

By product, the rate of participation is very high among manufacturers of other handicrafts (100%), jewelry and precious metals (100%), other accessories (90.9%), ceramics (85.7%) and silver (84.6%), while it is very low among manufacturers of hand woven textiles (40%), bamboo and rattan (47.1%) and wooden handicrafts (60%).

**Table 2-3-26 Participation in International Trade Fairs Overseas**

	Responses	Have	Have not
Total	67	38 (56.7)	29 (43.3)
Number of employees			
Small	11	5 (45.5)	6 (54.5)
Medium	40	23 (57.5)	17 (42.5)
Large	15	10 (66.7)	5 (33.3)
Product			
Hand-woven textiles	15	6 (40.0)	9 (60.0)
Wooden handicrafts	15	9 (60.0)	6 (40.0)
Ceramics	7	6 (85.7)	1 (14.3)
Bamboo & rattan	17	8 (47.1)	9 (52.9)
Other handicrafts	7	7 (100.0)	—
Silver	13	11 (84.6)	2 (15.4)
Jewelry & precious metals	2	2 (100.0)	—
Other accessories	11	10 (90.9)	1 (9.1)
Regions			
Jakarta	8	7 (87.5)	1 (12.5)
Bali	15	13 (86.7)	2 (13.3)
Yogyakarta	18	11 (61.1)	7 (38.9)
North Sumatra	5	3 (60.0)	2 (40.0)
South Sulawesi	2	—	2 (100.0)
Bandung	19	4 (21.4)	15 (78.9)

Source: Questionnaires survey

**Table 2-3-27: Attendance at International Trade Fairs for Negotiations or Market Surveys**

	Responses	Have	Have not
Total	59	26 (44.1)	33 (55.9)
Number of employees			
Small	9	2 (22.2)	7 (77.8)
Medium	35	17 (48.6)	18 (51.4)
Large	14	7 (50.0)	7 (50.0)
Product			
Hand-woven textiles	16	7 (43.8)	9 (56.3)
Wooden handicrafts	12	5 (41.7)	7 (58.3)
Ceramics	6	3 (50.0)	3 (50.0)
Bamboo & rattan	16	6 (37.5)	10 (62.5)
Other handicrafts	7	7 (100.0)	—
Silver	10	8 (80.0)	2 (20.0)
Jewelry & precious metals	2	2 (100.0)	—
Other accessories	9	7 (77.8)	2 (22.2)
Regions			
Jakarta	12	5 (71.4)	2 (28.6)
Bali	9	5 (55.6)	4 (44.4)
Yogyakarta	17	10 (58.8)	7 (41.2)
North Sumatra	5	2 (40.0)	3 (60.0)
South Sulawesi	2	—	2 (100.0)
Bandung	19	4 (21.1)	15 (78.9)

Source: Questionnaires survey

On the other hand, by product, attendance at international trade fairs is high among manufacturers of other handicrafts (100%), jewelry and precious metals (100%), silver (80%) and other accessories (77.8%), and low among manufacturers of bamboo and rattan (37.5%), wooden handicrafts (41.7%), hand-woven textiles (43.8%) and ceramics (50%).

Considering the same question by region, the rate of participation is very high in Jakarta (87.5%) and Bali (86.7%) and very low in South Sulawesi (0%) and Bandung (21.1%). It is also high in Jakarta (71.4%) and low in South Sulawesi(0%) and Bandung(21.1%).

g) Establishment of an MA company

The possibility of an MA company which coordinates manufacturing and sales (export) was discussed during the survey and it would be useful for small-scale companies which cannot develop overseas markets by themselves.

[2] Sales and distribution

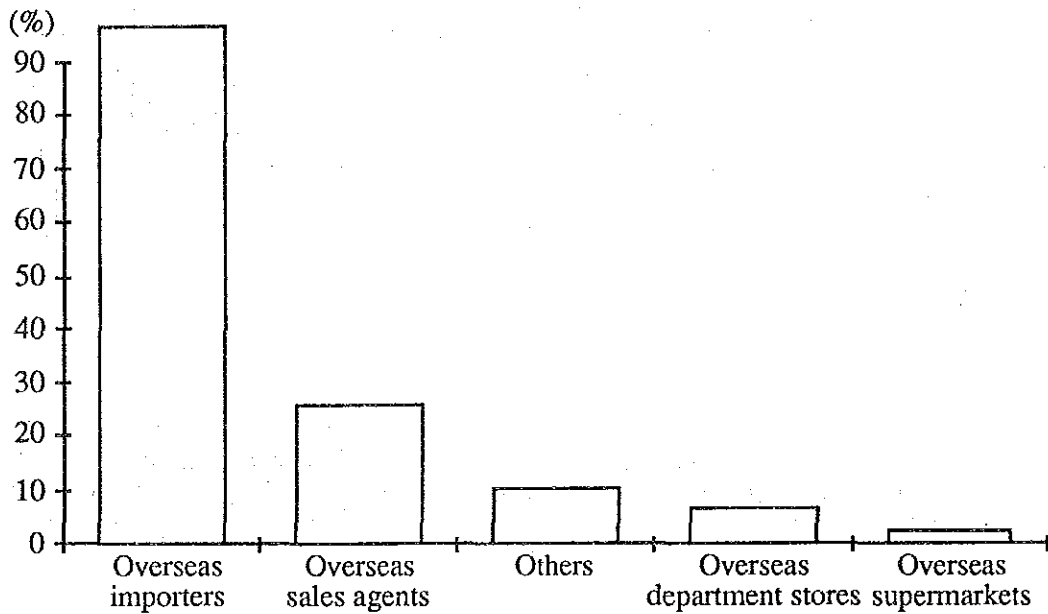
a) Knowledge on business

Some of the small-scale companies in the handicraft industry are lacking knowledge of business practices. Very fundamental practices such as observation of shipping schedules or ensuring there is no difference between the shipped products and the samples is necessary if exports are to be expanded.

b) Knowledge on export procedure

One of the major deterrents to starting exports is a lack of knowledge on export procedures. Some of the small-scale companies gave up exporting because procedures and communication is very complicated for them. Development of a system which lessens the burden for small-scale companies, such as an export distributor system by an MA company, is necessary.

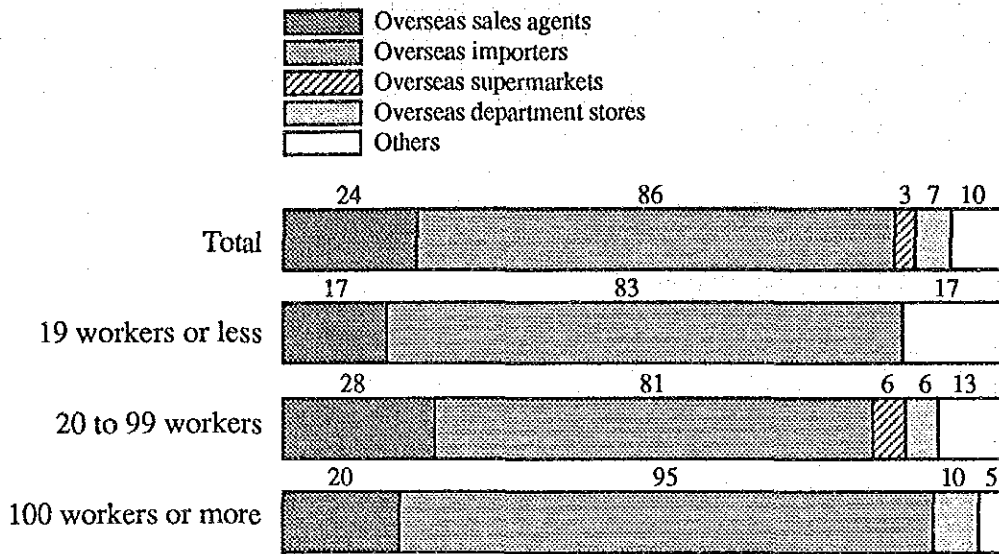
Fig. 2-3-87: Selecting Sales Channels



Source: Questionnaires survey

As shown in Fig. 2-3-87, 86.4% of the companies which are presently exporting depend on overseas importers when selling their products overseas. However, to expand exports it is necessary to have a wider range of distribution channels.

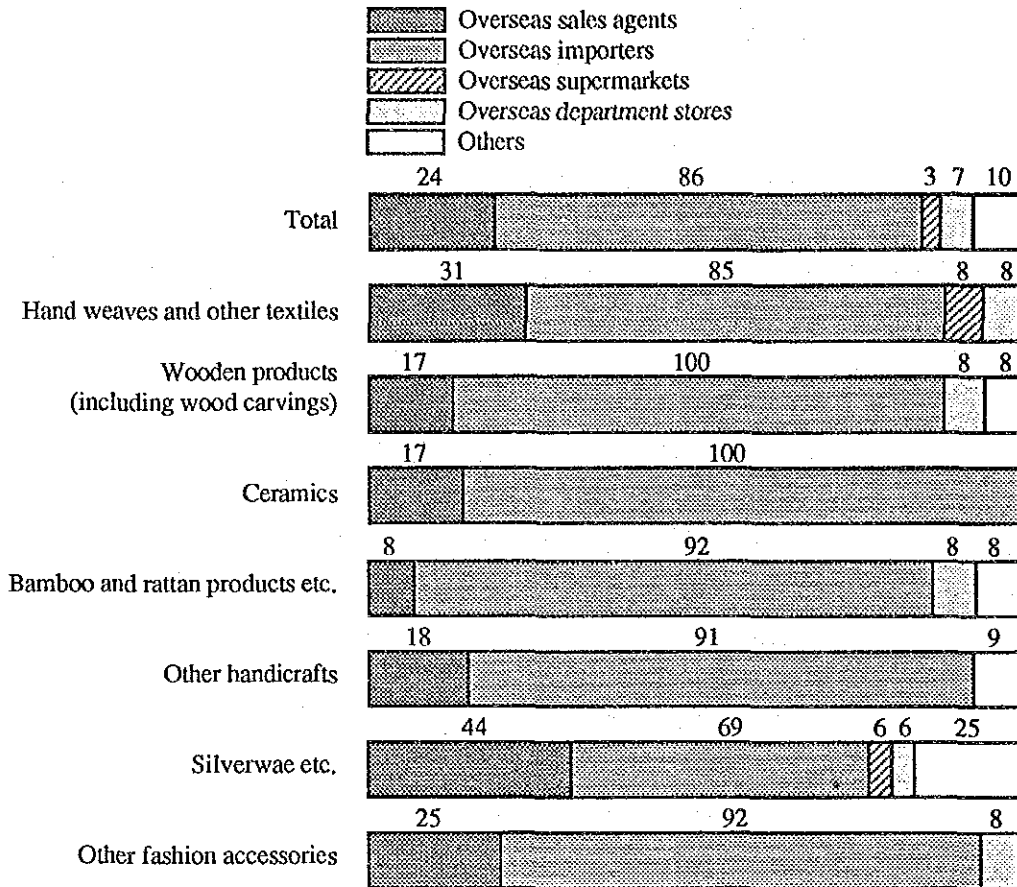
**Fig. 2-3-88: Selecting Sales Channels (By Number of Employees)**



Source: Questionnaires survey

By number of employees, the rate of dependence on overseas importers, 95%, is unexpectedly high, even among large-scale companies. To expand exports, it is natural to develop as many export channels as possible. Above all, the large-scale firms should make efforts to do so.

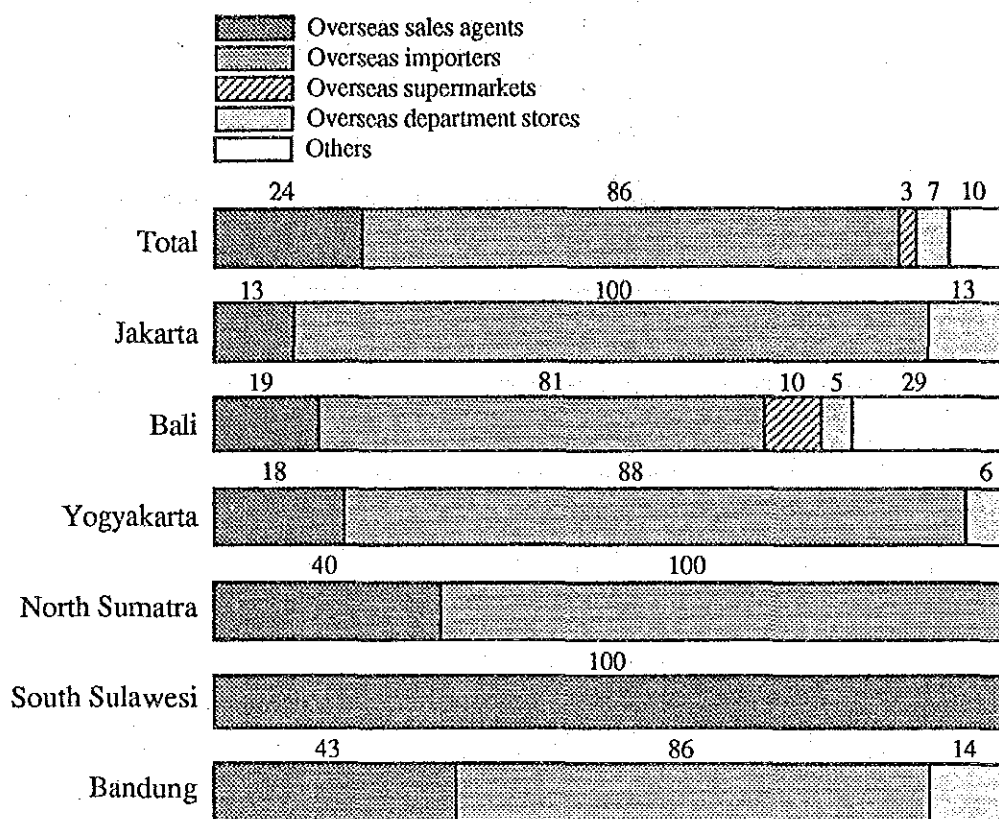
Fig. 2-3-89: Selecting Sales Channels (By Product)



Source: Questionnaires survey

By product, the rate of dependence on overseas importers is extremely high (100%) among makers of wooden handicrafts, ceramics and other accessories. It is also very high (over 90%) among makers of bamboo and rattan handicrafts and other handicrafts. On the contrary, it is remarkably low (less than 70%) among manufacturers of silver and jewelry and precious metals.

Fig. 2-3-90: Selecting Sales Channels (By Region)



Source: Questionnaires survey

By region, the rate of dependence on overseas importers is very high (100%) in Jakarta and North Sumatra and is also fairly high (over 80%) in the other regions.

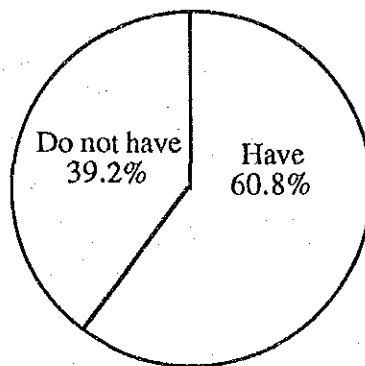
Fig. 2-3-91~94 shows whether or not the companies surveyed have company brochures or catalogs which are necessary when exporting.

As shown in Fig. 2-3-91, only 60.8% of all of the companies surveyed have company brochures or catalogs. They are of such immense importance when attempting to build exports that the companies should prepared them as soon as possible.

The percentage of small-scale firms which have brochures or catalogs is very low at 33.3%, but the percentage among the large-scale firms is also very low at 52.2% and is much less than the 77.5% of of the medium-scale firms which have them. This means that even though company brochures or catalogs are extremely important for success in exporting, even large-scale companies have not recognized their importance.

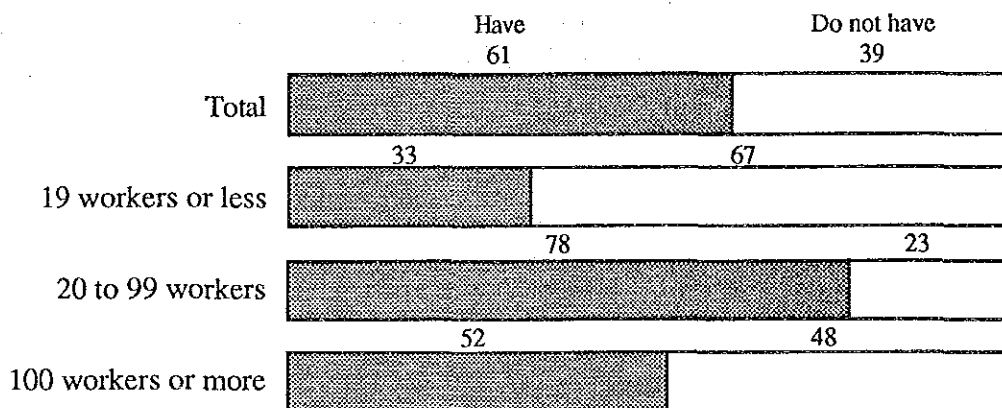
By product, the percentage of firms having company brochures or catalogs is extremely high (100%) among manufacturers of jewelry and precious metals, and very high in silver, other handicrafts and other accessories. However, it is very low (less than 50%) among the manufacturers of the other items.

**Fig. 2-3-91: Company Brochure or Catalog**



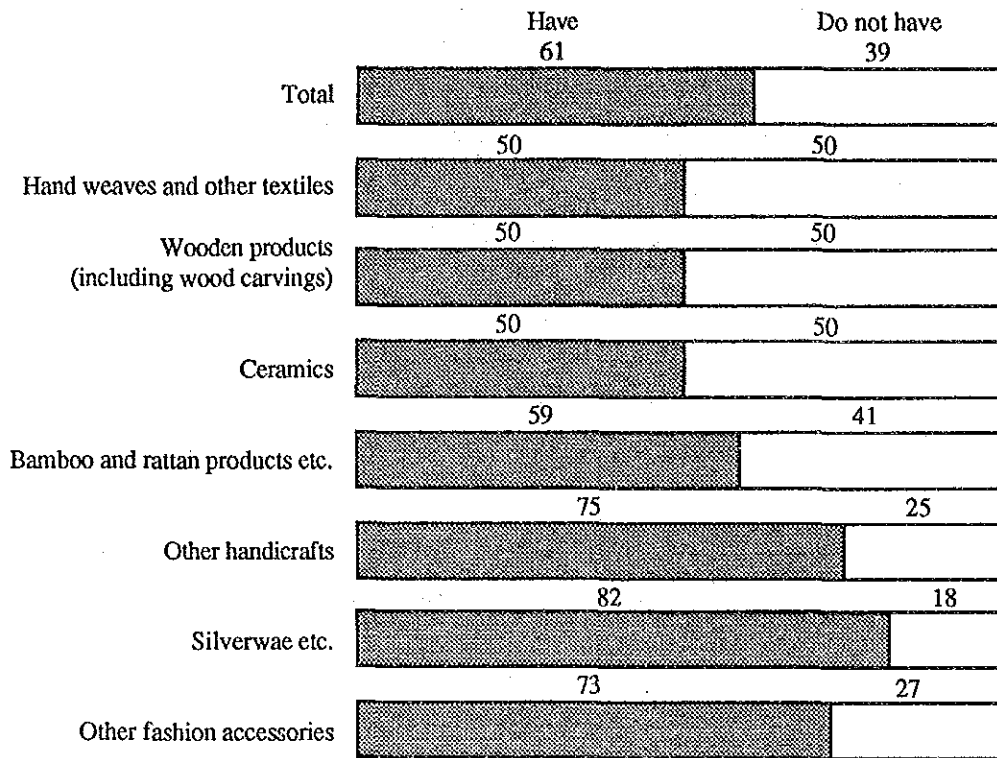
Source: Questionnaires survey

**Fig. 2-3-92: Company Brochure or Catalog (By Number of Employees)**



Source: Questionnaires survey

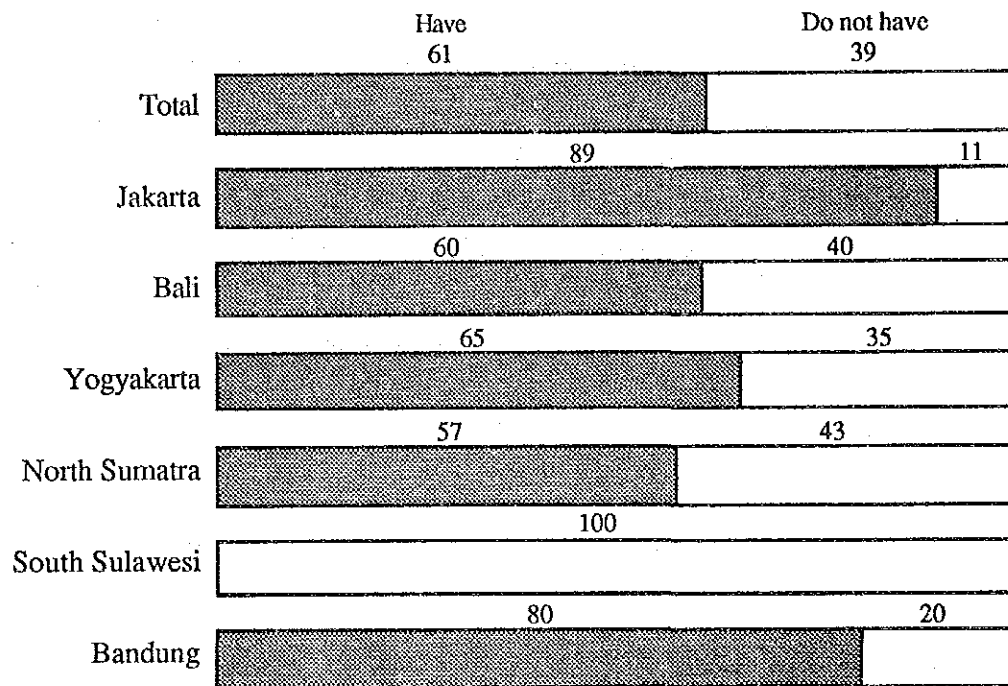
**Fig. 2-3-93: Company Brochure or Catalog (By Product)**



Source: Questionnaires survey



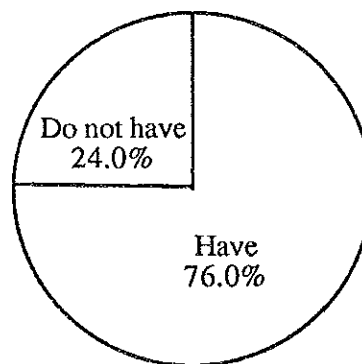
**Fig. 2-3-94: Company Brochure or Catalog (By Region)**



Source: Questionnaires survey

By region, the percentage of firms having company brochures or catalogs is, at more than 80%, relatively high in Jakarta and Bandung. However, none of the companies in South Sulawesi have brochures and the rate is very low (50 to 60%) in the other regions.

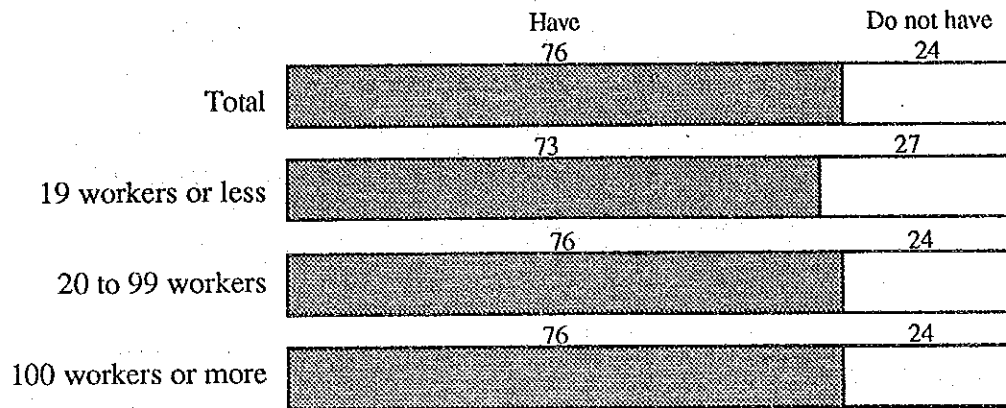
**Fig. 2-3-95: Price Lists**



Source: Questionnaires survey

Figs. 2-3-95~98 show whether or not the companies surveyed have price lists for their products. Overall, 76% of the companies which responded have price lists.

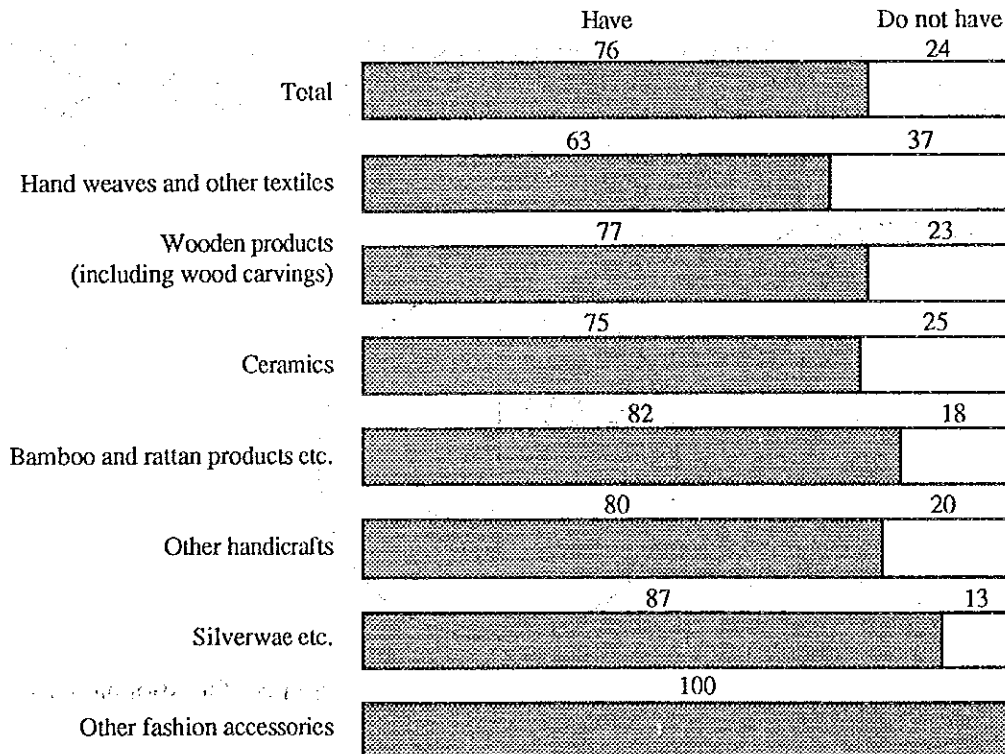
**Fig. 2-3-96: Price Lists (By Number of Employees)**



Source: Questionnaires survey

By number of employees, the tendency is almost the same in the three size categories. The percentage of small-scale companies having price lists is 73.3% while the percentage of medium-scale companies is 76.3% and the percentage of large-scale companies is 76.2%.

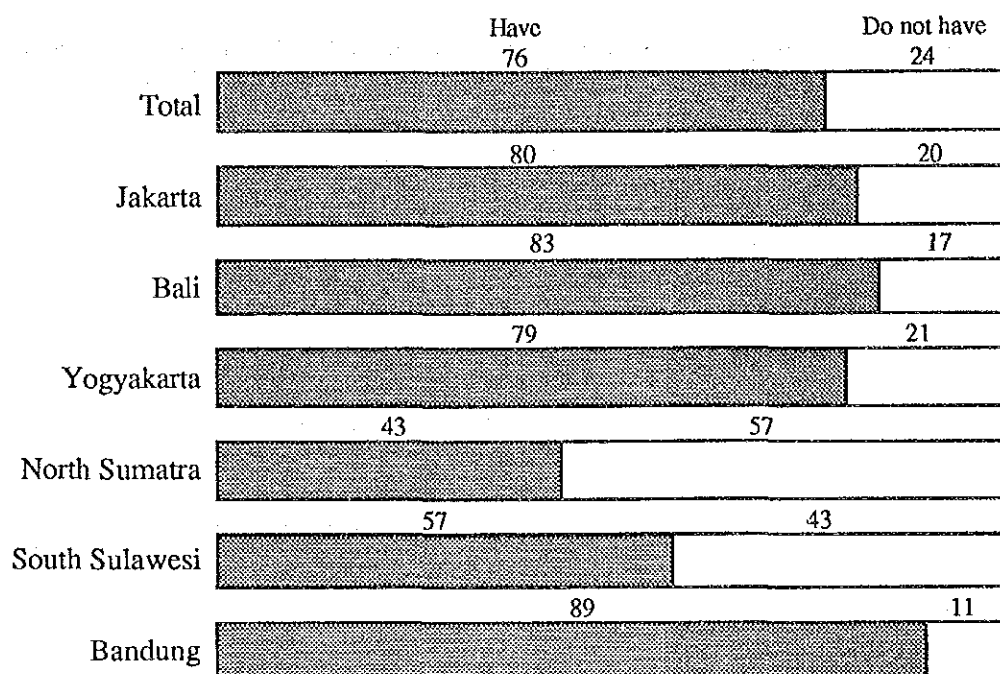
**Fig. 2-3-97: Price Lists (By Product)**



Source: Questionnaires survey

As seen in Fig. 2-3-97, the percentage ranges widely, from a very high 100% among manufacturers of jewelry and precious metals and other accessories, to a low of 63.2% among manufacturers of hand woven textiles.

Fig. 2-3-98: Price Lists (By Region)



Source: Questionnaires survey

As seen in Fig. 2-3-98, the percentage is very high (more than 80%) in Bandung, Bali and Jakarta, but very low in North Sumatra (42.9%) and South Sulawesi (57.1%).

#### c) Distribution costs

Expenses for distribution cannot be ignored for products such as small bamboo baskets or stone carvings because they are relatively high in comparison with the products' low price or heavy weight. To promote exports of these products, increases in added value which will result in price increases or study and improvement of knock-down delivery are necessary.

#### d) Packaging

Insufficiently sturdy packaging has caused some problems such as broken products on arrival. As the survey discovered, many of the small- and medium-scale companies are using cigarette cartons for exports. Even though these cartons might be adequate for some products, they are generally not strong enough to protect products being exported.

Specially-ordered, strong cartons for export are necessary, but small-scale companies cannot develop such cartons by themselves. Cooperative development by public institutes or joint procurement through an MA company are necessary.

e) Presentation of High Quality Products

Techniques which reflect the value of the products should be used for presenting precious fashion jewelry. If every aspect of the products reflects their preciousness and adds value to the products, then prices can be raised.

f) The Need for a Center for Selling Refined Handicrafts

The establishment of a center which is not a mere showroom but which functions as an exporting organ and exhibition and business information center is necessary.

### (3) Current State and Problems of Production Technology

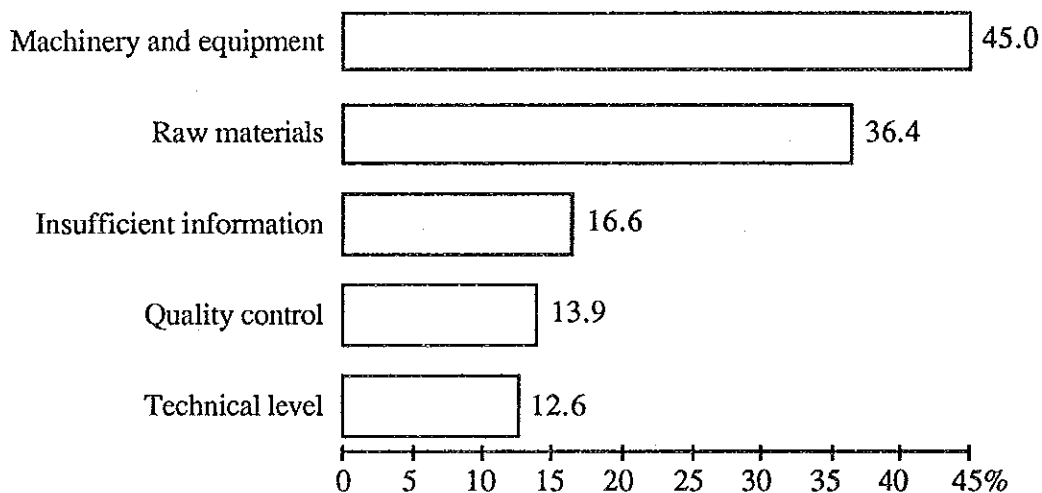
#### 1) Production processes

##### [1] Features of Production Processes

The handicraft industries make use of various implements and machinery for supplemental purposes, but primarily rely on hand production. This is a major feature of these industries. When mechanized, these industries no longer are handicraft industries but general industries. Further, due to the need for large numbers of manual workers, these industries are very important to Indonesia's policies for absorption of labor. Therefore, one should not draw the simple conclusion, based on rationalization and labor saving, that these industries should be mechanized.

Figs. 2-3-99 to 102 show the results of a questionnaire survey on problems in production. The companies surveyed were asked as to what they considered to be the biggest problem in production. Therefore, while one cannot consider these to be problems in current production, they are indicators of what the producers of handicrafts believe to be the problems.

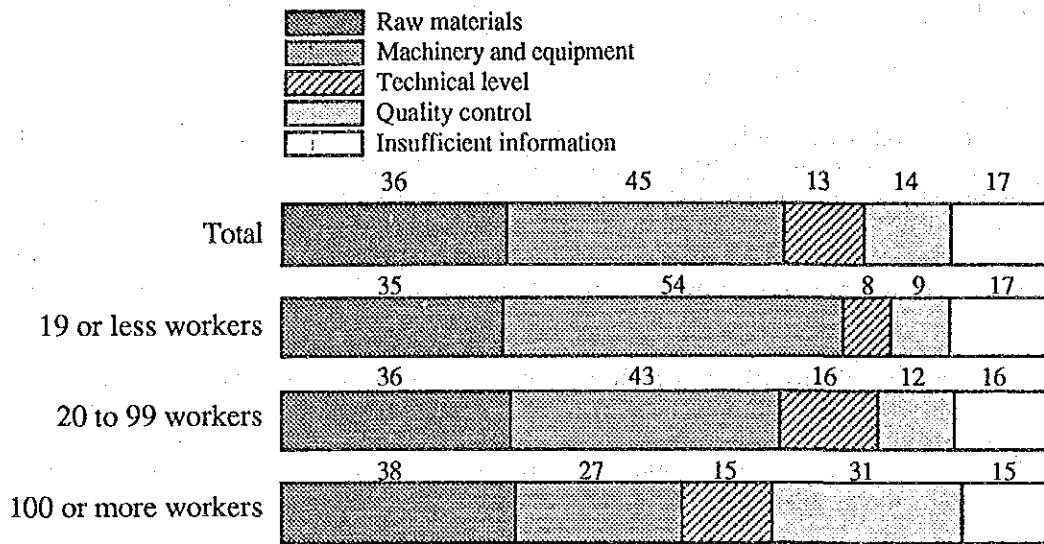
Fig. 2-3-99: Problems in Production



Source: Questionnaire survey

Looking overall, frequent mention was made of machinery and equipment, in 45 percent of the cases, and raw materials, 36.4 percent. Mention was also made of a lack of information (16.6 percent), quality control (13.9 percent), and the level of technology (12.6 percent), but these were mentioned relatively rarely.

**Fig. 2-3-100: Problems in Production (by Number of Employees)**

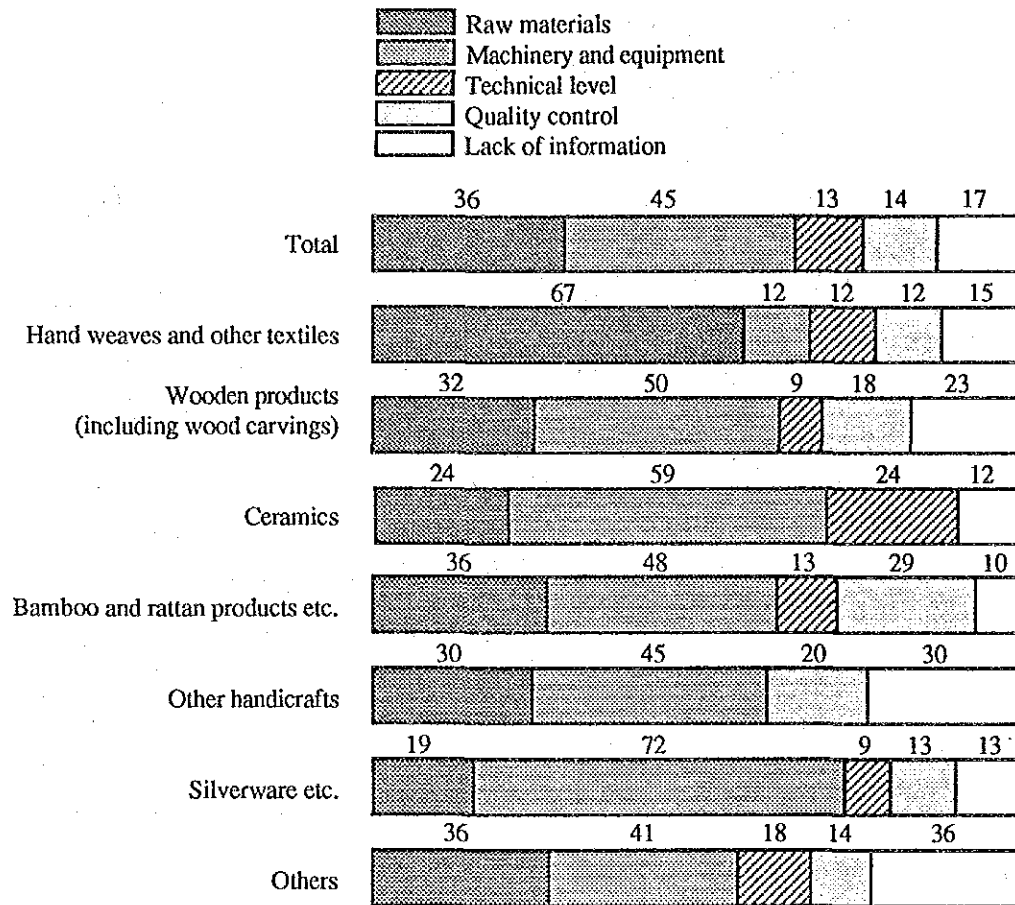


Source: Questionnaire survey

According to Fig. 2-3-100, when viewed by the total number of workers, the small companies and medium size companies mentioned machinery and equipment most often, 53.8 percent and 43.1 percent, respectively, followed by raw materials, 35.4 percent and 36.2 percent. On the other hand, the large companies saw the problems differently, considering raw materials to be the number one problem, 38.5 percent, followed by quality control, at 30.8 percent, and then machinery and equipment, 26.9 percent, though this was considered the number one problem by small and medium size companies.

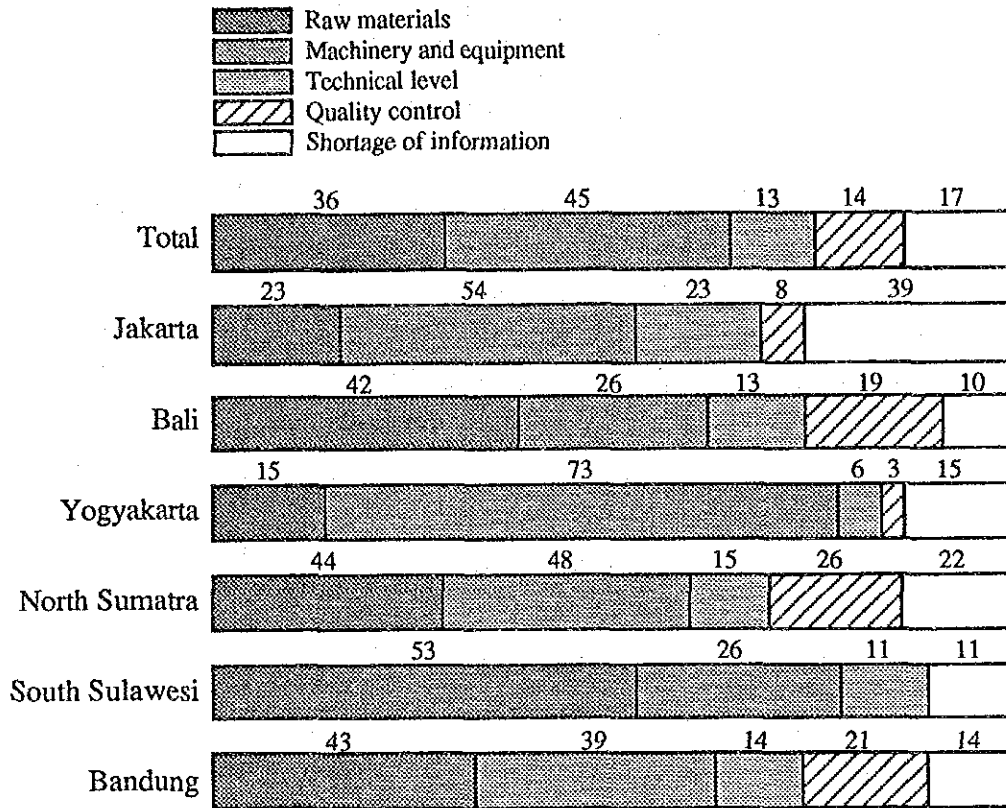
Looking at this by products handled using Fig. 2-3-101, the perception of problems differed according to the product. The results do provide an indicator for grasping the problems for individual products and for formulation of promotion schemes. Specifically, machinery and equipment was mentioned as the number one problem for silverware (71.9 percent), jewelry and precious metals (62.5 percent), ceramics (58.8 percent), wooden products (50 percent), bamboo and rattan products (48.4 percent), and other handicrafts (45 percent). Additionally, note should be taken that a lack of information was mentioned as the number one problem by the same ratio as for machinery and equipment in the field of jewelry and precious metals. On the other hand, raw materials was mentioned as the number one problem in hand weaves and other textiles and other accessories, in 66.7 percent and 50 percent of the responses, respectively. Products for which machinery and equipment was mentioned as the number one problem all, except for jewelry and precious metals, had raw materials mentioned as the number two problem.

**Fig. 2-3-101: Problems in Production (by Product Handled)**



Source: Questionnaire survey

Fig. 2-3-102: Problems in Production (by Region)



Source: Questionnaire survey

A look at this by region according to Fig. 2-3-102 shows that machinery and equipment was mentioned as the number one problem in Yogyakarta (72.7 percent), Jakarta (53.8 percent), and North Sumatra (48.1 percent). Raw materials was considered the number one problem in South Sulawesi (52.6 percent), Bandung (42.9 percent), and Bali (41.9 percent). In Jakarta, a lack of information was mentioned as the number two problem, but aside from this all regions mentioning machinery and equipment as the number one problem had raw materials as number two and all those which had raw materials mentioned as number one had machinery and equipment as number two. In this way, these two items were most often mentioned as the problems.

In this way, according to the interviews and the questionnaire survey, machinery and equipment was given as the problem in production in the vast majority of the cases. This has ramifications for the two serious issues of preservation of traditional handicrafts and the maintenance of employment. That is, increased mechanization could in some cases have an impact on the added value of hand production. The effect of mechanization would merely be rationalization and labor saving. This being the case, the result would not necessarily be an increase in employment.

From the viewpoint of preservation of traditional handicrafts, the judgement as to what process to mechanize and what process not to mechanize should be made on the basis of the mechanized processes not having any affect on the aestheticness of the products or the added value.



On the other hand, mechanization which would maintain or increase employment must be dealt with not as a matter for individual companies, but as one for the country as a whole.

From this viewpoint, the problems in the production processes are considered to be as follows:

[2] Current State and Problems in Production Processes by Product

a) Hand weaves and other textiles

• Dyeing technology

With Ikat dyeing, due to the relationship with the design, individual dyeing is unavoidable, but inattention to the baking after dyeing at ordinary temperature results in problems of fading etc., so full care should be taken. Many of the companies visited were lax when it came to this process. This is a major demerit when it comes to evaluation of quality so quick improvement is required.

Note that Table 2-3-28 shows the results of inspection of the dye fastness of samples of yarn for hand weaves collected in the field survey and brought back to Japan. The inspection was commissioned to the Central Inspection Institute of the Japan Chemical Fiber Inspection Association.

**Table 2-3-28: Results of Inspection of Dyeing of Yarn for Hand Weaves**

Inspection item	Sample								
	A	B	C	D	E	F	G	H	I
Laundering fastness (class)									
Discoloration and fading	5	4	4-5	5	4-5	5	3	4-5	4-5
Dirtying	4-5	4	4	4-5	5	4-5	4-5	5	4-5
Light fastness (class)	4 or more	4 or more	4 or more	4 or more	4 or more	4 or more	4 or more	4 or more	4 or more
Sweat fastness (class)									
Acidic									
Discoloration and fading	5	4-5	4-5	5	4	5	4	4-5	4-5
Dirtying	3-4	4	3	3-4	3	3-4	2-3	5	<u>2-3</u>
Alkaline									
Discoloration and fading	5	4-5	4-5	5	4	5	4	4-5	4-5
Dirtying	3-4	4	2-3	3-4	3	3	3	5	<u>2-3</u>
Friction fastness (class)									
Dry	4-5								<u>2-3</u>
Moist	3								<u>2</u>

Yarn collection region	Material
A: Jakarta	Cotton
B: North Sumatra	Rayon
C: North Sumatra	Cotton
D: North Sumatra	Cotton
E: North Sumatra	Spun polyester
F: Bali	Cotton, mercerized
G: Bali	Cotton, mercerized
H: Bali	Cotton, mercerized
I: South Sulawesi	Silk

Source: Japan Chemical Fiber Inspection Association, Central Inspection Institute, test certificate)

The underlined items indicate judgements of nonpassage. Therefore, the inspection showed that only three of the nine types of cotton yarn passed all tests. The nine samples were collected randomly from the regions visited and, in consideration of company size, were taken from large, medium, and small companies. In this sense, the test results indicate to a certain extent that this may be considered to show the current state of the yarn being used for the production of hand weaves in Indonesia.

Looking at the six types of yarn which were found substandard in some areas, while there is some variation, overall there was a problem in the sweat fastness. When sold in Indonesia, a certain degree of fading is not considered a problem, but when desiring to export, the problem of fading must be resolved at all costs. Note, however, that while the survey team was very apprehensive about the laundering fastness before the field survey, all types of yarn except one passed the tests - extremely good results.

• Changeover to ATBM

There are still a considerable number of places using traditional hand looms, but by gradually shifting over to ATBM, it would be possible to multiply the productivity

several fold and maintain the added value. However, this changeover would require socio-economic judgements. Mechanization should not be pushed overnight.

- Silk hand weaves

Some study is necessary for the preparatory processes of tension adjustment, treatment of scratches on the yarn guides, and prevention of yarn breakage.

Further, there is a mixture of ATBMs for spun yarns and filament yarns. Quick improvement is required in this area.

Like with other hand weaves, improvements are necessary in the dyeing process so as to prevent the problems of fading etc.

- b) Wooden products (including wood carvings)

In quite a few cases, the wood materials were not sufficiently dried. If this process is handled poorly, cracks may appear after a certain time period and so greater attention is required.

- c) Ceramics

To improve the quality, improvements are necessary such as stabler procurement of glazes and management of the volume and temperature of the kilns.

- d) Rattan and bamboo products etc.

Mention was made of the problems of yellow dust coming out from the products and easy peeling of the paint. Some improvements to the manufacturing processes are required.

- e) Other handicrafts

- f) Silverware etc.

A certain degree of mechanization should be considered for conversion to mass production for expansion of exports, standardization of quality, improvement of precision, and reduction of manufacturing time, but simple rationalization and labor saving should be avoided.

In particular, as seen from the famous European silverware, performance of all the processes by hand both enhances the added value of the products and serves to train unskilled workers. This should be of great reference to Indonesia.

- g) Jewelry and precious metals

To enhance the added value of small sizes, some consideration must be given to mechanization, but here too if the goal is simple rationalization and labor saving, this is not necessarily desirable.

- h) Other accessories

## 2) Technical level

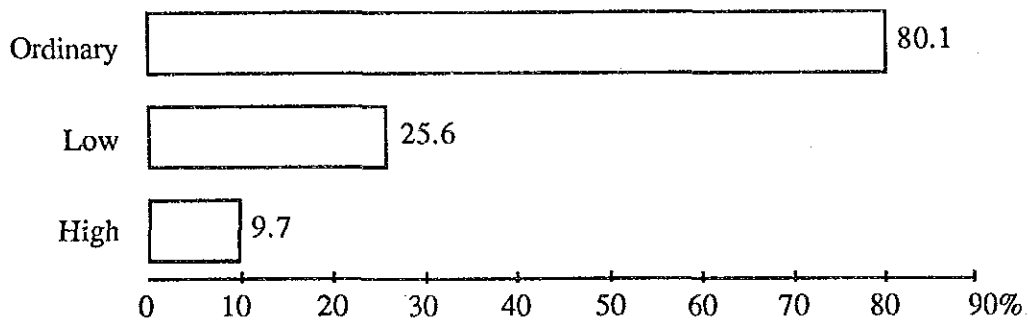
### [1] Points to note in evaluation of technical level

When evaluating the technical level, it is necessary to consider two aspects: rationalization based on the modern industrial approach and the judgement criteria unique to the handicraft industry, i.e., the preservation of traditional handicrafts and promotion of employment.

### [2] Technical level and problems by product

Figs. 2-3-103 to 106 show the level of "technology and skill" as evaluated by the companies covered by the questionnaire themselves.

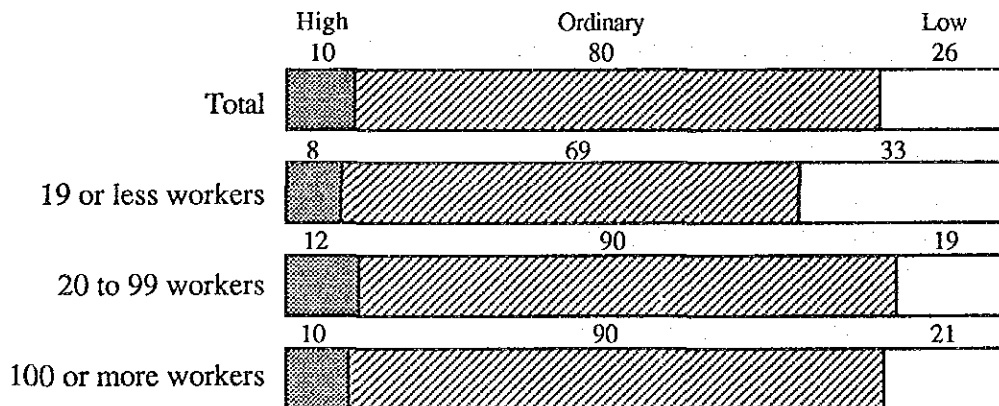
**Fig. 2-3-103: Technology and Skill**



Source: Questionnaire survey

First, seen overall by Fig. 2-3-104, only 9.7 percent of the companies considered their own levels of technology and skill as being high. The majority, 80.1 percent, considered them to be ordinary, while 25.6 percent, or one-quarter, considered them to be low.

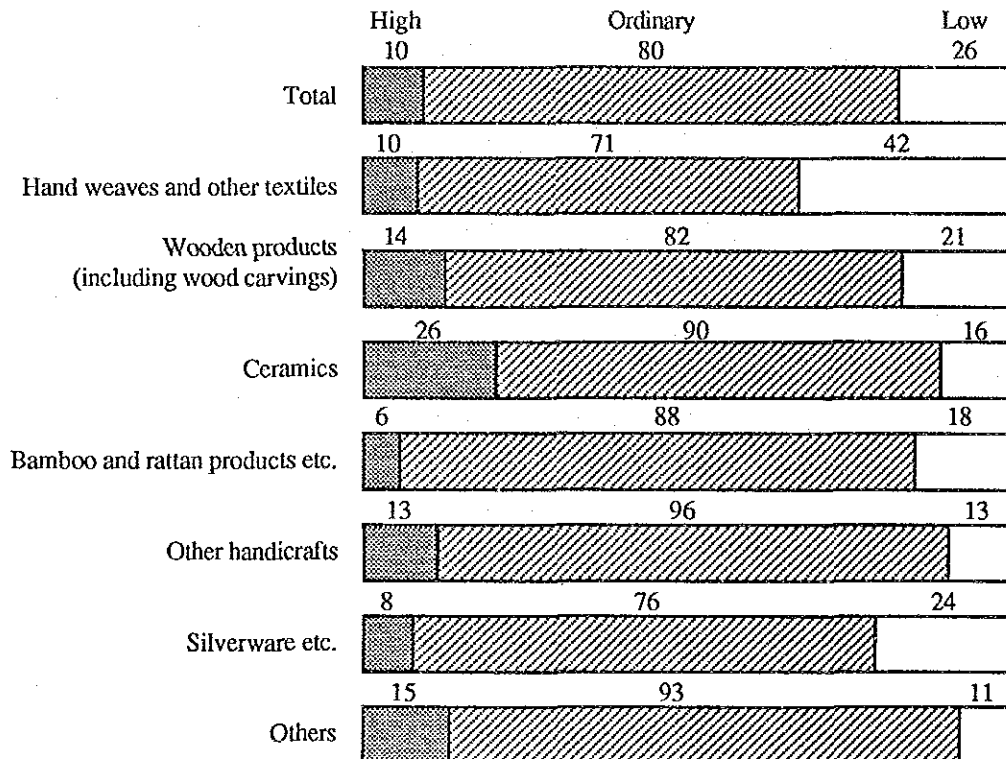
**Fig. 2-3-104: Technology and Skill (by Total Number of Employees)**



Source: Questionnaire survey

Seen by the total number of employees from Fig. 2-3-104, 7.8 percent of the small size companies responded their levels were high, 68.8 percent of the companies responded their levels were ordinary, under the overall average, and 32.5 percent of the companies responded their levels were low - a noticeably high percent. About the same results were obtained in the case of large companies and medium size companies. The majority of the companies replicated their levels were ordinary. As for the rest, while the percentages were relatively low, the percent of companies responding their levels were low was higher than those responding they were high.

**Fig. 2-3-105: Technology and Skill (by Product Handled)**



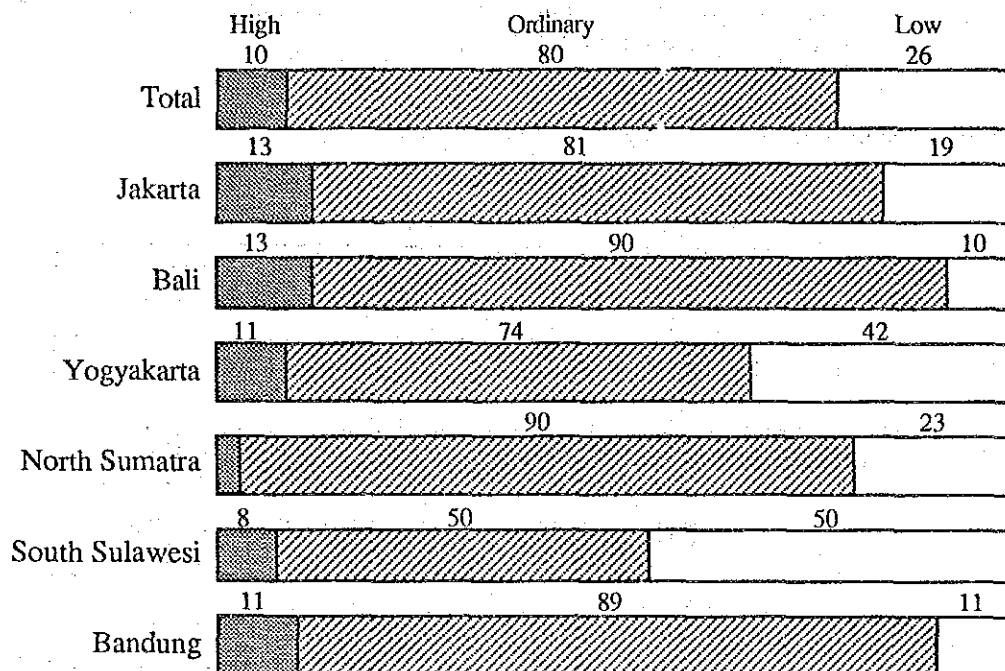
Source: Questionnaire survey

According to Fig. 2-3-105, the first point which should be noted when viewing the products is the percent of companies in ceramics and other accessories responding that their levels of technology and skill were high - 26.3 percent and 23.5 percent - considerably higher than the average.

The second point is the high percent, 41.5 percent, of the companies in hand weaves and other textiles responding that their levels of technology and skill were low, considerably higher than the average. The third point is the percent of companies in jewelry and precious metals and in bamboo and rattan products which responded that their levels of technology and skill were high, zero and 5.9 percent, respectively, lower than the average. Finally, the rate of response that the levels of technology and skill were low was lower than the average, that is, the levels were considered relatively high, in other accessories (5.9 percent), other handicrafts (13 percent), ceramics (15.8 percent), and bamboo and rattan products (17.6 percent).

Summarizing this, the self evaluation was relatively high in ceramics and other accessories, and was low in hand weaves and other textiles.

Fig. 2-3-106: Technology and Skill (by Region)



Source: Questionnaire survey

Finally, a look will be taken at the evaluation of the level of technology and skill by region using Fig. 2-3-106. First, the regions where the ratio of companies responding their levels were high was higher than the average were Jakarta (12.5 percent), Bali (12.5 percent), Bandung (10.7 percent), and Yogyakarta (10.5 percent). On the other hand, the regions where the ratio of companies responding their levels were low was higher than the average were South Sulawesi (50 percent) and Yogyakarta (42.1 percent). Yogyakarta is notable in that it falls under both categories, showing the large difference in technology among the companies. A look at the overall balance shows that the self evaluation was relatively high in Jakarta and Bali, but relatively low in South Sulawesi and North Sumatra.

a) Hand weaves and other textiles

- Problem of fading

To promote exports of hand weaves, the first technique which must be improved is that of dyeing to prevent fading. There are two aspects to this: the problem of the method of manufacture of not omitting the steps required for avoiding fading in the production process and the purely technical aspect of acquiring the necessary technology for preventing fading or making active use of the same. In the case of small scale industry, in most cases there are problems in the dyeing technology itself and fading often occurs, but in the case of the relatively large companies, cases are seen where the

dye baking and other steps are omitted in a deliberate attempt to reduce manufacturing costs, so a clear perception of the demerits in terms of quality is necessary.

- Changeover of hand looms to ATBM

The changeover from hand looms to ATBM is one area in which quick action should be taken. The cost of each machine is about 300,000 rupiah. Introduction of such machines can only improve, not reduce, quality and further can improve production efficiency several fold (about five times in the case of comparison of the per day and per machine production at one interviewee). Judging from this, a changeover would in principle be desirable.

However, a quick changeover would have socio-economic ramifications, so full study of this is necessary.

- Introduction of small lot, diverse production techniques

In considering how to expand exports, it is essential to develop products meeting the needs of the export markets. In mature markets such as Japan, consumer tastes have become very diversified and therefore it is necessary to have the ability to develop diverse designs and manufacture and sell those diverse designs. For this, the introduction of small lot, diverse production technology is required.

- Silk (materials)

Hand weaves of silk, as has already been mentioned, suffer from problems in technology. The production technology for silk yarn produced in South Sulawesi will be touched upon here in particular since the quality of the yarn has a large impact on the quality of the finished product.

First, as a problem of the cocoons themselves, the cocoons produced in South Sulawesi are smaller in size than those in Japan and the length of the yarn which can be taken from a cocoon is about 600 to 800 meters compared with the 1500 meters of Japan.

This means that the efficiency of production of silk yarn is much worse.

Further, there are problems in the techniques for unraveling the silk yarn from the cocoons. When making yarn from the cocoon, the companies first boil the cocoons and then use water or warm water to immerse the cocoon and unravel the yarn, so the filaments become hard and the amount of yarn taken from each cocoon decreases.

#### b) Wooden products (including wood carvings)

It is necessary to reevaluate the drying step of the wood materials. It is necessary to prevent later cracking and other deterioration of quality by using not outdoor drying, but establishing drying chambers to make this step more reliable.

#### c) Ceramics

- Improvements in basic technology

The level of technology in ceramics still has many points requiring improvement, due in part to that generally smaller size of companies and the stress on daily necessities such as eating utensils. Therefore, to reach a level of export products passable

internationally, it is necessary first of all to resolve such basic problems as the insufficient volume of the kilns and temperature management.

- Necessity for good quality glazes

At the present time, the glazes for the ceramics are almost all imported in the companies visited. Only one company used domestic products.

To enhance the quality, it is necessary to improve the glazes. It is necessary to establish a system of procurement for ensuring the supply of good quality products. In the long term, it would be desirable to promote domestic glaze manufacturers, but this is not a matter that can be resolved simply in a short period, so in the short term Indonesia will have to rely on imports. Construction of a system for stable procurement, which includes data collection functions, would be desirable for this.

- Upgrading into art

To raise the added value so as to produce a high class image and increase the value of exports, it is necessary to upgrade the products from the low unit price daily necessities made up to now to pieces of art. This cannot be done in a short time period and has to be approached by the two basic paths of improvement of the level of technology and development of human resources.

- d) Bamboo and rattan products etc.

In the same way as with wooden products, it is important to handle the drying step and other pre-treatment steps properly so as to prevent trouble from occurring later.

- e) Other handicrafts

The technical level of the craftsmen in brass handicrafts is very high in some cases in the same way as with silverware. However, when thinking of increasing exports, there are problems in the technology - both in the basic technology and the level of the applied technology. These are discussed below:

- Improvement of technique of plating process

The technology used for shaping the brass and for striking it is extremely good, but the level of technology used in plating must be improved.

- Expansion of scope of finishing of product

Rather than the basic technology, it is necessary to improve the applied technology, which relates to marketing strategies, i.e., it is necessary to expand the range of product finishing work. Specifically, one should not repeat the same set motif, but should build up the technical ability to create diverse products in accordance with the diverse needs of the international market.

- f) Silverware etc.

The technical level of the craftsmen in silverware is extremely high. However, when aiming at mass production and standardization, which are necessary for increasing exports, it is necessary to clearly differentiate between processes which simply require labor and processes where care and hand work increase the added value. Consideration should be given to mechanization of only the former.



As an example of a process for which mechanization should be considered, mention may be made of the drawing of the silver, for which used may be made of rollingators.

However, as seen from the famous European silverware, performance of all the processes by hand both enhances the added value of the products and serves to train unskilled workers. This should be of great reference to Indonesia.

g) Jewelry and precious metals

For small size products, it is necessary to improve the precision by mechanization and improvement of tools. To increase exports, mass production through mechanization and mechanization to obtain a high standard of quality are essential.

h) Other accessories

With shells, there is the difficulty that one has to process the shell and preserve the pattern and shape of the same. It is exactly because of this that it is necessary to improve the technology so as to enhance the technical added value.

Specifically, unless one strives to make ones products different, for example, by learning such advanced techniques as inlaying and openwork of nautilus shells, it would be difficult to increase exports.

### 3) Product development and design

#### [1] Current state and problems of product development

##### a) Lack of interest in development of new products

Looking just at exports, the differences in quality, standards, and design between the domestic market and the international market and, in part, the lack of information on overseas markets, has caused a lack of interest in exports and interest in development of products by companies, particularly small size ones.

In particular, the small scale industries are able to secure a certain level of sales just by producing products for domestic sales and do not feel it necessary to take up the challenge of exports due to the risk involved.

Further, in Bali, companies are able to secure a certain amount of sales just by selling to tourists and therefore some companies are lax when it comes to positive product development.

To increase exports of handicrafts in the future, an important topic will be how to raise the interest of these medium and small size companies in exports.

##### b) Lack of information for product development

In the interviews with the companies visited for the survey, there were many companies which mentioned a lack of information on overseas markets as the biggest problem in product development. There were large numbers of such companies not only among those currently exporting, but also among those desiring to export in the future. There is of course a quantitative and qualitative insufficiency of information. It was

frequently heard that the companies did not know where and in what way information should be collected.

c) Lack of research and development funds

The lack of funds for investment in research and development or product development was another major problem mentioned. In particular, when considering the case of exports, there are large differences between the domestic market and overseas markets. Success is not possible without sufficient investment in research and development for product development.

d) Lack of adaptability to new needs and creativity

Finally, even if sufficient funds were secured for research and development and overseas market information were properly collected, there would be the question as to if the companies had the adaptability necessary for dealing with the market needs.

Among the problems relating to product development, the afore-mentioned three problems can be dealt with in a relatively short time if suitable measures were devised, but the fourth problem would require a long time and sufficient measures to be resolved.

[2] Current state and problems of design

When considering the problem of design in Indonesia's handicraft industries, differentiation must be made between traditional handicrafts and fashion accessories. In the case of traditional handicrafts, in quite a few cases the export destination recognizes the unique value of the same. If companies simply try to instill a contemporary design sense in their products, they might detract from the value of the items, which would not be desirable.

On the other hand, for fashion accessories, when exporting, it is necessary to match the tastes of the targeted market. Therefore, there are the following problems:

a) Lack of recognition of importance of design

Table 2-3-29 shows the results of the questionnaire survey on the existence of design divisions. Overall, 72.9 percent of the companies responding indicated that they had design divisions. Looking just at this, the situation would appear to be very good, however, in so far as could be seen in the companies visited for the survey, there were not that many companies with what could be called well organized design divisions. The difference from the results of the questionnaire survey may have been due to the translation of the questionnaire form or the questions raised during the interviews (in both cases in Indonesian) or to differences in nuance. Therefore, rather than discussing the actual rates, stress will be placed here on the relative rates.

A look by the total number of employees shows that the rates of large and medium size companies having design divisions were both in the 80 percentile range, compared with the small size companies where the rate was a considerably lower 58.4 percent.

A look by products handled shows that the rates of existence of design divisions were higher than the average 72.9 percent in other accessories (94.1 percent), jewelry and precious metals (88.9 percent), ceramics (78.9 percent), other handicrafts (78.3 percent), hand weaves and other textiles (75 percent), and wooden products (75 percent). On the other hand, the rates were lower than the average for silverware (56.8 percent) and rattan and bamboo products (70.6 percent).

A look by region shows the rates were higher than the average for Jakarta (92.9 percent), Bandung (92.6 percent), and Bali (90 percent), while they were lower than the average for Yogyakarta (65.8 percent), North Sumatra (60 percent), and South Sulawesi (42.9 percent).

**Table 2-3-29: Existence of Design Divisions**

	Responses	Have	Have not
Overall	177	129 (72.9%)	48 (27.1%)
Total number of employees			
Small companies	77	45 (58.4)	32 (41.6)
Medium companies	70	59 (84.3)	11 (15.7)
Large companies	29	24 (82.8)	5 (17.2)
Products handled			
Hand weaves and other textiles	44	33 (75.0)	11 (25.0)
Wooden products	28	21 (75.0)	7 (25.0)
Ceramics	19	15 (78.9)	4 (21.1)
Bamboo and rattan objects	34	24 (70.6)	10 (29.4)
Other handicrafts	23	18 (78.3)	5 (21.7)
Silverware etc.	37	21 (56.8)	16 (43.2)
Jewelry and precious metals	9	8 (88.9)	1 (11.1)
Other accessories	17	16 (94.1)	1 (5.9)
Regions			
Jakarta	14	13 (92.9)	1 (7.1)
Bali	40	36 (90.0)	4 (10.0)
Yogyakarta	38	25 (65.8)	13 (34.2)
North Sumatra	30	18 (60.0)	12 (40.0)
South Sulawesi	28	12 (42.9)	16 (57.1)
Bandung	27	25 (92.6)	2 (7.4)

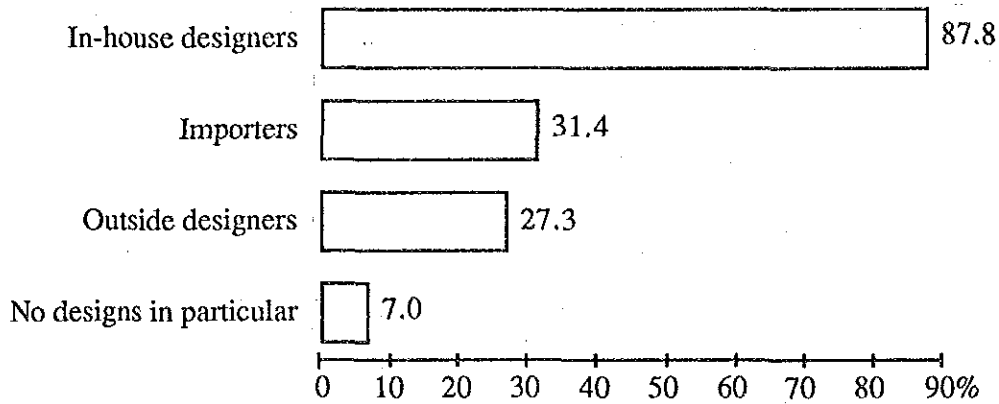
Source: Questionnaire survey

Further, seen from the interview survey, many of the small size companies in particular suffered from insufficient recognition of the importance of design. This is not a large problem so long as the companies consider the domestic market to be their main market for sales, but is something which must absolutely be dealt with to increase exports in the future.

b) Lack of basic design capabilities

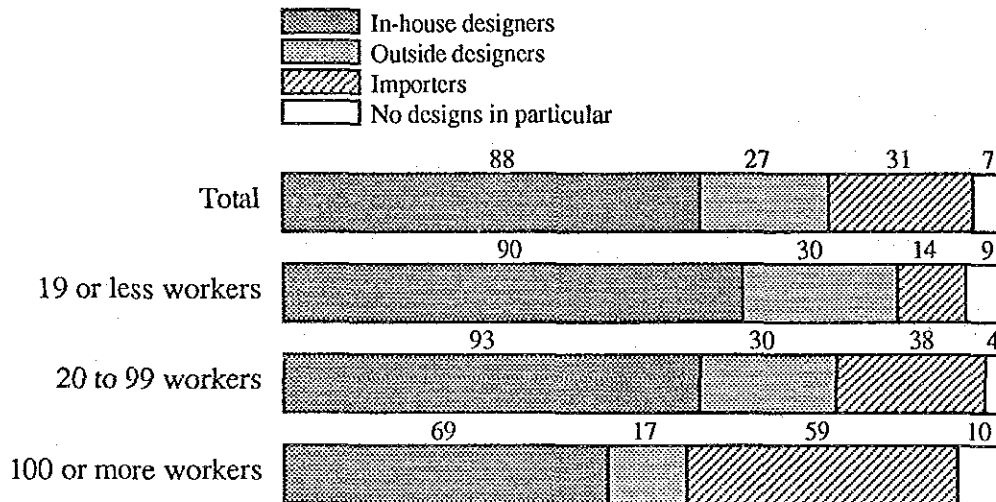
Figs. 2-3-107 to 110 show the results of a question on the method of acquisition of designs. Seen overall, the methods given were in-house designers, 87.8 percent, importers, 31.4 percent, and outside designers, 27.3 percent.

**Fig. 2-3-107: Method of Acquisition of Design**



Source: Questionnaire survey

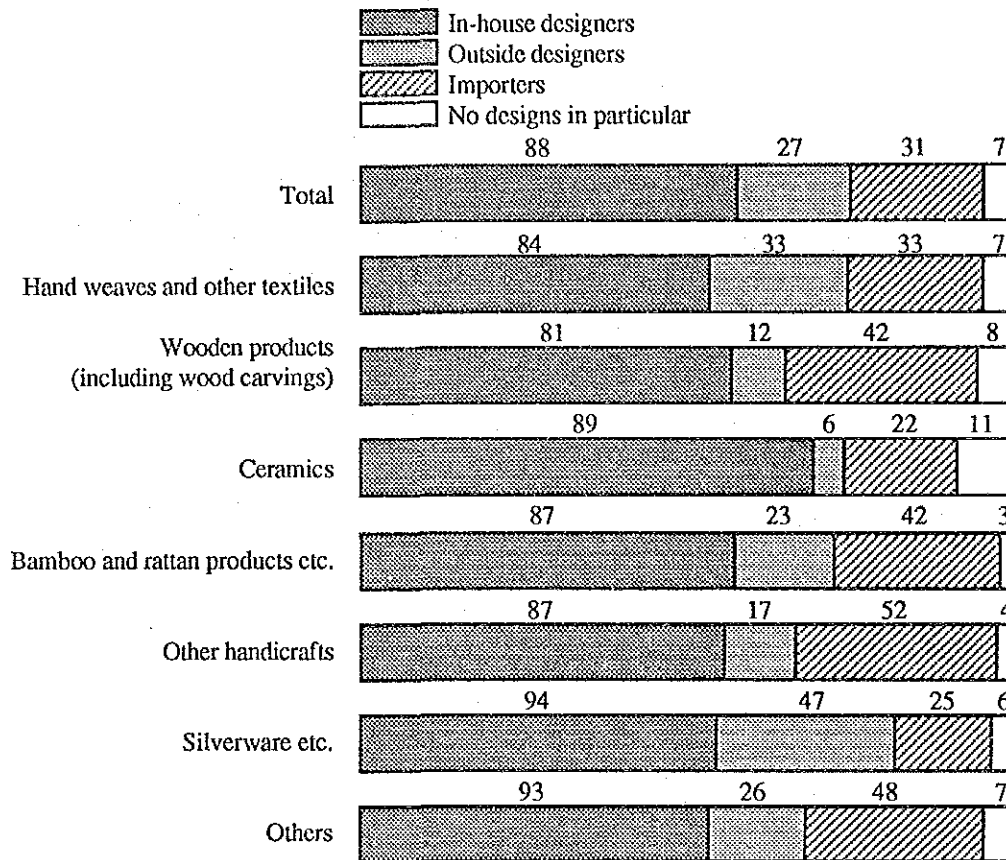
**Fig. 2-3-108: Method of Acquisition of Design (by Total Number of Employees)**



Source: Questionnaire survey

Looking at this by the total number of employees, using Fig. 2-3-108, it will be noted that the small size companies (90.1 percent) and the medium size companies (93 percent) rely to a high degree on in-house designers, while the large companies rely on in-house designers to a relatively low degree, 69 percent. The large size companies, on the other hand, rely higher on importers, 58.6 percent, and thus are seen as working to make product designs meeting the tastes of the export destinations. In contrast, the small size companies rely on importers for only a small 14.1 percent, while the medium size companies rely on them only 38 percent. Another point which should be mentioned is that 10.3 percent of the large size companies answered that they did not do any particular design work. This is higher than both the 8.5 percent of the small companies and the 4.2 percent of the medium size ones. This is evidence that even the large size companies lack sufficient recognition of the importance of design.

Fig. 2-3-109: Method of Acquisition of Design (by Product Handled)

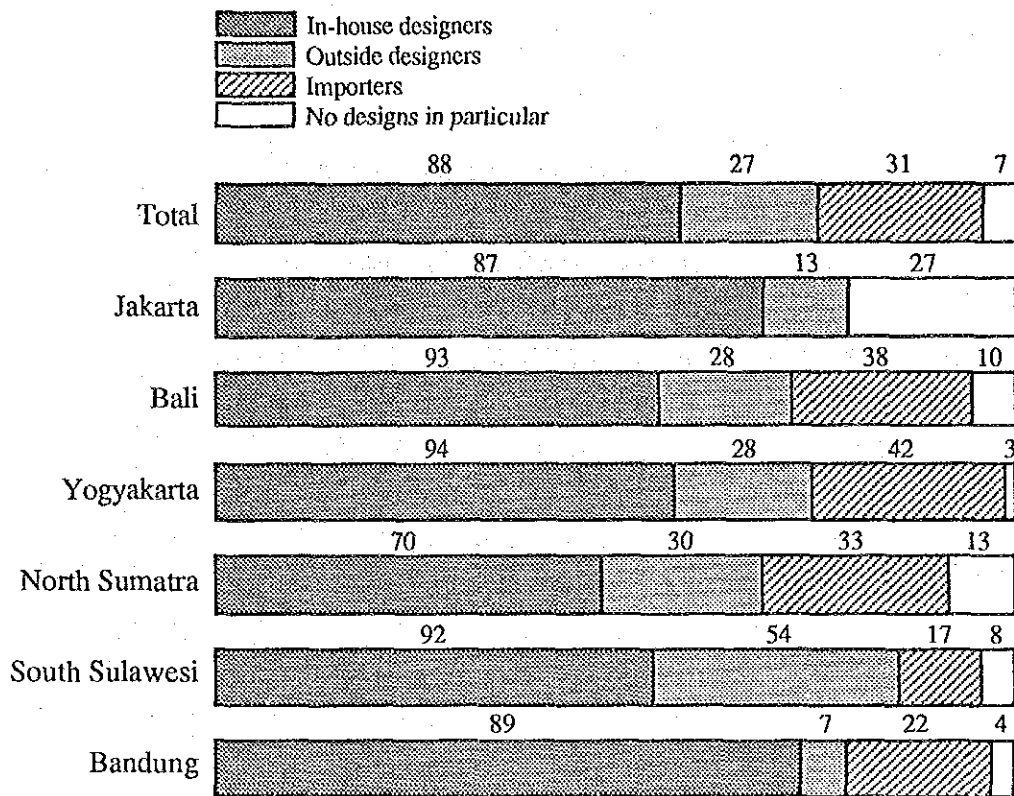


Source: Questionnaire survey

A look at this by the products handled, using Fig. 2-3-109, shows that the average reliance on in-house designers was 87.8 percent, with the low being 80.8 percent for wooden products and the high being 94.4 percent for silverware etc. The rate of acquisition of designs from importers was high in other accessories (64.7 percent), other handicrafts (52.2 percent), wooden products (42.3 percent), and bamboo and rattan products (41.9 percent).

On the other hand, the reliance on outside designers was relatively high in silverware etc. (47.2 percent).

Fig. 2-3-110: Method of Acquisition of Design (by Region)



Source: Questionnaire survey

A look at this by region, using Fig. 2-3-110, the reliance on in-house designers was substantially the same, with the exception of the 70 percent of North Sumatra. The reliance on importers was relatively high in Yogyakarta, 41.7 percent, and Bali, 37.5 percent. This would seem to show moves by companies to tailor their products to the tastes of the markets of the export destinations. On the other hand, the reliance on outside designers was extremely high in South Sulawesi, 54.2 percent. The rate of acquisition of designs from importers was correspondingly lower. This seems to be due to the low orientation toward exports.

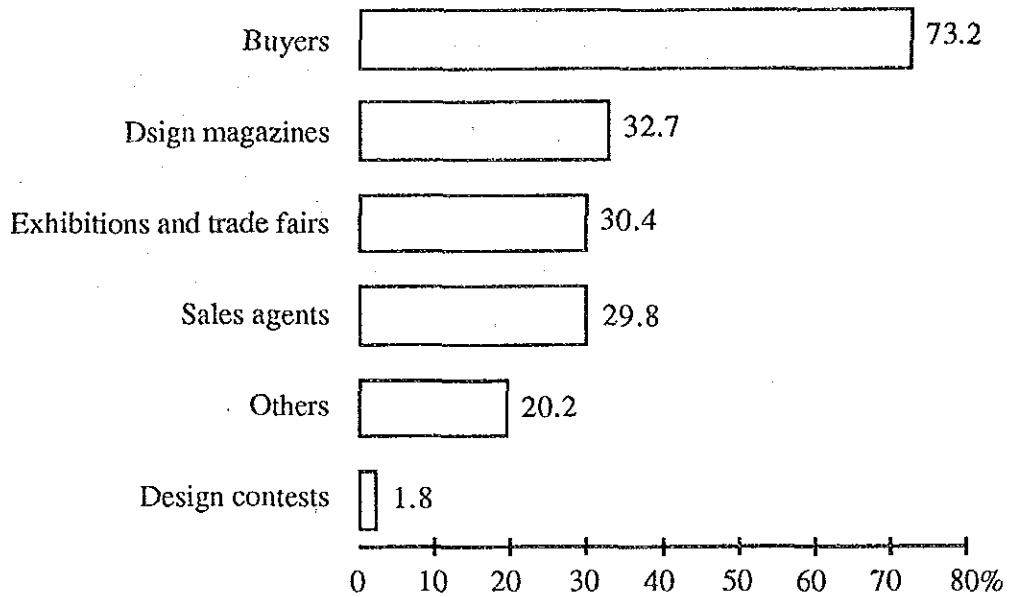
Whatever the case, the small scale industries lack basic design technology in quite a few cases. These companies are not seen as developing their own designs, but blindly following traditional design patterns. Again, this is no problem when solely concerning oneself with the domestic market, but unquestionably would be a major stumbling block when trying to expand exports. To raise the level of the handicraft industry as an export industry, it will be necessary to obtain long term, effective basic design capabilities and devise promotional schemes for the same.

c) Lack of overseas design information

In Indonesia, the general level of understanding of the importance of designs is still low. Further, overseas market information must be collected to enable the creation of designs acceptable in the overseas export markets.

Figs. 2-3-111 to 114 show the results of questions on the main sources of information on designs.

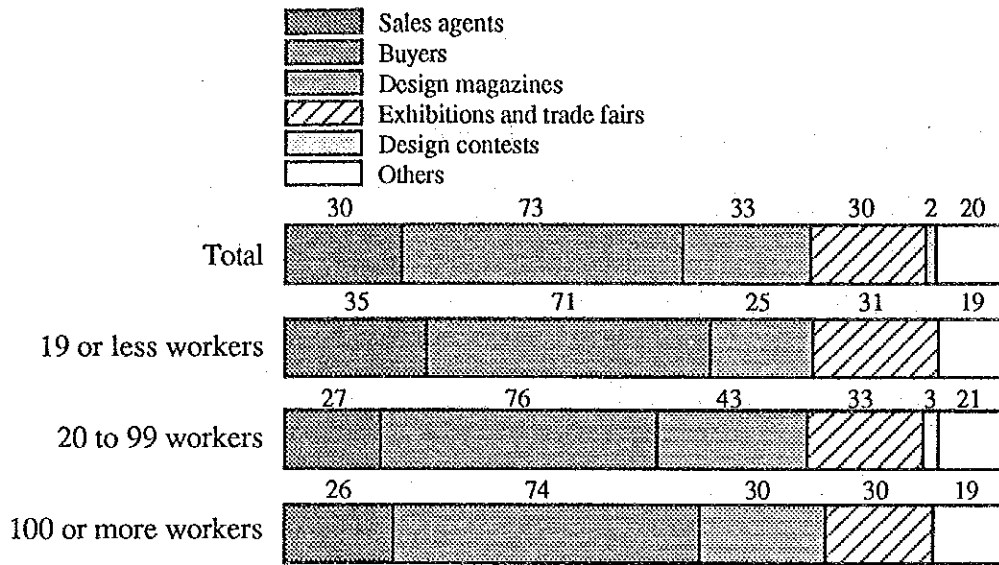
**Fig. 2-3-111: Main Sources of Information on Designs**



Source: Questionnaire survey

Seen overall from Fig. 2-3-111, buyers were the number one source of information in an overwhelmingly large 73.2 percent of the cases, followed by design magazines (32.7 percent), exhibitions and trade fairs (30.4 percent), and sales agents (29.8 percent), the percents of the latter being substantially equal.

**Fig. 2-3-112: Main Sources of Information on Designs (By Total Number of Employees)**



Source: Questionnaire survey

A look at this by the total number of employees, using Fig. 2-3-112 shows that buyers were overwhelmingly the main source of information. As for design magazines, exhibitions and trade fairs, and sales agents, while there were some differences according to company size, about the same trends could be seen as with companies as a whole.

A look at this by the products handled, using Fig. 2-3-113, shows that there were three main patterns.

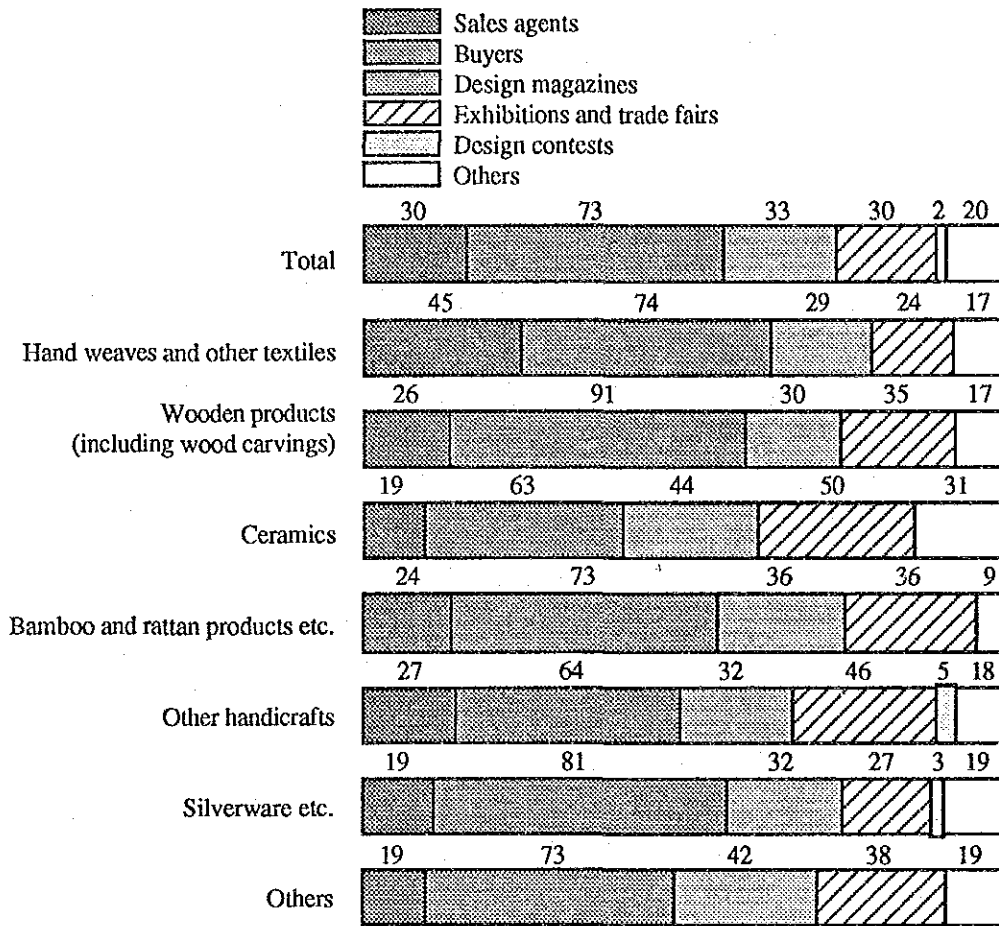
The first pattern was of products with a large ratio of information from buyers and a relatively low ratio of information from other sources. Included among these were wooden products, bamboo and rattan products, silverware etc., and jewelry and precious metals.

The second pattern was of products with a relatively high reliance on information from buyers and also relatively high rates of reliance on design magazines and exhibitions and trade fairs as the second and third most important information sources. This included ceramics and other accessories.

Finally, the third pattern was of products with a high reliance on information from buyers and also a higher reliance on the number two source of information compared with the number three and four sources. This included hand weaves and other textiles and other handicrafts. In particular, in the former case, sales agents (45.2 percent) were given as the second most important source of information after buyers. This may be said to be an extremely special case compared with other products.



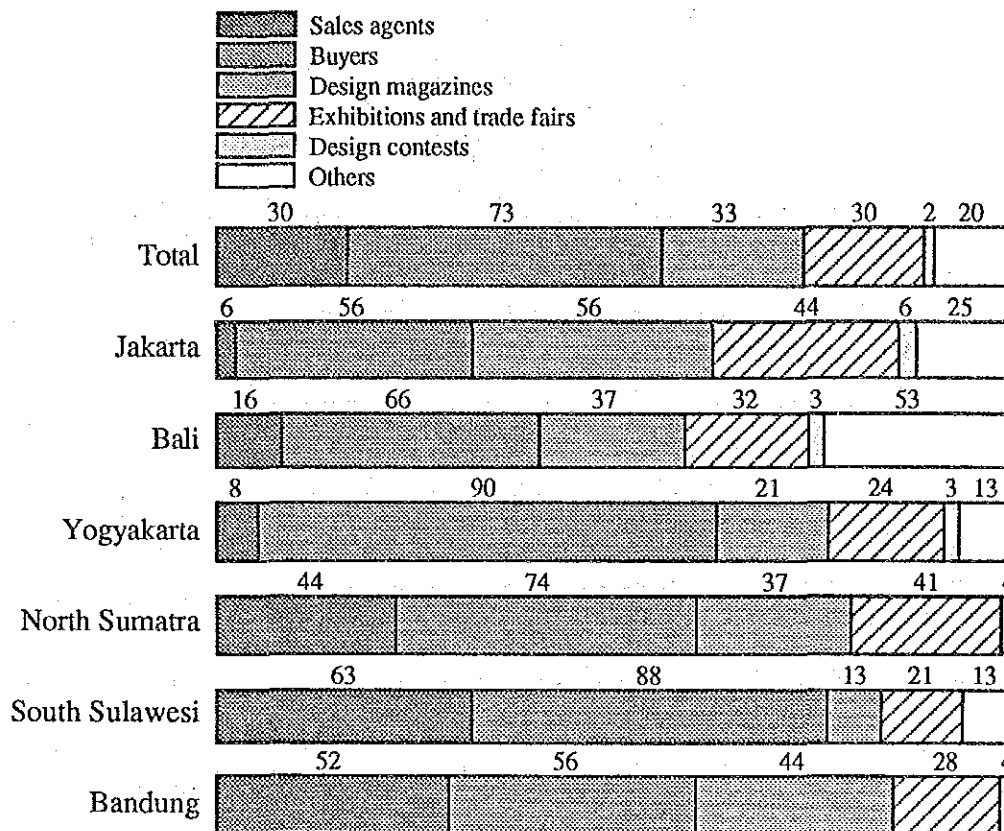
Fig. 2-3-113: Main Sources of Information on Designs (by Product Handled)



Source: Questionnaire survey

A look at this by region using Fig. 2-3-114 shows that buyers were the number one source of information in all regions, but that design magazines were considered of equal importance, 56.3 percent, in Jakarta - a unique feature compared with other regions. Further, in North Sumatra, South Sulawesi, and Bandung, sales agents were given as the number two sources of information, at a relatively high rate, while in Yogyakarta, the reliance was almost entirely on buyers. In Bali, "other" sources of information were given as the number two source.

Fig. 2-3-114: Main Sources of Information on Designs (by Region)



Source: Questionnaire survey

In the interviews with the companies visited too, a lack of overseas market information was given frequently as a problem in design.

d) Difficulties in raising the level of designs, lack of capabilities of developing original designs, and lack of ability of developing internationally acceptable designs

Even the companies currently exporting and having several in-house designers suffer from several problems in design. One of these is that while they may have basic design development capabilities, there are limited opportunities in Indonesia for raising the level of those capabilities, so it is impossible to raise the level and reach a level acceptable in the international market.

Another problem is that even if the level of design development capabilities are raised a certain degree, there is a lack of ability of developing original designs, so while companies might be able to chase after overseas market needs, they are not able to create new things for the market on their own.

For Indonesia's handicraft industry to establish a solid position for itself in the world market, the relatively large companies which are now in the vanguard of exports will have to acquire the latest design development capabilities.

#### 4) Factory management and quality control

##### [1] Present Status and Problems on Factory Management

As the first problem of factory management, poor arrangement and cleaning in most of the factories should be pointed out. Though this may seem too primitive a problem for manufacturing factories to discuss, but it is firmly related to the characteristics of the handicraft industry. One reason is that the industry has the least machinery and equipment of all the industries in Indonesia and another is that many small scale companies are included in the industry. Factories where manufacturing by hand is the main process tend to be less arranged or cleaned-up compared with highly mechanized industries.

The second problem is that there is some difficulty in increasing the number of middle managers in the manufacturing department as production depends largely on artisans. From the viewpoint of manufacturing traditional handicrafts, this is not so serious a problem, but without a supply of middle managers, companies cannot grow and expand their export.

##### [2] Present Status and Problems of Quality Control

Table 2-3-30 shows the result of the questionnaire concerning the "inspection department".

Over all, 66.9% answer that they have an inspection department.

Viewed by number of employees, the percentage of those having an inspection department is 44% for small, 83.1% for medium and 89.3% for large industry. As the size of the companies becomes larger, it can clearly be seen that the rate of having an inspection department gets higher.

One problem is that the rate for small industry is very low, yet increase in export could be achieved by enhancing the rate of those having inspection departments and by establishing independent departments for inspection in order to manage and to fortify quality control.

Seen by kind of items, the percentage of having an inspection department is more than 10% higher than the average of 66.9% in other accessories (93.8%), ceramics (78.9%) and wooden handicrafts (78.6%), and above all, the high percentage of other accessories is remarkable. On the other hand, the percentage is 10% or more less than the average in silver (51.4%) and this means almost half of the companies do not have an inspection department.

By regions, the percentage of those having an inspection department is very high in Jakarta (92.9%) and Bandung (92.6%), while it is much lower than the average in South Sulawesi (36%) and North Sumatra (53.3%). It seems that there are differences among the regions concerning the concept of the importance of an inspection department. It is very important for the expansion of export not only to lessen this gap among the regions but also to widen the concept of the importance of quality inspection throughout Indonesia.

**Table 2-3-30: Inspection Department**

	Responses	Have	Have not
Overall	175	117 (66.9%)	58 (33.1%)
Total number of employees			
Small companies	75	33 (44.0)	42 (56.0)
Medium companies	71	59 (83.1)	12 (16.9)
Large companies	28	25 (89.3)	3 (10.7)
Products handled			
Hand weaves and other textiles	42	29 (69.0)	13 (31.0)
Wooden products	28	22 (78.6)	6 (21.4)
Ceramics	19	15 (78.9)	4 (21.1)
Bamboo and rattan objects	33	25 (75.8)	8 (24.2)
Other handicrafts	23	14 (60.9)	9 (39.1)
Silverware etc.	37	19 (51.4)	18 (48.6)
Jewelry and precious metals	8	6 (75.0)	2 (25.0)
Other accessories	16	15 (93.8)	1 (6.3)
Regions			
Jakarta	14	13 (92.9)	1 (7.1)
Bali	40	25 (62.5)	15 (37.5)
Yogyakarta	39	29 (74.4)	10 (25.6)
North Sumatra	30	16 (53.3)	14 (46.7)
South Sulawesi	25	9 (36.0)	16 (64.0)
Bandung	27	25 (92.6)	2 (7.4)

Source: Questionnaire survey

Table 2-3-31 shows the result of the questionnaire concerning "sample inspection in manufacturing processes". As a whole, 75.9% of the companies answer that they have such inspection.

In terms of company size, the percentage of those having sample inspection in manufacturing processes is 60.6% in small, 87.7% in medium and 89.7% in large industry. As the size of the companies becomes larger, the percentage gets higher.

Seen by kind of items, the percentage is relatively high in the following four items: other accessories (93.8%), ceramics (89.5%), jewelry and precious metals (88.9%) and wooden handicrafts (84%). On the other hand, the percentage is much lower than the average in other handicrafts (65.2%).

Viewed by regions, there is much idfference among the regions as mentioned below. The percentage is very high in the following three regions: Yogyakarta (100%), Bandung (100%) and Jakarta (92.9%). On the other hand, the percentage is very low in South Sulawesi (30%) and North Sumatra (56.7%). The percentage for Bali is 68.4%, slightly below the average.

**Table 2-3-31: Sample Inspection in Manufacturing Processes**

	Responses	Have	Have not
Overall	166	126 (75.9%)	40 (24.1%)
Total number of employees			
Small companies	71	43 (60.6)	28 (39.4)
Medium companies	65	57 (87.7)	8 (12.3)
Large companies	29	26 (89.7)	3 (10.3)
Products handled			
Hand weaves and other textiles	39	28 (71.8)	11 (28.2)
Wooden products	25	21 (84.0)	4 (16.0)
Ceramics	19	17 (89.5)	2 (10.5)
Bamboo and rattan products	33	24 (72.7)	9 (27.3)
Other handicrafts	23	15 (65.2)	8 (34.8)
Silverware etc.	35	27 (77.1)	8 (22.9)
Jewelry and precious metals	8	8 (88.9)	1 (11.1)
Other accessories	16	15 (93.8)	1 (6.3)
Regions			
Jakarta	14	13 (92.9)	1 (7.1)
Bali	38	26 (68.4)	12 (31.6)
Yogyakarta	37	37 (100.0)	—
North Sumatra	30	17 (56.7)	13 (43.3)
South Sulawesi	20	6 (30.0)	14 (70.0)
Bandung	27	27 (100.0)	—

Source: Questionnaire survey

**Table 2-3-32: Final Inspection**

	Responses	100% inspection	Sample inspection
Overall	125	117 (77.8%)	18 (22.2%)
Total number of employees			
Small companies	54	42 (77.8)	12 (22.2)
Medium companies	54	51 (94.4)	3 (5.6)
Large companies	26	24 (92.3)	2 (7.7)
Products handled			
Hand weaves and other textiles	28	25 (89.3)	3 (10.7)
Wooden products	24	21 (87.5)	3 (12.5)
Ceramics	17	15 (88.2)	2 (11.8)
Bamboo and rattan products	28	22 (78.6)	6 (21.4)
Other handicrafts	17	16 (94.1)	1 (5.9)
Silverware etc.	29	27 (93.1)	2 (6.9)
Jewelry and precious metals	8	8 (100.0)	—
Other accessories	15	14 (93.3)	1 (6.7)
Regions			
Jakarta	13	12 (92.3)	1 (7.7)
Bali	25	21 (84.0)	4 (16.0)
Yogyakarta	37	36 (97.3)	1 (2.7)
North Sumatra	24	19 (79.2)	5 (20.8)
South Sulawesi	12	7 (58.3)	5 (41.7)
Bandung	24	22 (91.7)	2 (8.3)

Source: Questionnaire survey

Table 2-3-32 shows the responses to the question on "final inspection". As a whole, the percentage of those having a 100% inspection system as a final inspection is 86.7%.

Seen by number of employees, the percentage is 77.8% in small, 94.4% in medium and 92.3% in large industry. The percentage becomes larger in proportion to the size of the companies though the percentage for large industry is a little lower than that for medium.

Viewed by kind of items, the percentage is very high in the following four items: jewelry and precious metals (100%), other handicrafts (94.1%), other accessories (93.3%) and silver (93.1%). The percentage is also higher than the average of 86.7% in hand woven textiles (89.3%), ceramics (88.2%) and wooden handicrafts (87.5%). The percentage for the remaining item, bamboo and rattan, is 78.6% and this is not very low. As far as the results of the questionnaire is concerned, the percentage of having a 100% inspection as a final inspection is very high and there is little difference among the items.

Lastly, considered by regions, there is much difference in the percentage among regions compared with the results for kind of items in which the differences are not very big. The percentage is very high in the following three regions: Yogyakarta (97.3%), Jakarta (92.3%) and Bandung (91.7%), while it is extremely lower than the average in South Sulawesi at a percentage of 58.3%. The percentage is lower than the average in Bali (84%) and North Sumatra (79.2%), but not by much.

Larger companies of the handicraft industry are more likely to have a quality control department. The same thing can be said for the rate of conducting sample inspection in the manufacturing process or of doing final inspection.

As far as this survey is concerned, there are two kinds of problems: one is for small scale companies and another is for comparatively large scale ones. Introduction of basic quality control systems is necessary for the former, while the improvement of presently existing system is necessary for the latter.

Even the companies which have inspection system in the manufacturing process and final inspection, do not have the concept of TQC. It is very important to control the quality of products which are to be exported as well as to control the quality of raw materials and products.

To adopt internationally accepted or targeted countries' standards for quality control is also very important, as standards adopted by Indonesian companies are sometimes less strict than those overseas.

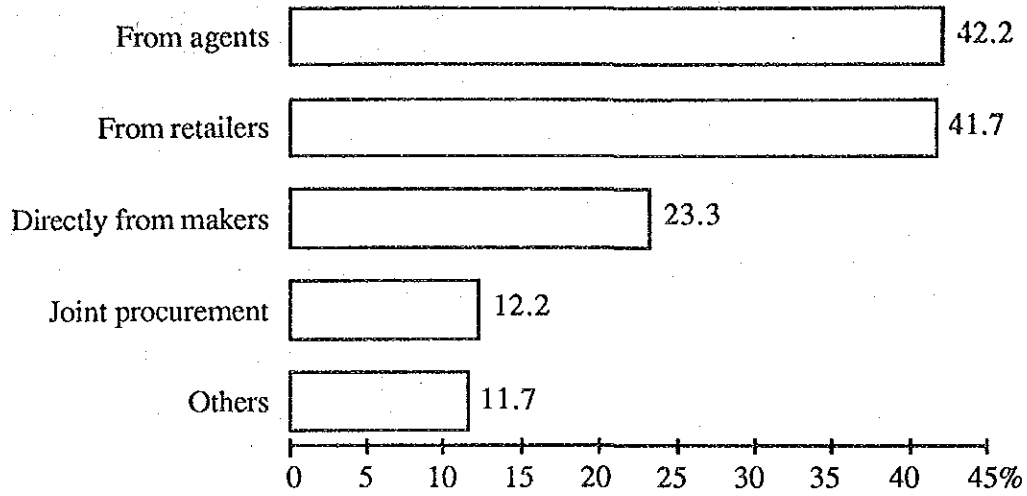
Lastly, to strengthen quality control, training for employees is also very important.

## **5) Procurement of raw materials and state of peripheral industries**

### **[1] Procurement of Raw Materials**

Fig. 2-3-115~118 show the results of the questionnaire regarding "How to procure raw materials."

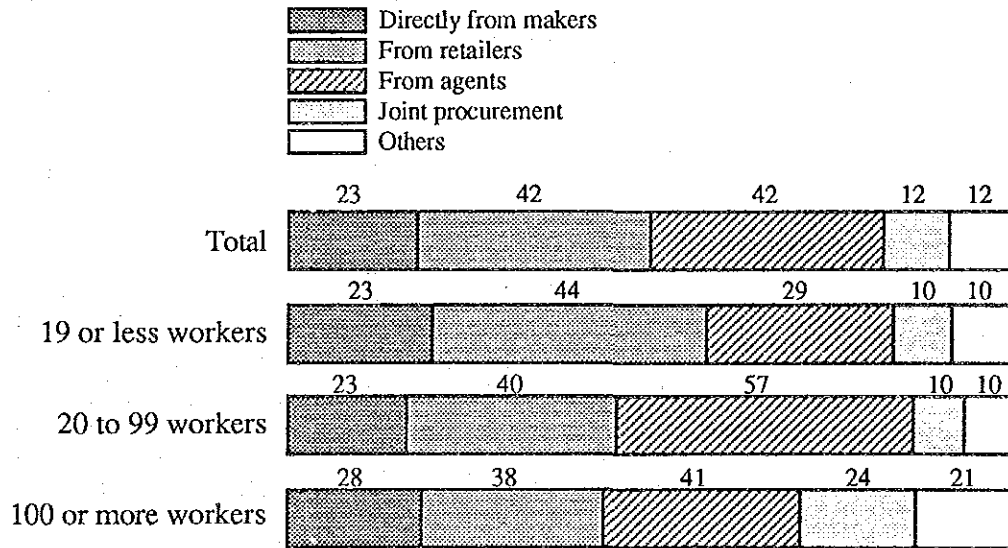
**Fig. 2-3-115: How to Procure Raw Materials**



Source: Questionnaire survey

As a whole, 'From agents' was chosen as the first selection with 42.2% and 'From retailers' the second with 41.7%. These two seem to be the main sources of procuring raw materials.

**Fig. 2-3-116: How to Procure Raw Materials (By Number of Employees)**



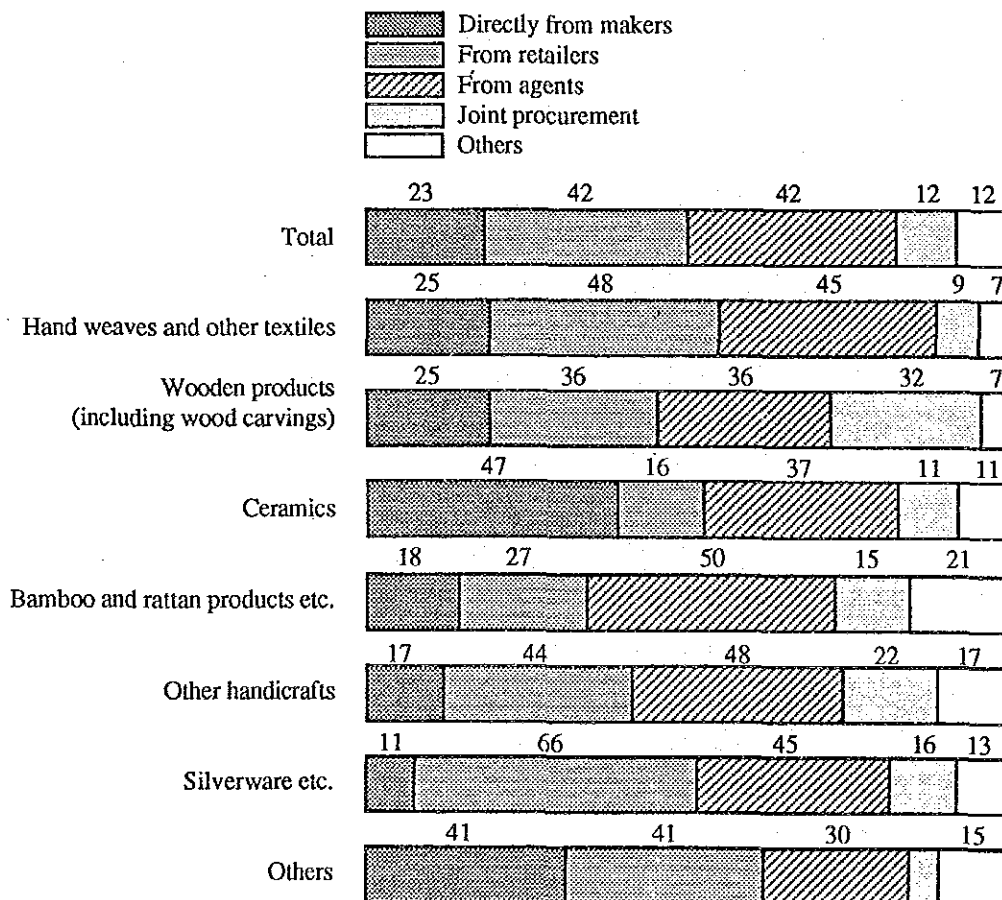
Source: Questionnaire survey

Viewed by number of employees, small scale firms answer that they procure raw materials at 44.3% from retailers, 29.1% from agents and 22.8% directly from makers, that is, the dependency rate on retailers is relatively high. The rates for medium scale industry are 57.1% from agents, 40% from retailers and 22.9% directly from makers. Lastly, the large industry firms procure raw materials at the rates of 41.4% from agents, 37.9% from retailers, and 27.6% directly from makers. They also have a rate of 24.1% by joint procurement (Kooperasi) and this rate is remarkably higher than that of the medium and small industry (both 10.1%).

The percentage of procurement from retailers is very high, 41.7%, as a whole and is also high, 37.9%, in large industry. The problems on procurement of raw materials mentioned later could be mainly derived from this point.

The dependency rate on makers is the highest at 27.6% in the large industry while the dependency rate on agents is the highest in the medium industry. As joint procurement by the large industry is mainly classified into either of the two categories, that is, either from agents or directly from makers, the large industry's dependency rate without retailers would be higher.

Fig. 2-3-117: How to Procure Raw Materials (By Kind of Items)



Source: Questionnaire survey



Seen by kind of items, there is quite a lot of difference among the kinds of items.

In hand woven textiles and other handicrafts, the sum of the percentage of procurement from retailers and from agents is more than 90%, and silver has almost the same tendency as the dependency rate on retailers and agents is very high, though the procurement rate just from retailers is extremely high at 65.8%.

The procurement rate from retailers is very high in the following two items: silver as mentioned above and jewelry and precious metals. The rate is over 50% in both cases.

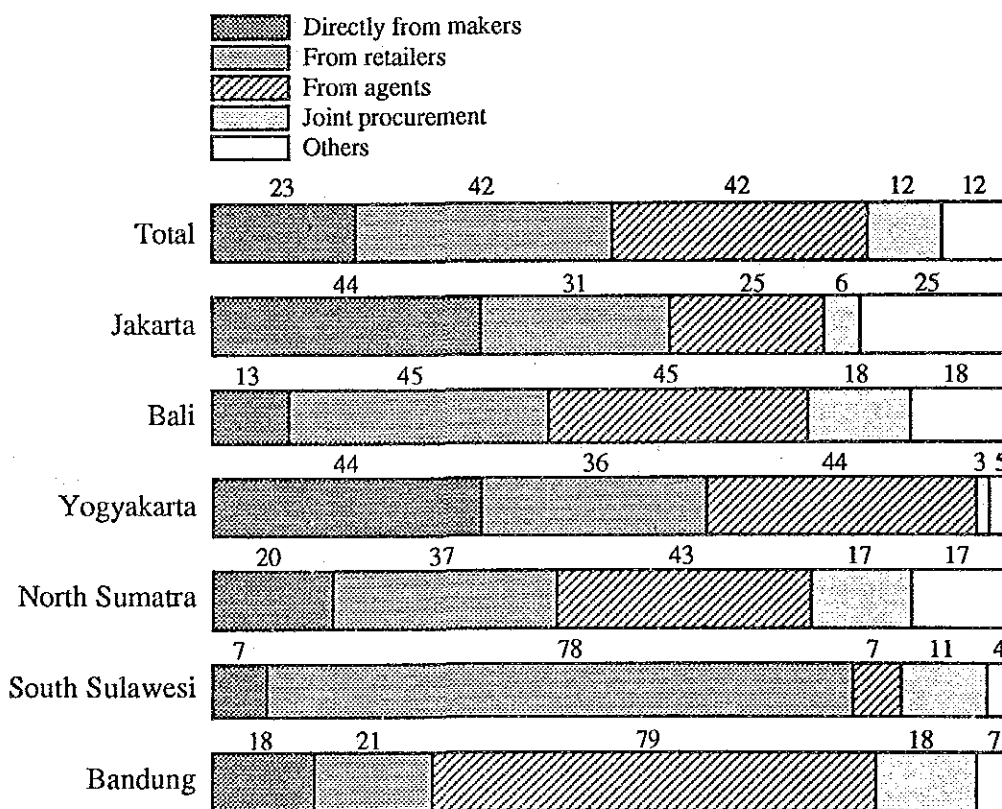
In wooden handicrafts, procurement is balanced as they procure at 35.7% from retailers and 35.7% from agents, with 32.1% by joint procurement and 25% directly from makers. The rate by joint procurement is remarkably high.

In ceramics, the procurement rate directly from makers and from agents is nearly 85% and this seems to be one of the ideal ways of procurement.

In bamboo and rattan, the procurement rates from agents is 50% and that from retailers and from others are both over 20%.

Lastly, in other accessories, the procurement rate directly from makers is 47.1% that from agents 41.2% and that from retailers 35.3%; the ways of procurement are very balanced.

**Fig. 2-3-118: How to Procure Raw Materials (By Regions)**

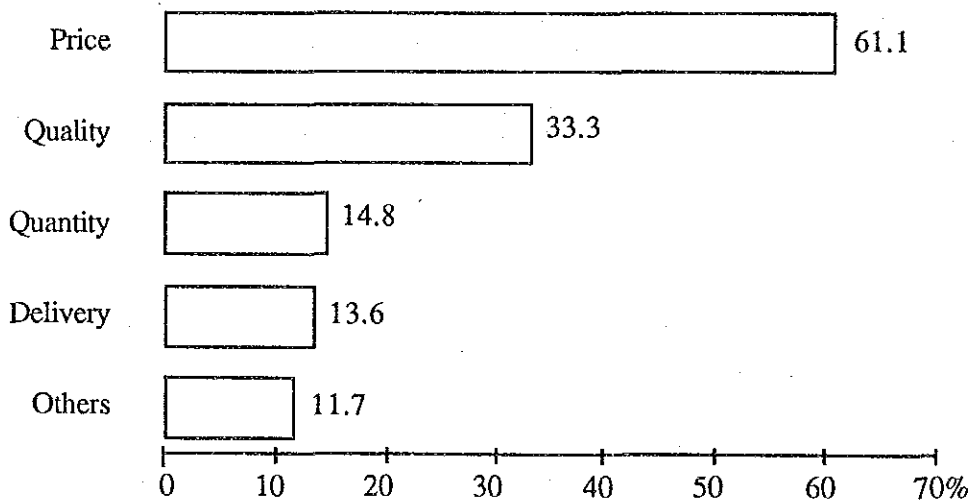


Source: Questionnaire survey

Considered by regions, the procurement rate directly from makers and from agents is relatively high and well balanced in Jakarta and Yogyakarta, though the rate by joint procurement is very low. While the procurement rate from retailers and from agents is very high, 80 or 90%, in Bali and North Sumatra, the rate directly from makers and by joint procurement is comparatively low. On the other hand, the dependency rate on one specific source is extremely noticeable in South Sulawesi and Bandung; the procurement rate from retailers is a high 77.8% in the former and that from agents is also high at 78.6% in the latter.

Fig. 2-3-119~122 show the results of the questionnaire regarding "problems concerning raw materials."

**Fig. 2-3-119: Problems concerning Raw Materials**

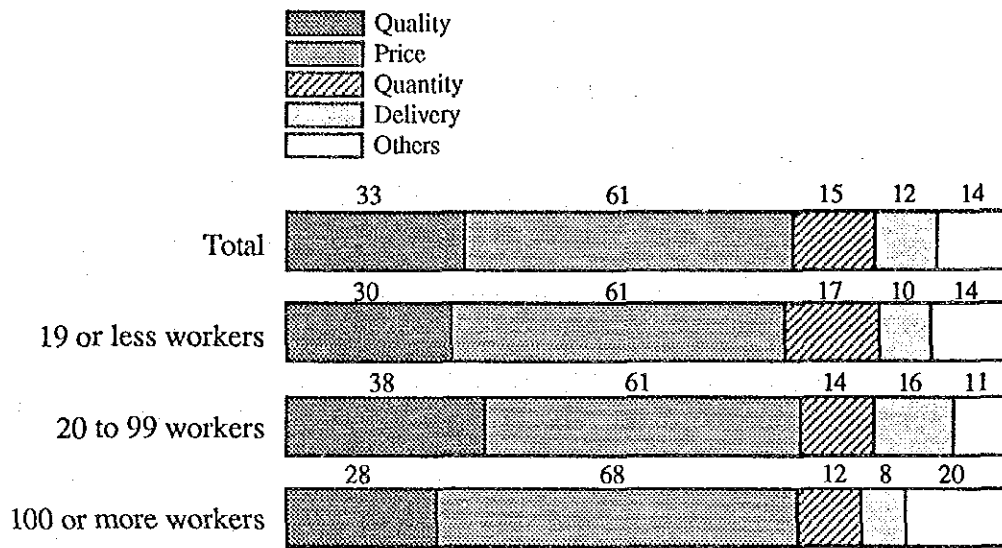


Source: Questionnaire survey

As a whole, 'price' is answered highest at 61.1% and 'quality' at 33.3%, while the answers other than these two are low at less than 20%. Thus, price and quality can be seen as the two most important problems concerning raw materials by the companies questioned.

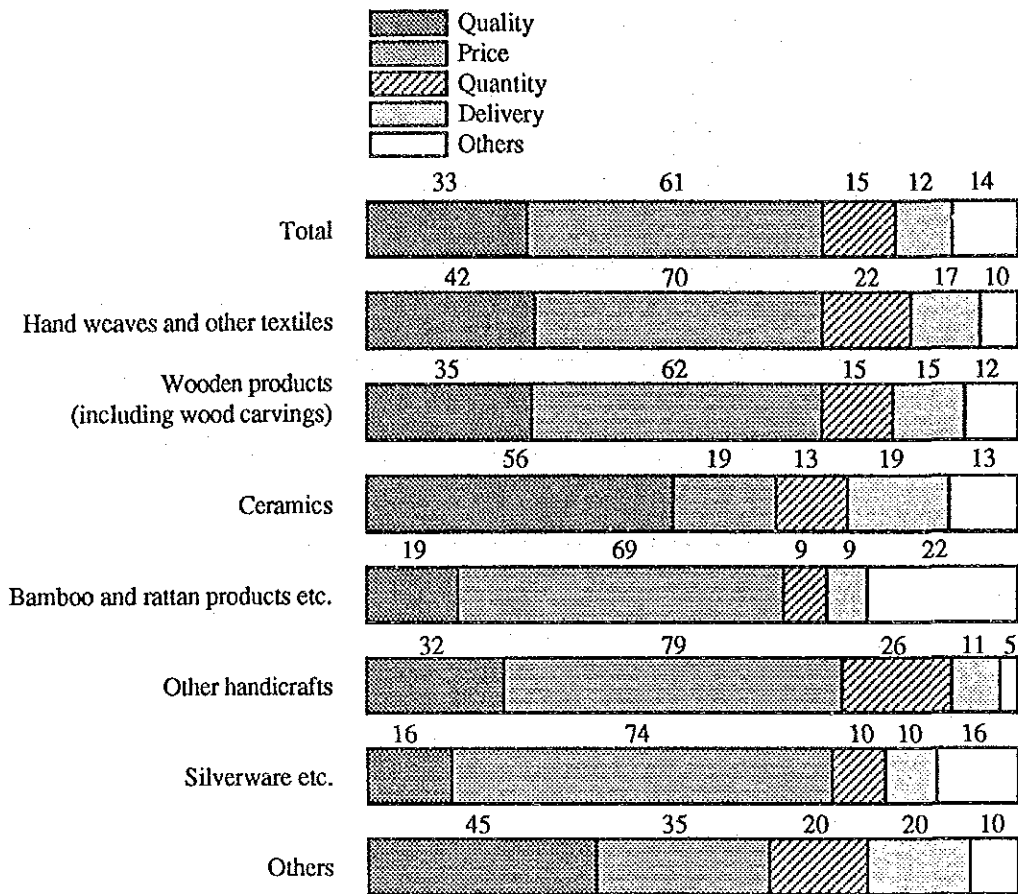
In terms of company size, almost the same thing can be said with price and quality of raw materials being the two most serious problems.

Fig. 2-3-120: Problems concerning Raw Materials (By Number of Employees)



Source: Questionnaire survey

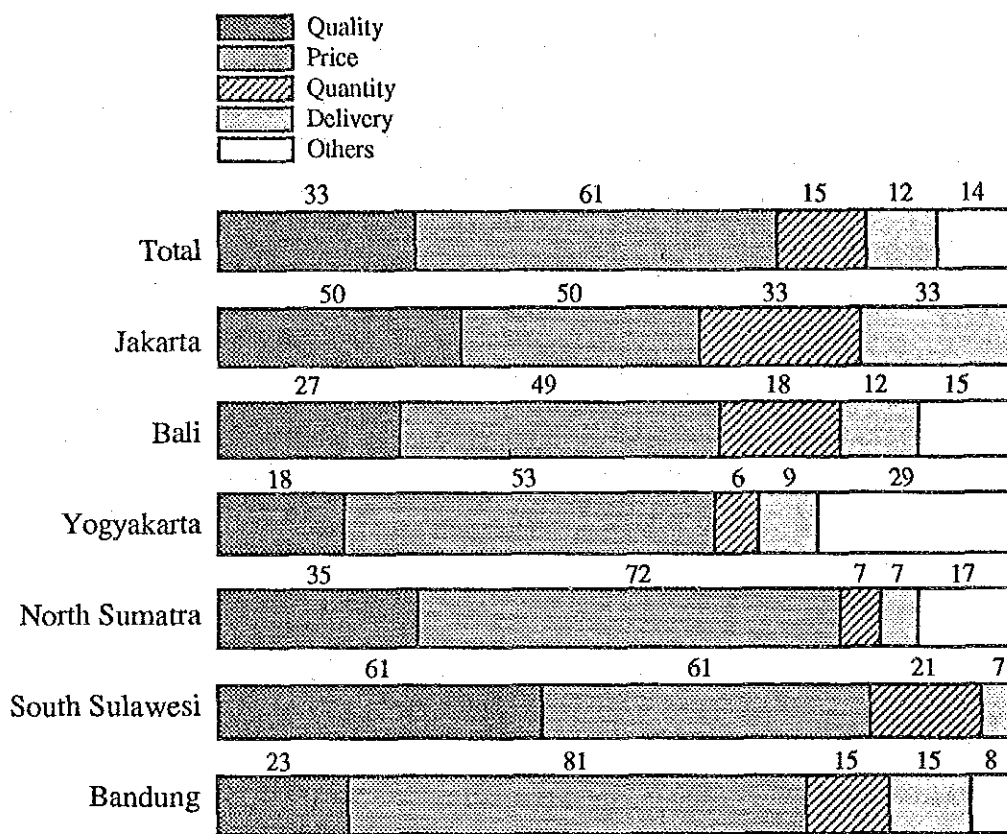
**Fig. 2-3-121: Problems concerning Raw Materials (By Kind of Items)**



Source: Questionnaire survey

Seen by kind of items, the same tendency can be found in all items except the following three items: ceramics, jewelry and precious metals and other accessories. For ceramics, quality is chosen as the first selection with 56.3% and the other choices including price are relatively low at less than 20%. For jewelry and precious metals, both price and quality are chosen as the first selection at 42.9% and seem similarly important. Lastly for other accessories, quality is chosen as the first selection with 46.2% and price is a relatively low 30.8%.

Fig. 2-3-122: Problems concerning Raw Materials (By Regions)



Source: Questionnaire survey

Viewed by regions, almost the same thing can be said. In most of the regions, price is chosen first and quality second with the exception of Jakarta and South Sulawesi where both price and quality are chosen first at the same rate.

The problems concerning procurement of raw materials derived from the results of the questionnaire and from the results of the interviews can be summed up as follows.

a) Rising Price of Raw Materials

One of the biggest problems concerning procurement of raw materials for the handicraft industry is rising prices. The companies surveyed point this out as the most serious problem concerning procurement of raw materials. Especially, the price rise of cotton which is the raw material for hand woven textiles is pointed out in all the regions surveyed.

The material cost of handicrafts, although it differs slightly for each item, averages more than 50%, and the soaring price of raw materials has the largest effect on manufacturing cost.

Another problem is that the price rise of raw materials sometimes causes a shift to other raw materials which are cheaper but of lower quality. The result of this is a

reduction in the quality of the products and this would be very negative for the expansion of exports.

b) Stable Procurement of Raw Materials with High Quality

The Quality of raw materials used to manufacture handicrafts is closely connected to the quality of products. To procure raw materials with high quality is one of the most important issues for the expansion of sales, and especially for exports.

As it is especially difficult for medium and small scale handicraft companies to procure high quality raw materials regularly, the selection of stable suppliers, joint procurement with other companies or procurement through an MA company is necessary.

c) Stable Procurement of Raw Materials in Necessary Volume

According to the companies surveyed, the quantity of raw materials to be supplied is a less important problem compared with the former two problems concerning the price and quality of raw materials, but this should be also added to the consideration of these two problems because procurement of raw materials with high quality and reasonable price must be discussed along with guaranteed volume.

d) Listing and Selection of Stable Suppliers

To secure price, quality and quantity of raw materials, it is necessary to list and select suppliers who can fulfill the conditions. However, most of the handicraft companies are comparatively so small in size that they cannot develop good contacts with such suppliers by themselves.

e) Information on Procurement of Raw Materials

Lack of information on procurement of raw materials is also one of the major problems. One third of the companies surveyed procure raw materials from retailers near-by and price, quality and quantity are unstable. In this case, as retailers have only limited information on raw materials, handicraft companies which purchase from them can also only get limited information.

Direct purchase from manufacturers of raw materials or procurement from larger wholesalers should be achieved for stable procurement of raw materials and for collection of wider information, but small scale companies which cannot consume a large volume of raw materials have some difficulty in doing so. A new system such as joint procurement is necessary.

[2] Peripheral Industries (Suppliers of Raw Materials or Parts)

In the case of the handicraft industry, the quality of raw materials is in most cases directly connected to that of products and therefore the quality improvement of peripheral industries would play a very important role for the handicraft industry.

a) Improvement of Quality of Raw Materials and Parts

The improvement of quality of raw materials and parts is especially necessary for the following four fields, and quality improvement by their suppliers would be very important for them.

- Cotton and Silk for Hand-woven Textiles
- Wood for Wood Carving
- Material Silver for Silverware and Silver Fashion Accessorie (Especially clasp parts)
- Glaze for Ceramics

b) Improvement and Increase of Half-processed Parts

By increasing the procurement of half-processed parts and fixing their specifications, manufacturing processes in the handicraft industry would be reduced and the quality of products would be improved because having fewer processes would give makers more time to refine their products. The followings are the fields for this:

Procurement of specificated parts of silver and brass

c) Other Specific Discussion concerning Peripheral Industries

• Material Silk Industry

Though the material silk industry in South Sulawesi presently has some problems as mentioned before, vitalization of the industry would be useful not only for the handicraft industry but also for all the textile industries in Indonesia. The F/S for this purpose should be scheduled for a different survey from this one.

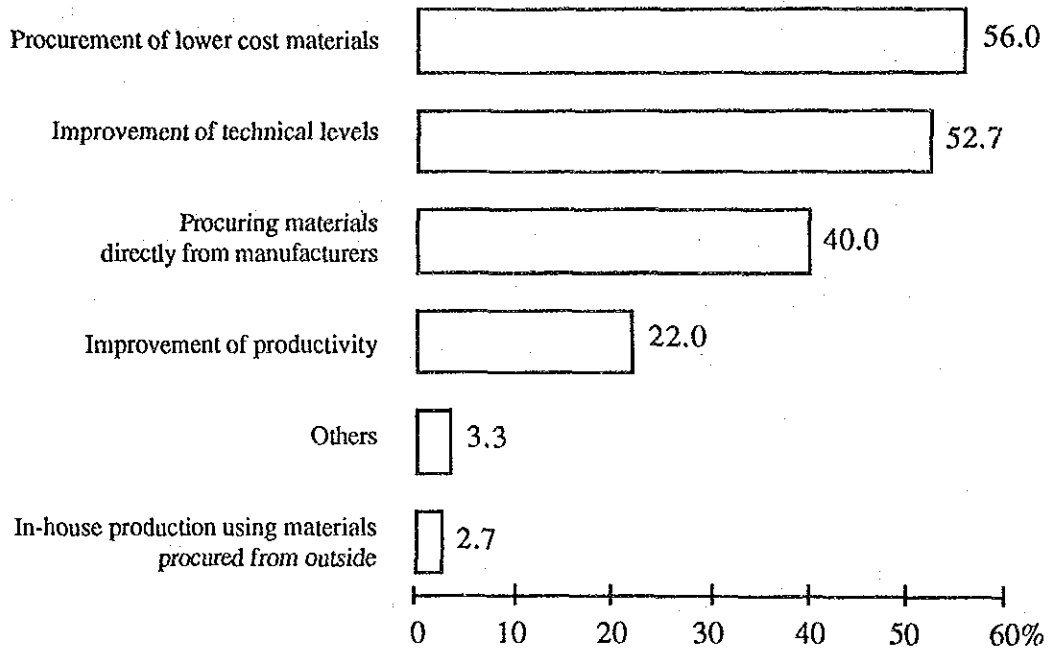
• Spun Silk Industry

In relation to the material silk industry, the possibility of a spun silk industry in Indonesia should also be surveyed.

6) Present status and problems on cost reduction

Fig. 2-3-123~126 show the results of the question regarding "cost saving activities".

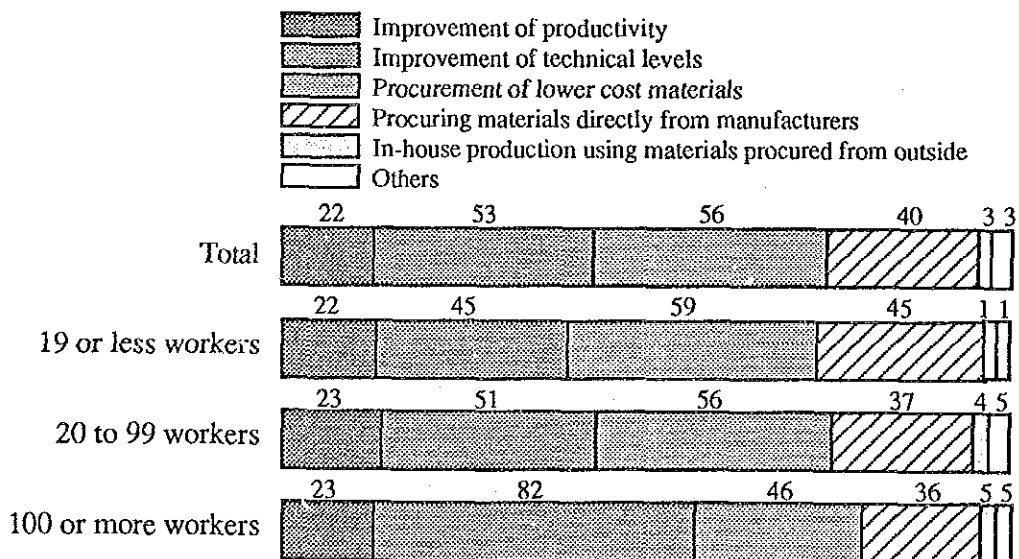
**Fig. 2-3-123: Cost Saving Activities**



Source: Questionnaire survey

As a whole, 'Procuring lower cost materials' is chosen as the first choice at 56% followed closely by 'Improving technology levels' in second, 'Procuring materials directly from manufacturers' at 40% as third and 'Improving productivity,' 22% fourth.

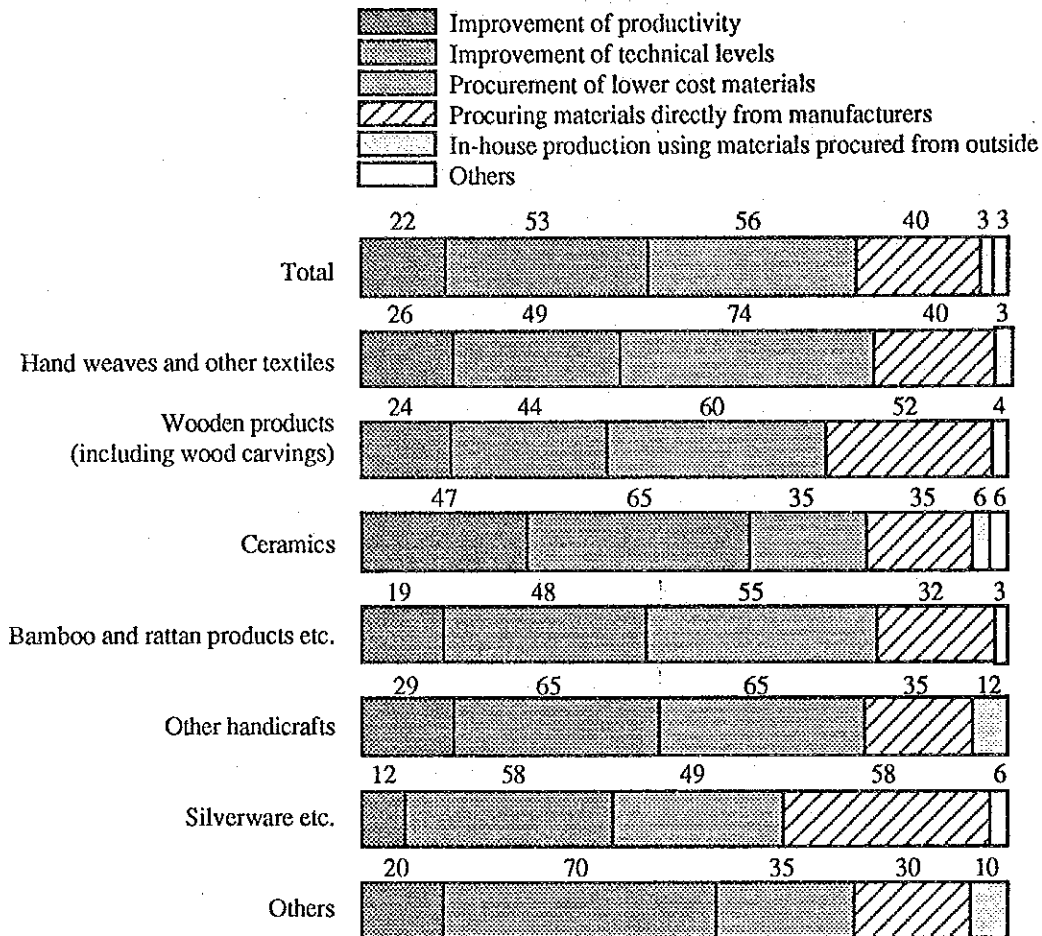
**Fig. 2-3-124: Cost Saving Activities (By Number of Employees)**



Source: Questionnaire survey



Fig. 2-3-125: Cost Saving Activities (By Kind of Items)



Source: Questionnaire survey

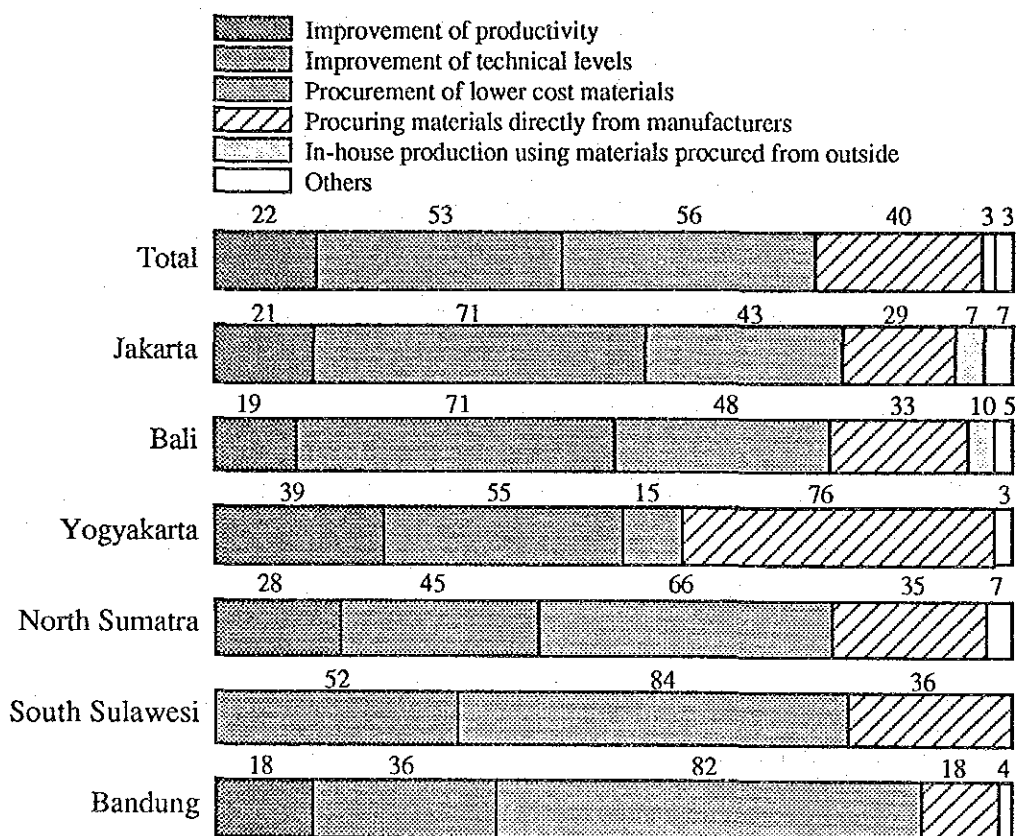
In terms of number of employees, the small scale firms chose 'Procuring lower cost materials' first at 59.4%, 'Improving technology levels' and 'Procuring materials directly from manufacturers' both second at 44.9% and 'Improving productivity' fourth at 21.7%. Secondly, the medium scale industry chose 'Procuring lower cost materials' also as first with 56.1%, followed by 'Improving technology levels' second with 50.9%, 'Procuring materials directly from manufacturers' third with 36.8% and 'Improving productivity' fourth with 22.8%. Lastly, the large industry answered rather differently from the medium and small industry firms that 'Improving technology levels' was chosen first with a very high rate of 81.8%, followed by 'Procuring lower cost materials' second at 45.5% and 'Improving productivity' third at 22.7%. The large scale industry tends to be more seriously involved in wrestling with cost saving activities as improving productivity is one of the most basic ways to achieve cost reduction.

Seen by kind of items, 'Procuring lower cost materials' is chosen as the first choice in four items and in three of them the percentage is higher than the average of 56%: ahdn woven textiles (74.3%), other handicrafts (64.7%) and wooden handicrafts (60%). On the other hand, 'Improving technology levels' is chosen first in the following five items: other accessories (especially high at 81.8%), ceramics (64.7%), other

handicrafts (64.7%), silver (57.6%) and jewelry and precious metals (55.6%). Other point is that 'Improving productivity' is answered with a relatively high rate in ceramics (47.1%) and other accessories (36.4%).

There is much difference among the regions. The rate of 'Procuring lower cost materials' is very high in South Sulawesi (84%), Bandung (82.1%) and North Sumatra (65.5%), while the rate of 'Improving technology levels' is very high in Jakarta (71.4%) and Bali (71.4%). In Yogyakarta, the result is different from the other regions as 'Procuring materials directly from manufacturers' is chosen first at 75.8%.

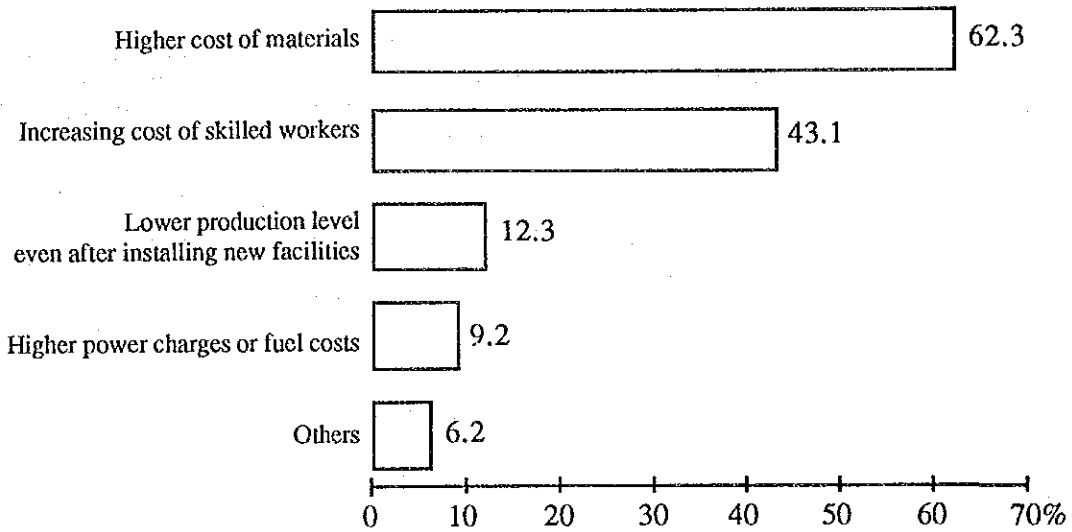
Fig. 2-3-126: Cost Saving Activities (By Regions)



Source: Questionnaire survey

Fig. 2-3-127~130 show the results of the question regarding "Problems for reducing costs".

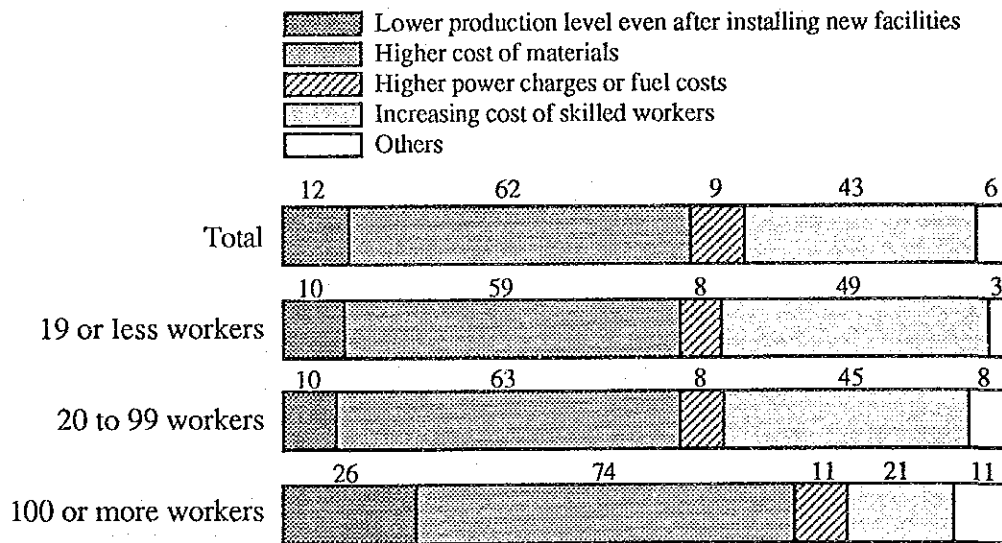
**Fig. 2-3-127: Problems for Reducing Costs**



Source: Questionnaire survey

Viewed as a whole as shown in Fig. 2-3-127, 'Higher cost of materials' is chosen at 62.3% as the most serious problem. 'Increasing cost of skilled workers' is chosen second at 43.1% and the other choices seem less important judged by the results of the questionnaire.

**Fig. 2-3-128: Problems for Reducing Costs (By Number of Employees)**



Source: Questionnaire survey

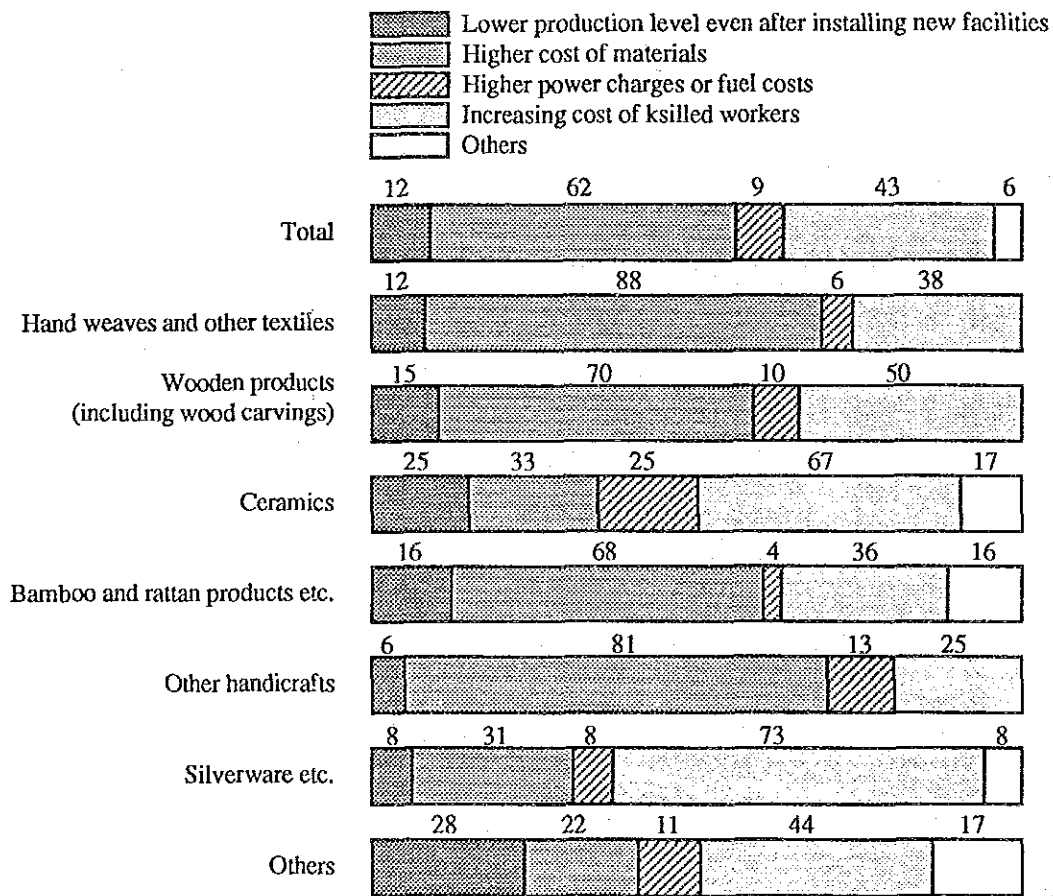
Viewed by number of employees, 'Higher cost of materials' is also chosen first and the percentage is 59% for small, 63.3% for medium and 73.7% for large industry.

Reviewing the second and the third selection, 'Increasing cost of skilled workers' is chosen as second in the small and medium industry, with the percentage being 49.2% and 44.8%, respectively. On the other hand, among large industry, it is third at 21.1% whereas 'Still low production level after installing new facilities' is chosen second with 26.3%.

Seen by kind of items, emphasis on the problems tends to be divided into two: 'Higher cost of materials' is chosen as the first in hand woven textile (88.2%), other handicrafts (81.3%), wooden handicrafts (70%) and bamboo and rattan (68%), while 'Increasing cost of skilled workers' is chosen first in silver (73.1%), ceramics (66.7%), other accessories (45.5%) and jewelry and precious metals (42.9%).

The differences in the percentage between the first and the second place is so big that the problem chosen first by each item should be focused on and targeted as the problem to solve for the improvement of cost saving activities.

Fig. 2-3-129: Problems for Reducing Costs(By Kind of Items)

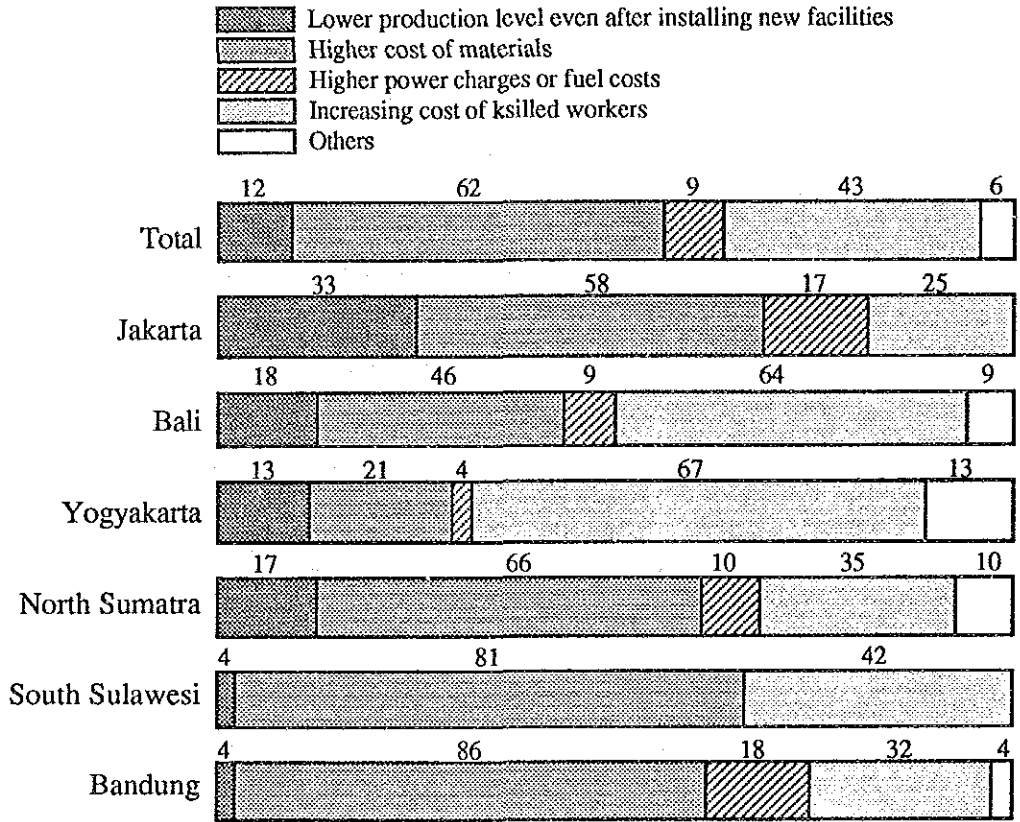


Source: Questionnaire survey

Lastly, when seen by regions, 'Higher cost of materials' is chosen first in Bandung (85.7%), South Sulawesi (80.8%), North Sumatra (65.5%) and Jakarta (58.3%), while 'Increasing cost of skilled workers' is first in Yogyakarta (66.7%) and Bali (63.6%).

Problems are also as depolarized here as in the kind of items mentioned before so that understanding what the problems are and figuring out a countermeasure for each kind of items and for each region is not very difficult.

Fig. 2-3-130: Problems for Reducing Costs (By Regions)



Source: Questionnaire survey

Cost saving activities are one of the most important themes for companies and there are some problems concerning them in the handicraft industry in Indonesia as follows.

a) Price Rise of Raw Materials

The most serious problem the handicraft companies have is, according to the interviews, the price rise of raw materials. As the cost of raw materials occupies 54% of the total manufacturing cost, stable procurement of raw materials of high quality and reasonable price is very important. Change of raw materials to those which are cheaper but of less quality should be avoided.

b) Increasing Wage of Skilled Workers

The second serious problem is how to manage to respond to the increasing wage of skilled workers. As long as the traditional training system for unskilled workers is continued the number of skilled workers will not grow rapidly, and as a result, makers cannot manage to respond to the wage rise of skilled workers. By constructing a new and well scheduled training system as mentioned before, the number of skilled workers will increase and the added value of products can be enhanced. At this stage, the rise in manufacturing cost can be absorbed.

c) Other Factors

The number of companies which pointed out other factors as serious problems for cost reduction, such as reduction of productivity after the introduction of new equipment or price rise of fuel are very few and limited.

## 2.4 Review of Policies Relating to Promotion of Handicrafts

### (1) Position in Industrialization Policy

Indonesia's handicraft promotion policies are included in the scheme for promotion of small scale industries. The scheme for promotion of small scale industries is basically directed at (1) expansion of employment and business opportunities, (2) promotion of exports, (3) strengthening of business capabilities and self-sufficiency, and (4) improvement of income. Numerical targets given are (1) the creation of jobs for 1.5 million workers during the Repelita V (300,000 jobs a year), (2) establishment of 260,000 new companies (52,000 a year), and (3) exports of US\$2,126.7 million.

On the other hand, as problems faced by the small size companies, mention is made of (1) low productivity and the low level of quality and technology, (2) the insufficient quality of the labor force, and (3) limitations of capital.

Specifically, the following main programs are being planned for development of small scale industries:

#### [1] Program for Improvement of Productivity and Quality

- a. Technical development
- b. Diversification of products
- c. Promotion of group QC
- d. Promotion of standardization
- e. Dissemination of technical information
- f. Improvement of technology and skills
- g. Dissemination of research findings
- h. Strengthening of development related organizations.

#### [2] Program for Promotion of Increased Exports

- a. Promotion of products of small scale industries and provision of information
- b. Development of markets through cooperation with industrial organizations
- c. Provision of market information and training
- d. Test marketing covering materials of products, samples, and designs
- e. Improvement of quality and environment
- f. Provision of information utilizing mass media TVRI

#### [3] Program of Promotion Using Bapak Angkat System

- a. Strengthening of system for development of small scale industries using Bapak Angkat system
- b. Program for promotion of linkage
- c. Monitoring of state of implementation

#### [4] Program for Development of Entrepreneurial Spirit and Specialized Capabilities

- a. Obtaining grasp of training needs
- b. Improvement of training system
- c. Training of staff of organizations for development of leaders
- d. Improvement of technology and skill
- e. Assistance to programs for creation of business

## **(2) Trade Promotion Policy**

Since 1986, Indonesia has announced a succession of export promotion packages. These cover non-oil products but do not specify individual products per se. Handicrafts are covered by the promotional schemes of the Craft Center of BPEN. Regarding exports to Japan, handicrafts have been covered by the AC program of JETRO since fiscal 1986. Under this program, there have been monitoring surveys of samples in the Japanese market, dispatch of missions by Indonesian exporters, exhibitions and business meetings, promotion of exports to Japan, promotion of imports by Japanese importers, guidance in design, and seminars. Regarding investment, Presidential Decree No. 21 announced in May 1989 designated many of the products included in handicrafts as fields reserved for small scale industry, blocking foreign investment in the same.



### **(3) Financial Policy as Related to Promotion of Handicraft Industries**

Indonesia's financial policy is based on free competition based on the market principle. It is founded on the idea that funds are most effectively distributed through a free market.

Therefore, the only systems for preferential funding of specific industrial sectors are in a very limited number of sectors such as food production. There is no special financial aid scheme for the handicraft sector.

Further, there used to be various types of institutional financing offered to small size companies, which account for the majority of the companies in the handicraft sector, as shown in the appendixes, but institutional financing for individual companies was abolished in the financial policy package of January 29, 1990. This was changed to a guideline of setting aside over 20 percent of the total financing for financing small size companies of assets of less than 600 million rupiah. At the present time, there is no special financing system for small size companies.

Before the January 29 reforms, small and medium size companies were offered institutional financing under advantageous terms, e.g., KIK/KMKP at 12 percent interest (loan limit of 30 million rupiah) for companies with total capitals of less than 300 million rupiah were and KI/KMK at 15 percent interest (loan limit of 150 million rupiah) for companies with total capitals over 300 million rupiah to 600 million rupiah.

At the present time, the only special institutional financing related to the handicraft sector is the financing for primary cooperatives in the cooperative credit system.

As aid to small size companies from the financial sector, there are the RPMU (regional project managing units) established by the Bank of Indonesia at 13 locations throughout the countries. The PRMU have permanently stationed in them three consultants in agriculture, industry, and financing who provide guidance to companies and financial institutions.

## 2.5 Current Promotion Policies and Problems in Their Implementation

### (1) Current Administrative Organizations and Promotion Policies

The current policies for promotion of handicrafts are being implemented under the framework of the policies for promotion of small scale industry.

The policies for promotion of small scale industry are handled by the Directorate General of Small Scale Industry of the Ministry of Industry.

Handicrafts are under the jurisdiction of the Handicraft and General Industry Bureau.

At the local level, there are local offices (Kanwil) of the Ministry of Industry established in each province.

At the production area level, Sentra are formed for promotion of small scale industry. To support the small scale industries belonging to the Sentra, Technical Service Units (UPT) are established and provided with related equipment. In 1986, the number of Sentra rose to 3,313 from the 1,582 of the previous year. As of 1988, there were 6,092. (See Table 2-5-1.) Looking at the breakdown of Sentra by industry using 1987 data, handicrafts and general industry accounted for 995 or 21.6 percent of the total. (See Table 2-5-2.) As of 1988, there were 152 UPTs in 92 Regional Administrative Office (Tinglat II). Of these, the UPT dealing with handicrafts could be divided into three categories:

- Category I: UPT which have been abolished or which will not be given any more subsidies (50 locations)
- Category II: UPT receiving financial subsidies (56 locations)
- Category III: UPT which are partially subsidized (46 locations)

There are 13 category I handicraft UPTs, 10 category II UPTs, and no category III UPTs.

There are 923 technical instructors (TPL) in the country. There are 1019 Kopinkra in 13 provinces and special regions of the country. Of these, 210 were in handicrafts and general industry, or 20.6 percent.

Compared with the tremendous numbers of companies and employees, it may be said that there is a terrible shortage of UPTs and TPLs.

There are nine central research institutes (Balai Besar) relating to small scale industries under the Industrial Research and Development Agency of the Ministry of Industry for the following: (1) chemical industry (Jakarta), (2) plantation industry (Bogor), (3) metal and machinery (Bandung), (4) textiles (Bandung), (5) paper and pulp (Bandung), (6) industrial materials and industrial products (Bandung), (7) ceramics (Bandung), (8) leather, rubber, and plastic (Yogyakarta), and (9) handicrafts and batiks (Yogyakarta). There are further nine industrial institutes in (1) Banda Ache, (2) Medan, (3) Palengbang, (4) Semarang, (5) Surabaya, (6) Banjarbaru, (7) Ujung Padang, (8) Menado, and (9) Ambon.

**Table 2-5-1: Trends in Sentra**

	1984	1985	1986	1987	1988
Sumatra	351	424	717	970	1,306
Java	453	529	1,368	1,857	2,511
Kalimantan	115	144	228	329	455
Nusa Tenggara	141	173	469	689	890
Maluku, Irian Jaya	76	81	109	152	183
Total	1,322	1,562	3,313	4,611	6,092

Source: Materials of Ministry of Industry

**Table 2-5-2: Breakdown of Sentra by Region and Industry**

	Food	Apparel	Chemical and building materials	Handi- crafts	Metal	Total	
Sumatra	256	187	179	234	114	970	21.0%
Java	521	388	364	363	221	1,857	40.3
Kalimantan	111	40	54	87	37	329	7.1
Nusa Tenggara	148	185	120	184	52	689	14.9
Sulawesi	196	125	135	100	58	614	13.3
Maluku, Irian Jaya	52	16	41	27	16	152	3.4
Total	1,284	941	893	995	498	4,611	100.0%
	27.8%	20.4%	19.4%	21.6%	10.8%	100.0%	

Source: Materials of Ministry of Industry

### 1) Current state of policies for promotion of small scale industry

The policies for promotion of small scale industry of the Ministry of Industry during Repelita V may be summarized as follows according to materials of the Ministry of Industry (Note: Ministry of Industry (1989), Rencana Pembangunan Lima Tahun Kelompok Industri Kecil):

## Summary of current policies for promotion of small scale industry

### Programs for Promotion of Small Scale Industry in Repelita V

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#### I. Problems Faced by Small Scale Industry

##### 1. Problems of Small Scale Industry Arranged by Object

- |  |  |
|--|--|
| a. Export promotion:                               | Limits of types of products and production capacities, quality, packaging, competitiveness, and delivery |
| b. Strengthening of linkage:                       | Quality, supply, delivery  |
| c. Augmentation of necessities for general public: | Failure to meet tastes of consumer, quality, design, productivity, and price                             |

##### 2. Problems Arranged by Content of Promotion Programs

###### [1] Productivity and quality

- (1) Technology - company size (smallness of same) and technical level (lowness of same)
  - a. Problems in purchase and procurement of machinery and equipment
  - b. Insufficient financial incentive
  - c. Quantitative and qualitative limits to technical service centers (UPT), expert instructors (TPL), and research centers
  - d. Lack of technical information supplied to craftsmen
  - e. Insufficient transfer of technology (including selection of suitable technology)
- (2) Labor force
  - a. Insufficient design and management capabilities
  - b. Educational level of entrepreneurs and craftsmen
  - c. Training system
- (3) Capital
  - a. Limits in sources of procurement of funds
  - b. Insufficient use of banks

###### [2] Training system and facilities

- (1) Insufficient number of UPT facilities (152 in country servicing 6092 Sentras) and qualitative limits of same
- (2) Insufficient number of TPL and limits to their capabilities
- (3) Insufficient facilities and infrastructure of training organizations
- (4) Budgetary restrictions

###### [3] Business environment

- (1) External environment (international and domestic)
- (2) Lack of entrepreneurial spirit
- (3) Small size of companies and low level of technology
- (4) Necessity for deregulation of registration permits
- (5) Designation of products (142) reserved for small scale industry based on data and existence of production by medium size companies
- (6) Export promotion programs of little actual effect on small size companies
- (7) Regarding strengthening of linkage, production capabilities and quality in case of small size companies and lack of interest in case of large size ones

###### [4] Cooperation among ministries and with private sector and overseas interests

- (1) Insufficient coordination
- (2) Insufficient cooperation with private sector

## II. Programs for Promotion of Small Scale Industry

### 1. General Policies

#### [1] Direction of development

- a. Expansion of employment and business opportunities
- b. Export promotion
- c. Strengthening of business capabilities and self-sufficiency
- d. Improvement of income of entrepreneurs and craftsmen

#### [2] Goals of development

- a. Qualitative goals
  - Expansion of company size (size of Sentra)
  - Improvement of business capabilities and self-sufficiency
  - Increase of income of entrepreneurs and craftsmen
- b. Quantitative goals
  - Absorption of 1.5 million workers (300,000 workers a year)
  - Creation of 260,000 companies (52,000 a year)
  - Exports of US\$2,126.7 million

#### [3] Development strategy

- a. Promotion of Sentra and promotion of developing Sentra into Kopinkra
- b. Promotion of exports and development of linkage using Bapak Angkat system

### 2. Development Policies

#### [1] Development of small scale industry

- (1) Promotion of Sentra
- (2) Promotion of Sentra into Kopinkra
- (3) Village industrial development (Bapak Angkat system)
- (4) Development of suitable technology (Bapak Angkat system)
- (5) Vertical development of small scale industry
- (6) Expansion of business opportunities

#### [2] Strengthening of functions of policy implementing organizations

- (1) Increase of number of UPT, increase of use of same, and strengthening of functions
- (2) Strengthening of functions of facilities
- (3) Increase of efficiency and degree of use
- (4) Augmentation of information service system
- (5) Strengthening of cooperation among ministries and with private sector
- (6) Improvement of access of Sentra to financial institutions
- (7) Expansion of procurement of funds from sources other than banks (Bapepam etc.)

#### [3] Creation and improvement of business environment and investment environment

- (1) Export system and promotion of exports by establishment of infrastructure
- (2) Promotion of Bapak Angkat system
- (3) Promotion of use of small scale industry and domestic products
- (4) Improvement of types and quantities of products reserved for small scale industry
- (5) Establishment of investment environment for promotion of foreign and domestic investment in small scale industry
- (6) Establishment of financial system for small scale industry
- (7) Protection of small scale industry through establishment of licenses and industrial property rights
- (8) Streamlining of procedures (group necessary for registration)

### 3. Programs for Development of Small Scale Industry

#### A. Main programs

##### [1] Program for improvement of business capabilities

Program for improvement of productivity and quality

- a. Technical development (research into skills, establishment of profiles, use of package plants)
- b. Diversification of products (cooperation with research centers, higher educational facilities, and the private sector)
- c. Group QC movement (campaigns, formation of groups, guidance)
- d. Promotion of standardization (preparation of manuscripts, establishment of SII, and monitoring of utilization)
- e. Dissemination of technical information (preparation of brochures, leaflets, and catalogs)
- f. Improvement of technology and skill (training and comparative surveys)
- g. Dissemination of research findings (demonstrations, tests, brochures, leaflets, catalogs)
- h. Strengthening of functions of development related organizations
  - (a) Strengthening of functions of UPT and increase in number of facilities (improvement business management, preparation of profiles, establishment of new facilities, augmentation of facilities)
  - (b) Strengthening of functions of TPI (increase in number of staff, improvement of status, provision of equipment)
  - (c) Strengthening of cooperation between government and private organizations
  - (d) Improvement of specialized capabilities of Kopinkra
    - Improvement of specialized capabilities of Kopinkra
    - Organization of Kopinkra

##### [2] Program for promotion of small scale industry aimed at expansion of exports

- a. Promotion of products of small scale industry and provision of information
- b. Provision of information and development of markets (cooperation with industrial organizations)
- c. Bilateral and multilateral cooperation (provision of market information and training)
- d. Product and market tests
- e. Improvement of quality and environment (monitoring, including collection of data and analysis, and management)
- f. Provision of information (use of mass media and TVR1)

##### [3] Program for development of Bapak Angkat system

Fields of cooperation: Procurement of materials, loan guarantees, improvement of quality and technology, marketing, provision of information, research, etc.

- a. Strengthening of system of development of small scale industry by Bapak Angkat system
  - (a) Establishment of mechanism of scheme for implementation of system using surveys and contacts between entrepreneurs of small scale industries and large and medium size entrepreneurs
  - (b) Movement for strengthening of linkage at national level (provision of information and cooperation with related organizations)
- b. Program for promotion of linkage (award system)
- c. Monitoring and management of implementation (collection of data, analysis, guidance)

- [4] Program for development of entrepreneurial spirit and specialized capabilities
  - a. Obtaining grasp of training needs
  - b. Improvement of educational system
  - c. Training of instructors and staff of development organizations
  - d. Improvement of technology and skill
  - e. Program for creation of business (assistance in equipment and knowhow)

## B. Supporting Programs

- [1] Research and development of small scale industry
    - a. Surveys and research
      - (1) Surveys of local potential
      - (2) Surveys of business environment, business, and other aspects
    - b. Indication of local potential (research into products with potential)
    - c. Research into development of Sentra
    - d. Preparation of corporate and industrial profiles
    - e. Provision of information
    - f. Improvement of Sentra facilities
    - g. Analysis of effects on environment
  - [2] Creation and improvement of business environment and cooperation
    - a. Creation and improvement of business environment and investment environment
      - (1) Establishment of special financial system
      - (2) Preferential treatment in tax system
      - (3) Promotion of exports through raising interest of exporters in small scale industrial products
      - (4) Promotion of investment (foreign investment and establishment of banks around Sentras)
      - (5) National level movement for strengthening production and marketing
    - b. Cooperation among ministries etc.  
Exchange of information, procurement of materials, promotion of infrastructure and facilities
      - (1) Related agencies
        - [1] Ministry of Agriculture
        - [2] Ministry of Forestry
        - [3] Ministry of Public Works
        - [4] Ministry of Mining and Energy
        - [5] Ministry of Transmigration
        - [6] Ministry of Cooperatives Associations
        - [7] Ministry of Manpower
        - [8] State Minister for Public Housing
        - [9] Research organizations
        - [10] Higher education facilities
        - [11] Ministry of Trade, NAFED
        - [12] Prumtel, Indosat
        - [13] Local governments
        - [14] Central Bureau of Statistics
      - (2) Cooperation with private sector and industrial organizations
      - (3) Cooperation with overseas entities
-

## Bapak Angkat system

The Bapak Angkat system was begun in the Repelita III and resembles Japan's subcontracting system, but is somewhat broader in concept. As will be understood from the name Bapak Angkat (foster father), the system strongly features assistance to small scale industry.

There are the following three types of Bapak Angkat systems:

### [1] Marketing assistance (PKD)

In this system, the parent company purchases products from small scale industries and sells them in the domestic or overseas markets. They provide marketing information and guidance in production technology to the small companies. Further, they in some cases supply materials or designs and even offer financial assistance.

In handicrafts, state run companies such as PT SARINAH and PT PUPUK KUJANG are operating. In the private companies visited by the survey team, Vera's Ulos was operating as a parent company and providing support to small companies producing Ulos.

### [2] Preferential procurement of machinery and equipment

In this system, parent companies procure the work clothes, office equipment, parts, etc. they use from small scale industries. This is obligatory for state-run companies under the Ministry of Industry.

### [3] Subcontracting

This corresponds to the subcontracting system of Japan where parts and components are obtained from small scale industries. The parent companies are mostly engaged in production of general and electrical machinery. Japanese affiliated companies also procure parts under this system in industries where domestic production of parts is being pushed.

## 2) Problems in current policies

The current Indonesian policies for promotion of small scale industries are, as explained above, comprehensive in nature.

The Ministry of Industry considers as problems in the system the insufficient number of facilities (UPTs etc.) and instructors and the qualitative restrictions in the same. It points to budgetary limitations as the cause for this. Further, it mentions insufficient coordination as a problem in cooperation among ministries.

Various survey reports have pointed to the following problems in Indonesia's policies for promotion of small scale industry.

- [1] Lack of policies for promotion of medium size companies
- [2] Lack of policies for promotion according to industry and products
- [3] Insufficient coordination and cooperation with different ministries
- [4] As the biggest problem at present, the lack of funds (budget) (making resolution of the shortage of UPT and TPLs and the repair and replacement of facilities of the Balai impossible)



- [5] In institutional financing, tough loan conditions, such as collateral, and high interest rates
- [6] Standards established independently by different ministries, resulting in lack of uniformity
- [7] Poor maintenance of machinery and equipment of Balai

It would be desirable to formulate policies for the handicraft industry and establish measures tailored to specific products, regions, and sizes of companies.

## **(2) Current State and Problems of Related Official Organizations**

The current state and problems of official organizations having something to do with handicrafts and visited by the survey team are summarized in Table 2-5-3.

**Table 2-5-3: Current State of Main Public Organizations Related to Handicrafts**

Name of organization (acronym)	Location	Ministry having jurisdiction	Object	Overseas cooperation	State of activities
Indonesian Export Training Center (IETC)	Jakarta	Ministry of Trade	Trade training and technical guidance and assistance in quality control for promotion of exports of wood and rattan products, textiles and apparel, natural rubber and rubber products, frozen and canned food	JICA	The center is housed in a building of 10,000 square meters size located between the city and the airport and therefore enjoys a good site. It offers training in trade (for 1050 trainees a year in total), training in business Japanese (135 trainees), training in exhibitions (160 trainees), and training in inspection and quality control for four industries (372 trainees) through lectures and on-hands training. A dormitory is provided for participants from other regions. There are 48 rooms. There are an exhibition area, an inspection laboratory for both products and packaging, a library, classrooms, and other facilities. There is considerable demand for training in trade business and guidance in quality control.
Bali Design Center	Denpasar	Ministry of Industry	Design development, wood products, metal products, textiles, plating, ceramics	None	Active use of the center should be considered. The center is located in Bali, which enjoys excellent conditions as a production area for handicrafts, but the center does not seem to be very active. The explanation given was the lack of budgetary allocations. Cooperation is received from Udayana University. There are many ideas for this, such as product development, requests for fabrication to designers, interior coordinates, store design, etc. Consideration could be given to exhibitions of collections of works of famous Bali designers. Some tieup with the tourist trade would be necessary.
Chemical Industry Training and Development Center (PTKI)	Medan	Ministry of Industry	<ul style="list-style-type: none"> <li>• Training of technical experts and research and development in chemical industry</li> <li>• Specialized technical course: 3 years, 350 students</li> </ul>	JICA	Among the current facilities, those which could be used for textiles include the water quality inspection equipment, for dyeing, and the optical microscopes (800x) and electron microscopes for analysis of textile surfaces, but this equipment is not being used in

Name of organization (acronym)	Location	Ministry having jurisdiction	Object	Overseas cooperation	State of activities
Medan Textile Industry Center (BPTM)	Medan	Ministry of Industry	Promotion of research and development into production technology, raw materials, intermediate goods, equipment etc. for textile industry and promotion of quality control in same	None	practice. As to short term training, use could be made of the training for entrepreneurs and craftsmen in the Ulos and other handicraft industries. The center has on its 80,000 ha site a miniplant, classrooms, laboratories, a library, and a dormitory.  The center has a full range of inspection equipment on paper, but almost all of it is broken and therefore the center is paralyzed. The reason why the equipment is being left broken is that there are not enough funds for repair or replacement.
Institute for Research and Development of Handicraft and Batik Industries (BBKB)	Yogyakarta	Ministry of Industry	Research and development, testing, design development education and training in handicrafts and batiks	None	The center has a 5000 square meter building in which there are laboratories and training laboratories for technical engineering and tests, a miniplant, library, and a design development section. There are 250 expert staff on hand, of which 220 have obtained masters degrees. The center is comprised of a total of four divisions, including a batik and handicraft research division and development division, and engages in research and development, inspection, evaluations, and research and development of designs. It further works to disseminate the results of research and development through education and training programs, information services, consulting services, and technical assistance.
Institute for Research and Development of Ceramic Industry (BBK)	Bandung	Ministry of Industry	Research and development into fine ceramics and heavy ceramics	MITI (ITIT project) Cooperation from JICA (provision of equipment)	The center has an 8500 square meter site on which are a laboratory, workshops, classrooms, and a library, with 116 rooms in all. It is staffed by 274 workers and engages in preparation of industrial standards, research and development, education and training, seminars, creation of data banks, etc. There is full cooperation with private companies and industrial organizations. For export promotion, there is cooperation with NAFED. The center also cooperates with nearby small scale industries (Plered etc.)

### (3) Request on Government as Seen from Questionnaire

The responses of the 184 companies answering the questionnaire regarding their expectations on the government are indicated in Figs. 2-5-1~6 as classified into export promotion, raw materials, production, quality control, design, and business. Fig. 2-5-4 shows the current measures and systems for these items and future additional measures envisioned.

The expectations on the government were further arranged according to region, product, and company size. The results are also illustrated. With this cross-referencing by region and product, the number of samples per item becomes smaller, but a grasp can be obtained of the trends in expectations on the government bearing in mind that these are the results of a questionnaire covering 184 companies.

Hand weaves and other textiles	45
Wooden products (including wood carvings)	29
Ceramics	19
Anyaman	35
Other traditional handicrafts	24
Mineral products	38
Jewelry and precious metals	10
Other fashion accessories	17
Unknown	1
	184
Large companies	80
Medium companies	72
Small companies	30
Unknown	2
	184

#### [1] Requests of 184 companies

##### a. Export promotion

Regarding export promotion, the greatest number of companies, 127, or 75.6 percent of the companies giving valid responses (same definition hereinafter when using percentages), requested a market information service. This was followed by 54.2 percent requesting exhibitions and 53.0 percent overseas PR on Indonesian products. After this came 45.2 percent requesting design guidance, 33.3 percent technical assistance and guidance, and 32.7 percent business guidance. There were few requests for a business introduction service, 12.5 percent, or export representation, 6.0 percent. It is believed that the responding companies did not have sufficient understanding of what export representation meant. (See Fig. 2-5-1.)

##### b. Raw materials

Regarding raw materials, joint procurement was mentioned most often, in 59.8 percent of the cases, followed by research and development in 46.3 percent and quality inspection in 39.6 percent. (See Fig. 2-5-2.)

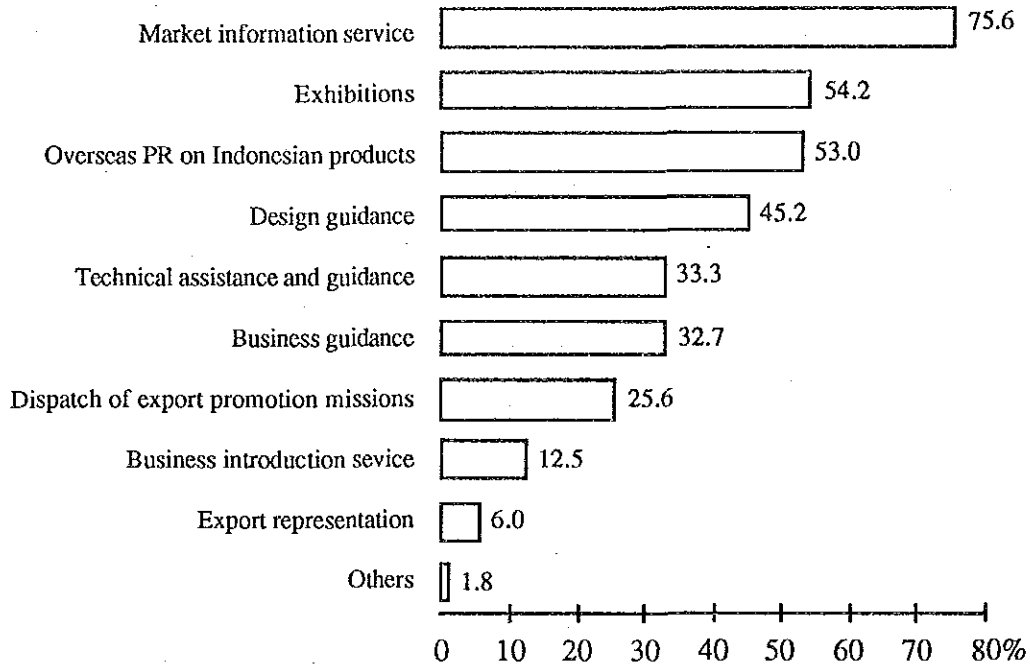
##### c. Production

Technical guidance and training were mentioned most often, in 72.3 percent of the cases. Guidance and training by foreign experts were requested by close to 50 percent of the companies, 47.8 percent to be exact. There was little request for the establishment of model factories, 8.2 percent. (See Fig. 2-5-3.)

d. Quality control

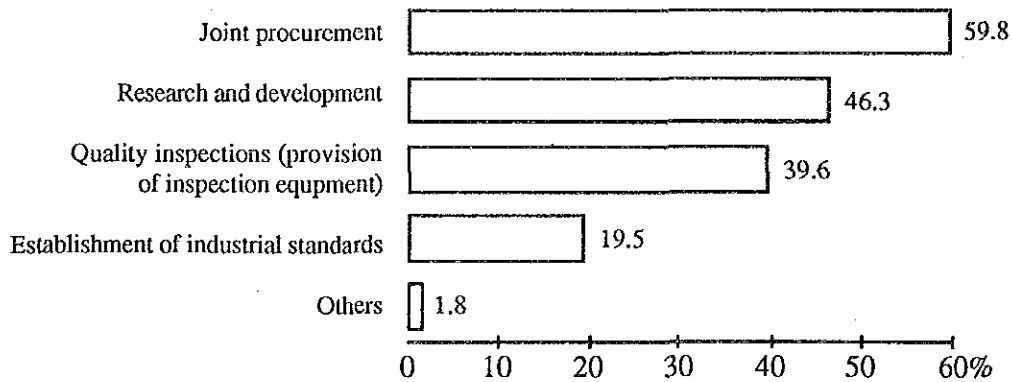
Guidance and training were mentioned most often, 72.0 percent of the cases, followed by guidance by foreign experts, 40.9 percent, and information services, 33.5 percent. (See Fig. 2-5-4.)

Fig. 2-5-1: Expectations on Government (Export Promotion)



Note: Base number when finding percentages was number of valid responses (same below).

Fig. 2-5-2: Requests to Government (Materials)



e. Design

Guidance and training were mentioned most often, in 70.6 percent of the cases, followed by training of designers in Japan at 46.9 percent and guidance by foreign designers in Japan at 40.0 percent. There was not that great a demand for seminars, 10.0 percent. (See Fig. 2-5-2.)

f. Business

The most frequent request made was for guidance on business and export procedures, 77.9 percent. Following this were the dispatch of missions and information services on Japanese producers, but the percents of companies requesting these, 30.3 percent and 24.8 percent, were much lower. There was little demand for representation in processing complaints, 6.2 percent, or representation in export work, 11.7 percent. (See Fig. 2-5-6.)

Fig. 2-5-3: Requests to Government (Production)

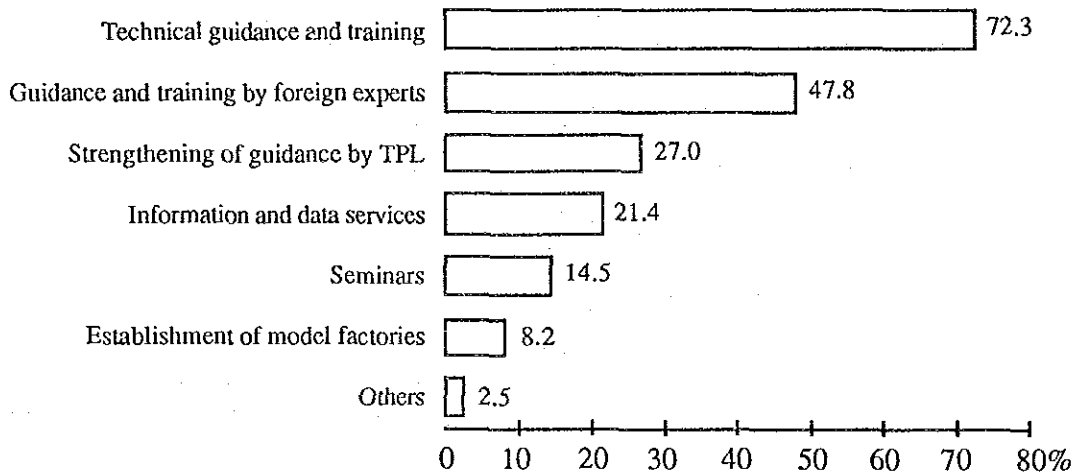
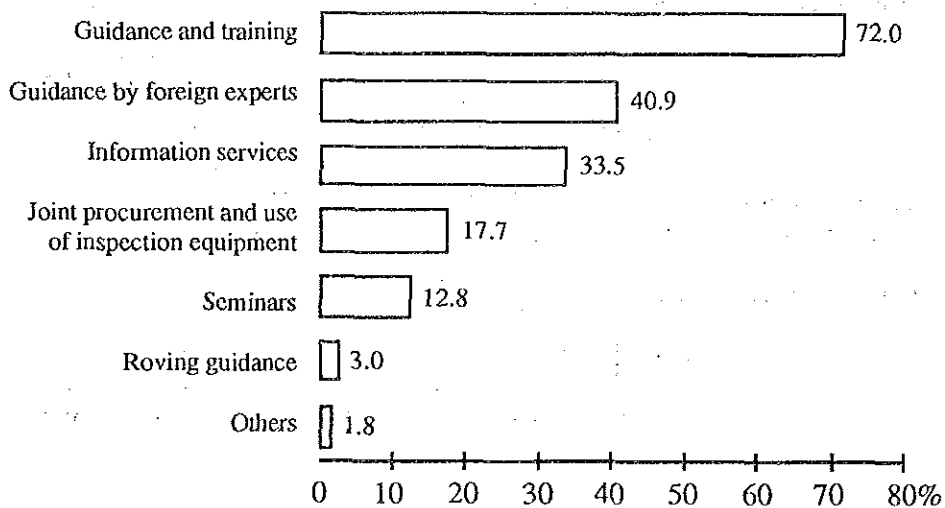
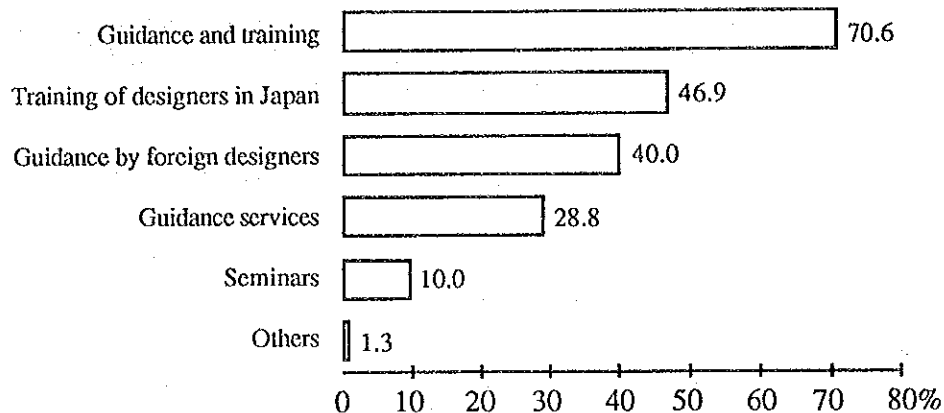


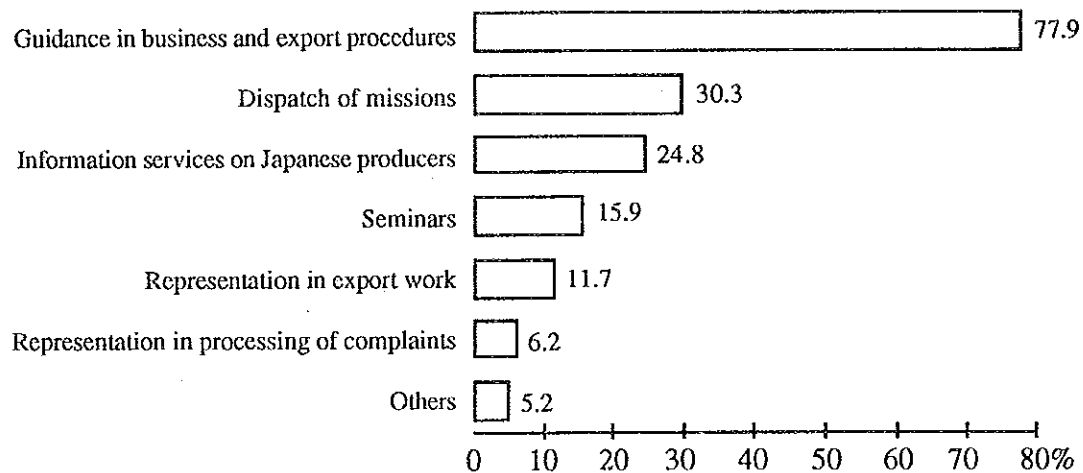
Fig. 2-5-4: Requests to Government (Quality Control)



**Fig. 2-5-5: Requests to Government (Design)**



**Fig. 2-5-6: Requests to Government (Business)**



g. The most frequent demand raised in all items was for a market information service relating to export promotion - asked for by 126 companies. This was followed by guidance and training in quality control, asked for by 118 companies, guidance and training in production technology, 115 companies, and guidance and training in design, 113 companies. These were the matters demanded by over a 100 companies. Conversely, there was little demand for seminars. There was also very little demand for representative services.

[2] Requests to Government as Seen by Region

a. Export promotion

The most frequent demand in Jakarta was for overseas PR of Indonesian handicrafts, 87.5 percent, and in Bali, exhibitions, 62.2 percent. In other regions, the most frequent demand was for market information services. This is believed to have been due to the fact that Jakarta is a center of information as the capital of the country and that Bali is frequented by numerous foreign buyers and designers. The demand for