	5.7
1974	938	276.0	8.9	10.3
1975	2001	261.0	1.5	69.8
1976	2049	96.6	3.6	128.4

SOURCE: Bautista [1]

### 3.0 Some Industry Statistics

Table IV.4 shows some selected characteristics of leather and leather products manufacturing establishments with 5 or more workers. Over the period 1956 to 1971 there is no clear trend in the increase in the number of establishments. In fact in the latter part of the 1960's the number tended to drop and with it, the level of employment. The large number of small firms is highlighted by the fact that while there were 219 firms with 5 or more workers in 1977, there were only 29 employing 20 or more. (NEDA / 5 /)

The data presented by the NEDA Philippine Yearbook 1983 for the leather and leather products industry for 1978 is a little questionable owing to rather sharp increases in levels of employment, compensation value of output, etc. The data is reproduced below:

#### SELECTED INDUSTRY STATISTICS, LEATHER AND LEATHER PRODUCTS INDUSTRY

	<u>1975</u>	<u>1977</u>	<u>1978</u>
Number of Establishments	240	219	284
Total Employment (Average for the year)	2979	2939	8744
Total Compensation (000)	₱ 9302	₱11794	₱37175
Total Receipts (000)	₱85334	₱91778	₱455485
Capital Expenditures (000)	₱ 1602	₱ 2294	₱ 46045

SOURCE: Philippine Yearbook, NEDA

TABLE IV.4

SELECTED CHARACTERISTICS OF LEATHER AND LEATHER PRODUCTS  
 ESTABLISHMENTS WITH FIVE OR MORE WORKERS  
 (Selected years for which data is available)

<u>Year</u>	<u>Number of Establishments</u>	<u>Employment</u>	<u>Value of Shipments (000's)</u>	<u>Expenditure on New Fixed Assets (000's)</u>
1956	29	714	₱ 7,199	₱609
1957	48	1061	8,014	421
1958	40	1006	8,924	403
1959	35	1069	10,189	720
1960	48	1512	18,511	774
1961-	-	-	-	-
1962	59	1559	15,853	476
1963	67	1740	17,213	584
1964	101	2343	21,905	553
1965	71	2206	21,594	797
1966	70	2214	21,663	283
1967-	-	-	-	-
1968	56	2274	26,161	473
1969	65	2523	28,653	324
1970	68	1760	32,813	418
1971	85	1300	30,169	970
1972	-	-	-	-
1973	101	2262	57,788	539
1974	-	-	-	-
1975	-	-	-	-
1976	-	-	-	-
1977	219	2939	90,304	2,279
1978	284	8744	37,175	4

SOURCE: Philippine Yearbook, NEDA

#### 4.0 Investments in the Industry

Expenditures on new fixed assets in the industry are insignificant when compared to other manufacturing industries. The aggregate expenditure over the period 1956-71 (excluding 1961 and 1967 for which data is not available) amount to only ₱7.8 million or an average of ₱558,000 per year. Data subsequent to 1971 is spotty but there seems to be evidence of an increase in the number of establishments and employment. The study cannot offer a firm explanation for these but one possibility is that the increase is taking place in the leather products industry rather than the leather tanning industry. Another possibility is an increase in the number of small scale tanneries mentioned previously.

#### B. General Characteristics of the Sample

##### 1.0 Capacity

To gain a better understanding of the leather tanning industry, particularly from the perspective of the individual firm, ten tanneries were interviewed. The total output of the ten firms in 1980 was around 5.5 million square feet per year. Given the estimated total industry output of 30 million square feet per year and capacity utilization of 40% to 60%, the output of these respondent firms would represent between 30% and 46% of total industry output. Given full utilization of capacity, the firms are capable of potential output of 16.2 million square feet per year of leather or half of total industry capacity. Gross sales as reported by the ten firms amounted to around ₱26 million for 1980.

## 2.0 Years in Operation

Half of the respondents have been in operation for at least 16 years and nine out of ten are at least six years old. It would seem that the industry is not attracting new entrants. One study (Malinis / 4 /) has mentioned several barriers to entry. These are: heavy working capital requirements to finance inventories and receivables, domestic shortage of raw hide and high cost of chemicals and imported raw hide, required investments in machinery and equipment. The interviews confirm the impression that the industry is beset by problems that deter entry. Exit from the industry may also be difficult especially for the large firms that have substantial investments in fixed assets. Families operating tanneries may also be reluctant to move away from the business they have been in for a long time.

## 3.0 Organization and Location

Seven of the firms are single proprietorships and the rest are corporations. Most of the firms are owned and controlled by a family group and could serve as an example of the dominance of family owned or controlled firms in Philippine industries. All the firms are located in Meycauayan, Bulacan which is the acknowledged seat of the tanning industry in the Philippines. The town is close enough to its source of raw materials (hides and skins from slaughterhouses and abbatoirs in the Metro Manila area) and to the market (the footwear and leather products industries in Metro Manila, especially Marikina.)

#### 4.0 Employment

The ten firms employed a total of 512 employees. Three firms had less than 20 workers (but all had 10 or more), while the seven other firms had more than 20. Only 1 firm employed more than 100 workers. Five of the ten firms employed household labor in production but in most of them this was not quantitatively significant.

### C. Marketing - Supply and Demand, Distribution and Pricing Practices

#### 1.0 Supply and Demand for Leather

The principal market for leather produced by local tanneries are the footwear and leather products industries. Leather that is exported are of the kind made of reptile skins. Leather from cattle and carabao are poor in quality to be exported. In the domestic market, leather, which is relatively more expensive, is facing competition from synthetic materials. Relatively poor economic conditions heighten the shift to substitute materials.

The Board of Investments projected an apparent demand for leather in 1980 of approximately 32.6 million square feet which is roughly equivalent to its own estimate of total industry output.<sup>2/</sup> L.2-1 The BOI projection would seem to overstate the size of the market. In one estimate it assumed that each person would have a pair of shoes. (A related point: The World Bank study estimated that the only 20% of the population had leather shoes.) In

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<sup>2/</sup> Jamaluddin mentions an estimated leather requirement of 37.7 million square feet but does not mention his source.

another estimate it extrapolated demand on the basis of past consumption trends. This may be invalid as market condition have changed, e.g. the presence of cheaper leather substitutes. In any case, it would appear that growth in the leather industry will not be constrained by capacity or by demand but rather by shortage of raw material, inadequacy of financing, inefficiency and high cost. This statement is based on the industry studies are footwear and leather products. These industries often complained of inadequate supply, poor quality and high cost of leather.

## 2.0 Distribution

The leather market has been described as one with a high seller concentration and a low buyer concentration. (Malinis 4 /). Approximately 59% of the ten firm's total output of 5.509 million square feet was coursed through wholesalers while the balance was sold directly to the users (manufacturers). One firm was apparently into footwear or leather products manufacture and utilized a small portion of its output. These does not seem to be any major bottleneck in marketing or distribution as the market is concentrated in the Metro Manila area, especially Marikina.

## 3.0 Pricing and Credit Practices

Seven of the ten firms price their products with a variable mark up on cost while the three others have fixed mark ups. Gross profits for most firms are in the range of 15%-25% except for two firms reporting a gross margin of 6%

and 8%. These figures compare well with some of the published statistics for the leather and leather products industry. The table below shows some of these statistics.

TABLE IV.5  
SELECTED RATIOS FOR THE LEATHER AND LEATHER  
PRODUCTS INDUSTRIES <sup>1/</sup>

	<u>1974</u>	<u>1975</u>	<u>1976</u>
Total Cost per Gross Output	70.2%	86.6%	81.4%
Payroll (labor) cost per Gross Output	10.5%	15.3%	10.2%
Census Value Added <sup>2/</sup> per Gross Output	29.8%	24.9%	18.6%

<sup>1/</sup> 1974 and 1975 ratios are for establishments with 5 or more workers; 1977 are from all establishments.

<sup>2/</sup> Census value added is a measure representing the difference between the value of gross output and the total cost of materials, containers and fuel consumed, purchased electricity, contract work done by others and cost of resales.

SOURCE: Philippine Yearbook 1983, NEDA

It has been pointed out that a higher seller concentration coupled with a low buyer concentration would imply that prices are set by sellers. (Malinis / 4 /)

A large proportion of sales are done on credit resulting in high average receivables for most firms - ₱148,000 over nine firms that reported the figures. Eight of the ten firms reported that at least half of their sales were on credit. This, as well be noted later on poses a problem to many firms.

towards producing ordinary types of leather as it constitutes the bulk of local demand. High quality leather can be obtained only from quality hider and thru specialization in the manufacturing process. Specialization and efficiency go hand in hand but this calls for capacity utilization which imply an adequate supply of raw materials. (Jamaluddin 3)

## 2.0 Capacity and Utilization

Annual capacity of the larger tanneries is estimated at between 22 and 25 million square feet. Together with the small scale tanneries, total industry output is estimated at between 30 to 33 million square feet. (Jamaluddin 3) Most of the tanneries interviewed operate on one shift of eight hours, six days a week. Capacity utilization has been estimated at between 40% and 60%. In our sample of ten firms where capacities range from 100,000 square feet to 5 million square feet the weighted capacity utilization is estimated at 60%, with utilization ranging from a low of 40% to a high of 80%. This estimate is based on existing facilities and the 1980 labor complement. Under these assumptions the capacity of the ten firms is 9.08 million square feet. With additional labor but the same facilities the reported capacity would be 16.2 million square feet in 1980. Based on this measure, capacity utilization for the ten firms is 34%.

It seems that firm having lower level of capacity were able to utilize more fully with a 69.5% capacity utilization as against 57.2% for larger firms. (Small firms

are those with capacities of less than 1 million square feet per annum. There were six firms classified as such. The four others comprised the large firms)

The above findings are interesting in the light of what has been said about capacity or scale in leather tanning. According to a study undertaken in the United Kingdom economies of scale are not of major importance in the leather tanning industry, and where there are economies, there result from long production runs rather than size. (Jamaluddin / 3 /) Therefore while it is generally true that small uneconomical holdings do not survive or have to merge into bigger economic units, organized units in the small scale sector do thrive.

### 3.0 Large Tanneries and the "Sipa-Sipa"

This raises the issue of the "sipa-sipa" operators often complained of by the large tanneries. These small operators (whose number is largely unknown) provide competition to the large tanneries but without making substantial investments in fixed assets that the tanneries make. They generally employ a small floating labor force for tanning operations that they are capable of doing. (Leather tanning is still largely a labor intensive operation). They then subcontract to large tanneries the processes which need equipment and which they cannot do. In spite of the competition they pose, large tanneries with substantial excess capacities have no choice but to accept them.

Large tanneries feel that these operators are able to compete effectively because they are not burdened with the heavy investments that the large tanners have to make, they are able to determine their costs fairly accurately (since the raw material, labor and subcontracting fee are easy to determine) and therefore set their prices accordingly. They have more flexibility given the uncertain supply situation of hides and skins.

Large tanners however complain that "sipa-sipa" operators do not maintain quality standards, color uniformity and they even use good hides indiscriminately - thus tarnishing the good name of the entire industry. (Jamaluddin / 3/)

#### 4.0 Expansion Possibilities

The production capacity of the tanning process being labor intensive<sup>3/</sup> could easily be increased with an increase in the labor complement and/or adjustment in working hours and use of machines. (3) (In fact if the capacity utilization were to be computed using what the owners think is the maximum output with an ideal level of labor the rate would go down to only 34% utilization. This is much lower than the 60% computed on the basis of attainable output with the 1930 labor complement). This points to a substantial capacity to increase production.

This capacity to expand production by the employment

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<sup>3/</sup> It would appear from Table that labor costs account for only 10-15% of the gross value of output but if one relates this to the census value added per gross output the labor intensity of leather and leather products manufacture can be discerned.

of more labor and fuller utilization of equipment has the effect of raising potential capacity of the ten firms from 9.08 million square feet per year to 16.2 million square feet per year without substantial investments in equipment. Nine of the ten firms are presently operating on one shift of eight hours, six days a week. Only one firm reported working two shifts of eight hours, six days a week. One firm reported rotating employment among its labor force as they could not all be employed simultaneously.

However increased production is impeded not by technical know-how, labor or equipment but by insufficient supplies of local raw hides and high costs of imported materials such as tanning chemicals and raw hides. Local production of hides is low because of a small livestock population and a low rate of slaughter.

#### 5.0 Raw Material Supply and Quality

Quality of leather produced to a large extent depends on the quality of hides and skins used as raw material. The type of hides that are produced domestically are relatively thin. The problem of low availability of hides is compounded by improper maintenance of livestock herds. Livestock are kept out in the open air where thorny bushes, barbed wire fencing, ticks and flies scar their hides. It is almost impossible to dye the affected area the same color as the rest of the hide. (UNCTAD, / 6 /)

Improper flaying (taking of the hide or skin) of slaughtered animals also result in substantial losses. A skin which through bad flaying has one or two cut or

flay marks loses value out of proportion to actual damage. The improvement of flaying techniques depends on the modernization of the slaughterhouse. An increase in the number of abbatoirs would improve the quality of slaughtering and flaying. (UNCTAD, / 6 /)

Finally even if raw hides were available, tanning chemicals will still have to be imported as these are not produced locally. Chemicals used for tanning leather account for at least 20% of the total manufacturing cost and for certain types of leather, as much as 80%. (Jama-luddin / 3 /). Tanners interviewed complained of the high cost of imported raw hider and chemicals and attributed this to the high tariff imposed on these goods.

#### 6.0 Leather Using Industries

Since the development of the livestock industry will take many years it may mean that tanners will have to continue importing raw or semi-processed hider and skins and that leather users may have to continue importing leather to supplement domestic supplier. Given the traditional structures of protection this imposes a burden of the leather using industries, footwear primarily and to a lesser extent leather products. The effective rate of protection on leather has been estimated at 145% and in domestic resource cost at 9.55 (compared to a shadow exchange rate of 9.21) (World Bank / 8 /). Bautista estimates the DRC of the tanning industry at 9.79 using 1974 input output data, and 11.27 and 12.13 respectively, for two firms, using 1977 establishment data. / 1 /

The strict implication of these figures is to suggest that it would be more economical to import leather (at ₧9.21) rather than produce it at ₧9.55. (World Bank, / 8 /)

This burden is being borne by industries which have been evaluated as efficient in generating or saving foreign exchange. DRC for footwear is ₧6.47 (EPR is 13%) and for leather products it is even lower ₧6.25 (EPR is - 27%). (World Bank / 8 /) Bautista estimates the DRC for the leather products industry and the leather footwear industry at 6.43 and 6.53 respectively, using 1974 input output data. At the firm level, DRC for two leather products firms were computed at 9.88 and 5.73, while for two firms in the leather footwear industry it was 5.75 and 4.18 / 1 /

These industries therefore must be relieved of the deadweight of an inefficient tanning industry. A World Bank mission has gone to the extent of recommending that "all export firms should be permitted to import raw materials duty free." Some of the leather producers interviewed have also clamored for the same.

#### 7.0 Prospects and Alternatives

In spite of the rather bleak picture in the leather tanning industry it doesn't seem realistic to just let the industry collapse with the entry of imports. The World Bank recommends a long term (10 year) program for developing a high-quality leather tanning industry which could tie in with the governments efforts to develop the livestock industry. Bautista / 1 / says that in the long run the tanning industry must improve its productivity. Although

there has been very little investments on the leather industry, only \$25 million between 1960 and 1975, from an individual firm standpoint these may still be substantial. The ten firms interviewed expressed an intention to move out of the industry even if all of them acknowledged the difficult problems of the industry.

An UNCTAD study has suggested that developing countries should undertake processing of hides and skins only up to the "wet blue" stage. Up to this stage the processing is highly labor intensive and does not require expensive machinery. Beyond the wet blue stage, chromium salts, which are expensive and may have to be imported, are required. Furthermore, while the competitive situation for finished leather internationally is very keen it is not so for semi-processed skin and hides. (The nearer the state of the material is to the raw skin, the less is the tanner limited in his choice of the kind of leather he is to produce). This presumes that the quality of hides is not as bad to exclude it from the export market. (UNCTAD 167).

A possible future scenario may have the following elements:

1. Export grade hides and skin may be processed up to the wet blue stage by both large and small tanners until such a time that sufficient quantity of quality hides is available and the level of skill is such that the finished product is of high quality. As indicated earlier high quality leather is capable of being produced but this implies specialization and

adequate supply of raw materials.

2. Low grade hides and skins may be processed into leather for domestic consumption. They may still have a market especially in the low price end of the footwear and leather products market. Liberalized imports of leather semi processed and raw hides should bring down the price of leather. This may force marginal producers out of business unless they improve their productivity and efficiency. This will benefit the footwear and leather products industry and ultimately the consumer. Industrial uses of leather, e.g. gaskets, may also be investigated.
3. Imports of leather will be liberalized especially for export oriented footwear and leather products firms.

#### E. General Management Practices

##### 1.0 Ownership and Management

Most of the respondent firms are family owned. In seven out of the ten firms the owner is solely or jointly responsible for the various managerial functions. Even in the critical aspects of production, such as the production process, product quality and choice of machinery the owner is the "source" of information in seven or eight firms. There is little to indicate professional sources as publications, government agencies, consultants. In only two or three are the suppliers (mostly of chemicals) pointed to as source of information on the technical aspects of tanning.

## 2.0 Planning

In most of the respondents very little planning and budgeting is done. Considering that some of the firm are fairly large one would probably expect more planning and controls. For example, large tanners complain about the ability of small tanners to price more competitively. They could easily overcome this if they improved the cost accounting system. The use of standard costing and variance analysis may be applicable to the tanning industry.

It is disappointing to note while firms prepared income statements and balance sheets, only one said it was used for decision making, the rest were simply complying with reportorial requirements of government agencies. In only six to seven firm were there other reports on sales and collections, production and inventory and purchases. Again the use of this reports in decision making is very low. Finally, while almost every firm said it had some financial problem, generally inadequacy of capital, only four firms prepared cash flow forecast.

Some of the poor managerial practices may be the result of the problems facing the firms. Upgrading technical competence or managerial competence may not be worth it from the point of view of the firm when there are so many other constraints that need to be overcome, e.g. raw materials shortage. However, it is also probably true that technical and managerial inadequacies are a cause for some of the firms problems. Subsidized technical assistance has been recommended to improve productivity. (Bautista / 1 /)

Managers shells may also have to be upgraded.

F. Financing - Sources and Problem

1.0 Sources of Financing

Inadequate financing is a problem cited by most respondents. Although all of them were able to secure financing from suppliers, only half were able to borrow from banks. Supplier's credit terms were typically 30 days to 90 days but in some cases extended to 120 days. The amount of average suppliers credit ranged from ₱10,000 to as high as ₱120,000. Collateral was not required and in only one case was a discount rate (10%) cited.

For the five respondents who were able to borrow from banks, three cited credit terms of 3 years, one said seven years and the other had no response. The amount of average borrowing ranged from ₱50000 to ₱390000. In all cases the borrowing was secured; in four instances by real estate and in one case by trust receipt on imported chemicals. Interest rates charged ranged from 12% to 21%. Borrowing from other sources was not significant.

2.0 Problems in Financing

Nine out of ten respondents said they encountered some problem in borrowing. Fifty percent mentioned high interest rates and collateral requirements. Other difficulties mentioned were their poor financial condition, documentation and the cost of processing. Six out of the nine respondents who said they encountered problems also said that this prevented them from borrowing while the three others said it did not.

The character of the production process itself is such as to require a sizeable amount of working capital to be tied up in inventories and receivables. It is indispensable to keep at least three to six months stock of chemicals and raw materials. (Jamaluddin, / 3 /) It is not surprising therefore that most respondents said they would use additional funds made available to them for the purchase of raw materials. Purchase of additional machinery was also cited.

## G. Summary of Findings and Recommendations

### 1.0 Major Findings

It is apparent from the foregoing analysis that firms in the leather industry are facing difficulties and will likely continue to do so. Furthermore these problems spill over into the using industries as the leather footwear and leather products industry. More specifically the major problems are:

- 1.1 Inadequate supply and poor quality of domestic hides and skins. This is the principal constraint on higher capacity utilization and output and possibly productivity and efficiency.
- 1.2 High import cost of imported hides and skins and tanning chemicals. Leather tanners have augmented domestic supplier of hides and skins with imports. Already expensive, the cost is pushed higher by tariffs. Nevertheless the industry remains heavily protected because of the even higher tariff on finished leather. This shelters the domestic tanning industry from foreign competition and encourages inefficiency.

1.3 Inadequacy of capital and available financing. While this is a problem common to many industries it may be more acute for the tanning industry. It would seem that the industry is not a particularly "bankable" one with its raw materials problem and low capacity utilization.

1.4 Inadequate technical and managerial skills to achieve an efficient operation and quality output. Tanning is a precise chemical operation that requires know-how and experience. Given the circumstance in which it is operating in, managerial skills are also required.

## 2.0 Some Recommendations

2.1 The problem of the leather tanning industry requires long term solutions. The problem of raw hide supply may be solved with increased livestock production. While livestock production is already receiving government support, it will take time before its impact would be felt. In the meantime however a coordinated system for gathering hides and skins of slaughtered livestock must be devised. Many people who slaughter livestock are unaware of the economic value of hides and skins. Much less are they informed on the proper way of flaying the hide to preserve its quality and value. Maintenance of livestock and the proper preservation of hides and skins are also essential to boosting and improving quantity and quality of hides and skins.

- 2.2 It may still be necessary to import raw or semi-processed hides or even finished leather. This will alleviate problems on supply and quality for leather using industries, especially if they are to export their product. Entry of such materials without substantial tariffs being imposed will also force domestic tanners to improve the efficiency of their operations and the quality of their product. Duty free import especially for those who will reexport their products might even be considered. As the solution to the raw materials problem is long term, the improvement of productivity may also only be achieved over a long term. This may eliminate some marginal producers.
- 2.3 The problem of inadequate capital is not unique to the leather tanning business. Almost every Philippine industry would probably say it needs more capital. It would not seem fair to develop special financing facilities for the leather tanning industry. Improvements in productivity and efficiency should relieve some of the financial problem in the long run. Neither does it appear that the industry will require substantial investments given its present underutilization of capacity. Financing the foreign exchange requirements of imported inputs may be a problem as the industry itself does not directly earn foreign exchange. However, arrangements could be made so that foreign exchange earnings of the footwear and leather products industries are recycled back to the tanning industry.

2.4 Technical assistance to improve productivity, efficiency and quality is an area where government can help. There is no known agency that regulates, much less assist, the tanners. While the tanners may have their associations they have no clear counterpart in government. As noted by one tannery owner, the technology in tanning leather is a very precise one and one that is continuously developing. Dissemination of proper practices beginning with the maintenance of livestock till the final stages of the tanning process itself can be done through the associations with the assistance of government. Managerial practices in the tanning firm may have to improve and again the association may provide the venue for this.

## V. LEATHER PRODUCTS INDUSTRY

### A. Overview of the Industry

This study covers the manufacture of products made primarily of genuine leather but excludes footwear which is discussed in Chapter III. This study would cover only a subset of PSIC 32321 and 32329 which covers the manufacture of products made of leather and leather substitutes. Products covered by this study include bags, luggages, belts, wallets, purses and similar products.

Leather products manufacturing is a labor intensive industry with good export potential. Moreover, it can be organized as a small scale industry. (UNCTAD 17). For these reasons leather products manufacturing may be an appropriate industry for developing countries. Its development can be enhanced if the problems that beset the industry can be understood and if the correct incentives and policies are adopted. This study is aimed at identifying such problems and constraints and suggesting measures for overcoming these difficulties. While many studies have been done on the footwear industry and the leather tanning industry there is not much for leather goods apart from footwear.

### B. General Characteristics of the Sample

#### 1.0 Scope

For the study twenty nine leather products manufacturers were interviewed. Most of those who are classified as leather products manufacturers actually use leather substitutes (vinyl, plastic, etc.) and did not

fall within the scope of the study. Table V.1 shows the number of respondents engaged in the production of some types of leather products. Most of the firms were not able to give reliable figures on prices, quantities, costs and other financial information. For small firms this could be traced to the inadequacy of record keeping while for the larger firms it was their reluctance in divulging such information. Nevertheless enough information may have been gathered to form some impression of industry practices and problems.

#### 2.0 Organization and Ownership

Twenty six, or ninety percent of the twenty nine respondents are organized as single proprietorships and the rest are corporations. All of the firms are being operating by their original owners. In twenty five firms, the person interviewed was the owner himself.

#### 3.0 Years in Operation

Table V.2 shows the distribution of respondents by the number of years they have been in operation. Over one-half have been in business for five years or less and most have been in operation for 10 years or less. There are two firms that have been in business for over 25 years.

#### 4.0 Location

Most of the firms interviewed were located in the Metro Manila area, particularly Marikina, with some located in Bulacan. See Table V.3 Location of Respondents, Leather Products Industry.

TABLE V.1 NUMBER OF RESPONDENTS ENGAGED  
IN MANUFACTURING AND SUB-  
CONTRACTING OF LEATHER PRODUCTS,  
BY PRODUCT TYPE

<u>Product Type</u>	<u>Number of Firms<sup>1/</sup></u>		<u>% to Total Respondents</u>	
	<u>Manufacture</u>	<u>Sub-Contract</u>	<u>Manufacture</u>	<u>Sub-Contract</u>
1. Bags	18	1	18%	3%
2. Wallets/ Purses	17	1	59	3
3. Belts	20		69	
4. Footwear <sup>2/</sup>	8	1	28	3
5. Others <sup>3/</sup>	9	1	31	3

<sup>1/</sup> A firm can be in more than one product type.

<sup>2/</sup> In most cases where footwear is reported it constitutes only a small percentage of production.

<sup>3/</sup> Other leather products mentioned (but relatively insignificant in volume) include holster, gloves, industrial bags, jackets.

TABLE V.2 DISTRIBUTION OF RESPONDENTS  
BY YEARS OF OPERATION,  
LEATHER PRODUCTS INDUSTRY

<u>Years of Operation</u>	<u>Frequency</u> <sup>1/</sup>	<u>%</u>
1 - 5	16	55%
6 - 10	8	27.5
11 - 15	3	10.5
16 - 20	-	-
21 - 25	-	-
25 and over	<u>2</u>	<u>7</u>
T o t a l	<u>29</u>	<u>100%</u>

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<sup>1/</sup>All respondents are original owners.

TABLE V.3 LOCATION OF RESPONDENTS,  
LEATHER PRODUCTS INDUSTRY

<u>Location of Main Office</u>	<u>Frequency</u>	<u>%</u>
First District, Metro Manila	5	17.3%
Second District, Metro Manila	17	58.6
Third District, Metro Manila	3	10.3
Bulacan	<u>4</u>	<u>13.8</u>
Total	<u>29</u>	<u>100.0%</u>

## 5.0 Size by Labor Force and Sales

Fifty percent of the firms had a labor force of 10 workers or less and only the two largest firms had a labor force in excess of 100. See Table V.4 Distribution of Respondents by Size of Labor Force, Leather Products Industry. Table V.5 shows the extent of employment of household members in the production process. The figures may appear to be low but the figures do not include cases where household members perform proprietorship functions, i.e., management and administration.

Table V.6 shows a rough idea of the distribution of firms by their level of gross sales in 1980. Unfortunately, seven respondents were unable to give their sales.

## C. Production

### 1.0 Raw Material Quality and Supply

The production of leather goods is a labor intensive activity that can be operated even on a small scale. (UNCTAD/7,)

As such it is an industry that is appropriate for countries that want to generate employment and entrepreneurial activity and foreign exchange earnings. For the industry to become competitive, especially in the highly quality-conscious export market, several conditions have to be met.

As discussed in the following section on marketing, quality of both material and workmanship and on-time delivery is critical. These might be difficulty for our leather products manufacturer to attain because of the

TABLE V.4 DISTRIBUTION OF RESPONDENTS BY  
 SIZE OF LABOR FORCE,  
 LEATHER PRODUCTS INDUSTRY

<u>Size of Labor Force</u>	<u>Frequency</u>	<u>%</u>
1 - 5	5	17%
6 - 10	10	35
11 - 20	5	17
21 - 50	5	17
51 - 100	2	7
101 - up	<u>2</u>	<u>7</u>
T o t a l	<u>29</u>	<u>100%</u>

TABLE V.5 EMPLOYMENT, OF HOUSEHOLD  
MEMBERS IN PRODUCTION  
PROCESS

<u>Number of Household Members Employed in Production</u>	<u>Frequency</u>	<u>%</u>
0	13	45%
1 - 2	11	38
3 - 4	2	7
5 - 6	<u>3</u>	<u>10</u>
T o t a l	<u>29</u>	<u>100%</u>

TABLE V.6 DISTRIBUTION OF FIRMS BY  
LEVEL OF 1980 GROSS SALES,  
LEATHER PRODUCTS INDUSTRY

	<u>Frequency</u>	<u>%</u>
0 - 20,000	1	3%
20,000 - 50,000	2	7
50,000+ - 100,000	6	21
100,000+ - 500,000	6	21
500,000+ - 1,000,000	2	7
1,000,000+ - 2,000,000	2	7
2,000,000+ - 3,000,000	1	3
3,000,000+	2	7
No answer	<u>7</u>	<u>24</u>
Total	<u>29</u>	<u>100%</u>

inadequate supply and poor quality of domestic leather. Inadequacy of supplies may mean that deadlines can't be met. (In a market where fashion and style change by the season, delays may be critical.) Poor quality leather or inconsistency in quality may lead to a rejection of the product.

The problem of poor leather quality goes back to the leather tanning industry and even further back to the livestock industry where the hides and skins originate. Inadequate and poor quality hides and skins result in poor leather quality. Development of adequate and quality leather supplies may take time. (Jamaluddin/36, World Bank/87)

Some respondents have turned to imported leather but they said that with the heavy tariff on finished leather the cost of their products becomes uncompetitive. It is not only in leather that the manufacturer have a problem. They also have to import the accessories (buckles, locks, frames, etc.) as the locally produced ones are not of good quality.

## 2.0 Craftsmanship and Quality Control

The craftsmanship that goes into the product is another crucial element and so is quality control. This requires training of workers not only in the manufacturing process itself but also in management. Unskilled labor may result in inconsistent quality. Most of the firms interviewed preferred to accept workers that were already skilled but they also accepted trainees and

apprentices. (This may be due to the rapid turnover of workers which is another problem.) In only 2 firms was the training done through trade or vocational schools and only one firm dealt with government training agencies.

In only seven out of the 29 firms was there a separate staff to check on product quality. In most other firms quality control was exercised by the owner and in a few cases by the workers themselves (which could very well be no control since most workers are paid on a piece rate basis.) Only 15 said they were aware of product standards but there was little evidence that they knew the standards well enough or applied it rigorously (Most statements on product standards were vague.)

### 3.0 Product Design

It has been pointed out that originality of design is not important even in the international market. (UNCTAD/77). It is common practice to copy products. What is important is that the styles and design are current and up-to-date. This means that producer must be very sensitive to trends in the major leather goods market. This may mean establishing a presence in these markets and this is something that only the large producers or government can do. It has been therefore recommended that developing countries stick to traditional designs that are not sensitive to changes in fashion. (UNCTAD/77).

#### 4.0 Mechanization

Finally even if leather product manufacture is labor intensive certain aspects must be modernized and this requires investments in facilities and equipment. Sewing, for example, must be mechanized particularly where the product is man produced. While virtually all respondents had sewing machines and half had skiving machines only the very large firms had wider range of equipment. Furthermore, it was not surprising that some equipment were 15 to 20 years old.

#### D. Marketing

##### 1.0 Channels of Distribution

Although 13 of the 29 respondents have at one time or another exported their products, the market for leather products is still primarily domestic. Only eight firms exported in 1980. One of the two largest firms (in terms of labor force) was able to export 80% of its output and there were two or three other companies where the bulk of the output was exported. But for the other firms exports were marginal or non existent.

The most preferred outlet are domestic wholesalers and a large proportion of the output is coursed thru them especially by small scale manufacturers. (See Table V.7. Types of Market Outlet, Leather Products Industry). The larger firms coursed the bulk of their output directly to the department stores. The need for a middleman in the case of small producers may stem from

TABLE V.7 TYPES OF MARKET OUTLET, LEATHER PRODUCTS INDUSTRY

Column	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
<u>Type of Outlet</u>	<u>Frequency Using this Type</u>	<u>% to Total Respondents</u>	<u>Number of Firms</u>			<u>% to Column 1</u>		
			<u>Using this Type Exclusively</u>	<u>Ranking This Type First</u>	<u>Using this as Main<sup>4/</sup> Outlet</u>	<u>Column 3</u>	<u>Column 4</u>	<u>Column 5</u>
1. Own Retail	16	55%	3	5	7	19%	31%	44%
2. Other Retail <sup>2/</sup>	12	41	4	5	8	33	42	67
3. Wholesaler <sup>3/</sup>	13	45	1	11	8	8	85	62
4. Exporting Firms	8	28	-	5	4	-	63	50

<sup>1/</sup> A firm may use more than one type of outlet.

<sup>2/</sup> Other retail includes department stores, tourist shops, etc.

<sup>3/</sup> Wholesaler includes agents, middlemen, etc.

<sup>4/</sup> Main outlet refers to outlet handling the largest percentage of sales.

an inability to market the product whereas larger firms are better organized to do their marketing. The most important reasons for preferring wholesalers were the greater convenience of dealing with only a few customers and the faster turnover of the merchandise. Most however felt that wholesalers were able to bargain for lower prices.

Another principal outlet are department stores as they are also able to buy in bulk. In a few instances however, respondents said they just had to leave their goods on consignment and this resulted in a rather slow turnover. The least preferred outlet seemed to be retail selling by themselves. Respondents felt that ~~turnover~~ <sup>turnover</sup> was too slow relative to effort and capital involved in maintaining their own retail outlet. Although many still sold on a retail basis the quantities are marginal.

An important factor in preferring an outlet was the promptness by which the buyer paid. This is understandable considering that most of these firms are undercapitalized. However, it does not appear that certain outlets were quicker or slower in paying its purchases relative to others.

## 2.0 Pricing and Selling Terms

Forty five percent of the respondents added a variable mark up over cost in pricing their product. An equal number tacked on a fixed mark up while the rest

adjusted their prices to prevailing market prices or were set by the buyer. See Table V.8 Pricing Practices, Leather-Products Industry. In firms where the mark up is variable, this is usually dependent on the market outlet (retail sales having higher mark ups than wholesale) and on the style, design and materials used (complicated styles and designs and expensive materials would have higher mark ups.)

A large number of firms reported selling on credit and for most of these firms credit sales were substantial. See Table 9 Distribution of Firms by Percentage of Credit Sales to Total Sales. As stated earlier some manufacturers just leave their products on consignment with retail outlets. It is clear that these practices put a heavy strain on the finances of these firms, most of whom have limited capital and limited access to financing. This may be aggravated by the seasonal sales pattern (27 of the 29 responded that sales were seasonal) which create uneven demand for working capital at different times of the year. The heavy demand during Christmas time may require financing purchases and production costs a few months before December and financing receivables require that these be extended a few months after December. These issues will be discussed in greater detail in the section on financing.

TABLE V.8 PRICING PRACTICES, LEATHER PRODUCTS INDUSTRY

	<u>Frequency</u>	<u>%</u>
1. Variable markup on cost	13	45%
2. Fixed markup on cost	13	45
3. Adjusted to prevailing prices	2	7
4. Buyer determined	<u>1</u>	<u>3</u>
T o t a l	<u>29</u>	<u>100%</u>

TABLE V.9 DISTRIBUTION OF FIRMS BY PERCENTAGE  
OF CREDIT SALES TO TOTAL SALES,  
LEATHER PRODUCTS INDUSTRY

<u>Percentage of Credit Sales</u>	<u>Frequency</u>	<u>% to Total Respondents</u>
No Credit	3	10%
1 - 10%	-	-
11 - 25%	2	7
26 - 50%	5	17
51 - 75%	8	28
75 - 100%	<u>11</u>	<u>38</u>
T o t a l	<u>29</u>	<u>100%</u>

### 3.0 Prospects in the Export Market

The market for genuine leather articles in the Philippines is threatened by the use of leather substitutes which are often cheaper. Leather products manufacturers may have to turn to the export market to sustain them. However penetrating the export market requires that certain conditions be met. These conditions are:

1. Workmanship - high quality and consistency
2. Quality of raw materials
3. Delivery - on time delivery is a must
4. Price - competitive and reasonable (UNCTAD/76) (L13)

The details of these have been discussed in the preceding section.

## E. Management

### 1.0 Extent of Owner Participation in Management

Small scale operation of leather products manufacturer should not preclude the improvement of productivity, product quality and competitiveness through better management. These are essential if the industry is to grow not only locally but more importantly in the export market. Table V.10 to V.13 give an idea of the managerial practices that obtain in the respondent firms.

Table V.10 shows the extent of owner participation in managerial functions. In over one half of the firms the owner participates in various managerial functions. This again somewhat understates the picture because typically

TABLE V.10 EXTENT OF OWNER PARTICIPATION  
IN MAJOR MANAGERIAL FUNCTIONS,  
LEATHER PRODUCTS INDUSTRY

<u>Functional Area</u>	<u>Where Owner Participates in Managerial Function</u>	<u>% to Total Respondents</u>
Production	18	62%
Finance/Accounting	20	69
Marketing	17	59
Purchasing	14	48
Administration/ Personnel	18	62

the wife or the children are also responsible for some functions. Only in the fairly large firms were these functions exercised by persons other than the owner or his family.

Table V.11 , shows the role of the owner in particular aspects of production indicate the dominant role of the owner especially in choice of machinery, production process and product quality. Only in product design does the owner turn to other sources of information such as trade journals and customers.

## 2.0 Extent of Preparation and Use of Business/Financial Reports

Table V.12 and V.13 show the extent of preparation and use of business reports. Around three fourths of the firms interviewed prepared reports on production and inventory, sales and collection, and purchases. Only 60 percent of them however said they utilized this for decision making. Almost all firms prepared income statements and balance sheets but these were prepared mainly for submission to government agencies. Only 20% of those who prepared this report used it for decision making. Only eleven out of the 29 firms prepared cash flow statements. In the light of the financial problems cited by most respondents, preparation and more important use of financial and business reports becomes inoperative.

## 3.0 Planning

It should be noted that very little planning is being done by most firms. Only eight of the twenty nine

TABLE V.11 SOURCES OF INFORMATION ON DESIGN  
AND TECHNOLOGY, LEATHER PRODUCTS  
INDUSTRY

<u>Source</u>	<u>Area of Application</u>				<u>% to Total Respondents</u>			
	<u>Production Process</u>	<u>Product Design</u>	<u>Product Quality</u>	<u>Choice of Machinery</u>				
1. Owner	21	16	20	27	72%	55%	69%	93%
2. Journals/ Publications	5	17	1	1	17	59	3	3
3. Customers	2	14	5	-	7	48	17	-
4. Designers	2	6	2	-	7	21	7	-
5. Workers	3	4	4	2	10	14	14	7

<u>Type of Report</u>	<u>Frequency of Firms Preparing Report</u>	<u>% to Total Respondents</u>
1. Production and Inventory	21	72%
2. Sales and Collection	22	76
3. Purchases	22	76
4. Statement of Income and Expense	27	93
5. Statement of Assets and Liabilities	25	86
6. Cash Flow	11	38

<u>Type of Report</u>	<u>Reasons</u>				<u>% to Firms Preparing Report</u>			
	<u>Record- keeping</u>	<u>Decision making</u>	<u>Submission to Govern- ment Agencies</u>	<u>Borrow- ing</u>				
1. Production and Inventory	13	13	3	1	62%	62%	14%	5%
2. Sales and Collection	13	14	5	1	59	64	23	5
3. Purchases	15	12	3	1	68	55	14	5
4. Statement of Income and Expenses	5	6	26	4	19	22	96	15
5. Statement of Assets and Liabilities	6	5	24	4	24	20	96	16
6. Cash Flow	3	8	1	2	27	73	9	18

firms prepared some study before going into the business and only nine currently prepare budgets. But lack of planning may really be more a result of rather than the cause of the poor shape the businesses are in. Faced with so much uncertainty (in supply of raw material for example, or capital, i.e., they can't collect on time) they might think it is futile to plan at all.

## F. Finance

### 1.0 Financing Problems

Inadequacy of capital is one of the prevalent problems cited by the respondents. The data suggests that small-scale entrepreneurs with limited capital of their own also have limited access to borrowing. Selling on credit, increasing cost of materials, slackening demand worsen their financial problems. Table V.14 present problems that have been mentioned in securing additional financing.

Collateral requirement is mentioned as a significant problem specially by small firms who have very little assets that can qualify as collateral. Since collateral is often required by organized financial institutions, banks for example, it could be that such small scale operators would have very limited access to such sources. Table V.15, Source of Financing, Leather Products Industry, seems to bear this out.

Other problems that were mentioned were documentary requirements, cost of application and poor financial

TABLE V.14 PROBLEMS IN SECURING FINANCING,  
LEATHER PRODUCTS INDUSTRY

<u>Problem</u>	<u>Frequency</u>	<u>% to Total Respondents</u>
1. Collateral requirements	11	38%
2. Documentary requirements	8	28
3. Cost of Application/ processing	5	17
4. Poor financial condition/ performance	5	17
5. High interest rates	5	17
6. Maturity	5	17
7. No problem	8	26

TABLE V.15 SOURCES OF FINANCING,  
LEATHER PRODUCTS INDUSTRY

<u>Source</u>	<u>With Collateral</u>		<u>Without Collateral</u>		<u>T o t a l</u>	
	<u>Frequency</u>	<u>% to Total Respondents</u>	<u>Frequency</u>	<u>% to Total Respondents</u>	<u>Frequency</u>	<u>% to Total Respondents</u>
Supplier	7	7%	16	55%	18	62%
Bank	7	24	3	10	10	34
Private Money lender	2	7	5	17	7	24
Relatives Friends	-	-	3	10	3	10
Finance Companies	1	3	-	-	1	3

condition. However it must be pointed out that eight firms said they did not have any problems in financing and that three companies were able to borrow from banks on a clean basis. This is indicative of the wide gap that exists between small firms in the sample and large ones.

#### .0 Sources and Terms of Financing

The principal source of credit were suppliers. Eighteen of the twenty nine respondents availed of suppliers' credit. The amount financed by suppliers credit ranged from a low of ₱1,000 to as much as ₱500,000. The typical amount is in the range of ₱3,000 to ₱7,000. Around half of those who availed of supplier credit said that suppliers granted discounts. Discounts ranged from 3% to 10% and were typically 5%. The typical credit term is 30 to 60 days with 52% of the responses falling in this range. It should be noted however that the term could be as short as one to two weeks or could extend indefinitely in some rare cases. In only three cases was a post dated check required by the seller.

Private moneylenders were another source that did not require collateral. It is well know however that the implicit rate of interest in supplier credit is very high and that for private moneylenders is also excessive. (One firm reported borrowing ₱1 million at 30% per year and another ₱200,000 at 3% per month.) This means that small operators can only raise funds at very high cost.

Furthermore since suppliers only finance the materials component the entrepreneur will still be pressed for financing of labor and overhead.

Close to one third of the firms reported borrowings from banks with amounts ranging from ₱5,000 to one million. Interest rates ranged from 14% to 36% per year; but most were below 20%. Around half of the borrowing were for 1 year or less while the other half had maturities from 2 to 5 years. Virtually all were collateralized by real estate.

It has been mentioned that the large proportion of credit sales and lengthy credit terms (consignments, in fact) have contributed to the financial problems of the respondents. Substantial price concessions have to be granted for prompt payment. Promptness of payment was a reason frequently cited for preferring one outlet to another.

### 3.0 Uses for Available Funds

The principal use for additional funds that could be made available to the firm were purchase of machinery and of raw materials. This is not surprising since most of the small firms had only the most basic equipment (sewing machines) and most of these were very old. Purchase of raw materials could be motivated by a desire to increase production or at least stabilize their raw material supply. Erratic availability of raw materials is a problem of the industry.

### G. Conclusions and Recommendations

It is recognized that leather products industry has significant potential insofar as employment and foreign exchange earnings are concerned. The foregoing study has indicated some of the problems besetting the industry that may limit their potential. Therefore future policy with respect to the industry must address the following issues

- 1.0 Availability of Quality Raw Materials especially leather and accessories - Supplies are inadequate and quality is poor. This affects the efficiency and competitiveness of the leather product manufacturer, especially in foreign markets. They have to contend with high cost, poor quality domestic leather and when they do import, the imported leather is slapped a high tariff. The protection afforded the leather industry is a burden on the leather products industry.
- 2.0 Penetration of markets cannot be done by small scale manufacturer. The market, located mainly in Europe and USA, is too sophisticated for small scale manufacturers. A credible presence in their market must be established by Philippine producers either through an association or thru the government. The image will have to be created that the Philippines is an adequate and reliable supplier of quality leather products. Assistance in design, distribution, quality control will have to be lent to the small manufacturers.

- 3.0 Assistance in training for technical as well as managerial skills. Craftsmanship is very important in the target markets and so is cost competitiveness. The product need not be cheap but must provide good value. This can be answered by good quality raw materials, superior labor and competent management.
- 4.0 Assistance in financing to carry receivable, inventories and original fixed assets. Most small scale producers are under capitalized and have limited access to credit and if they do it is at a high cost. Investments in better equipment and adequate inventory are also necessary.

Major Findings

The analysis of both secondary and primary data revealed a number of major issues and areas of concern among the four industries covered by the studies. An appreciation of these problems, along with their antecedents and probable consequences, is an essential ingredient of the critical choices that have to be made at both the enterprise and policy levels. Many of these findings are common among the four industries under study, such as insufficient financing, lack of market information, and inadequate managerial and technical skills.

Among the other major problems of the wood-based furniture industry are: inadequate or unreliable supply of raw materials; and low, fluctuating and uncertain demand.

The footwear industry suffers from many of the problems usually associated with small-scale, backyard operations. In particular, producers in this industry were found to be disadvantaged by the dominant position of middlemen and large retailers; inadequate supply of quality raw materials, especially leather; limited production capacities of the larger number of establishments; and inadequacy of marketing information and skills, especially in regard to exports.

The leather products manufacturing industry was found to be troubled by unavailability of quality raw materials (again, especially leather); and inability to penetrate foreign markets owing to the small-scale character of production.

Finally, indications are that the leather tanning industry is beset by such major problems as inadequate supply and poor quality of domestic hides and skins, thereby adversely affecting capacity utilization and productivity; and high cost of imported hides and skins, and of tanning chemicals.

#### Policy Directions

Possible policy directions were explored in the studies. A few of these broad policy recommendations are applicable to small-scale industries as a whole. For example, it was noted that, due to risk factors associated with small enterprises, in general, and the high transaction costs, it might be worthwhile for the government and industry associations to provide some assistance to enable these establishments to find suitable financing. A good number of policy recommendations, however, would pertain to specific industries. The more salient ones are summarized below.

#### For the wood-based furniture industry:

- o Provide assistance in the export promotion effort through an adequate market research and information service;
- o Evolve a "rational" export development program based on prior market research and development efforts, and supported by adequate technical advice and assistance relative to technological, financial and other resource requirements associated with tapping what would initially appear as viable export markets.

For the footwear industry:

- c Conduct a conclusive assessment of possible monopolistic tendencies in existing domestic marketing mechanisms; study the feasibility of developing an alternative domestic marketing program, e.g., expansion of "shoe house" concept, with the objective of achieving greater efficiency and greater participation of footwear manufacturers in the financial benefits of the distribution process;
- o Develop a strong export marketing program, perhaps under the umbrella of existing institutional infrastructure for export promotion, with well-defined and carefully studied objectives in terms of specific exportable products, target countries of destination, and corresponding supply targets. Essential to such a program should be a sustained effort at gathering and disseminating export market information, and specific promotions program.
- o Sustain effort in assistance in training and development of workers and staff, particularly in the areas of production skills and managerial capabilities;
- o Provide guidelines and technical assistance in the choice of process technology and machinery, particularly for firms wanting to expand and/or firms with export potential; and
- o Develop and implement a rationalization program for leather supply sector.

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