Imports by large department stores and chains typically begin with their staff in the United States analyzing which types of products will be most attractive to their customers in the coming year. The purchasing department is then responsible for making decisions concerning order volume and which supplier to use. An overseas agent will then contact these suppliers and enter into negotiations. For particularly large or special orders, however, someone from the head office will often visit the supplying country to supervise the meetings and negotiations with suppliers directly. Negotiations and design considerations will be handled just as in the case of importers and distributors as described above.

Manufacturers which purchase products directly from overseas sources will typically develop their own detailed designs and specifications before entering into negotiations. Manufacturers may also pay closer attention to production methods at the supplier as well as to the possibility that other competitive importers are handling the same product.

The great majority of furniture imported from the Philippines and other ASEAN countries generally enters the United States at the ports of Los Angeles and San Francisco, although shipments bound for the Eastern seaboard are sometimes sent directly to New York. The two most commonly used carriers of furniture are reported to be SEALAND LINES and MARECKS.

Imports from the Philippines usually consist of mixed shipments in 40-foot container loads. Care must be taken to provide appropriate packing within the container, or damage to the furniture will result.

(3) Marketing Advice

1) Product strategies

1. Mahogany, rosewood, and other hardwood furniture:
   The ban on the harvesting of mahogany and other varieties of high-grade lumber has resulted in fears concerning raw material supply not just in the Philippines but in neighboring ASEAN countries as well. In the area of carving techniques, the Philippines falls behind Thailand and Malaysia, both of which have long traditions of skillful hardwood carving. Furthermore, Indonesia is now drawing on its own woodworking tradition to produce exclusive 18th-century English and American furniture under the guidance of master craftsmen from the United States, the Netherlands, and the United Kingdom. These pieces are of high quality and command retail prices as high as $20,000.
   Hardwood furniture prices vary greatly, and products range from rustic ethnic designs to sophisticated pieces for the executive office. If Philippines furniture manufacturers hope to break into the field of up-market furniture, they will first have to carry out aggressive sales campaigns targeting new buyers well acquainted with this market, in addition to their existing customers.

2. Ready-to-assemble (RTA) furniture:
   The earlier status of RTA furniture as a low-end line destined for sale at discount stores has given way to a broad range of products, with manufacturers in Europe and the U.S. now devoting most of their efforts in this sector to higher-priced items. At the low end of the market, competition among the ASEAN nations has intensified. Thailand and Indonesia have already established modern plants for the production of RTA furniture to be shipped to the United States. To succeed in this sector, the Philippines will

need modern plants and facilities, extensive retraining of its labor force, and substantial promotional efforts.

3. Specialty furniture (Combination furniture):
   Philippines manufacturers succeeded in developing specialty products incorporating metal, glass and marble together with natural materials such as rattan, hardwood and fossil by working with American, European and Japanese designers. This type of furniture is expected to become increasingly popular in the 1990s, and it is hoped that Philippines manufacturers will carry out substantial sales campaigns targeting furniture stores.

4. Rattan and cane furniture:
   Just under 50 percent of rattan furniture imported by the United States originates in the Philippines, and the country maintains a distinct advantage in terms of workmanship. If a stable supply of raw materials of the same quality as those available in Indonesia could be obtained, it would be possible to utilize these skills in the development of high-quality products for sale in high-end markets.

5. Contemporary/modern furniture
   A typical example is Scandinavian furniture, characterized by simple, clear, striking designs. Prices vary greatly; up-market pieces include exotic hardwoods and unique designs while the inexpensive products consist of very simple designs mass-produced from plywood.

2) Delivery

Delayed shipments are said to be a common occurrence in the Philippines, placing buyers in a difficult situation. In their dealings with the Philippines, buyers are looking for access to high-quality raw materials and political stability.

When suppliers are unable to secure sufficient raw materials for an order, the end result is either delayed delivery or delivery of products which do not conform to orders or specifications in terms of materials or quality.

The problem of political instability is not limited to the safety of American businessmen during their business trip to the country; guerilla activities, coup attempts, and strikes can disrupt both production schedule and shipment. Furthermore, such factors can make it impossible for the businessman to maintain the close oversight and communication which are necessary to ensure product quality and timely shipment.

3) Sales promotion

It is hoped that greater efforts at "High Point" international furniture fair, together with other sales efforts on the part of Philippines furniture manufacturers, such as the establishment of permanent offices in the U.S., will be used to build closer ties with U.S. buyers.

The establishment of permanent U.S. offices in particular would provide for a day-to-day understanding of market trends while facilitating the development of new markets and customers and offering a better understanding of the needs of existing customers.

4) Price policy

The total mark-up for products manufactured in the United States is generally 100 percent to 140 percent, while discount stores often sell with margins as low as 30 percent. In the case of Philippine products, the normal mark-up is reported to be about 140 percent to 150 percent, with higher figures for expensive, slow-moving items. The typical mark-up for discount store lines is about 100 percent. When compared with those manufactured in Europe and the U.S., for products produced in the ASEAN countries quality is less important than price.

The following are the general understanding within the U.S. business community on an international comparison of labor costs. While the hourly wage is now more than $7.00 per hour in the United States and $1.00 per hour in Taiwan, the typical wage for a skilled worker in the Philippines is only $4.00 per day. In Indonesia and Malaysia, the figure is as low as $2.00 respectively. In Thailand the typical daily wage is around $8.00, but many plants are proceeding with automation.

Table IV-1-1: World Imports of Furniture, 1983-1987

(Unit: US$million)

	1983		1984		1985		1986		1987		Average annual growth rate (%)
	Value	Share (%)	Value	Share (%)	Value	Share (%)	Value	Share (%)	Value	Share (%)	
(Chairs and their parts)											
World*	4,434	100.0	5,269	100.0	2,576	100.0	3,607	100.0	4,738	100.0	1.7
(Excepting U.S.A.)	(2,434)		(2,454)		(2,576)		(3,607)		(4,738)		(18.1)
U.S.A.	2,000	45.1	2,815	53.4	–	–	–	–	–	–	–
France	444	10.0	427	8.1	467	18.1	700	19.4	903	19.1	19.4
West Germany	433	9.8	426	8.1	413	16.0	583	16.2	777	16.4	15.0
Netherlands	205	4.6	191	3.6	207	8.0	317	8.8	422	8.9	-0.6
U.K.	183	4.1	195	3.7	215	8.4	274	7.6	352	7.4	17.7
(12 EC countries)	(1,518)	(34.2)	(1,509)	(28.6)	(1,592)	(61.8)	(2,302)	(63.8)	(3,047)	(64.3)	(19.0)
Japan	63	–	70	–	84	–	113	–	181	3.8	30.2
Australia	45	–	64	–	70	–	73	–	77	1.6	14.4
(Wooden furniture & its parts)											
World*	3,837	100.0	3,693	100.0	3,460	100.0	4,782	100.0	6,115	100.0	12.4
U.S.A.	–	–	–	–	–	–	–	–	–	–	–
France	512	13.3	449	12.1	447	12.6	665	13.9	843	13.8	13.3
West Germany	572	14.9	540	14.6	526	14.8	741	15.5	1,036	16.9	16.0
Netherlands	259	6.8	237	6.4	251	7.0	364	7.6	509	8.3	18.4
U.K.	354	9.2	378	10.2	398	11.2	545	11.4	656	10.7	16.7
(12 EC countries)	(1,956)	(51.0)	(1,851)	(50.1)	(1,889)	(53.1)	(2,738)	(57.2)	(3,623)	(59.2)	(16.7)
Japan	109	2.8	123	3.3	125	3.5	183	3.0	282	4.6	26.8
Australia	28	0.7	36	1.0	40	1.1	36	0.8	40	0.7	9.3

Note: * includes others
Source: U.N. Trade Statistics Yearbook

Table IV-1-2: Japan's Imports of Wooden Furniture, 1989

(Unit: ¥million)

	Seats	Wooden office furniture	Wooden kitchen furniture	Wooden bedroom furniture	Furniture with shelves (excepting cupboards & bookshelves)	Other wooden furniture	Total A	Wooden furniture parts B	Component ratio (%) A	Component ratio (%) B
(Asia)	(11,094.0)	(462.3)	(733.0)	(3,545.9)	(339.6)	(22,076.0)	(38,250.8)	(8,283.2)	(58.8)	(82.7)
Taiwan	2,904.0	54.5	304.3	2,217.8	291.7	11,276.3	17,048.7	2,344.5	26.2	23.4
R.O.K.	487.6	104.3	137.3	87.5	8.6	4,226.7	5,052.0	2,784.4	7.8	27.8
Thailand	3,178.5	28.3	132.6	157.6	3.0	2,841.4	6,341.6	1,993.1	9.8	19.9
Singapore	2,952.6	17.3	60.0	318.6	31.0	728.4	4,108.2	116.0	6.3	1.2
China	430.5	0	8.7	11.9	3.1	1,277.1	1,731.4	491.0	2.7	4.9
Malaysia	244.1	6.5	52.5	124.6	0	206.2	634.0	180.0	1.0	1.8
Indonesia	552.6	240.1	10.7	595.7	0	902.5	2,301.5	252.8	3.5	2.5
Philippines	93.6	3.7	1.9	4.7	0.8	72.3	177.1	104.2	0.3	1.0
(Europe)	(9,711.7)	(376.7)	(2,023.7)	(529.1)	(56.8)	(9,890.0)	(22,588.1)	(1,322.4)	(34.7)	(13.2)
Italy	4,117.7	179.5	210.8	264.0	13.1	4,225.6	9,010.6	426.3	13.9	4.3
West Germany	1,217.6	59.2	1,667.2	62.0	24.3	965.9	3,996.3	481.2	6.1	4.8
Spain	637.7	5.3	9.4	35.3	1.7	1,186.5	1,875.9	6.2	2.9	0.1
U.K.	461.1	3.7	12.2	13.9	3.3	1,228.6	1,722.8	15.3	2.7	0.2
Denmark	744.8	53.8	34.4	22.4	2.4	484.6	1,342.4	45.6	2.1	0.5
(North America)	(1,412.1)	(180.4)	(431.4)	(101.0)	(35.4)	(1,757.2)	(3,917.3)	(409.5)	(6.0)	(4.0)
U.S.A.	1,380.0	158.9	379.9	89.7	34.6	1,713.5	3,756.6	177.6	5.8	1.8
World	22,350.0	1,021.2	3,193.0	4,203.6	431.7	33,810.7	65,010.1	10,020.4	100.0	100.0

Source: International Development Association of the Furniture Industry of Japan

Table IV-1-3: Japanese Firms Goals in Off Shore Manufacturing in Asia

	No. of cases (A)	Measures to cope with higher yen	Labor force	Labor costs	Availability of raw materials	Securement of overseas market	Export to Japan	Export to third countries	Others	No answer
Total	14	2 (14.3)	7 (50.0)	8 (57.1)	6 (42.9)	2 (14.3)	7 (50.0)	2 (14.3)	–	–
R.O.K.	–	–	–	–	–	–	–	–	–	–
China	1	–	–	–	–	–	1 (100.0)	–	–	–
Taiwan	–	–	–	–	–	–	–	–	–	–
Hong Kong	1	–	–	–	–	1 (100.0)	–	–	–	–
Thailand	6	2 (33.3)	4 (66.7)	5 (83.3)	2 (33.3)	1 (16.7)	3 (50.0)	2 (33.3)	–	–
Malaysia	1	–	–	–	1 (100.0)	–	–	–	–	–
Philippines	1	–	1 (100.0)	1 (100.0)	–	–	–	–	–	–
Singapore	2	–	–	1 (50.0)	1 (50.0)	–	2 (100.0)	–	–	–
Indonesia	2	–	2 (100.0)	1 (50.0)	2 (100.0)	–	1 (50.0)	–	–	–
Other Asian countries	–	–	–	–	–	–	–	–	–	–

Note: Numbers in brackets indicate percentage (%) of A
Source: JICA Study Team

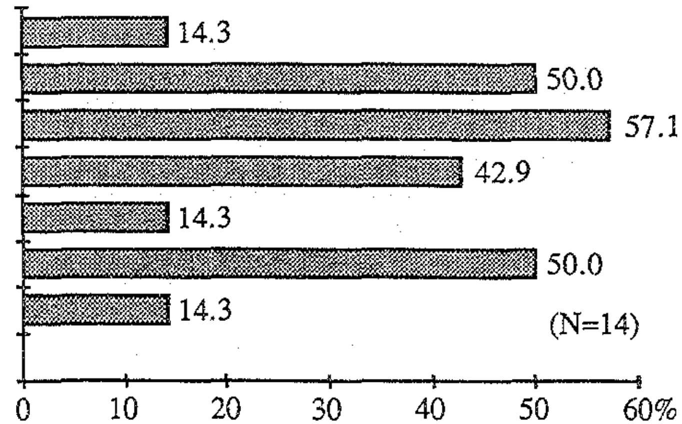


Table IV-1-4: U.K. Imports, 1988/89

(Unit: MT, £1,000, %, £/MT)

Commodity	1988 Quantity	1988 Value	1989 Quantity	1989 Value	1989 Value Share	1989 V/Q
821.1: Seats other than those of heading 672.401, whether or not convertible into beds, and parts thereof	85,486	230,880	87,633	238,332	21.6	2,719.7
821.15: Seats, n.e.s., with wooden frames	29,793	87,886	29,313	86,894	7.9	2,964.4
821.16: Parts of the seats of sub-group 821.1	18,657	59,583	20,046	61,815	5.6	3,083.7
821.2: Mattress supports: articles of furnishing or bedding fitted with springs or filled with cushion mat	6,596	18,561	7,216	20,471	1.9	2,836.9
821.29: Other articles of bedding (excluding mattress supports, mattresses of cellular rubber or plastics, mattresses of other materials, sleeping bags)	1,956	10,924	2,213	11,170	1.0	5,047.4
821.3: Furniture, n.e.s., of metal	50,875	117,324	56,089	143,198	13.0	2,553.0
821.5: Furniture, n.e.s., of wood	253,033	454,797	262,683	515,142	46.8	1,961.1
821.51: Of a kind used in offices	20,014	48,360	23,288	59,143	5.4	2,539.6
821.53: Of a kind used in the kitchen	56,908	127,084	48,475	112,579	10.2	2,374.8
821.55: Of a kind used in the bedroom	59,252	60,145	69,579	76,695	7.0	1,102.3
821.59: Other wooden furniture, n.e.s.	116,859	219,207	121,340	266,726	24.3	2,198.2
821.7: Furniture, n.e.s., of other materials (plastics, bamboo, others)	17,882	38,552	21,560	46,292	4.2	2,147.1
821.8: Parts of the furniture of headings 821.30, 821.50 and 821.70	70,978	128,573	65,407	136,131	12.4	2,081.3
82: Total		988,686		1,099,567	100.0	
EC		697,232		761,967	69.3	
Philippines		7,346		8,412	0.8	

Source: "Business Monitor" MM20

Table IV-1-5: Output of the U.K. Furniture Industry — Wooden Furniture

(Unit: £million, %)

	1985		1988		1989 (Jan.-Jun.)	
	Value	Share	Value	Share	Value	Share
Total	984.2	100.0	1,480.6	100.0	785.6	100.0
Domestic Wooden Furniture	886.5	90.1	1,276.7	86.2	667.1	84.9
Bedroom (not built-in)	200.2	20.3	278.6	18.8	143.7[a]	18.3
Kitchen (not built-in)	208.8	21.2	294.8	19.9	158.0[a]	20.1
Dining/living room (not built-in)	145.5	14.8	188.1	12.7	101.6	12.9
Occasional	66.1	6.7	96.4	6.5	51.1	6.5
Built-in furniture	229.3	23.3	379.5	25.6	195.8	24.9
Of which:						
Bedroom	61.6	(6.3)	105.8	(7.1)	(52.1)	(6.6)
Kitchen/other	167.7	(17.0)	273.7	(18.5)	(143.7)	(18.3)
Outdoor/other	10.8	(1.1)	24.3	(1.6)	(14.2)	(1.8)
Cabinets[b]	36.6	3.7	39.3	2.7	16.9	2.2
Non-domestic wooden furniture	97.7	9.9	203.9	13.8	118.5	15.1
Office seating (incl. adjustable)	5.0	0.5	20.4	1.4	15.3	1.9
Tables/desks	65.7	6.7	133.3	9.0	74.1	9.4
Filing	6.5	0.7	10.0	0.7	6.2	0.8
Other	20.5	2.1	40.2	2.7	22.9	2.9

Note: (a) = including some estimates.
(b) = including cold room and refrigerator cabinets (not separated out) as well as radio, television and gramophone combination cabinets.

Source: Business Monitor

Table IV-1-6: U.S. Imports of Household & Office Wood Furniture (excluding Rattan & Cane), 1989

(Unit: $1,000, %)

Ranking	Exporting country/area	Value	Share
	World	1,970,432	100.0
1	Taiwan	645,272	32.7
2	Canada	276,428	14.0
3	Italy	171,109	8.7
4	Yugoslavia	121,050	6.1
5	Mexico	114,823	5.8
7	Thailand	61,382	3.1
8	Singapore	51,329	2.6
11	South Korea	33,516	1.7
12	China	26,387	1.3
16	Malaysia	22,274	1.1
18	Philippines	15,840	0.8
19	Hong Kong	15,052	0.8
23	Indonesia	7,938	0.4

Source: U.S. Department of Commerce

Table IV-1-7: U.S. Imports of Household & Office Wood Furniture (excluding Rattan & Cane), 1985-1989

(Unit: $1,000, %)

Partner	1985	1986	1987	1988	1989	Average increase (1985-1989)
World	1,475,152	1,764,877	1,468,077	1,950,353	1,970,432	7.5
Thailand	9,224	14,974	34,075	61,937	61,382	60.6
Singapore	45,416	42,781	47,503	57,519	51,329	3.1
Malaysia	1,127	1,498	2,699	9,443	22,274	110.8
Philippines	4,827	6,654	7,316	8,069	15,840	34.6
Indonesia	1,423	1,348	2,638	2,878	7,938	53.7

Note: Because of the change in 1989 of the U.S. Department of Commerce classification system from TSUSA to HS, some discrepancies may exist between 1989 and previous year figures. The DOC stressed, however, that all possible steps were taken to minimize them.

Table IV-1-8: U.S. Imports from ASEAN Countries by Product, 1989 (A)

(Unit: $1,000, %)

	Wooden Furniture						Rattan Furniture	
	Total		Household Use		Office Use			
	Ranking	Value	Ranking	Value	Ranking	Value	Ranking	Value
World		1,970,432		1,824,525		145,907		199,910
Thailand	7	61,382	7	60,914	16	468	6	4,757
Singapore	8	51,329	8	50,872	17	456	–	–
Malaysia	16	22,274	16	22,246	–	28	8	3,270
Philippines	18	15,840	18	15,623	26	217	1	93,419
Indonesia	23	7,938	23	7,892	–	46	3	24,188

Table IV-1-9: U.S. Imports from ASEAN Countries by Product, 1989 (B)

(Unit: $1,000, %)

Ranking	Country	Principal Products	Value	Share
6	Philippines		123,293	100.0
		Rattan furniture, seats, chairs, parts	82,113	66.6
		Cane etc. furniture, seats, chairs, parts	11,273	9.1
		Furniture of other mats	11,272	9.1
		Miscellaneous wood furniture	8,034	6.5
		Wood chairs, non-upholstered	2,967	2.4
10	Thailand		75,381	100.0
		Miscellaneous wood furniture	29,072	38.6
		Wood chairs, non-upholstered	12,013	15.9
		Wood dining tables	4,180	5.5
		Wood kitchen dining tables	3,811	5.1
		Wood kitchen furniture	3,088	4.1
12	Singapore		52,963	100.0
		Miscellaneous wood furniture	24,127	45.6
		Wood chairs, non-upholstered	14,472	27.3
		Wood dining tables	6,204	11.7
		Wood furniture parts	2,078	3.9
		Wood bedroom furniture	1,378	2.6
15	Indonesia		33,065	100.0
		Rattan furniture, chairs, seats, parts	23,206	70.2
		Miscellaneous wood furniture	2,780	8.4
		Wood furniture parts	2,043	6.2
		Wood chairs, non-upholstered	1,652	5.0
		Cane, etc. furniture, chairs, seats, parts	982	3.0
20	Malaysia		25,700	100.0
		Wood chairs, non-upholstered	9,503	37.0
		Miscellaneous wood furniture	3,314	12.9
		Wood furniture parts	3,202	12.5
		Wood dining tables	2,912	11.3
		Rattan furniture, chairs, seats, parts	2,540	9.9

Source: U.S. Customs Service; U.S. Census Bureau; U.S. International Trade Commission, U.S. Department of Commerce

Compiled by: Furniture/Today

2. Wooden Furniture Industry in Asian Countries

2-1 The Thai Wooden Furniture Industry

(1) Industry/Export Situation

The number of furniture manufacturers registered with the Ministry of Industry has grown rapidly, from 243 in 1975 to 1,270 in 1987. Numerous large export-oriented plants are located in the Bangkok area, while teak and rosewood plants are centered around Chiang Mai in the north. Parawood plants can be found around Hatyai in the south and Rayong in the east. (See Table IV-2-1)

Thailand's wooden furniture industry is dominated by large manufacturers; according to industry sources about 30 of the largest companies are responsible for 50 percent of all production. The prevalence of large firms is especially notable among export-oriented firms, with the nine leading furniture exporters being responsible for fully 41 percent of total exports in 1985. In particular, those plants producing for export to the United States are characterized by ample processing space, a large variety of specialized machine tools (unlike Japan), and mass production systems. Since furniture production was begun only recently in Thailand, however, there is a strong tendency to rely on machinery for those areas in which manufacturing expertise and technology are lacking. As a result, a wide variety of machine tools can be found at these plants.

Problems currently facing the industry include an increasing shortage of technicians with facility and equipment-related expertise who are skilled in the operation, adjustment, and maintenance of machinery suited to the processing objective at hand. Likewise, the shortage of skilled workers able to correctly set the work efficiency of each equipment and the suitable amount of cutting and to select the cutting tools and other tools and judge their condition is becoming a problem.

The Thai furniture industry began to develop its potential as an export sector in the 1970s. This came as the result of several factors: 1) parawood first came to be used commercially as a furniture material ten years ago; 2) the BOI designated the rubber products sector as an industry for investment promotion; and 3) the Thai government enacted a ban on the export of logs in 1977.

1987 wooden furniture exports can be broken down according to destination as follows: the United States, 52.6 percent; Japan, 14.6 percent; Hong Kong, 9.7 percent; Singapore, 7.2 percent; and Canada, 1.6 percent. These five countries alone were responsible for 85.7 percent of all Thai exports of wooden furniture. (See Table IV-2-2.) Annual export volume is estimated at approximately 2,150 containers. Knock-down products accounted for 1,530 containers and assembled pieces for 620 containers. The percentage of knock-down pronets used to be rather high.

Most of the products intended for the U.S. market are distributed by direct mail and volume sales stores such as supermarkets and general merchandise stores. These goods fall into the low- and mid-range product categories in terms of both quality and price.

The reason for the relatively large percentage of exports to Singapore is the abundance of products which are reloaded onto other ships in the Singapore harbor for re-export. This is true of other manufacturing industries as well.

Products exported to Japan are characterized by higher quality than those destined for the United States.

(2) Manpower Development and Technical Instruction Policy

The mass production of furniture has a short history in Thailand, and when expanding operations firms find it difficult to secure manpower in general and skilled technicians in particular.

The Thai Furniture Industry Association is proceeding from a long-term perspective with simple and steady measures such as the establishment of woodworking technique training courses in local middle and secondary schools.

The Furniture Industry Development Center (FIDC) is a government-established organization engaged in technical instruction and training, research and development, testing and inspection, and design and development activities for the Thai wooden furniture industry. This organization is part of the Department of Industrial Promotion/Industrial Service Division.

FIDC activities mainly target small and medium-sized furniture manufacturers located in and around the Bangkok area. As a result of outdated testing and inspection facilities, however, FIDC is finding it increasingly difficult to satisfy the needs of the private sector.

(3) Industry and Export Promotion Policies

The Ministry of Industry has hatched out a program for the promotion of the wooden furniture industry as an export sector, and the ban on logging was new core of this policy.

As part of its raw material-related policies, the legislature in December 1988 took advantage of the flood damage in the southern part of the country to enact a bill prohibiting all logging with the exception of rubber trees. In accordance with this, the government reduced the import duties on logs and processed lumber from 7 percent to 1 percent and from 12 percent to 2 percent, respectively, resulting in a virtual liberalization of raw material imports.

In its investment incentive programs, the BOI distinguishes between rubber tree products and other types of wooden furniture selectively. The incentives for rubber tree products vary depending on such factors as geographical location, export ratio, industry classification, annual foreign exchange earnings and savings, and the number of employees. For example, those firms located in one of the No. 1 Investment Promotion Zones (i.e., Bangkok, Nakhon, Pathom, Nonthaburi, Pathum Thani, Sumut Sakhon, and Samut Prakan) and exporting at least 80 percent of their production or those firms located in one of the BOI-certified industrial estates are eligible for the following incentives: (1) tariff exemptions for imported machinery; and (2) a three-year corporate income tax holiday.

Incentives for manufacturers of non-rubber tree wooden furniture target those firms producing primarily for export, which is defines as at least 50 percent of their total sales during the first two years of operation and 80 percent thereafter are exported. Qualitied firms are eligible for the incentives described above.

In addition to the BOI incentives, the Ministry of Finance will refund business taxes and import duties on raw materials based on the Refund System for Duties.

2-2 The Indonesian Wooden Furniture Industry

(1) Industry/Export Situation

The Indonesian wooden furniture industry has recorded steady growth during the past five years.

The number of furniture manufacturers grew from 154 in 1988 to 204 in 1989, and production capacity also increased 17.5 percent to 1,873,160 m^3.

Furniture manufacturers are engaged in the production not only of furniture but also of wood products such as molding and parquet flooring. In addition, some of the leading manufacturers are engaged in the integrated manufacture of products ranging from processed lumber to furniture and molding. 1989 production of wooden furniture totaled 795,000 m^3, of which chests and drawers accounted for 40 percent, tables and chairs for 35 percent, beds for 15 percent, and other products for 10 percent.

Although the categories of corporate size have yet to be clearly defined, large manufacturers are most abundant in East Java (10), Kalimantan (15), and DKI Jakarta (14). When the 77 small manufacturers located here are included, DKI Jakarta is found to be the home of fully 44.4 percent of all of Indonesia's furniture manufacturers. Areas in which numerous new companies were established in 1989 included East Java (20 new firms), Kalimantan (12), DKI Jakarta (9), and Sumatra (9). East Java was the largest producer of plywood, while Kalimantan was the leading producing district for processed lumber. (See Table IV-2-3)

There are a total of 68 large furniture manufacturers in Indonesia. Of these, 16 indigenous firms and 10 foreign affiliates are enjoying some type of incentive based on Indonesian investment laws and regulations. The remaining 42 are not receiving any incentives at present.

Indonesian exports of wooden furniture grew from 2,053 tons in 1987 to 3,079 tons in 1988 and 13,419 tons in 1989, the final figure representing a dramatic increase. Primary export items also changed from kitchen furniture (HS 94.03.40) in 1987 to bedroom furniture (HS 94.03.50) in 1988 and miscellaneous kitchen furniture (HS 94.03.60.900) in 1989, resulting in a diversification of export destinations as well. In particular, "miscellaneous kitchen furniture," which was a new export item in 1989, was responsible in terms of both value and volume for roughly 50 percent of all wooden furniture exports. (See Table IV-2-4)

The leading export destinations were Japan (with volume shares of 68.4 percent in 1987, 67.3 percent in 1988, and 38.4 percent in 1989), Singapore (with shares of 0 percent, 0.4 percent, and 16.1 percent), Australia, the United States, the United Kingdom, and Other Asian NIEs. With its access to abundant natural resources, the Indonesian wooden furniture industry is attracting worldwide attention.

Furniture industries in Taiwan, Singapore and other nations which used to import logs and processed lumber from Indonesia were forced by the export restrictions on logs and processed lumber to shift their production bases to Indonesia. As a result of this and other related factors, significant development is expected for the Indonesian wooden furniture industry in the coming years.

The government has yet to establish any export targets for furniture products, but in the future a variety of export promotion policies will no doubt be implemented.

Unlike the case of plywood exports, a quality control system has yet to be established for the wooden furniture export inspection system.

(2) Industry Associations

Furniture-related cooperative activities have been seen in Indonesia since the second half of the 1960s. Among the currently active organizations are the Indonesian Woodwork Manufacturers Association (APHKI), the Gebungan Industri Kecil Indonesia (the Indonesian Small Producers Cooperative, GIKI), and KOPERKA Pondok Pinang.

The approximately 200 members of APHKI are relatively large corporations. The organization maintains branch offices in Surabaya, Bandung, Semarang, and Pontianak (West Kalimantan).

GIKI is a cooperative with about 2,000 member firms, most of which are small businesses with 4-6 employees. The organization has made proposals to the government for the establishment of joint lumber processing facilities, and as of 1983 had realized approximately RP 400 million credit scheme from the banks. In addition, the Ministry of Industry's BIPIK (One of the small business promotion projects) provided an incentive system for the purchase of machinery.

KOPERKA is a furniture cooperative located in an industrial park for small woodworking factories in the Pinang district. Most of the member firms are cottage industries, and all production relies on manual labor.

KOPERKA has considered purchasing (with assistance from the Ministry of Industry) bandsaws and sanding equipment for lumber processing and supplying member firms with components in order to provide for the training of technicians. These plans have yet to come to fruition, however, due to the underdevelopment of member firms. Some of the equipment remains unused.

According to APHKI, the materials being used are teak (Java), ramin (Sumatra and Kalimantan), mahogany (Java), and rosewood, which is used solely for export products.

Metal fittings are imported from West Germany, Australia, and Singapore and used appropriately according to the grade of the finished product. Singaporean fittings are used for inexpensive products.

Most product designs are copied from the catalogs of foreign manufacturers, with some buyer-provided designs also evident. The majority of hand-carved furniture is produced and sold by natives of Central Java.

There are several vocational schools for the training of furniture production technicians, of which the Catholic Church-affiliated Pika school in Semarang is considered to be the best. Middle school graduates admitted to this school take two consecutive two-year courses in furniture technology and design.

For the purpose of strengthening the position of this industry in the market as well as in lobbying with the government, the companies operating in this industry have joined hands with other companies operating in other sectors of the woodworking industry to form an association named IFHA (Indonesian Furniture Industry and Handicraft Association). The IFHA was inaugurated in August 1988 under the aegis of Indonesia Timber Community (MPI). IFHA has a membership of 600. All members are engaged in the manufacturing and exporting of furniture and furniture related products, woodworking or handicrafts.

The IFHA consists of eight joint marketing bodies, one R&D body, and four marketing and pricing subcommittees, one each for the United States, Europe, Japan, and new markets. Concrete activities of the Association are as follows:

1. Holding of meetings and seminars concerning technology and business affairs Holding of periodic conferences with NAFED, the Department of Forestry, the Department of Trade, the Department of Manpower, the Department of Industry and other related government bodies.

2. Publishing of association bulletin and newsletter to publicize furniture industry trends, events, etc.; publishing of member directories containing detailed company outlines and catalogs.

3. Sponsoring of major domestic trade fairs such as "Resources Indonesia" and "FURNIFAIR" with the cooperation and assistance of NAFED (National Agency For Export Development) and BPEN; participation in overseas trade fairs such as the ASEAN Furniture Show, the High Point Fall and Spring Fairs, the Koeln Furniture Fair, the Tokyo Fair, and the Taiwan Fair.

(3) Industry and Export Promotion Policies

The Indonesian government has adopted a policy of providing investment incentives and preferential duties on imported machinery and equipment in order to promote exports of high added-value furniture and other finished and semi-finished wood products.

The Ministry of Industry and Ministry of Trade carry out the following periodic activities in cooperation with manufacturers and the Indonesian Furniture Association. The implementing bodies for these activities are the Ministry of Labor, the Ministry of Industry and relevant industry associations.

1. Sponsoring of campaigns and exhibitions
2. Sponsoring of seminars on furniture materials, marketing, management, design, etc.

In addition, assistance is provided to firms participating in international trade fairs overseas through NAFED and the Indonesian Furniture Association.

At present, a financing program exists in the form of low-interest loans for export credit, but with the development of the local industry this program is not likely to continue long into the future. Concerning furniture exports, however, the government provides incentives for the development of export markets and exempts firms from export taxes and additional export taxes in an attempt to bolster international competitiveness.

2-3 The Malaysian Wooden Furniture Industry

(1) Industry/Exports Situation

Most Malaysian furniture manufacturers are concentrated on the Western coast of the Peninsular Malaysia, and in Selangor province in particular. Although government statistics suggest only a limited number of companies, in fact the number of furniture manufacturers, including small businesses and cottage industries, is estimated at nearly 2,000. Virtually all of these firms have fewer than 10 employees. (See Table IV-2-5)

Forestry resources are spread throughout the Peninsular Malaysia, Sabah, and Sarawak. 2,500 species of trees are found in this region, although only about 100 are used for commercial purposes. Sepetir (Leguminosae Sindora), nyatoh (Sapataceae Chrysophllum of Palaquim), red meranti (Diptercapaceae Shorea), and parawood are used in furniture for export, while white meranti is used in products intended for the domestic market.

Most of the lumber processing mills with high degrees of added value are located in Peninsular Malaysia; a total of 105 factories have their own drying facilities. 81 use steam drying, while 21 use electrical drying and three gas drying.

There are total of 193 lumber stockpiling facilities. Of these, 39 are located in Pahang, 33 in Selangor, and 26 in Johore.

Manufacturing technology standards are quite low overall, although some of the exporting firms have installed processing facilities and equipment of high sophistication. No systematic approach to product development can be seen, and likewise there is little awareness of the importance and mutual interrelation of product design, standardization, production plans, cost reduction efforts, and quality control.

The leading export destinations for products in 1987 (based on value) were as follows. In the case of chairs, the United States, with a share of 22 percent, was the largest single destination, followed by Singapore with an 18 percent share and the United Kingdom with 16 percent. In the case of chair components, Singapore was the leading destination, with a share of nearly 50 percent. Concerning other wooden furniture, Singapore (32 percent) and the United States (31 percent) accounted for more than half of all shipments, while in the case of wooden office furniture it was Singapore (45 percent) and Hong Kong (39 percent) which provided the main destinations. An overall feature is the position of Singapore as the main export destination. This, however, results from the large percentage of products shipped to Singapore for reexport. (See Table IV-2-6)

(2) Industrial Promotion Measures

The wood processing industry was singled out in the 1986 Industrial Master Plan (IMP), which established a program for the development of the industry via higher added value.

1) Investment promotion policies

Firms in the wood processing industry are eligible for (a) pioneer status and (b) an investment tax allowances.

(a) Pioneer certificate
Firms with pioneer status are eligible for tax deductions. A tax deduction consisting of 40 percent of the corporate income tax and 5 percent of the

development tax (including excess profits tax) paid by a firm is provided for the first five years of operation.

(b) Investment tax allowances
Up to 100 percent of the investment outlays for promoted activities or the manufacture of promoted products may be deducted over a five-year period from the time the project was approved.
Plants located in regions designated for promotion are eligible for a 5 percent reduction of the adjusted income generated from the manufacturing activities for a minimum of five years.

2) Incentives for research and development

Corporate expenditures involving research may be deducted. In addition, the cost of buildings, plants, and equipment purchased for R&D may also be deducted.

3) Incentives for job training

Two types of incentives are provided to promote improved technological standards and plant productivity.

(a) Industrial Building Allowance (IBA)
Buildings to be used for industrial training and certified thereas are eligible for IBA.

(b) Double deduction of operating expenses
Operating expenses for certified industrial training activities may be doubly deducted.

4) Development of industrial estate for furniture industry

A furniture industrial park was established in Banting, Selangor with the aim of reducing production costs (through the joint utilization of facilities and reduced transportation costs) and enhancing the industry's competitiveness on the world market.

Establishment of the park will likely lead to joint use of drying equipment, mass procurement of raw materials, and the integration of production. It is hoped that these will result in economies of scale.

Large corporations will be able to shift large orders to nearby subcontracting firms for assembly and export, thereby freeing them to concentrate on product design and marketing. Meanwhile, small companies will be able to specialize in individual products.

Compared with the present situation, in which subcontractors are spread across the nation, this will be advantageous in terms of both quality control and transportation costs. In addition, it will eliminate the need for foreign buyers and exporters to travel to factories around the country.

In preparation for the predicted shortage of skilled labor in the industrial park, the Malaysian Industrial Development Authority (MIDA) is planning to establish a carpentry and woodworking training course in cooperation with the Italian woodworking machinery and tool association.

The lumber industry is pushing for the establishment of similar furniture estates in other states as well.

(3) Export Promotion Policies

The Malaysian government offers the following financial and tax-related incentives for the promotion of exports.

1) Export credit refinancing scheme

Firms are eligible for low-interest (current rate of 4 percent) financing. The maximum refinancing period for shipping is four months, and the loans are limited to M$5 million per company.

2) Adjusted income deduction for exports

Either 50 percent of total export value or 5 percent of the cost of Malaysian raw materials used in producing the export products may be deducted. However, firms with pioneer status and firms receiving the investment tax allowance are not eligible.

3) Double Deduction of Export Credit Insurance Premiums

A double deduction of export credit insurance premiums by companies authorized by the Ministry of Finance is allowed so as to encourage entry into new markets.

4) Double deduction for export promotion

A double deduction in calculating taxable income is allowed for the following export promotion activities: advertisement activities outside of Malaysia, overseas mailing of free samples to foreign customers, export-import market surveys, entertainment expenses related to exports provision of technical information to foreign customers, exhibition and participation costs in trade or industrial fairs designated by the Minister of Trade & Industry, travel expenses for overseas business, expenses of overseas sales offices, etc.

5) Tariff exemptions

(a) Raw materials and components
The degree of the tariff exemption depends on whether or not the final product is to be exported. If the raw materials or components in question are not manufactured locally or local products are too expensive or of insufficient quality, full exemption of import taxes and surtaxes is considered.
Furthermore, based on the Consumption Tax Law (Tax Refound Act) of 1977, companies may apply for a refund of the surtax levied on goods used in export products.

(b) Facilities and equipment
Facilities and equipment which are not produced domestically and which are used in the manufacturing process are exempted from import taxes, surtaxes, and sales taxes. Quotas on imported machinery has also been abolished. Even taxable equipment and facilities may be exempted provided certain conditions are met.

2-4 The Korean Wooden Furniture Industry

(1) Industry/Export Situation

Korea's wooden furniture industry is characterized by a huge gap between production processes at small and large companies.

At small manufacturers, the typical production process is as follows: cutting —> processing —> fine working —> assembly —> painting. Manual labor is heavily relied upon for fine working, assembly, and painting. At larger corporations with mass production setups, the manufacturing process is more finely divided: drying —> cutting —> processing —> primary painting —> secondary painting —> drying —> inspection processes. In addition, all processes are performed by machines.

The main facilities and equipment in use at wooden furniture manufacturers include dryers, automatic saws, automatic planer, boring machines, compressors, polishers, and adherers. Drying machines have yet to be adopted on a wide-scale basis, with only 11 out of 16 large firms and 7-8 out of 23 medium-sized companies using them. Furthermore, most of the firms which do have drying machines (including wood processing plants) use steam drying, which is based on experience. Recently, two companies installed high-frequency drying facilities, but these remain in the initial stages.

Large corporations engaged in mass production have a high rate of mechanization in the manufacturing process, and most of the production facilities are relatively free from breakdowns. In addition, many companies have purchased high-precision foreign equipment from foreign sources.

R. Korea's main wooden furniture export items are dining tables and chairs, dressers, side boards, tables, and beds, and according to industry sources these products have been relatively well-received in overseas markets.

In the case of wooden furniture, most exports are in the form of finished pieces, and there are virtually no exports of semi-finished goods or components. Recently, a few firms have begun exports of knock-down products, but these are limited to simple products such as tables, bookshelves, and chairs.. Industry sources estimate that knock-down production currently accounts for about 5-10 percent of all exports. 70 percent of all R. Korean furniture exports are destined for the United States and Japan, and 70-80 percent of this is OEM.

Concerning exports to the United States, most transactions consist of orders from dealers having links with department stores and other large distributors and furniture stores. Most of the products ordered are relatively large in size, and sturdy, ordinary pieces are preferred to fancy designs. Also, high-quality raw materials are preferred, even if this means an increase in price.

In the case of Japan, most transactions are in the form of orders from large distributors and furniture manufacturers having nationwide sales networks, although some orders are also received from small and medium-sized companies in local areas. Most OEM exports to Japan are large-variety, small-volume orders, and most of the products are small, unique designs. Both quality and pricing are thoroughly checked before a decision is made.

Wooden furniture exports from R. Korea can be broadly divided into Western designs and Korean classical designs. The former consist mostly of reproductions and imitations rather than new designs, while the latter are mainly variations on traditional furniture designs. Recently, however, a handful of leading manufacturers have been upscaling their export efforts and working to secure skilled specialists for the development of original products and the improvement of designs.

For example, a growing number of firms are inviting designers from Italy, Switzerland, and Sweden and hiring local industrial arts design specialists in an attempt to develop new products and original models.

(2) Problem Areas

The Korean furniture industry suffers from a shortage of skilled technicians, and this is a major factor hindering the improvement of product quality. Specifically, most small businesses pay employees on a daily basis, and there is a high percentage of unskilled labor. Even at the large corporations there are dramatic fluctuations in the number of workers depending on the business climate, and most of the employees have not been with their companies for long. The end result is that many laborers have yet to master the skills which they should have picked up over the long term.

At present, there are no in-company training facilities or public organizations for training the skilled Workers required by business community.

Recently, the industry and government met to discuss the establishment of a furniture skills training center. As a first step in this effort, it has been decided to establish a furniture design course and seek students being recruited at an industrial college in Seoul in 1989.

The next problem facing the Korean furniture industry is rising export prices.

Due to constantly changing materials and designs, there are dramatic fluctuations in the prices of wooden furniture products. According to industry sources, export prices remained relatively constant in 1985 and 1986, while the following two years brought average increases of 5 percent and 10 percent. These increases are thought to be rooted in rising manufacturing costs brought about by the appreciation of the won and increasing wages. In particular, the bitter labor-management struggle in the second half of 1987 resulted in wage increases averaging 18 percent in 1987 and 14 percent in 1988, making hikes in of export prices inevitable.

Lumber accounts for 30-50 percent of manufacturing costs, and the Korean furniture industry relies on imports for more than 90 percent of all lumber demand. Since the early 1980s, therefore, manufacturers have been moving their production bases overseas in order to secure a stable supply of logs and inexpensive labor.

(3) Export Promotion Activities by the Industry

R. Korea has experienced rapid growth in exports since the 1960s. This may be said to have resulted from the effects of the positive government support in terms of financing, taxation, etc. R. Korea depends highly on the U.S. as an export market and its trade surplus with the U.S. has grown tremendously. As a result, the U.S., as well as other advanced nations, has been increasingly pressuring R. Korea to open its own markets.

In response to this pressure to open its markets, the R. Korean government has taken measures to liberalize imports and measures to sharply reduce various forms of export aid in an effort to achieve equilibrium in its international balance of payments.

In accordance with government industrial policy and export promotion policy, R. Korea's wooden furniture industry has created a variety of programs on its own in order to overcome the problems hindering development of export markets. An outline of these programs is given below.

1) Two basic objectives

1992 exports:	US$500 million
World export share:	Within the top ten

2) Specifically, these objectives are to be achieved through the following programs:

An export-oriented production system, emphasis on up-market product exports, development and exports of original brand products, and the promotion of exports by small and medium-sized companies.

In order to realize these objectives, the industry is working to: 1) facilitate the supply of raw materials; 2) promote improved product quality and technological development; 3) develop overseas markets; and 4) promote the specialization and cooperative use of production systems.

Industry activities for the development of overseas markets can be broadly grouped into the following categories: 1) the establishment of export targets for each market (region) and the encouragement of exporters; 2) collection of information concerning overseas markets; and 3) the reinforcement of overseas sales activities.

The technique of setting export targets for each market and encouraging both industries and individual firms to reach these was used in the past when the government was still aggressively promoting export expansion. Since the shift of the country's international balance of payments into the favorable position in 1986, however, this area has been left to the companies themselves, and there are no strong assistance measures from either industry or the government.

The collection of information concerning foreign markets is conducted through participation in overseas furniture trade fairs and the dispatch of fact-finding missions overseas. In addition, market information supplied by KOTRA and the Korean Foreign Trade Association are utilized.

Overseas sales activities are conducted by a handful of larger corporations through the establishment of overseas trade fairs, the dispatch of salesmen, and the preparation and distribution of catalogs. In addition, the Korean Federation of Furniture Industry Cooperatives participates in overseas furniture fairs and dispatches its own fact-finding missions.

At present, R. Korea is in the initial stages of establishment of industrial standards for the furniture industry . As of February 1988, there were 42 Korean Industrial Standards (KS) concerning the furniture industry. Although products indicated with a KS label naturally receive greater trust and are eligible for priority purchasing by government and public agencies as well as financial assistance, as yet relatively few furniture products for ordinary sale bear the KS marking.

Furniture is not one of the items specified under the Export Inspection Law, nor is there any voluntary inspection organization or program under the control of industry associations. The only checks at present are in-house inspections by the manufacturers and buyer checks.

Table IV-2-1: Thailand — Regional Distribution of Furniture Industry

	Cottage industries employing 10 persons or less	Small firms employing 10-49 persons	Medium -sized firms employing 50-199 persons	Large firms employing 200 or more persons	Total	Share (%)
Bangkok	385	204	25	2	616	53.5
Central area	71	43	13	1	128	11.1
Southern area	82	21	1	4	108	9.4
Northern area	37	65	6	1	109	9.5
Northeastern area	90	57	2	0	149	12.9
Eastern area	30	9	1	1	41	3.6
Total	695	399	48	9	1,151	100

Source: Industrial Works Department, Ministry of Industry

Table IV-2-2: Thailand — Exports of Furniture by Product

(Unit: 1,000 baht)

		1985	1986	1987
940101	Chairs & other seats	181,685	475,728	1,010,953 (31%)
940102	Parts of chairs & seats	8,132	8,929	258,127
940302	Other furniture of wood	472,039	563,905	1,116,143 (34%)
940303	Other furniture & parts of other materials	441,134	520,723	712,951
940309	Parts of Other Furniture	202,458	158,975	197,134
Total		1,305,448	1,728,259	3,295,308 (100%)

Source: Customs Department

Table IV-2-3: Indonesia — Distribution of Furniture Plants, Classified by Size

Region	Small	Big	Total
DKI Jakarta	77	14	91
West Java	19	7	26
East Java	9	19	28
Central Java	6	3	9
Sumatra	11	9	20
Sulawesi	13	1	14
Kalimantan	1	15	16
Bali	1	–	1
Total	137	68	205

Source: CIC (P.T. Capricon Indonesia Consult Inc.)

Table IV-2-4: Indonesia — Exports of Wooden Furniture, 1987-1989

(Unit: tons, US$1,000)

H.S.	1987 Q'ty	1987 Value	1988 Q'ty	1988 Value	1989 Q'ty	1989 Value
Other seats, with wooden frames upholstered (HS 94.01.61.000)	–	–	65	128	77	123
Drawing table (unequipped) (HS 94.03.30.100)	365	748	–	–	3	14
Wooden furniture of a kind used in the offices (HS 94.03.30.900)	233	356	–	–	2,051	2,917
Wooden furniture of a kind used in the kitchen (HS 94.03.40.000)	1,441	3,451	93	133	290	571
Wooden furniture of a kind used in the bedroom (HS 94.03.50.000)	–	–	2,739	6,153	4,243	6,264
Ice chest and insulating cabinets of other wooden furniture (HS 94.03.60.100)	–	–	107	149	122	326
Other wooden furniture of a kind used in the kitchen (HS 94.03.60.900)	–	–	–	–	6,452	11,969
Part of furniture for wooden drawing table (HS 94.03.90.100)	5	6	12	43	106	197
Part furniture for special furniture for printing works (HS 94.03.90.200)	9	3	63	88	75	79
Total	2,053	4,564	3,079	6,694	13,419	22,460

Source: BPS

Table IV-2-5: Malaysia — Statistics on Furniture and Fixtures

(Unit: M$1,000)

	No. of firms (person)	Output	Input	Value added	Employees (at the end of 1985, person)	Wages	Fixed assets (at the end of 1985)
Malay Peninsula	189	209,642	130,716	78,926	7,306	41,339	100,385
Saba	66	25,125	14,666	10,460	1,034	7,263	6,962
Sarawak	69	22,616	12,154	10,462	1,005	4,818	13,872
Total	324	257,383	157,536	99,848	9,345	53,420	121,219

Source: Industrial Surveys 1985, Department of Statistics

Table IV-2-6: Malaysia — Exports of Wooden Furniture

(Unit: M$1,000)

	1985	1986	1987
Office furniture (SITC 82192100 BTN 9403210)	198.3	211.8	297.2
Other furniture (SITC 82192900 BTN 9403290)	3,099.7	6,402.7	18,609.4
Chairs (SITC 82111000 BTN 9401100)	8,115.4	12,568.2	24,261.3
Chair parts (SITC 82119000 BTN 9401900)	1,084.6	1,227.8	2,104.8

3. The Philippine Wooden Furniture Industry

3-1 Outline

(1) Introduction

There is insufficient data to obtain an overview of Philippine furniture production and the local furniture market. As will be discussed later, the Philippine furniture industry comprises an extremely large number of small companies and cottage industries, and it is very difficult to obtain an accurate grasp of conditions at these levels. What follows is a short summary based on the recent Sectoral Development Studies: Furniture Industry conducted by the Board of Investment (BOI) and field surveys undertaken as part of the present study.

Roughly 90 percent of the rattan and cane furniture is destined for the export market, with the remaining 10 percent sold locally. This is in contrast to the case of wooden furniture, of which only 10 percent is exported and the remaining 90 percent is sold on the domestic market.

(2) Domestic Market

Local demand for furniture in the Philippines can be divided into two categories: those products intended for low- and middle-income groups and those intended for high-income consumers.

Low-income demand is spread widely across the cities and rural areas. In contrast, high-income demand is concentrated in the cities and involves middle- and high-grade furniture. Hotels also provide an important source of demand for these products. Another important buyer is the U.S. Air Force base in Angeles. U.S. military demand includes not only those bases located in the Philippines but also other installations throughout the Far East.

(3) Export Markets

Philippine furniture exports totaled US$154.09 million in 1988, with rattan and cane products responsible for 87.7 percent, wooden furniture for 11.4 percent, and bamboo furniture for 0.8 percent. Thus the percentage of wooden furniture remains very limited.

Most wooden furniture manufacturers are engaged in the export of hand-carved pieces and other wooden items in addition to furniture. The average export unit price is about US$49 for chairs and other types of furniture, $42 for chests and suitcases, $14 for cabinets, and less than $5 for other types of wooden items. (See Table IV-3-1.)

Exports of wooden items totaled US$47.08 million, roughly 2.7 times the exports of wooden furniture. In other words, Philippine exports of wooden goods are centered around small, low-added-value items such as building fittings, ornaments, and shelves. Compared with other wooden items, high-added-value wooden furniture has great potential.

The main export destination for wooden furniture was the United States, which bought 60.5 percent of the chairs and 66.5 percent of the other types of wooden furniture exported by the Philippines. Other destinations included Japan, Hong Kong, Australia, and the United Kingdom.

The majority of chairs are carved. Most exports to Hong Kong were finished goods (average unit price: $81.77 per chair), while shipments to the United States and the United Kingdom contained numerous finished pieces and high-grade sanded-frame products (average unit prices were $71.38 and $61.66 for the two nations). Exports to Australia and Japan, on the other hand, consisted mainly of mid- to low-range sanded-frame items (average unit prices of $43.49 and $42.19, respectively).

A breakdown of the figures for other types of wooden furniture is not available. Unit export prices vary greatly depending on the destination country: Japan, $81.91; Australia, $61.38; Hong Kong, $51.38; and the United States, $47.75. The figure for the United Kingdom was only $16.76, a mere one-third of the overall average. This was probably due to the presence of numerous semi-finished goods and components. (See Table IV-3-2.)

3-2 The Wooden Furniture Production Structure

(1) Outline

The Philippine wooden furniture industry comprises two groups: the small manufacturers and cottage industries producing for the low-income sector of the local market, and the large and medium-sized firms producing for export markets and the high-income sector of the local market.

The Philippine wooden furniture industry has developed in response to local demand. With the continuing construction boom for hotels and office buildings, manufacturers tend to move to meet domestic demand, and consequently to decrease their exports.

Wooden furniture producers are distributed widely across the country, but many manufacturers of middle- and high-grade furniture and export products are concentrated in the following areas: Metro Manila and its environs, Bulacan, Pampanga/Angeles, Cebu, and Davao. Producers for the local market, meanwhile, are concentrated in the Cagayan Valley, Cagayan de Oro, and General Santos.

The target markets, production technologies, and financial capacities of the furniture producers differ according to their location and size. From the viewpoint of promoting export-oriented development, producers can be classified into the following six groups:

1) Group A

Located mainly in Metro Manila and its environs, Pampanga, and Bulacan, firms in this group produce wooden furniture of traditional Western European or Chinese style and are noted especially for their carving techniques. They can be divided into four subgroups, A1 - A4, according to their size, technical standards, and facilities.

a. Group A1
Mainly large manufacturers located in Metro Manila and its environs, firms in this group produce high-grade furniture, including products for export, with well-arranged production facilities. Some firms in Cebu also fall into this group. These are mainly rattan furniture manufacturers who, foreseeing a future downturn in the rattan furniture market, are moving into wooden furniture.

b. Group A2
Firms in this group are medium-sized furniture manufacturers producing medium- and high-grade furniture, including products for export, with relatively well-arranged production facilities. They fall somewhat behind the companies in Group A1 in terms of product quality and facilities. Most are located in Metro Manila, with some found in Pampanga and Cebu as well.

c. Group A3
Firms in this group are also medium-sized furniture manufacturers producing medium- and high-grade furniture, including export items. Unlike the companies in Group A2, however, few of them have purchased machinery and most rely almost entirely on manual labor. They can be found in Metro Manila and Pampanga.

d. Group A4
These are small-scale furniture manufacturers who have either exported some small items of furniture in the past or are hoping to export their products in the future. They are located around Metro Manila and in Pampanga and other areas.

2) Group B

This group consists of small and medium-sized firms producing simple furniture for the low-priced market. Many are engaged in lumbering or construction and produce furniture as a side business. They are located in or around urban areas with convenient access to shipping ports, such as Metro Manila, Cebu, Davao, etc.

3) Group C

This group consists of the highly-mechanized wooden products divisions of large lumber companies. Using machines, they are engaged in the mass production of furniture components and building parts rather than medium- and high-grade furniture. Most are located in Davao.

In addition, some companies produce furniture by combining wood with rattan, leather, stone, or other materials. In most cases, however, wood is used as the structural material and rattan, leather or other materials are used to cover the surface. Technically, therefore, these products are closer to rattan, leather and other types of furniture than to wooden furniture.

The characteristics of firms in each of these groups and the problems they face in terms of technology and management will be described below.

(2) Group A1

The manufacturers in Group A1 are located throughout Metro Manila and Cebu and are characterized by large capital resources and a high export ratio. They use high-quality wooden materials to produce chairs, tables, and cabinets for export.

1) Production technologies

Facilities and equipment are imported from West Germany, Italy, Taiwan, and Japan. Many machines imported from Japan are secondhand. This equipment is efficiently arranged in the plants, which are also equipped with kiln dryers.

Regarding the carving process, the introduction of carving machines and copying machines remains insufficient, and firms rely mostly on manual labor. Subcontracting is often used. Dowel jointing has generally been adopted, although some firms are still using tenon joints. In the Philippines, coating is the field where the introduction of modern technologies has lagged behind the most. Even in Group A1, only a few of the firms possessed mechanized coating facilities, and the paints being used are of poor quality. Dust collection in factories is particularly in need of improvement, as virtually none of the companies have adequate dust collection facilities. Maintenance rooms have been provided, and facility maintenance is conducted by a team of several employees, including engineers.

2) Quality control, training, and fundraising

Process supervisors are responsible for quality control for raw materials, components, and finished products. Many of the firms in Group A1 have special quality control teams, with double-checking being the norm. Virtually none of the companies, however, provides for the transmission and storage of quality control data in a prescribed format.

Training centers around the mastery of basic machine operation within the plant. Supervisors are sent to outside training programs held by the PTTC, etc. In addition, programs provided by European and U.S. buyers are utilized and foreign technicians invited so that staff have an opportunity to study more practical management techniques.

For firms in Group A1, the main sources for capital investment and operating funds are equity capital and business profits. When occasion demands, they can also obtain loans from parent companies and affiliate companies. Thus they are in a far more advantageous position than companies in the other groups.

3) Marketing

The principle export markets for these firms are the United States and Western European nations such as the United Kingdom, France, Germany, and Spain. Most shipments are in the form of sanded frames. These products target the middle-high to high-range segments of the export market. A few of the manufacturers export finished products, including products which have been coated, chiefly to the United States. Because coating and other finishing technologies remain in need of improvement, however, these products target lower market segments.

Product designs are reproductions of traditional Western European styles, which are characterized by elaborate carving. Concepts and design specifications are provided by the customer. The firms in Group A1 have large showrooms, and these are used as bases for export marketing.

Although these firms participate in the Furnishings and Apparel Manufacturers Exchange (F.A.M.E.), an international trade fair held in the Philippines, they are not as active as the companies in Group A2. They also participate indirectly in foreign trade fairs under buyer brands.

4) Problem areas

The problems facing firms in Group A1 can revolve around two points: low productivity and poor export marketing abilities. These problems are not peculiar to the firms in Group A but are common to firms in other groups as well.

The low productivity stems from the fact that modern production systems have not been established in factories. Because the wooden furniture firms in the Philippines have depended on production on order from European and American businesses, production lines of European and American style corresponding to the specifications of European and American firms have taken root in factories. Mechanization has been concentrated on the first half of processing. Even the firms in Group A1 depend on manual labor for the finishing processes. Even in the first half of processing, where mechanization has progressed, layout based on industrial engineering has not been done by most of the firms.

In addition to production facilities, problems can be pointed out in the field of production management. In the wooden furniture firms of the Philippines, operators, managers and directors, who should be the core of factory operations, have insufficient recognition of the necessity of process control, work analysis, quality control, material control, transport control and cost analysis and lack practicaly knowledge and know-how of management control.

Insufficient export marketing also stems from dependence on the production-on-order system. Because buyers provide the basic product designs, Philippine manufacturers are freed from the responsibility of developing their own original designs. Again, because buyers take responsibility for final processing and distribution, there is no need for Philippine firms to collect information on export markets or to make their own evaluations of demand trends. It appears that the only export marketing strategy used by Philippine companies is "put the products in the showroom and wait for the buyers to come."

(3) Group A2

Manufacturers in Group A2 can be found in Metro Manila, Pampanga, and Cebu. Compared with the firms in Group A1, they are lacking in capital resources and have low export ratios. They also use high-quality woods in the production of chairs, tables, cabinets, doors, and miscellaneous small items for export. The products are of lower quality than those produced by Group A1 firms.

1) Production technologies

Facilities and equipment are imported from Germany, Italy, Taiwan, and Japan. Compared with Group A1, however, secondhand equipment is more common. Plant layout is not as efficient, since firms tend to expand their production facilities gradually through investment on a small to medium scale. Kiln dryers are owned, but processing capacity is often insufficient.

The carving process is done manually, and dependence on subcontractors is higher than for the firms in Group A1. The introduction of machinery is also insufficient in the sanding and assembly processes, resulting in a heavy dependence on manual labor and subcontracting. Facility and equipment maintenance is performed by engineers or specialized staff members.

2) Quality control, training, and fundraising

Process supervisors or skilled workers are responsible for quality control over raw materials, components, and finished products. Few of the firms in Group A2 have special teams for quality control. In most cases buyer claims are dealt with by holding a supervisor-level conference.

Training centers around the mastery of basic machine operation within the plant. Companies in Group A2 make active use of outside training programs. Supervisors are dispatched to the PTTC, and on-the-job training is received from foreign technicians.

The main sources for capital investment and operating funds are equity capital and business profits. Due to a shortage of funds, however, firms often have to borrow from financial institutions. Some take advantage of low-interest loans from the Technology and Livelihood Resource Center (TLRC) and the Industrial Guarantee and Loan Fund (IGLF).

3) Marketing

The United States and Western Europe constitute the main export markets for this group, and shipments are mostly in the form of sanded frames. The percentage of sanded-frame shipments for Group A2 is higher than for Group A1 because of insufficient coating facilities. These products target the middle- to upper-grade segment of the export market.

As is the case with the firms in Group A1, design concepts and specifications are provided by buyers. Some of the Group A2 companies have received assistance from PDDCP in the areas of drafting techniques and the selection of materials and colors.

Group A2 manufacturers are active participants in F.A.M.E., and many make use of CITEM's permanent exhibition hall. Like the firms in Group A1, however, they participate in overseas exhibitions only through buyer brands.

4) Problem areas

The problems indicated for firms in Group A1 also hold true for those in Group A2. Concerning productivity in particular, Group A2 is worse off because of its high dependence on manual labor, the frequent use of subcontractors, and a failure to establish efficient production lines in addition to its dependence on the production-on-order system. The biggest problem faced by Group A2 firms, however, is the inferior quality of their products in comparison with those of Group A1. Quality-related problems are especially common in this group and in Group A4.

In the field of raw materials, different kinds of lumber are often used at the same time. The mixed use of different types of wood differing in hardness leads to cracking and twisting in the portions where softer woods are used. In production, components of uniform quality are difficult to obtain because the carving and sanding processes rely chiefly on manual labor. In the assembly process, manual tenon joints are still used. Even when dowels are used, the materials are of poor quality and the spiral grooves of insufficient depth. Imported powder adhesives are dissolved in water for use, but they are low in density and lacking in strength.

(4) Group A3

The manufacturers in Group A3 are located mainly in Metro Manila and Pampanga, and capital resources differ from company to company. Export ratios are low in comparison with those of firms in groups A1. The firms use high-quality materials such as narra and red tangile to produce chairs, tables, cabinets, doors, and miscellaneous small items for export. Because the work is done by craftsmen, shipments are small. Product quality is high overall, and in some cases is equal to that of products from Group A1 firms.

1) Production technologies

Facilities and equipment at firms in this group are limited to band saws, hand drills, portable shapers, portable sanders, and so on. Most production relies on craftsmanship, and a few of the companies have installed kiln dryers.

Subcontracting is used in virtually all processes. Often, production is completely entrusted to the skilled workers at subcontracting firms, and there are problems concerning delivery time. Manual tenon mortising is the main method of jointing, with dowel joints being seen only rarely.

2) Quality control, training, and fundraising

Quality control over raw materials, component materials, and finished products is conducted by skilled workers.

Workers are provided with in-house training in woodworking techniques, and outside training programs are rarely used.

Firms in Group A3 rely on equity capital and business profits as their main sources of funds. Most of these companies suffer from a shortage of operating funds, however, and as a result are turning to the local market, which offers high profit margins and relatively quick payment.

3) Marketing

The United States and Western Europe are the major export markets, and shipments are mostly in the form of finished goods. Imported paints are used for coating, which is carefully finished manually. These products are sold under buyer brands and target the mid- to upper-grade segments of the export market.

Product designs are reproductions of traditional Western European or Chinese styles, and most are provided by the buyers.

Most of the firms in Group A3 have their own showrooms and are active participants in F.A.M.E. Participation in foreign fairs is done under buyer brand names.

4) Problem areas

The biggest problem for firms in Group A3 is the production system, which is based on craftsmanship. Though products are of high quality, limited production volume makes it difficult to expand exports. Moreover, most of the firms in this group have adopted production systems which rely heavily on the craftsmen at subcontracting firms, making it difficult to reduce production costs and maintain delivery schedules.

(5) Group A4

The manufacturers in Group A4, located in Metro Manila and Pampanga, have limited capital resources. They use high-quality woods to produce chairs, tables, cabinets, doors and miscellaneous small items for export. Although exports up to now have been limited, enthusiasm is high. Product quality falls below that of Group A2 firms.

1) Production technologies

The introduction of basic facilities and equipment remains insufficient, and factory layout requires improvement. Most companies in this group do not own kiln dryers.

The production processes use mostly manual labor, and subcontractors are frequently used. Because of a lack of knowledge concerning machinery and jig for processing, equipment is often not fully utilized. Some smaller firms in this group act as subcontractors for manufacturers in Group A1 or A2. Facility and equipment maintenance is insufficient, and even the whetting of blades is not carried out properly.

2) Quality control, training, and fundraising

Quality control over raw materials, component materials, and finished products is carried out for each process by supervisors or skilled workers, but this is limited to simple checks.

Workers are provided with basic in-house training in woodworking and machine operation. Supervisors participate in outside seminars held by organizations such as CFIP, PTTC, and CITC.

Firms in Group A4 rely on equity capital and business profits as their main sources for capital investment and operating funds. Most of these companies suffer from a shortage of operating funds, however, and are forced to borrow from financial institutions.

3) Marketing

The United States is the primary export market, and shipments are mostly in the form of finished products. Although most of the companies in this group plan to sell their products in the middle-high to high-grade markets in the future, they currently sell their products under buyer brands as middle-grade goods. Designs are provided by the buyers. These firms are active participants in F.A.M.E.

4) Problem areas

The biggest problem facing Group A4 manufacturers is the low quality of their products. The problems pointed out for Group A2 can be applied to this group as well. The differences with Group A2 are a shortage of practical knowledge concerning quality control and a greater number of areas requiring improvement.

(6) Group B

The firms in this group are located chiefly in Metro Manila. Most of the firms are lumber processors or construction material manufacturers, and less money has been invested in the wooden furniture business. Export ratios are also low. Materials of medium and lower grade are used to produce chairs, tables, cabinets, and miscellaneous small items for export. The quality of products is low.

1) Production technologies

Among the companies in this group, wooden furniture is considered as an extension of the lumber and building material businesses, so that even the most basic facilities and equipment needed for wooden furniture production are insufficient. Production lines have yet to be established, and maintenance is inadequate.

2) Quality control, training, and fundraising

Simple quality checks are made by supervisors at each process.

Workers are provided with basic in-house training in woodworking and machine operation. Supervisors participate in outside seminars held by organizations such as CFIP, PTTC, and CITC.

Firms in Group B rely on equity capital and business profits as their main sources for capital investment and operating funds. When occasion demands, however, funds can be procured from the main business division of the company, e.g., lumber or construction materials.

3) Marketing

The United States and Europe are the main export markets for firms in this group, and shipments are in the form of finished products. Products are sold under buyer brands through mail order and discount stores. Designs are provided by buyers. Participation in F.A.M.E. is not as active as firms in Group A.

4) Problem areas

Wooden furniture production is regarded as a means of utilizing waste materials by these firms, and consequently they lack enthusiasm for improving the quality of their products.

(7) Group C

This group consists mainly of lumber processors and construction material manufacturers located in Davao. They have high export ratios for lumber and construction materials, and in the field of furniture they export doors, window frames, and other components. Since the enactment of a ban on the export of logs, they have also been trying to use soft woods such as falcata and gubas.

1) Production technologies

The firms in this group have impressive facilities and equipment, with the most up-to-date molding, finger jointing, and block jointing machines. They also have maintenance rooms where teams consisting of several staff members, including engineers, are engaged in maintenance work.

2) Quality control, training, and fundraising

Quality control over raw materials and finished products is performed by supervisors at each process and quality control specialists.

Workers are provided with basic in-house training in machine operation. Supervisors make active use of programs provided by outside organizations.

Because the firms in Group C have large capital resources, the procurement of funds for capital investment and operating funds is not a problem.

3) Marketing

The main export markets are the United States, Western Europe, and Japan. Exterior plywood is the main export to the United States and Europe, while woodworking materials for do-it-yourself stores and home centers are the primary export to Japan.

4) Problem areas

From the standpoint of moving into the wooden furniture field, the biggest problem facing the companies in this group is a lack of necessary knowledge and expertise in the areas of production and marketing.

3-3 Problems Facing the Wooden Furniture Industry

(1) Increasing Awareness of Quality Control and Need for Cost and Delivery Schedule Management

Further development of the industry will require better quality, to be achieved through the improvement of production technologies, and effective sales campaigns aimed at market expansion.

Wooden furniture produced at most companies in the Philippines has yet to achieve international standards of quality. Even at those firms producing semi-finished goods of export quality, competitiveness with foreign manufacturers continues to stem not from quality but from access to cheap labor.

Although the transfer of technology from companies in the industrialized nations is the most effective means of improving quality standards, this kind of technical innovation must be preceded by a revolution in consciousness with respect to the importance of quality control. The attitude that there is no need for further improvement since products are already being accepted on the export market is in itself a major problem. Buyers study the quality of products currently being produced in the Philippines and place orders accordingly. Philippine furniture manufacturers need to conduct research on the standards of quality they will be expected to provide for markets in the next stage of development.

In addition to increased quality awareness, the improvement of export capabilities will require greater awareness of the need for cost and delivery schedule management to be utilized during the production process. Many buyers cite this as a problem.

In order to gain a buyer's trust on the international market, the supplier/manufacturer must first achieve adequate standards in the areas of 1) quality, 2) delivery times, and 3) cost. A "quality product" can be defined as a product of high average quality with few lot variations that is supplied within the specified delivery time at a price determined in advance. Each of these conditions must be understood in full.

In order to manufacture products wit few quality variations, concentration of efforts on finishing alone is not enough; inspection of raw materials and components and thoroughgoing quality control at each stage of the production process are critical. In the Philippines, however, this kind of step-by-step quality control is lacking in both finished and semi-finished products for export, and the result is frequent problems relating to color, size, strength, and finish together with unacceptable lot variations.

The success of delivery schedule management depends on the thoroughness of production management at each stage of the manufacturing process. Many of the buyers which have purchased from Philippine manufacturers have experienced numerous setbacks from the originally agreed-upon delivery date as the result of power outages, labor strikes, delays in raw material shipments, insufficient drying due to rain, and other reasons. Unfortunately, it is all-too-common for the Philippine manufacturers to refuse responsibility and blame the delay on external factors.

There are also problems with the existing price-setting mechanism. In the Philippine furniture distribution system, wholesalers and retailers remain underdeveloped in the domestic market. When exporting, manufacturers often deal directly with a foreign buyer or manufacturer rather than going through an exporter, and as a result virtually all production for export is based on received orders. Furniture manufacturers establish prices simply by adding a margin of profit to production costs for the order. Companies are therefore lax in their study of current market prices and in cost-cutting efforts to bring their own prices in line with current market levels. This results in low operating rates. Furthermore, efforts to improve productivity are lacking. The improvement of competitiveness on the international market will require a full awareness of these points and the utilization of this awareness in the manufacturing process.

The Philippines' competitors — Thailand and Malaysia in particular — are already aware of the importance of improving quality, production management, and productivity and are making efforts to improve the current situation. The Philippines must undertake similar actions as soon as possible if it is to keep from falling behind its competition on the international market.

(2) Wooden Furniture Production Costs and Rationalization of Management

1) Cost estimates

Table IV-3-3 shows estimated production costs for chairs at a typical medium-sized furniture manufacturer in the Philippines based on cost indices obtained from the local survey. Estimated CIF costs (assuming Japan as a market) are equivalent to approximately 33 percent of the estimated factory shipped costs of Japanese furniture manufacturers. Therefore, these products are reasonably priced for exports.

However, these figures were calculated based on average cost indices for all companies, and since most shipments are in the form of sanded frames, they require painting and finishing after arriving in Japan. When this is taken into account, the prices are no longer so reasonable. Furthermore, even if the costs were the same as for Japanese products, the difference in quality standards would make competition difficult.

2) Rationalization of management

Compared to production costs in Japan, the cost of material lumber, labor costs and overhead costs are all lower in the Philippines. However, even if the monthly production volume in the Philippines was increased by 100 percent, the production level would remain equivalent to 23 percent of that of the average firm of similar size in Japan, and the unit production cost would be reduced by a mere 16 percent. In other words, if the current production system is maintained, improvement of competitiveness through cost reduction cannot be expected.

The greatest task facing Philippine manufacturers is the improvement of product quality. Higher quality will increase the expected market price and boost competitiveness. This coincides with the point mentioned above that the high-grade furniture market should be targeted as a development objective. To achieve this goal, purchase of the facilities and equipment needed for quality improvements will be essential. There are two possible methods of absorbing the increased production costs resulting from such a purchase. One is the reduction of labor costs by cutting the payroll, but as described above this method is of limited effectiveness. The second is an increase in production volume. A 10 percent increase in production at a factory of this size would make possible the purchase of facilities and equipment valued at approximately US$79,000 (based on a five-year depreciation and salvage value of 10 percent). The joint use of facilities would result in a further reduction of the depreciation cost.

The following advice can be given concerning rationalization of wooden furniture industry management in the Philippines from the standpoint of cost calculations:

1. Firms should improve the quality of their products and aim at higher-grade markets.
2. Quality improvements will require the purchase of a certain amount of facilities and equipment. At small companies, the possibilities of joint purchase and use might be considered.
3. Firms must improve productivity and increase production volume. Marketing activities should also be expanded and improved.

(3) The Need for Mastery of Advanced Production Technologies

The manufacture of products capable of meeting export market needs will require numerous improvements in the existing Philippine wooden furniture production framework. Naturally, the necessary improvements differ from factory to factory, but common to all firms is a lack of understanding of which areas buyers are paying attention to and a lack of the know-how needed to effect improvements in these areas. Following is a discussion of the areas which are considered to be especially important and of which considerable results could be expected.

1) Basic woodworking technologies

Jointing is the first of the basic technologies which must be mastered.

Although dowel joints are being increasingly used by wooden furniture manufacturers in the Philippines, tenon joints are also still used in some products. Since the mortices are set manually, cracks often develop between the surfaces to be jointed, resulting in a loss of strength.

In addition, the dowels now being used in the Philippines suffer from several problems when compared with those being used in the industrialized nations, including 1) insufficient spiral groove depth, 2) poor materials, and 3) a limited range of sizes.

It is therefore important that manufacturers improve groove structure and materials, provide for a larger range of sizes, and work to promote the increased use of dowel joints. Concerning materials, the possibility of using the rubber tree and other elastic wood should be studied, and manufacturers should also consider adopting the dowels of 6-, 8-, and 10-mm diameters and 25-, 30-, 35-, and 40-mm lengths found in the industrialized nations.

Concerning improvements in the dowels themselves, those companies with mass production facilities should consider the introduction of dowel-making machines and boring machines. The former are relatively inexpensive and allow the manufacture of dowels of the required size. The purchase of a gear attachment boring machine would make possible jointing using more than one dowel at an axis and thereby allow stronger joints.

Improvements are also required in the area of adhesives. In the Philippines, polyvinyl acetate emulsion (P.V.Ac.) and urea resin adhesives are used. The latter are manufactured locally by companies who import resins and dissolve them in water to create a paste. Since there are no standards concerning the concentration of the resulting solution, there is a general lack of bonding strength, and this has been one of the causes of buyer claims. Appropriate standards for adhesives are necessary.

A second basic technology requiring further mastery is coating.

As described above, the Philippine wooden furniture industry has lagged behind in the introduction of coating-related technologies. Although some firms have mechanized considerably in other areas, only a handful of companies maintain adequate facilities for coating. Most manufacturers use hand-held spray guns for manual coating. Research on paints also remains insufficient. Most of the paints currently found in the Philippines are lacquers. Amino alkyd and polyurethane varieties commonly used in high-grade markets such as Japan, the United States, and Western Europe are rarely used.

Coating is a critical step in the manufacture of wooden furniture, and non-coated products are virtually worthless on the retail market. If the Philippine wooden furniture industry is to establish an identity on the world market in the future, sanded-frame exports will have to be discarded in favor of coated frames. In order to accomplish this transition, manufacturers should consider the gradual introduction of the necessary coating technologies, including facilities and equipment.

Also related to the introduction of coating technologies is the need for improvements in sanding. At present, most Philippine factories use #80 - #180 sandpaper. In order to promote exports of coated frames, the wooden surface should be initially sanded with #80 - #220 sandpaper, followed by undercoating with #220 - #320 water-resistant sandpaper and finishing with #400 water-resistant sandpaper. In addition, some of the factories in the present survey were sanding across the grain, in flagrant disregard of the fundamental principle that wood should be sanded in the direction of the grain.

The transport of materials and components between manufacturing processes, though not exactly a production technology, is also in need of improvement. Philippine factories use baskets and sacks for transport, but this is extremely inefficient. The introduction of hand carts should be considered from the perspective of restoring order to the plant as well.

2) Production management technologies

One of the reasons for the low productivity of Philippine wooden furniture manufacturers is the lack of practical expertise and know-how concerning production management among the managers and directors who constitute the nucleus of plant management.

Production management technology is a generic covering all of the technologies involved in producing a good product at low cost and delivering it on schedule. It includes quality control, inventory and delivery schedule management, and cost management. Quality control in all areas of operation is the key factor in production management.

At Japanese plants quality control does not consist simply of quality checks for the removal of defective products. Rather, it is a comprehensive process aimed at reducing production costs and improving corporate competitiveness through the improvement of quality. The basis for quality control lies in how to reduce quality fluctuations. Precision of 30/1000 - 50/1000 mm is standard for wooden furniture in Japan, and the question of how many products meeting these standards can be produced within a given period becomes important.

Consequently, the owners, managers and directors at Philippine wooden furniture corporations must realize the importance of carrying out quality control throughout the entire plant. Without this awareness, it will be impossible for them to motivate the skilled and semi-skilled workers on the production floor, and as a result most companies have yet to engage in anything beyond the defective product checks described above. The transmission and preservation of various quality control data in a prescribed format can be one effective means of promoting quality control activities throughout the plant.

In addition, it is necessary for owners, managers and directors of wooden furniture firms in the Philippines to recognize that the involvement of all factory employees in quality control efforts leads to the strict observance of delivery schedules and the reduction of unnecessary inventory. Japanese manufacturers implement thorough quality control at all levels, including subcontractor factories, in an effort to deliver products more quickly and to improve the efficiency of inventory control.

Concerning production costs, the above-described lack of awareness concerning productivity has prevented cost management of the type seen in the industrialized nations. A first step, therefore, will be increased recognition of the need for improved productivity.

(4) The Need for Modernization of Facilities

The tasks facing Philippine wooden furniture manufacturers in the field of plant facilities can be summarized as follows:

1. Mechanization of each step in the production process
2. Introduction of comprehensive dust collection equipment
3. Expansion of kiln dryer facilities

Concerning the mechanization of the production process, carving machines and copying machines should first be introduced for the carving process. A continued reliance upon hand carving will prevent the mass production of uniform components, and the resulting variations in quality will in turn prevent further export growth.

There has been significant progress in mechanization of the copying process at some of the Group A1 firms, but even these firms continue to rely upon manual labor for the finishing processes — carving, sanding, assembly, and coating. These companies should introduce NC routers for the automation of carving and then bring in personal computers for the numerical control of components during finishing to achieve labor savings and shorter production times.

Dust collection equipment has already been installed at several plants, but as yet no firm has provided such equipment for the entire factory. Dust collection is extremely important from the twin viewpoints of maintaining a clean working environment and improving dimensional precision and hence product quality. Thus the purchase of dust collection equipment capable of covering the entire plant should be considered.

Kiln dryers have been introduced at the factories of export-oriented companies, but facility capacity at small and medium-sized firms in general remains insufficient. Kiln dryers are indispensable to the improvement of quality standards, and they play an important role in determining export potential as well.

(5) Problems in the Supply of Raw and Auxiliary Materials

1) Lumber (See Chapter 4, Section 4-2.)

2) Plywood The plywood produced in the Philippines is designed for use in construction. As a result, some of the manufacturers of high-grade furniture rely on imported plywood, while locally-produced varieties are used for cased furniture and tabletops. Although exports of these products remain limited, increased freedom of product development will require improvements in the quality of locally-produced plywood.

Current grades of plywood are plagued by the following problems: 1) Excessive error in panel thickness, 2) Lack of uniform thickness in each panel

3) Auxiliary materials

a) Adhesives

Polyvinyl acetate emulsion (P.V.Ac.) is the most commonly-used adhesive, with the urea resin adhesive "Weldwood" also used on occasion. The latter variety is imported in powdered form and dissolved in water to form a paste.

At present, however, there is a general lack of understanding and thoroughness regarding the use of these adhesives — i.e., glue preparation, application (volume), assembly time, pressure fitting methods (pressure, time), and the regimen time required after removing pressure.

In the future, mastery of the appropriate methods of use as well as research on adhesive grades and properties will have to be accompanied.

b) Paints

Nitrocellulose (NC) lacquer is the main type of paint being used, although lacquer varnishes can also be found. A wide variety of paints are used in Japan, including lacquer, amino-alkyd, polyurethane, and polyester varieties. The decision of which type to use is made based on the intended grade of the finished product.

Since sanded frames have made up the bulk of Philippine furniture exports, problems regarding paints and painting technology have yet to surface. If painted finished products are exported in the future, however, the selection of paints appropriate for the intended market and more research on the necessary painting technologies will be needed.

c) Metal fittings

Metal fittings for export furniture are either imported from Singapore and Taiwan or provided by the customer. As one element of the final finish, metal fittings are an important factor in determining product functionality and aesthetics. A variety of types and functions are required according to the type of furniture, desired quality, and intended application.

Compared to rattan and cane products, wooden furniture uses a large quantity of metal fittings. Future promotion of the wooden furniture industry will require a more complete lineup of metal fittings in terms of both variety and price.

d) Procurement of auxiliary materials

Promotion of Philippine wooden furniture exports will require higher quality and price competitiveness, keeping in mind the presence of neighboring Asian competitors like Thailand, Malaysia, and Indonesia. The quality, variety, and pricing of auxiliary materials such as adhesives, paints, and metal fittings will be an increasingly important factor if attempts are made to improve product grades or export painted finished pieces.

A realistic plan for the procurement of auxiliary materials would be to rely on high-quality, high-variety imports in the short term and then shift to localized production once local demand has grown sufficiently.

One means of facilitating the procurement of imported auxiliary materials would be the reduction of import duties. Current tariffs are extremely high — 40 percent for adhesives and paints and 30 percent for metal fittings. Although large and medium-sized manufacturers registered with the BOI are eligible for tax deductions equal to the tariff duties levied on imports of raw materials, this policy leaves out the great majority of smaller firms. Since wooden furniture is one of the key export promotion items, at the very least import duties on auxiliary materials used in the manufacture of export furniture should be lowered.

Concerning the localization of auxiliary material production, furniture industry demand is relatively small, and what is needed is the variety to respond to the numerous types and grades of furniture. It would be difficult to expect local manufacturers of these materials to develop and manufacture products specifically targeting the furniture market.

(6) The Need for Arrangement of Training Systems in the Furniture Industry

Many of the training programs available to the furniturei industry are put together centering around those provided through assistance from various foreign organizations. To effectively utilize these programs and make up for insufficiencies, it is necessary to take an overall view and coordinate the programs. CFIP and various other organizations are currently working to coordinate programs through the establishment of the Furniture Industry Training Board. Further efforts to strengthen these activities and compensate for insufficiencies in the programs are desirable.

At present, there are few educational institutions in the Philippines offering practical courses in woodworking technology. Although the CITC maintains a wide variety of facilities and equipment to provide instruction through numerous training modules, its location makes it difficult for many companies to access. There are no similar government institutions in Pampanga or Cebu, and virtually all companies are forced to rely on in-house training.

In the main furniture producing districts, there is a great need for the establishment of training centers to provide guidance in basic expertise and technology concerning furniture and wood product manufacture. These centers should be established according to the degree of need. From this standpoint, the need for such a center is greatest in

Pampanga, which is now positively attempting to promote export. Cebu, which is currently trying to expand wooden furniture production, is also worthy of consideration.

These training centers should be provided with basic facilities and equipment, including crosscut saws, levelling machines, thickness planers, circular saws, bandsaws, router machines, high-speed shapers, and boring machines. In addition to providing instruction in the operation of this equipment, the centers should act as joint production facilities for companies in the provinces. The facilities and equipment should consist of used general-purpose equipment.

(7) The Need for Greater Export Marketing Activities and Improved Product Development Capabilities

1) Introduction

The promotion of Philippine wooden furniture exports will require improved quality standards together with effective marketing campaigns targeting the industrialized nations which constitute the major export markets.

The Philippine wooden furniture industry has developed based around orders from U.S. and European firms, and as a result full-fledged marketing activities such as the development of products meeting market needs and efforts to expand sales channels have been neglected. Presently, even those firms with considerable experience in exporting use passive sales campaigns in which they simply display their products in a showroom and wait for buyers to place orders. There is little awareness of the importance of export marketing. Most companies have not even prepared company profiles and product catalogs, and there are no company divisions engaged in the collection of overseas information.

2) Marketing strategies

Export marketing strategies lay out a plan for the efficient development of a market based on strengths in the areas of natural resources and technology and in line with directions for future development.

The possibility for Philippine furniture industry development as seen from the standpoints of natural resources and technology will be discussed in Chapter 5, Section 5-1. The export experience described above must also be taken into consideration from the viewpoint of marketing strategy.

The majority of Philippine exports are in the form of semi-finished goods which undergo final processing in the importing nations. The few finished products exported are sold under buyer brand names.

The ultimate objective should be exports under Philippine brand names, but the accomplishment of this goal will require the establishment of the following kind of marketing structure:

1. A production and delivery system capable of handling an established brand under streamlined management
2. Extensive research on demand characteristics and distribution/sales channels in the target markets
3. Product development based on market research
4. Sales and service networks in the target markets
5. Sales campaigns based on market research

For the Philippine furniture industry, which is presently incapable of realizing such a structure, the most effective strategy for the time being would be exports of existing semi-finished products together with exports of finished products under buyer brands. This opportunity should be used to master production technologies and production management know-how, to improve competitiveness through increased production capacity, and to conduct research on potential export markets in preparation for the next stage of development.

3) *Strengthening of export marketing activities*

A good first step in export marketing activities would be to fully utilize the export potential of existing semi-finished and finished goods in the development of new markets. In other words, manufacturers should seek out new buyers to develop sales campaigns for the existing export products based on market characteristics.

In order to accomplish this, the following factors must be taken into consideration:

1. Manufacturers should create a forum from which they can "sell" both their products and their potential for development.
2. Research should be carried out to find methods of marketing which are suited to the intended market.

At present, however, the following problems remain:

1. Most of the medium-sized and larger companies have a few opportunities to display their products at international trade fairs. Typically their only chance comes at the Manila F.A.M.E. (Furnishings and Apparel Manufacturers Exchange), held once a year, and even then many firms do not display every year. Some manufacturers even said that they had never displayed at F.A.M.E. due to a lack of space and the high cost of exhibiting. Thus the number of manufacturers with experience in displaying their products at foreign trade fairs is extremely limited.

2. A few manufacturers have prepared company brochures, product pamphlets, or price lists. Since most orders come with buyer specifications or catalogs, transactions are conducted using sample photographs or designs. Thus there is little sales promotion effort on the part of the manufacturer.

3. Sales strategies are designed to secure a short-term profit. Even in cases of opportunities which could lead to improved quality or technology standards and the expansion of markets, most companies are not likely to establish price strategies based on future development plans. This is particularly true of the larger companies.

4. There is a lack of information gathering and research concerning trends in foreign markets. Even exporters do not appear to have a sufficient understanding of the status of their own products in foreign markets.

These marketing-related weaknesses stem from the fact that until now wooden furniture has been exported under buyer brands. Manufacturers must work to overcome these problems while at the same time making the necessary improvements in technology and production management.

4) Participation in foreign furniture fairs

The major foreign furniture fairs provide an excellent opportunity to gain an understanding of market and industry conditions in the host country as well as trends in competing nations. Active participation in these fairs is needed. Such participation also provides a good opportunity to impress industry representatives from the host nation and other countries with the products and latent potential of Philippine manufacturers.

The following points should be kept in mind when participating in foreign furniture fairs:

1. Advance studies concerning furniture fair characteristics and the host country market
   In order to achieve concrete results, such as contracts with foreign buyers or the holding of business negotiations, a PR strategy for the company and products is indispensable. Sufficient advance studies of trade fair characteristics and host country market trends are also necessary for the establishment of such a strategy.

2. Exhibition plan and strategy
   The greatest task facing the Philippine wooden furniture manufacturers for the time being is to make the world aware of their very existence. Based on the advance studies, guidance should be obtained from advisors/counselors in the host country for drawing up the exhibition plan and strategy.

3. Observation during the fair and follow-up activities
   In addition to the furniture fair itself, follow-up campaigns targeting buyers expressing interest are also essential for corporate promotion. Furniture fairs provide an excellent opportunity to gain an understanding of the latest market trends and forecasts as well as movements at competing firms. There is also the possibility that other participating firms will become future buyers. Thus, the fairs themselves provide valuable hints concerning future partners and marketing strategies, including product planning. In addition, close observation of manufacturers, the distribution industry, and retailers in the host country is also an important means of gathering information.

4. Building of partnerships with foreign manufacturers
   Firms should place greater emphasis on transactions and tie-ups with furniture manufacturers than on transactions with importers. The first objective of the Philippine wooden furniture industry should be the improvement of technology and quality standards, followed by the building of medium- to long-term business relationships. This will lead to improved quality and expanded product lineups. In this type of business relationship, manufacturers make better partners than importers. In transactions with manufacturers, however, specifications are detailed and precise, and high quality standards are required.

Philippine wooden furniture has yet to establish a definite identity even in the United States and Japan, which are the leading export destinations for these products. This is due partly to the fact that most of the exports are in the form of components or semi-finished pieces. For the time being, therefore, the Philippine wooden furniture industry must utilize opportunities such as furniture fairs and related strategies through which it can promote itself.

5) Improvement of product development capabilities

In order for the Philippine wooden furniture industry to develop as an independent export industry, long-term efforts to improve product development capabilities will be needed.

For many years, the industry has relied on designs copied from Western furniture and on orders from the upper stratum of Philippine society. In the case of exports, both finished and semi-finished products were produced based on designs specified by the buyer.

Today, therefore, the industry faces the following problems:

1. In general, designs are simply copies or modifications of Western European antique furniture.
2. There are no industrial or interior designers as such. The so-called "designers" consist mainly of illustrators and copiers.
3. There is a lack of product design and drafting know-how in both principle and practice. Many designs, for example, consist of an external drawing alone with no representation of the joints. Quality and productivity are closely linked to accurate, detailed designs and drawings.

Product development is based on an understanding of market needs as derived from thorough market research. The following steps are needed to release a new product on the market:

1. Original ideas and trial design drafting
2. Screening of ideas and preparation of specifications for designs screened
3. Design improvement and creation of a product concept
4. Study of marketing strategies
5. Study of profitability
6. Prototype fabrication
7. Prototype testing
8. Production
9. Market release

During this process, prototype fabrication and design improvements are repeated numerous times. A timely release of the new product will be another important point.

This type of development must be carried out independently by individual companies, and the end result of persistent and prolonged efforts is an edge on the competition. The backbone of the current Philippine wooden furniture industry, however, is formed by small and medium-sized companies which are as yet incapable of independent development.

In the past, the Japanese furniture industry resolved this problem through the promotion of joint corporate research and assistance from government bodies. Today, medium-sized and larger firms have their own development staffs, and even most of the smaller manufacturers carry out their own development. With the transition from a seller's market to one in which sales and marketing efforts are increasingly important, the role played by government bodies in aiding marketing and product development has been considerable.

To take the example of Shizuoka prefecture, which is a producing district for boxed and shelved furniture and mirror stands and possesses superior design development capabilities, it was the Shizuoka Industry Technical Center and the Local Industry Promotion Center which supervised design and fabrication work for products to be exhibited in the national exhibition of excellent furniture. Local industry groups also formed a research committee (consisting of nine associations and 276 firms as of 1981) for product planning and development as well as the introduction of new technologies required for furniture production. The main activities of this committee are the sponsoring of study groups and visits to individual firms for guidance, the collection and distribution of related information and designs, the implementation of investigations and surveys, and the holding of exhibitions at which the results of this research are made public. In addition, the furniture development research committee, a joint effort of the Local Industry Promotion Center and the Shizuoka Prefecture Furniture Industrial Association, is engaged in planned, organized furniture development. The main objectives of this committee are roughly the same as for the private-level committee described above, but it is engaged in activities which can only be carried out through organized research, including questionnaire surveys, the invitation of development supervisors from other industries, and the sponsoring of materials study sessions to which a number of materials manufacturers are invited.

Since its establishment, the Local Industry Promotion Center in Shizuoka City has viewed the supply of information as one of its most important tasks. The Center edits and publishes collections of furniture designs, furniture design drawings, and furniture details in addition to publications on current trends in European design, etc. based on its own research. Furthermore, it has cooperated with the Small Business Information Center to publish a bi-monthly design information magazine for distribution to related industries as part of its diversified activities to supply design information. The Small Business Corporation has established the Small Business Information Center in order to correct the imbalance between large and small and medium-size firms. The Small Business Information Center has established a wide-ranging economic and technical information network based on tie-ups with other specialized information organizations.

The Local Industry Promotion Center also sponsors furniture design competitions. Superior designs are awarded prizes, and a catalog containing these designs, some of which have been commercialized with great success, is distributed throughout the industry. The Center also purchases specialized books and magazines related to design and technology for display and lending within the industry.

For the time being, the following types of measures would be effective in improving product development capabilities in the Philippine wooden furniture industry:

1. Firms in each area should organize a product development study groups to exchange information and conduct analysis and research. They should also hold regional new product introduction meetings.
2. Official organizations (for example, PDDCP) should aim to provide assistance in the processes of new product development stated above (1 to 7) through: 1) the collection of information and systematic and regular supply of activity results to the industry; 2) the provision of advice to study groups; 3) the organization of nationwide new product competitions and other activities aimed at stimulating new product development; and 4) experimental manufacturing of new products.

To make it possible for official organizations to take on such functions, the following measures are necessary:

1. invitation of experienced experts from abroad.
2. dispatch overseas of staff members who will play a key role in training

Table IV-3-1: Philippines — Furniture Exports, 1988

	Quantity			Value			
Commodity/Destination	A (units)	Share (%)	Share (%)	B ($1,000, FOB)	Share (%)	Share (%)	B/A (US$)
Total	4,872,523	100.0		154,090	100.0		
Furniture, n.e.s. of rattan	3,718,083	76.3	100.0	110,487	71.7	100.0	29.72
United States	2,004,133		53.9	60,741		55.0	30.31
Japan	337,694		9.1	8,939		8.1	26.47
Australia	185,357		5.0	5,526		5.0	29.81
France	134,579		3.6	4,289		3.9	31.87
Canada	132,492		3.6	3,292		3.0	24.85
Others	923,828		24.8	27,700		25.1	29.98
Chairs and other seats of rattan	739,787	15.2	100.0	24,705	16.0	100.0	33.39
United States	472,145		63.8	15,365		62.2	32.54
Japan	48,680		6.6	1,818		7.4	37.35
France	45,425		6.1	1,519		6.1	33.44
Netherlands	28,905		3.9	1,009		4.1	34.91
Australia	18,360		2.5	696		2.8	37.91
Others	126,272		17.1	4,298		17.4	34.04
Furniture, n.e.s., of wood	306,404	6.3	100.0	14,753	9.6	100.0	48.15
United States	205,596		67.1	9,818		66.5	47.75
United Kingdom	36,627		12.0	614		4.2	16.76
Hong Kong	16,018		5.2	823		5.6	51.38
Japan	12,196		4.0	999		6.8	81.71
Australia	11,811		3.9	725		4.9	61.38
Others	24,156		7.9	1,774		12.0	73.44
Chairs and other seats of wood	57,130	1.2	100.0	2,805	1.8	100.0	49.10
United States	27,540		48.2	1,698		60.5	61.66
Japan	6,879		12.0	290		10.3	42.16
United Kingdom	2,914		5.1	208		7.4	11.38
Australia	2,805		4.9	122		4.3	43.49
Hong Kong	2,079		3.6	170		6.0	81.77
Others	14,913		26.1	317		11.3	21.26

Table IV-3-2: Philippines — Exports of Other Wood-based Manufactured Articles, 1988

Article	Unit of Measure	Quantity	Value		
		A (units)	B (US$)	Share (%)	B/A (US$)
Total			78,936,619	100.0	
Wooden doors	K	19,696,350	28,797,734	36.5	1.46
Household utensils of wood	K	8,921,544	15,361,609	19.5	1.72
Carved articles of wood for decoration	K	2,142,665	8,618,108	10.9	4.02
Other domestic & decorative articles of wood	K	1,985,454	7,487,654	9.5	3.77
Prefabricated & sectional buildings & assemblies & parts thereof, of wood	K	11,073,445	7,157,586	9.1	0.65
Other builders wood works, n.e.s.	No	9,562,781	6,563,186	8.3	0.69
Wooden articles for personal adornment	K	91,169	1,310,246	1.7	14.37
Wooden beading & moldings	K	1,454,252	869,834	1.1	0.60
Miscellaneous articles of wood	K	662,220	843,029	1.1	1.27
Cabinet work & small joiner	No	433,434	737,377	0.9	1.70
Wooden picture frames	No	49,296	260,350	0.3	5.28
Bookshelves & wall shelves	No	46,651	186,248	0.2	3.99
Assembled parquet flooring panels	No	113,424	148,758	0.2	1.32
Hoopwood, split poles, piles	K	485,483	123,670	0.2	0.25
Wooden cabinets (excluding console type)	No	4,649	66,067	0.1	14.21
Chest, suit cases of wood	No	1,514	63,796	0.1	42.14
Wooden windows including jalousy	K	54,938	62,629	0.1	1.14
Other improved wood in sheets	M3	143	44,482	0.1	311.06
Table lamps, wall lamps, bracket & other lighting fittings of wood	K	8,550	36,722	0.1	4.29
Spools, cops, bobbins, sewing thread reels & the like of turned wood, n.e.s.	K	8,795	34,196	0.0	3.89
Wooden packing cases	No	3,941	26,494	0.0	6.72
Dasks, barrels, vats, tubs	No	10,716	21,642	0.0	2.02
Reconstituted wood	K	60,356	20,647	0.0	0.34
Paddles & oars	No	305,810	18,627	0.0	0.06
Bobbins, spools & similar articles of turned wood for textile machinery	No	150	4,674	–	31.16
Handle for tools & tool bodies	No	3,780	4,494	–	1.19
Toothpicks	Box	24,586	3,938	–	0.16
Wooden caskets	No	222	981	–	4.42
Handbag frames & handle of wood	No	24	82	–	3.60
Wooden sticks, roughly trimmed	K	255,721	61,759	–	0.24

Table IV-3-3: Estimated Cost of Furniture Production

Cost Factors	US$/pcs	%of[D]	Assumptions
1 Variable Costs			Loss rate 30%, Reject rate 0.5%
1 Lumber *1) [A]	14.4	29.4	27% of [A]
2 Other materials	3.9	8.0	10% of [A]
3 Utility	1.4	2.9	
4 Labor cost	6.6	13.5	
5 Others	-	-	
Sub-total	26.3	53.7	
2 Fixed Costs			
1 Labor cost [B]	8.4	17.1	
2 Overhead	6.3	12.9	75% of [B]
3 Maintenance	3.0	6.1	80% of [C]
4 Tax & duties	1.2	2.4	2.5% of [D]
5 Insurance	-	-	Negligebly small
6 Depreciation [C]	3.8	7.8	25% of [A]+[B]
7 Others	-	-	
Sub-total	22.7	46.3	
Total Production Costs [D]	49.0	100.0	
Profit [E]	7.4		15% of [D]
Marketing cost	9.6		17% of [D]+[E]
Inland transp. costs/charges *2)	0.6		
Freight *3)	3.2		
C&F Yokohama	69.8		

Notes: Medium sized firm. 70% of total fixed costs are assumed for the above chair production costs. Production: 550 pieces/month.

Labor costs:

Office 15 persons, @P3,000/month x 13 months

Worker 70 persons, @P2,000/month x 13 months

Temporary worker 80 persons, @P1,500/month x 12 months

*1) Hardwood: US$0.83/BF (or P18-20/BF at US$1=P23.0)

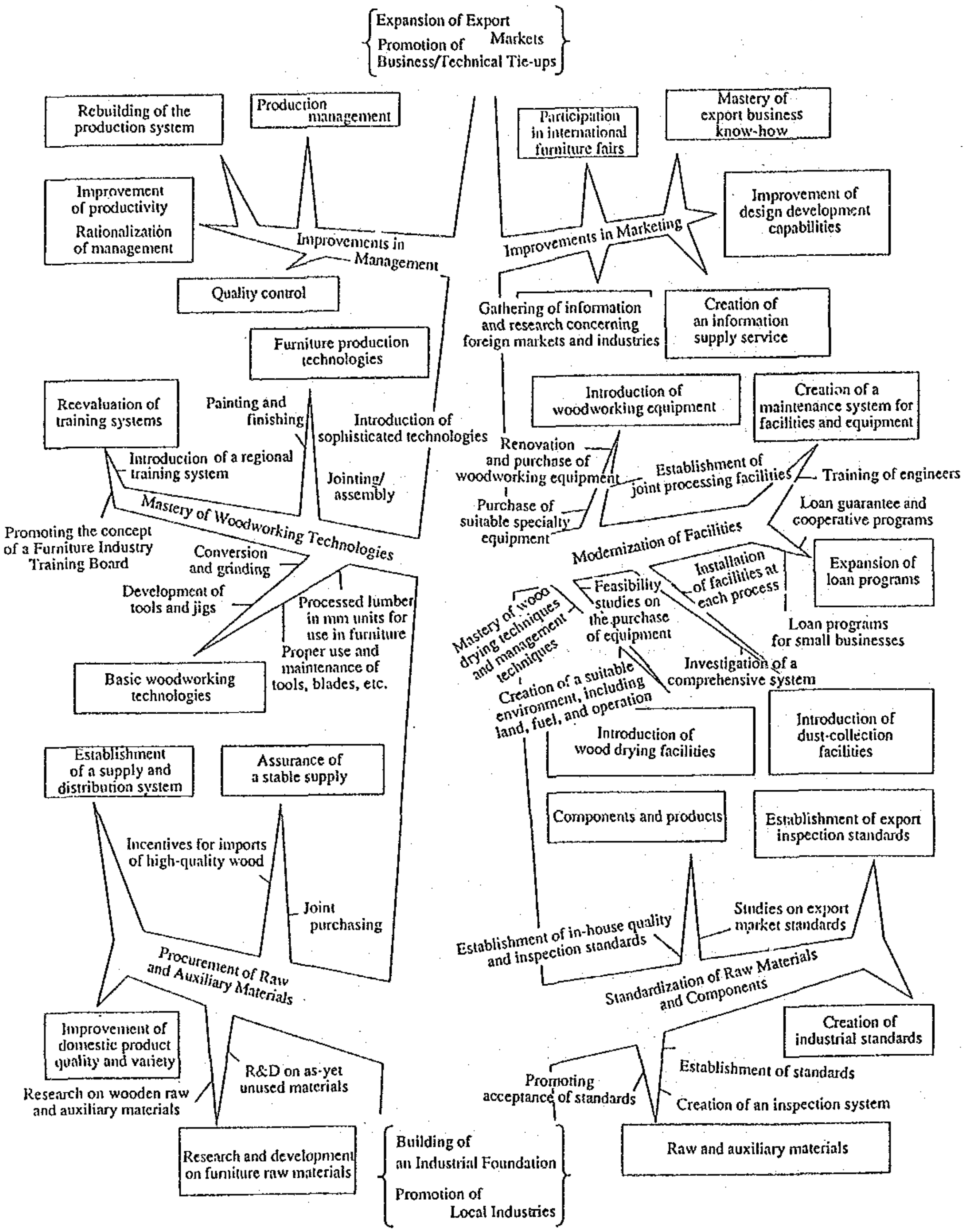
*2) From Manila P1,200-2,600; From Pampanga P3,500-4,500/40ft'er container

*3) US$800/40ft'er container for Manila to Yokohama

*2)*3) 250 chairs/40ft'er container or 500 knockdown chairs/40ft'er container

Estimated cost in Japan (Retail): US$209.80/piece

Fig. IV-3-1: Schematic Representation of Wooden Furniture Industry Promotion



4. Development Policies and Programs for the Wooden Furniture Industry

4-1 Introduction

The condition of the Philippine economy worsened in 1979-80 with the second oil crisis, and high inflation and stagnant production activity during 1983-84 resulted in the first negative industrial growth ever for the country in 1984.

The government made requests to the IMF and foreign bank lending organizations for the deferment of loan repayment and began to rebuild the Philippine economy. The Economic and Social Development Program (1983-87) in effect up to the time was reevaluated and severe budget-tightening measures introduced.

In the revised 1984-87 development plan, furniture was designated as an export priority item together with clothing, electronic components, and other non-traditional items, and was incorporated in the expanded program under the government's structural adjustment plan.

In the medium-term development programs (1987-92) as well, wooden furniture is designated as one of the key export items. Under this series of development programs, furniture is designated as: (1) a local resource utilization industry; (2) a labor-intensive industry; and (3) a short-term strategic export product.

In 1987/88 the Philippine government implemented subsector surveys of seven industrial subsectors, one of which was the furniture industry.

According to a DTI/BOI position paper released in 1990 and specifying how the Ten-Year Sector Development Plan will be approached, the government philosophy with respect to furniture industry promotion can be summarized as shown below.

1. Furniture industry strengths
   Internal factors include the existence of the Chamber of Furniture Industries of the Philippines (CFIP) and a plentiful supply of skilled labor. Changes in the external environment include the loss of GSP status for the NIEs and the interest shown by Taiwan in investment in the Philippines.
2. Furniture industry weaknesses
   Insufficient funds and equipment, a shortage of rattan poles, and insufficient information on foreign markets.
3. Action strategies
   Based on the 15.5-16.7 percent annual growth in foreign exchange earnings through furniture exports in 1989-90, growth of 22 percent seems to be plausible for wooden furniture (Table IV-5-1). The export target for 1991 has been set at $46 million. The main policies emphasize access to raw materials, expansion of production volume, and training.
4. Role of the furniture industry
   Companies must be more aggressive in their efforts to resolve the problems now facing the industry. Areas requiring further study include style, design, materials, and pricing. Joint ventures with foreign companies should be promoted for the improvement of quality standards. Study of the essential conditions for penetration of foreign markets is needed, together with penetration of non-traditional markets.

Unfortunately, a shortage of government funding has prevented full-scale implementation of the Ten-Year Sector Development Plan.

The furniture industry is a very active sector, with increasing cooperation between the government and private sector. For example, the CFIP together with related government organizations has proposed the establishment of a Furniture Industry Training Board to provide an opportunity for evaluation and coordination of the numerous education and training programs currently being implemented.

4-2 Securing of Raw Materials and Processed Lumber and Export Restrictions

Philippine forests are gradually being reduced as the result of logging and regional development. In 1982, forested areas (totaling 12.6 million hectares) accounted for 42 percent of the national land mass of 30 million hectares. By 1988, this had fallen to 7.1 million hectares, or 24 percent of the total. Virgin forest as of 1988 totaled 1.2 million hectares, or 17 percent of the total forested area, with the loggable volume estimated at 63 million cubic meters. Reforested and afforested areas accounted for another 49 percent of total forested area, and protected forests for 34 percent. The government began in the mid-1970s to establish a plan for forest protection and the effective utilization of natural resources. The forestry reform order was established in 1974, and in 1976 work was begun on export restrictions for logs.

The management of publicly-owned forests was also reevaluated, and the government worked towards the designation of protected forests, the restriction of slash-and-burn farming, and the adjustment of the period for logging rights (10-25 years). In response to the increase in local lumber consumption and demand, the government promoted the utilization of trees which in the past were not sufficiently utilized as well as promoting afforestation and reforestation.

Forest protection policies were continued under the Aquino administration, and under the current system logging rights are placed under government control upon expiration. At the present, however, forestry policy contains no clear indicators as to the continuation or abolishment of logging rights.

A species of *Dipterocarp* accounts for the majority of Philippine forests, and red and white lauan trees are the most common, representing approximately 30 percent of the total.

As of August 1990, there were approximately 70 firms with logging rights, but this figure is expected to drop to about 50 within one to two years. According to Forest Management Bureau, there is absolutely no uncertainty as to the future of logging itself.

Starting in 1989 the government expanded the export ban to include processed lumber as well as logs. The objective of this was to promote high-added-value exports of wooden furniture and other related wooden products. On the other hand, due in part to Indonesia's enactment of a ban on rattan pole exports at the end of 1989, the industry has been working to increase exports and achieve a shift away from rattan furniture while at the same time investigating policies for the very survival of the Philippine furniture industry.

The wooden furniture industry has welcomed the government ban on processed lumber exports, which has removed any fears concerning local supplies of furniture materials.

Specifically, the annual supply of processed lumber has reached 3 million cubic meters, while demand for furniture materials is only about 10 percent of that figure.

According to the leadership of the CFIP, demand for furniture materials is centered around mahogany, but annual demand for this material is about 100,000 cubic meters. Assuming future growth in furniture exports of more than 20 percent per year, exports of wood materials will reach the $100 million mark five years from now, and consumption of processed lumber is also expected to double.

As a result, the CFIP is now sounding out member firms concerning a plan to secure processed lumber stocks through joint purchasing.

The Philippine log harvest is limited to the six-month dry season. Once the rainy season begins, it becomes difficult to procure processed lumber, and prices rise correspondingly. The organization therefore hopes to set up an annual stockpile of approximately 6 million board-feet. In addition, the furniture industry contains numerous small businesses; these firms lack capital resources as well as inventory space. The CFIP therefore hopes to take this opportunity to achieve a stockpile of processed lumber and open the road to cooperative operations in the near future.

However, the export of logs and processed lumber has represented a relatively easy source of foreign exchange earnings for the Philippines in the past, and this has acted as a hindrance to the promotion of local furniture and other processing industries. There are rumors that the ban on log and processed lumber exports will be partially lifted, and furniture industry sources appear to be apprehensive about these movements.

4-3 Problems Facing Wooden Furniture Industry Development Policies

(1) The Need for a Strategic, Concentrated Small Business Policy

It was noted above that most of the wooden furniture manufacturers in the Philippines are small and medium-sized firms and cottage industries. Since the second half of the 1980s the Philippine government has designated the export furniture sector as a key promotion industry, but budgetary constraints during this period meant that government promotion policies were far from satisfactory. This was even more true of the promotion policies for small and medium-sized wooden furniture manufacturers which had developed their operations based around the local market.

As a result, the wooden furniture industry has yet to accumulate sufficient capital and renovate facilities, and it remains unable to compete on the international market due to inadequate technology, capital, and marketing. It is only recently that efforts have been made to improve these areas. The following types of assistance are needed to allow the Philippine wooden furniture industry to compete on an equal footing with industries in other nations: 1) guidance in the areas of technology, management, and marketing; and 2) assistance in raising funds for capital investment.

Until now, small business policies have placed an equal degree of emphasis on all small businesses. For instance, small companies were encouraged to locate outside the Metro Manila area in accordance with the policy of industrial dispersion, and firms with more new hirees were given priority in order to create new jobs. These policies contributed to the realization of social equality within the framework of small business policy. What is needed today, however, is a dynamic force for economic development. It is important to form a core for economic development and effect a transition to an export-oriented industrial structure. From this standpoint, the country needs a small business policy that will create a group of companies and individuals capable of forming a dynamic nucleus for wooden furniture industry promotion. Strategic policies targeting corporations (mainly in Groups A2 and A3) enthusiastic about exports must also be developed.

(2) The Need for Reconsideration of Education, Training and Technical Guidance Systems

The Medium-Term Development Plan (1987-92) designates the furniture industry as a key sector to industrial development and export promotion in the Philippines.

Consequently, numerous furniture-related education, training and technical guidance programs have already been implemented, and presently numerous programs by government organizations together with technical assistance programs from abroad have been incorporated.

Many of these programs, however, have not achieved satisfactory results. Reasons for this include the following:

1. There is no structure for related organizations involved in education and training to mutually cooperate concerning curriculum and guidance content and make use of each other's results.
2. There are no clear training standards for middle-level technicians and management. Repeat programs are needed for this class of individuals in the following areas:
   (1) Technology and production process management
   (2) Foundations for management techniques
   (3) Quality control
   (4) Practical marketing techniques
3. The expansion of training and guidance for local furniture producing districts, and in particular practical guidance in basic materials know-how, furniture manufacturing technology and know-how and practical marketing skills are needed.
   Recently, related government organizations and CFIP have linked up to propose the formation of a Furniture Industry Training Board, and a movement to reevaluate and coordinate curriculae at the related organizations can be favorably evaluated. In the future, it is suggested that a more practical consultancy program be incorporated into the training and guidance for upper-level technicians and management.

4-4 Government Bodies and Industry Associations

(1) Government Bodies

Table IV-4-1 provides a list of the main government bodies and industry associations related to the wooden furniture industry. In addition to these can be found the following DTI departments — Industry Group/BOI, BETP, BSMBD, and BPS — as well as DOST in the area of industrial technology.

The BOI is responsible for supervision of industrial development policies in terms of investment and taxation, and from the standpoint that wooden furniture is one of the key export promotion items, both BETP and other related organizations are deeply involved as well. In addition, the BSMBD plays an important role in the sense that this subsector comprises mainly small and medium-sized companies. These three organizations, however, are responsible for their respective fields only, with none of them taking the lead in planning and proposing policy. In this sense, supervisory departments for the sector-unique approaches described above are necessary, and it is necessary to design, monitor, and modify comprehensive policies to realize the long-term vision for these subsectors.

(2) Industry Associations and Implementation of the Industrial Development Plan

1) Industry associations today

Leading corporations in the Philippines have formed industry associations in all industrial sectors. Their objectives vary, but in general they aim at information exchange and mutual training in addition to various joint activities. CFIP is virtually the only such association for the furniture industry (including rattan and cane, wooden, and other types of furniture), and it engages in a wide range of activities. There is also another industry association consisting solely of furniture manufacturers from the Angeles area.

In the Philippines, industry associations have long served as industry spokesmen as well as a pipeline for communication with the government. In recent years the government has adopted policies utilizing the dynamism of the private sector, and industry representatives are often invited to sit on various communication and coordination committees and provide industry viewpoints. Industries have also been active in submitting position papers to the government and congress. CFIP is very active in this respect, participating in virtually all of the furniture-related committees and submitting reports concerning lumber exports, etc.

These industry associations are formed voluntarily. Although there is a high percentage of membership among firms targeting export markets or the high-grade local market, few such organizations exist for the small businesses and cottage industries supplying to local and low-grade markets. Although CFIP includes among its members most of the country's furniture exporters, the percentage of membership is extremely low when the total number of firms in the industry, including small businesses, is taken into consideration. Nonetheless, it has a significant influence over the industry, and it is trusted by both member and non-member companies.

2) Industry associations and implementation of the industrial development plan

At present, CFIP's main activities are as follows:

1. Preparation and submitting of industry position papers
2. Cooperation with related government bodies in implementing and coordinating various programs
3. Activities as the core of efforts to improve technology and marketing through participation in various programs

The organization is also active in working to obtain an overview of the furniture industry through its cooperation in the 1987/88 Subsector Survey and the corporate questionnaires distributed as part of the present Survey.

Concerning the furniture industry, CFIP has already played a leading role in industrial development, and cooperation with government bodies is proceeding well. In the future, CFIP should consider the following types of activities for the improvement of the industry foundation in key furniture industry producing districts and the strengthening of the export capabilities of the furniture industry:

1. Statistical surveys designed to provide an overview of current industry conditions.
2. Reinforcement of regional offices to assist regional activities in key producing districts: The regional offices should draw up development plans for each district and work to achieve these objectives. Possible activities include the

establishment and operation of district training systems, the creation of district product development associations, and the promotion of joint corporate activities.

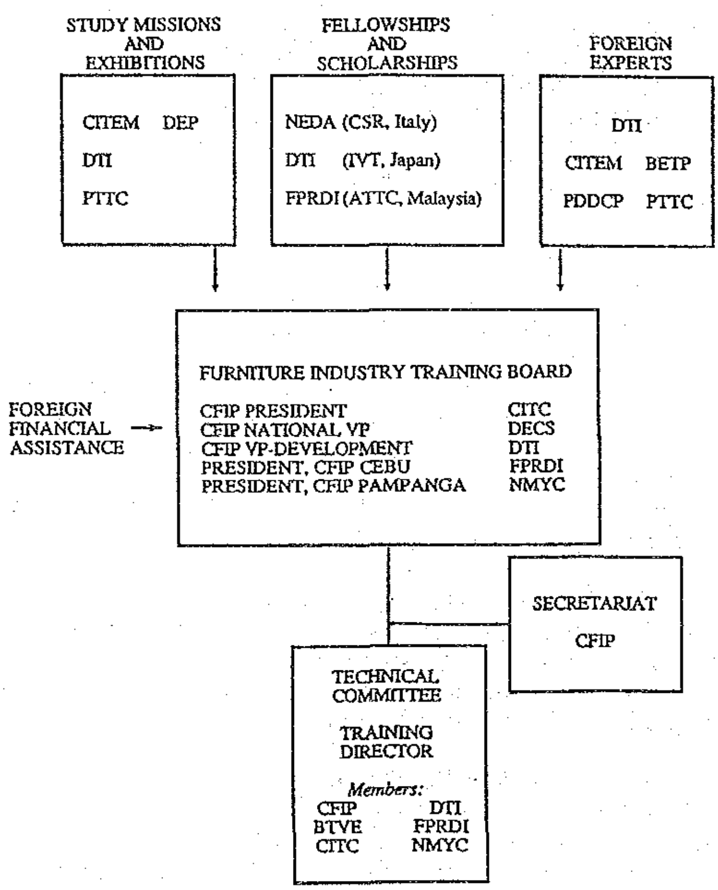
3. Linkages with sister industries in other countries, information exchanges, and the feedback of survey and research findings to member firms.
4. Creation of a foundation for loan guarantees and a mutual aid program.

3) Advice concerning the promotion of industry associations

CFIP operating costs are shouldered by member firms in the form of dues. The organization has no full-time chairman; instead, officers (who are company owners) nominated by the board are responsible for daily activities. More intensive research, PR, and organization activities will require the appointment of a full-time chairman as well as a larger office staff. In addition, the organization's treasury could be bolstered by the supply of overseas furniture-related information, the introduction of member firms to buyers, and the undertaking of surveys for the Philippine government or foreign organizations through its branch offices across the country.

Regarding DTI-related government institution training programs in particular, CFIP could probably attract clients by creating instructor pools consisting of industry experts and holding lectures or workshops in the areas of production technology or marketing.

Furniture Industry Training Board



Source: Technical Working group (November 1990)

Table IV-4-1: Organizations Related to the Wooden Furniture Industry

Public organization (Location)	Number of staff members	Established government agency	Objectives	Activities	Cooperation from overseas	Remarks
Center for International Trade Exposition & Missions, Inc. (CITEM) (Pasai City, M.M.)	Approx. 80	DTI	• Set up in January 1983 as an export promotion body. • Export promotion and marketing of non-traditional items. • Planning and implementation of trade fairs, special exhibitions, selling missions and other trade promotion business.	• Holding of an international trade fair F.A.M.E. (Furnishings and Apparel Manufacturers Exchange) in Manila. • Participation in major exhibitions and trade fairs abroad. • Operation of permanent exhibition halls.	ASEAN Centre	• Strategic know-how concerning holding of or participation in exhibitions should be acquired. • Particularly for exhibitions overseas, market surveys and research should be done prior to and simultaneously with exhibitions.
Cottage Industry Technology Center (CITC) (Marikina, M.M.)	75 (59 full-timers including 47 engineers, and 16 employees under contract including 2 engineers)	DTI	• Founded in 1966 as a technological training center (former acronym: NACIDA), reorganized as existing form in 1987. • Provision of guidance on basics and practical techniques through its own workshops for metals, woodworking, bamboo, rattan and ceramics. • Target of training: Cottage industries and small and medium enterprises.	• Lecturers on woodworking number around 20 including experts from CITC and other public organizations as well as private enterprises. • Training period ranges from 3-5 days to 3 weeks. • Provincial guidance tours are made.	JICA	• Woodworking centers in Tugegarao/Cagayan and Davao City are planned. • Machines and tools to match the various processes are insufficient. • Training and enhancement of CITC technological staff are necessary.
National Manpower and Youth Council (NMYC) (Teguig, M.M.)	Inclusive of regional staff: 1,554 (Manila office only: 502)	DOLE	• Established in 1969. • Planning and implementation of training programs as a human resources development organization in close connection with industries, enterprises and training centers. • Aims at qualitative improvement of work force and promotion of employment.	• NMYC staff members permanently stationed at CITC map out and implement training programs in tie-up with CITC, PTTC, CFIP, etc.		• Number and quality of instructors should be enhanced.
Philippine Exporters Foundation (PEF) (Pasay City, M.M.)	59	—	• Set up in 1984, has membership of 465 firms from 12 types of industry. • Assistance in the field of practical business on planning and implementation of various under-	• Provision of economic assistance to undertakings of CITEM, PDDCP, PTTC, etc. (examples: invitation of foreign experts, overseas market surveys and others).	World Bank Asian Development Bank	• Development of provincial-level activities has been considered and is now being worked toward. • Enhancement of interchanges with overseas trade promotion organs.

Public organization (Location)	Number of staff members	Established government agency	Objectives	Activities	Cooperation from overseas	Remarks
			takings related to export promotion as an intermediary between government and private sector. • Supplying its members with information, providing them with advice or agency business on practical trade affairs, and other activities aimed at facilitating their export business.		U.S.A.I.D.	• Charged with practical coordination to link and efficiently operate undertakings by various public organs.
Philippine International Trading Corporation (PITC) (Makati, M.M.)	257	DTI	• Established in 1973 • Formerly engaged in trade with Communist countries alone as a national trade corporation but now handling trade with other countries as well.	• Supply of information regarding trade deals, provision of consulting services and implementation of agency business on trade.		
Product Development and Design Center Philippines (PDDCP) (Manila, M.M.)	117 (93 engineers including 7 furniture designers)	DTI	• Set up in Aug. 1973 • Engaged in activities for improvement and propagation of designs with a view to promoting industrial design. • Making efforts to discover and train talented people in tie-up with designers associations and design schools.	• Research and development of designs for industrial products, packaging, etc. and operation of industrial design information supply business.		• Gathering and study of overseas information on designs are insufficient. • The exchange of information and people with other countries concerning industrial design should be enhanced.
Philippine Trade Training Center (PTTC) (Pasay City, M.M.)	80	DTI	• Founded in 1987. • Aims at contributing to national trade promotion by training skilled people who are well versed in practical trade business and marketing methods. • Sets up courses for training on trade, export inspection (of textiles, furniture and foods), business Japanese and exhibitions.	• Exercises on features of materials and test/inspection. • Guidance on practical business such as trade practices, seminars and training on exhibitions. • Training programs are planned and operated by Japanese experts and staff members.	JICA	• Training and enhancement of PTTC technological staff are necessary. • Enhancement of training curricula concerning export businesses is expected. • Enhancement of the provincial guidance tour system is expected.

Public organization (Location)	Number of staff members	Established government agency	Objectives	Activities	Cooperation from overseas	Remarks
Chamber of Furniture Industries of the Philippines (CFIP) (Pasig, M.M.)	500 firms	—	• Established in 1966. • A national organization comprised mainly of furniture manufacturers with headquarters in Metro Manila and 10 branches in the provinces. • Playing the role of vitalizing the industry through requests to and cooperation with government and public agencies and by providing its members with assistance and guidance.	• The only organization in the furniture industry which has nationwide organizing ability. • In recent years, making efforts to strengthen its functions as an industrial body. Very active.		• Relations with government and public bodies are strengthened in an effort to modernize the furniture industry. • Original responses are being sought by setting up study groups on different themes. • Efforts are made to enhance international exchanges with a view to playing the role of industry leader.
Philippine Chamber of Commerce and Industry (PCCI) (Makati, M.M.)	60	—	• Founded in July 1978	• Having set up a furniture section, making efforts for international exchanges as a member of Confederation Asian Pacific of Chambers of Commerce and Industry/Furniture Council.		

5. Framework of the Development Program for Wooden Furniture Industry and Recommendation on the Implementation

5-1 Framework of the Development Program

(1) Establishment of Targets of Development Program

1) Introduction

The characteristics of the Philippine furniture industry differ greatly from region to region, and the current trend is for districts to set future objectives based on their own unique characteristics.

The central Luzon furniture industry, typified by Manila and Pampanga and consisting mainly of firms in Group A, exports primarily chairs made from dark red lauan. This material is capable of producing the highest grades of furniture, and demand would probably increase further if the material were used in table-and-chair sets as well. Unfortunately, buyers are apprehensive about tables given current Philippine technological standards. Plywood is currently used for tabletops, with only small corner tables and similar pieces using solid woods. Even top-class furniture manufacturers in the Philippines, fearing the twisting, cracking, and shrinking which can plague solid wood tabletops, have yet to produce anything beyond prototypes. With the introduction of finger-joint laminating board technology, more thorough drying of wood, and the improvement of adhesives, however, it is thought that development of such products would be possible. The capability to produce large, solid-wood tabletops would also give a much greater degree of freedom to designers. An era of system furniture is ahead of us. Shipments of chairs and tables as units will be more effective in the export market.

Furniture in central Luzon and Pampanga in particular is also characterized by a predominance of hand-carved pieces. Carved furniture manufacturers must pay more attention to export competition with hand-carved products from Thailand, Malaysia, and Indonesia as well as machine-carved products from Italy and other Western European nations, the former in terms of technology and pricing and the latter in terms of quality and pricing.

In Cebu there are two main groups of furniture manufacturers. The first consists of firms which fall mainly into Group B and which moved into wood products and wooden furniture from the processed lumber business; the second, firms which started out as producers of rattan furniture and later expanded their field of operations to include wooden furniture and wood-and-rattan combination furniture. While companies in the former group have introduced machinery for finger joints and N joints, their products are limited to middle- and low-grade furniture and doors. As a result, patterns of development at these firms are thought to be the same as those for the Davao manufacturers to be described below.

Combination furniture uses wood as a structural material, with rattan and cane used as an external covering. Combination furniture producers include firms producing as an extension of their rattan furniture business and firms which are concentrating their efforts on cased furniture and have already achieved sufficient capabilities in this field in terms of design, etc. Cased furniture has significant potential for future development, but bending furniture, which has experience in rattan furniture, should also be investigated. This field, however, will require work from the development stage onward.

The furniture manufacturers of Davao use as their main material pink lauan, which is not suited to use in high-grade furniture. As a result, it is impossible to recommend that these firms make forays into the chair and table sector. Instead, they should consider production of furniture components, building materials, doors, and sliding doors utilizing their ample capital resources and existing facilities and equipment. Some of the firms in this region have already established tie-ups with foreign companies, giving them good access to technology and market information.

In Davao, the development of soft falcata wood is notable in the development of as-yet unused materials. Falcata is thought to be suitable for drawer side panels, and if combined with plywood bottom panels and solid-wood front panels of pink lauan or Philippine rosewood, further applications could also be expected.

In summary, several characteristics can be seen among Philippine wooden furniture manufacturers based on geographic location and corporate scale. These production structure-related characteristics were already discussed in Chapter 3. Those firms classified into Group C can introduce technology relatively easily because of their current relationships with advanced enterprises abroad. They are also expected to develop on their own as exporters of parts and semi-finished goods using mechanization and mass production. Group B firms are expected to trod a similar path of development or else target the middle-grade furniture market. Consequently, the greatest potential for a definition of future Philippine wooden furniture characteristics and the development of exports is at the Group A firms, which use solid woods.

2) Short- and mid-term targets

Generally speaking, Philippine wooden furniture production technologies are not at a level capable of directly targeting the high-grade furniture market. Even those firms falling into Group A1 are currently exporting only semi-finished products for sale under buyer brands. If direct exports of finished products were possible, the standards of current products might create an unfavorable reputation that would present marketing difficulties for future products.

For the time being, therefore, furniture manufacturers must use their exports of semi-finished goods to high-grade furniture markets as a means of securing access to these markets while at the same time working to achieve the quality, delivery time, and pricing-related capabilities required by the export market.

In terms of technology, firms should introduce finger-jointing and utilize the advantages of solid hardwoods to move into the table sector. Furthermore, a balance must be achieved between current hand carving and machine carving in order to improve product precision.

3) Long-term targets

The long-term target is the export of finished products to high-grade markets under Philippine brands. Achievement of this goal will be possible only if technologies, management techniques, and marketing know-how are mastered in the short- to mid-term.

4) Wooden furniture export targets

Table IV-5-1 shows the export targets set out in the 10-Year Development Plan. Exports in 1985 and 1986 were only US$5.8 million and US$6.6 million, with no significant increases in growth. In contrast to these figures, export targets were set at US$40 million for 1990 and US$106.4 million for 1997.

As a basis for these high targets, the 10-Year Development Plan holds that they are the result of the infrastructure, finance, and technology packages expected from both the government and the private sector during this period, and that the average annual growth figure of 22 percent is in fact a conservative estimate when inflation is taken into account.

(2) Basic Perspective in Development Strategies

The key to the development of the Philippine wooden furniture industry as an export industry will depend on the achievement of the following two conditions:

1. Strengthening of export marketing activities
2. Improvement of the fundamental business performance capable of satisfying export market needs

The strengthening of export marketing activities is required for the following two reasons: 1) in the short term, so that current export activities can be implemented as effectively as possible, while at the same time increasing the understanding of export market needs by increasing opportunities for contact with export markets; and 2) in the long-term, so that future Philippine quality and design-related capabilities can be improved and new markets developed.

Export market needs include: 1) product-related requirements such as quality, design, and pricing; and 2) business-related requirements such as the observance of delivery schedules and the processing of claims. Some Philippine furniture manufacturers have already become involved in export operations centering around the United States and Western Europe, but even these firms often fail to satisfy these needs. In order to achieve a fundamental business performance capable of fulfilling these needs, the numerous problems described in Chapter 3, Section 3-3 will first have to be resolved.

In order to achieve these conditions efficiently, the first step should be to make effective approaches to export markets. At the same time, the industry and firms should start dealing with corporate reform so that they are able to cope with the needs of export markets. The approaches to and contact with export markets will provide a stimulus for the revamping of the industry and individual firms, while the effects of the corporate reform will contribute to an increase in the number of opportunities for advances into export markets and tie-ups with overseas firms.

The most effective means of improving the fundamental business performance is for firms to receive infusions of expertise through tie-ups with advanced foreign firms. Before such relationships can be established, however, the local firm must have achieved a certain degree of technology and management-related development in order to make the tie-up meaningful. First of all, immediate work on the mastery of basic requirements is needed. This will then form a basis for the next step, be it the establishment of tie-ups or the development of original technologies.

Together with these types of activities, adequate economic and technological infrastructures must be created. Specifically, this will involve the following:

1. The establishment and expansion of financing programs for facility modernization.
2. The enhancement of training system.
3. The improvement of systems for technical guidance together with testing and research.
4. The improvement of trading procedures and regulations for export promotion.

5. The improvement of an adequate infrastructure, including power supplies, transportation, and communications.

These improvements in the infrastructure and tie-ups with foreign companies will contribute to improvements in the fundamental business performance of corporate/subsector level, thereby leading to further export growth. In order to achieve the above objective of expanded exports of finished products under Philippine brands, however, comprehensive marketing activities, including product/design development, will also have to be undertaken.

(3) Recommendations on Development Programs

1) Framework of the development programs

Efficient promotion of the wooden furniture industry will require assistance and promotion in the following fields:

1. Promotion of proper approaches to the export market
   a. Greater market research and information gathering activities
   b. Proper approaches to the export market based on the results of these activities

2. Improvement of the fundamental business performance capable of satisfying export market needs
   a. Understanding of the quality standards required by the market and increased awareness of the importance of quality
   b. Mastery of technical know-how for the improvement of product quality
   c. Understanding of the need for production management with key points such as delivery schedules and cost management

3. Development of economic and technological infrastructures and institutional set-up
   a. Establishment of systems to assist facility modernization and management rationalization
   b. Improvement of a system to assist design development capabilities
   c. Introduction of training systems for skilled workers in the provinces
   d. Promotion of standardization for raw material, auxiliary material and components as well as products
   e. Establishment of a system to assist cooperative activities by small business and cottage industry

4. Promotion of tie-ups with foreign advanced firms

In addition to the above measures, proposals have been made for: (1) enhanced and more effective financing programs for the promotion of small business; and (2) the strengthening of industry associations.

The objectives of the measures listed above will be described below (the recommended individual development project are discussed in Chapter 6).

2) Promotion of proper approaches to export markets

Some Philippine wooden furniture manufacturers have already achieved significant export performance. Because of the imperfect approaches used in the past, however, many markets remain undeveloped despite the latent potential at these firms.

In order to overcome such problems, government and industry must work together to implement proper approaches to the export market through participation in furniture trade fairs and exhibitions. This will require the following types of preparatory activities:

1. Greater surveying and information gathering activities for the targeted export markets
2. Greater preparatory activities to take advantage of the opportunities provided by furniture fairs, etc.
3. Assistance for Philippine exhibitors in preparing promotional materials

Also needed is assistance for post-exhibition follow-up activities.

The main objective of these export promotion activities is to take full advantage of the current export potential of Philippine manufacturers. Given current technology and quality standards, however, it must be understood that any growth in exports will be limited.

Even if these activities do not lead to an immediate increase in shipments, they are necessary for and effective in achieving the following goals:

1. Increasing awareness of export market needs among participating firms and acting as a stimulus for the improvement of a fundamental business performance capable of satisfying these needs.
2. Providing opportunities in terms of promoting tie-ups with advanced foreign companies.

3) Improvement of a fundamental business performance capable of satisfying export market needs

Some of the existing exporters ship finished products to the U.S. market, but virtually all shipments are in the form of semi-finished pieces. This is because the quality standards of finished products in the Philippines are not capable of satisfying market requirements. Viewed from the Japanese market, the design and quality of Philippine products are insufficient even if they are regarded as semimanufactured products. In addition to quality and design problems, improvements in delivery schedule management and cost management are essential if foreign buyer needs are to be met. Tie-ups with advanced foreign companies and the resulting transfer of technology are in fact the most effective means of improving product quality and designs. However, many firms in other countries are also desirous of such relationships. In order to realize these tie-ups, Philippine companies will have to achieve standards of technology and management which are acceptable to the foreign partner firm.

Management has visible and invisible elements. Reform of management philosophies and employee attitudes are invisible but they are nonetheless the most fundamental factors in the improvement of management. Any effort to improve management will undoubtedly fail without reform in these areas. The improvement of management which would accompany such reform is indispensable to the corporate reform of exporting firms. If they do not reform in these areas, their mastery of technology will have no effects. This program aims at such reform, which alone would give life to the mastered technologies. From this standpoint, Philippine furniture manufacturers, including firms in Group A1, will first require improvements in the following areas:

1. A proper awareness of the quality requirements of export markets.
2. Mastery of the technologies, production management techniques, and management techniques needed to satisfy the needs of export markets and buyers.
3. Introduction of suitable, necessary production facilities.

4) Development of economic and technological infrastructure.and institutional set-up

These various improvement efforts will involve many problems whose solution is beyond the scope of individual firms. The wooden furniture industry in particular contains numerous small and medium-sized firms, and a certain amount of assistance from programs and infrastructure will be needed in order to quickly bring them up to a level at which their fundamental business performance will be accepted on the international market.

When the current state of the Philippine wooden furniture industry is taken into consideration together with its goals for development, enhancement of the infrastructure in the following areas will be especially important from a strategic standpoint:

1. Assistance for facility modernization
   Virtually all of the equipment possessed by wooden furniture manufacturers and small businesses in particular (mainly those firms falling into Groups A2 and A4) consists of old, general-purpose models. Maintenance and repair are also insufficient. It would be difficult to produce products with the precision required by the export market using these equipments. However, because most of the manufacturers are small firms or cottage industries and because peripheral service industries, including parts supply and after-sales service, remain undeveloped, the purchase and maintenance of equipment and facilities will be difficult without assistance in the following areas: 1) technical guidance; 2) financing; and 3) adjustment and repair services. Thus the modernization of facilities and equipment will require the creation of suitable assistance programs.

2. Assistance in improvement of design development ability:
   For the Philippine furniture industry to develop its own marketing capability as an export industry in the future, it must build the ability to develop product designs for which it now depends on buyers or copying. One effective way of assisting in this development would be to identify individual firms' efforts to improve their design developing ability and to assist such efforts. Assistance may come in the form of strengthening the organizations which play the central role in design development by adding talented staff and enhancing the activities centering around such organizations.

3. Training for skilled laborers in the provinces
   As the furniture industry grows, training of the skilled laborers who support it becomes necessary, and a plan to provide such training should be embarked upon immediately. Skilled laborers should be trained in machine operation, repair, adjustment, etc. in order to be able to handle all of the processes required in the manufacture of high-grade furniture. This type of training program is especially needed in the provinces, and discussions on a skilled laborer training program for the provinces should be continued.

4. Promotion of standardization
   Many of the materials purchased from outside sources by the wooden furniture industry have a large impact on the quality of the finished product. There is a

need to promote standardization and increase convenience for the user; industrial standards should be established for adhesives, plywood, and dowels in particular should be established and inspection facilities expanded so that the purchaser can use the materials with assurance that the indicated specifications are accurate.

5. Assistance for the formation of cooperatives of small business and cottage industry
Furthermore, the companies falling into Group A4 have small production capacities and are sometimes incapable of meeting the order volumes and delivery dates required by importers. In addition, they are too small to come into consideration for the outside tie-ups discussed above. The formation of cooperatives is an effective means of providing these small companies with an opportunity for development. This also makes it possible to improve the export readiness of the industry as a whole. Management-related guidance for these firms should be enhanced.

5) Promotion of tie-ups with foreign advanced firms

Tie-ups with foreign companies are thought to be extremely effective in improving product quality. Tie-ups with advanced foreign firms would provide Philippine companies with an opportunity to proceed with facility modernization and improvements in the quality control framework as well as to master marketing-related know-how, including design development.

Tie-ups with foreign companies are usually based on a relationship of trust, which in turn is based on personal relationships. Consequently, the following activities are needed as part of efforts to promote such tie-ups:

1. The formation of personal relationships through the holding of exhibitions and the dispatch and acceptance of missions.
2. The formation of personal relationships through the dispatch and acceptance of trainees. (See Fig. IV-5-1)

5-2 Recommendation on Implementation of the Development Program

(1) Introduction

In the past, comprehensive promotion plans were drawn up for other sectors on several occasions, but most of these have been insufficient in their implementation. The question of how to achieve successive implementation is therefore an important topic for this development program as well.

First of all, rather than focusing on the individual development projects, implementation should proceed in a unified manner based upon an understanding of the roles played by these individual projects within the framework of the comprehensive program.

Next, bodies with responsibility for implementation of the project must be created. A framework should be provided in advance to encourage the smooth progress of the various preparatory and coordination processes. Active efforts are also needed on the part of the responsible bodies in order to carry out activities for the raising of the necessary funds.

The following section will offer advice on how to achieve a comprehensive effect through the interrelation of various project functions and the implementation of the development program. Suggestions will also be provided concerning implementation order and schedule for the various projects. Finally, advice will be given on how to go about preparing the implementation system.

(2) Development Stages of the Wooden Furniture Industry and the Need for Projects Implementation Corresponding to These Stages

The three stages of wooden furniture industry development envisioned by the development program are as follows:

1. A significant number of the Philippine wooden furniture manufacturers are already engaged in exports. With the exception of a handful of firms, however, the products exported by these companies do not have a sufficient reputation to allow export and marketing of finished pieces under original brands. Though willing to advance into the export business, almost none of the small enterprises have reached the level where they are able to do so. Generally speaking, most companies, regardless of corporate scale, have yet to achieve an understanding of the product quality standards, management techniques, and technological points required for export business. The first stage of development, therefore, involves obtaining numerous opportunities for contact with export markets and using these to gain an awareness of export business fundamentals.

2. Once they achieve an awareness of these points, most large and medium-sized firms can be expected to actively embark on the improvement of facilities, the improvement of production management, the mastery of technical points, etc. either on their own or through tie-ups with foreign companies. Small companies and cottage industries, on the other hand, cannot be expected to make these improvements entirely on their own, even if they understand the need for such improvements. Assistance will be needed in areas such as facilities, technology and marketing to which small companies cannot effectively respond on their own. Thus the second stage of development is one in which companies become aware of the areas requiring improvements and work towards the development of export business.

3. As exports increase, tie-ups with foreign buyers are also effective in promoting the development of original technologies and management techniques at wooden furniture manufacturers. This is the third stage of development. In this stage, the emphasis is on the creation of a system providing the assistance needed by individual companies in their development process.

From the standpoint of government assistance, the short term, corresponding to the first stage of development described above, should involve the activities of numerous organizations, including the following: 1) for those firms which are currently exporting or plan to do so in the near future, the aggressive provision of opportunities for contact with foreign markets; 2) assistance for mastery of the necessary technology, production management, and management-related points needed as export corporations; and 3) with the development of the wooden furniture industry in the future, several types of official assistance will become necessary. Some types of assistance will require huge investments or consensus among several organizations (industrial organizations and related government and official agencies) for implementation. Such projects will require the cooperation of many related organizations from the preparation stage and thus it is necessary to undertake these projects as soon as possible.

In the medium and long term, corresponding to the second stage of development described above, the following types of projects and measures related to the strengthening of the industrial infrastructure should be implemented: 1) guidance for small firms and cottage industries interested in exporting their products; 2) projects making it possible for firms wanting to expand their operations to secure the necessary skilled labor; 3) a system making it possible to raise the funds required for the renovation and purchase of facilities and equipment; and 4) assistance for the introduction of necessary facilities which are too expensive for individual firms to purchase.

In the third stage of development, the assistance programs should be continued while increasing their sophistication in accordance with the development of the industry.

(3) The Need for Effective Implementation of Related Project

In cooperation with related government agencies, CFIP is now creating a Furniture Industry Training Board for the coordination and effective implementation of various study and training programs. Study and training in this case is interpreted in a considerably wider sense and may include technological guidance projects found among the projects stated below. This method of organization may be desirable from the viewpoint of achieving integration with the effects of related programs. It is hoped that such revamping of systems can be undertaken on a continual basis.

1) Interrelation of technology, production management, and marketing-related developments at the individual corporate level

In the first stage of development, in order to improve the fundamental business performance of the wooden furniture industry, the Advisory Project for the Improvement of Wooden Furniture Technology and Management is to be implemented, and the industry is to increase its awareness of export market needs and master the points necessary to satisfy those needs. In addition, individual companies will be made to understand how best they can respond to industry marketing activities through the Project for Organization of Activities for Exhibition in Foreign Furniture Fairs. At the same time, assistance will be provided to promote tie-ups with foreign companies together with post-exhibition follow-up activities, and provisions will be made for individual companies to carry out advancement on their own in terms of technology, production management, marketing and facilities through these tie-ups.

For the small businesses and cottage industries for whom responding to export market needs is difficult, the Project to Assist the Formation of Cooperatives in Specified Districts will be implemented to provide assistance in the areas of management and marketing and allow these firms to respond jointly. In addition, the purchase of joint-use facilities for each district will also be studied.

2) Interrelation of organized assistance projects in terms of marketing, management, and financing

In addition to marketing and management-related guidance to individual companies, the Advisory Project for the Improvement of Wooden Furniture Technology and Management will provide technology transfer to the support teams with the objective of reinforcing local guidance bodies for the wooden furniture industry. These support teams will return to PTTC and BSMDB after completion of the project to continue their guidance activities.

The Project for Improvement of Design Development Capability is an attempt to strength a guidance system that will allow the Philippines to develop original designs in the future.

In the Project for Organization Activities for Exhibition in Foreign Furniture Fairs, a liaison committee for the promotion of tie-ups will be organized with the cooperation of the CFIP, participating corporations, and related government bodies. This liaison committee will be provided with assistance by the BOI, BETP, CITEM, and foreign embassies in the Philippines. In addition, some staffs in CITEM and PTTC will be trained through this project to be able to proved furniture guidance by .themselves.

Concerning development loans, small business financing offered by existing institutions will be utilized for the time being, while the establishment of a special institution dealing exclusively in small business financing should also be studied, depending on the future expansion of credit demand. In particular, a financial guarantees loans or a mutual aid system program should be established (Facility Modernization Assistance Project).

3) Interrelation of technology assistance projects

Technology assistance can be broken down as follows: 1) assistance for technology guidance system targeting existing companies and their staff; and 2) assistance for pre-employment training system aimed at the securing of skilled laborers.

The Advisory Project for the Improvement of Wooden Furniture Technology and Management aims to improve the level of guidance systems targeted at existing companies and their staff. This would be done by utilizing Support Teams which would be formed as the nucleus of the local staff for guidance on technology and production management. After completion of this project, these support team members will continue instruction as staff members of CITC and other training organizations. The guidance framework will emphasize the reinforcement of guidance system in key furniture producing districts, and the Project for Introduction of a Regional Training System will be implemented. Here, instructors will be dispatched from CITC, etc. In the Facility Modernization Assistance Project as well, it is hoped that CITC will provide assistance to ensure the purchase of suitable used equipment.

In the pre-employment training activities as well, the emphasis will be placed on reinforcing guidance system in key furniture producing districts, with the Project for Introduction of a Regional Training Program to be the main measure. In response to the rapid increase in demand for high-quality skilled laborers possessing sophisticated skills expected for the near future, the Project for Long-term, Continuous Dispatch of Trainees Overseas will be effective. Here, it is hoped that the NMYC will provide candidates with initial training in the Philippines.

(4) Recommendation on the Implementation Schedule and Priorities

1) Introduction

It is suggested that work on the short-term projects or the preparations therefor be begun immediately. The latter case involves those plans which are based on studies of their necessity, possibility, and feasibility in the preparatory phase. Although there is no need to begin implementation of or preparations for the medium- to long-term projects immediately, it is suggested that they be begun in accordance with the development of the wooden furniture industry.

In addition, the possibility of establishing a loan guarantee program and a development loan program targeting small businesses should also be studied. (See Chapter 4, Section II, "A Financial System for the Development of Sub-sectors")

2) Short-term projects

a) Projects which should be implemented immediately
  1. Project for Organization of Activities for exhibition in Foreign Furniture Fairs
  2. Project for Information Gathering and Research on Foreign Markets and Industries
  3. Advisory Project for the Improvement of Wooden Furniture Technology and Management

b) Projects for which preparations should be begun immediately
  1. Facility Modernization Assistance Project
  2. Project for Arrangement of Training Systems in the Furniture Industry
  3. Project to Promote Standardization of Processes, Materials, and Components
  4. Project for Long-term, Continuous Dispatch of Trainees Overseas

3) Medium- and long-term projects

1. Assistance Project for the Formation of Cooperatives in Specified Districts
2. Project to Improve Design Development Capabilities
3. Project to Promote Tie-Ups with Foreign Advanced Firms

4) Priority projects

All of the projects discussed above are considered capable of playing an important role in the development stages of the wooden furniture industry. Assuming a case in which funding and organization restraints allowed the implementation of only a few projects, however, the scope would have to be limited to those projects in fields requiring immediate government assistance from the standpoint of development strategy. The rest of the projects would have to rely on independent efforts by the private sector in correspondence with industry development.

In such a case, it is suggested that implementation of the following two projects be begun immediately to prepare a foundation for industrial development.

1. Advisory Project for the Improvement of Wooden Furniture Technology and Management
   Through the implementation of this project, companies will master technology, production management, and management-related points necessary to manufacture products for the export market. In addition, the regional promotion committees which are the main force behind the promotion of this project will study development plans for their respective districts and draw up plans for the establishment of joint-use facilities, the construction and operation of regional training systems, and the formation of cooperatives. In addition, a foundation for guidance in the areas of technology, management, and marketing should be built through the support teams.