### 11.3.2. The main products from Indonesia

- To Japan
  - Materials : natural gum, aluminum playback article, tin metal, etc.
  - Parts: Press, Engine parts (casting), harness, aluminum wheel, electronic parts, tire, spring etc.

- To Asia

Press, Engine parts (casting), harnesses, electronics parts, frame, tire, battery, filter, etc.

### 11.3.3. Overseas procurement strategy of Japanese automotive manufacturers

As previously outlined, Japanese automotive manufacturers usually conduct joint R&D with parts manufacturers to design and produce new concept cars. Hence, it is more beneficial to procure from one area and take benefit from the accumulation factor.

Also, the automotive parts themselves characterize one of the reasons why automotive manufacturers want to increase domestic procurement. A car is basically an assembly of specific parts, each with different specifications and shapes for one car to another. For one example, when we consider the shape of the car, even if it is made by the same manufacturer, it is different from model to model. Thus it is more efficient to procure domestically because each parts is special made.

However, Japanese automotive manufacturers announced to increase overseas procurement, and started to procure from all over the world. This policy was initiated as results from conference made between Japan and USA at the end of 1980's. At the beginning, the policy was a matter of political decision. However, eventually each automotive manufacturer developed overseas procurement in response to technological innovation or the needs to cut the production cost.

### 11.3.4. Automotive parts export from Indonesia to Japan

The share of Indonesian product in Japanese market is 16% in 1998. The main reasons to import products from Indonesia are as follow:

- ◆ Cost merit
- ◆ Emergency support treatment because of monetary crisis
- ◆ Available only in Indonesia, because the Head Quarter in Tokyo appointed the manufacturer in Indonesia to produce specific parts

**Table 11.3.1. Automotive parts import from ASEAN4 to Japan**

(Unit : Billion Yen)

| | 1995 | 1996 | 1997 | 1998 | 1999/1～7 |
|---|---|---|---|---|---|
| Indonesia | 36 | 46 | 76 | 90 | 64 |
| Thailand | 42 | 49 | 72 | 170 | 127 |
| Malaysia | 60 | 81 | 135 | 134 | 90 |
| Philippine | 101 | 144 | 190 | 168 | 113 |
| Total amount | 239 | 320 | 473 | 562 | 394 |

*Source : JAPIA*

◆Cost merit

There are cases where automotive parts are procured from Indonesia in consideration of cost merit, especially in the AM market. For example as the case exemplified by **company O** which has wide distribution channels. In 1996, **company O** developed commodity division and international division. At the same year, the company developed its own private brand A1 wheel and tire sets through collaboration with Indonesian manufacturer for the Japanese AM market.

In the case of Japanese parts manufacturer, there is two type of import by cost merit. One is to advance to Indonesia to export to Japan from the beginning as the **company Y.**
The other case is that import was started by the emergency support as stated below, then Indonesian manufacturer effort to cost down and got cost competitive power rather than Japanese manufacturer as **company D.**

◆Emergency support treatment because of monetary crisis

The diagnostic survey found that the most common reason to import automotive parts from Indonesia is as part of emergency support because of monetary crisis. Japanese automotive manufacturers and parts manufacturers support Indonesian manufacturers by importing parts produced by the manufacturers. For example, **company T** and **company N** increased import from Indonesia. Their customers reduce procurement in Japan, and import more from their Indonesian subsidiaries to keep the Indonesian operation.

◆Available only in Indonesia, because the Head Quarter in Tokyo appointed the manufacturer in Indonesia to produce specific parts

Some parts are available only in Indonesia, because the Head Quarter in Tokyo appointed the manufacturer in Indonesia to produce specific parts. For example, **company M** moved their facility to Indonesia, when it started to produce new model. Many cars of that old model are

running in Japan. Their parts are produced only in Indonesia. Therefore, company M import AM parts as necessity.

### 11.3.5. Automotive parts export to ASEAN countries

Before AICO or AFTA, many automotive manufacturers or parts manufacturers consider ASEAN as one region. They plan to decrease cost by concentrating purchasing in ASEAN region. As mentioned before, automotive parts usually differs from one model to another. Many automotive manufacturers developed ASEAN strategic cars using common parts and therefore are able to reduce cost by selling those common parts to all ASEAN countries.

As part of the strategy, many Japanese parts manufactures in Indonesia are developing Indonesian special parts, such as press parts (body panel), casting part (engine parts), etc. Company D plans to increase production of compressor, spark plug and horn, and promote them as Indonesian special parts.

## 11.4 Competitiveness Analysis of Selected Products

### 11.4.1. Evaluation of Indonesian products (Comparison to the product of other country by quality, cost, delivery)

Automobile manufacturer and parts use QCDDM method (Quality, Cost, Delivery, Development and Management) as a guideline to decide on the procurement matters. Procurement from ASEAN countries in Japan tens to be for emergency support, since in many cases Japanese QCDDM is better than that of ASEAN countries. Nevertheless, when Japanese manufacturers decide to procure from ASEAN countries, they will decide based on the QCDDM method above. Each of the factor in QCDDM method are elaborated below.

### 11.4.2. Quality

Based on the interview to the companies that procure parts from Indonesia, most claimed that the quality of Indonesian products are satisfactory. A few companies claimed that at the beginning of relationship, Indonesian products cannot pass the quality standard demanded by Japanese manufacturers. Several comments are :

"Every lot that is imported from Indonesia did not meet Japanese quality standard satisfactory at the beginning of business "(Company M). "There is no problem with Indonesian parts for us because we use only Indonesian parts which Japanese parts company procure and pass their quality check, but it seems to be through hardships for other company that use Indonesian

parts." (Company D)

The company which has stopped procurement from Indonesia because of the quality problem said "we imported wooden handles for the purpose to sell at after-market at the end of 1998. The samples were damaged with crack and with rough finishing. The back were without coatings. We dealt with the only company which was under Japanese technology assistance because if we started from technology assistance, it would cost a lot. (Company A). "We had been investigating to procure parts from Indonesia, but we found out that was difficult to procure the parts which suit to our company specifications at the moment. Indonesian parts pass the quality standard in the test production of one piece, but the quality will fairly go down when we procure them in quantities. (Company H)

"In the procurement within Asian area, we procure electronics parts from Malaysia and Singapore and press, plastic forming and rubber parts from Indonesia and Thailand. We procure forge parts, cutting parts and function parts domestically (Japan), because it is difficult for us to invest in ASEAN plant just to produce little volume of products.

Thailand, Malaysia is more advanced than Indonesia in term of technology level within the ASEAN region. Concerning to procurement in ASEAN 4, at present we mainly procure our parts from Malaysia, Thailand, Singapore. The Indonesian companies only represented 19% of supplier companies from ASEAN4. (Company D)

"For our products for Asia market, we procure panel, press and flame from Indonesia and we are quite satisfied with the product's quality. We procure engine from Thailand and procure tire from Taiwan." (Company I)

### 11.4.3. Cost

According to the interview survey, they said that upper limit of CKD parts purchase price is same as price from Japan. If they take into account the inventory cost, the total cost of purchasing CKD parts from Indonesia exceeds that of from Japan.

"The production cost are affected by the production volume and raw material cost. Parts production cost in Indonesia is higher than Japan, because they import many raw materials and little production volume"(Company H). " We buy at the same price as in Japan. We consider that Indonesian manufacturer can not make profit. For Japanese side, we can not take cost merit because we import Indonesian parts ignoring inventory cost."(Company M) Thus, there are

severe situation for both Indonesian side and Japanese side.

In the case of AM, many dealers consider automotive parts made in ASEAN including Indonesia as special bargain commodities. "We will import the parts from ASEAN if the parts there are fairly cheaper than Japanese parts. If the cost there is about 70 to 80% of Japanese cost, it is not attractive to us, because we have to consider inventory risk."

Though Indonesian products were attractive in terms of price at the time of monetary crisis, however, Korea, Thailand, China, Taiwan, Philippines etc. had been lowering their price as well. Furthermore the price in Japan has also been declining due to the cost-down, and there is no more cost merit for Indonesian products with the present condition". **(Company A)**

For procurement from the ASEAN region, only cost performance is considered attractive." Though at the present units number it is good to procure from Thailand, we still procure the parts from Indonesia in consideration not to waste our investment in Indonesia. From now on, I want to make my purchasing based on price merit." **(Company H)** "I have been investing in Indonesia. There is competitive price power for Indonesian products for some press parts." **(Company M and Company I)**

Though there are differences in opinion by each company over the price competitive power of Indonesian products, their attitudes toward pursuing price merit with the mass production effect by purchase concentration is similar

### 11.4.4. Delivery/logistics

In the case of exporting to Japan, delivery time can be a major problem. When we procure parts in Japan, in many cases, parts manufacturers in Japan are able to deliver their products several times a day, and it is possible to precisely cope with the changing market demand. On the other hand, for Asian products, the average of leading time from order to delivery is about one to one and half month.

Therefore several manufacturers claimed that there is a risk factor from procuring from Asia. "There are big up and down in automobile production and the number of order defines the number of production. It's not so big problem if there are surplus, but if there is no capacity to increase to produce automobile parts, it means to loose the business chance. Accordingly we are not able to embark on the procurement from ASEAN region for just the reason of cost

performance. (Company D)

However as mentioned before, as part of the generalization of global optimum purchasing, Japanese automotive manufacturer makes effort to procure from all over the world. "We also start to procure parts from Thailand and Malaysia now as part of the long term strategy, but we haven't done procurement from Indonesia. The main reason is fear over the unstable political condition in Indonesia which may hamper the continuous and stable procurement."(Company M) Thus in the aspects of the delivery and logistics, Indonesian competitive power is inferior to Malaysia and Thailand.

In regards to procurement for parts in the AM market in Japan, delivery time compared with China is significantly different. "It takes one month from order to deliver to procure our parts from Indonesia, but it takes only one week for that from China. Cost to procure our parts is the same from both country, so we tend to procure from China."(Company A)

Regarding the procurement within the ASEAN area, each company is considering the procurement from Indonesia due to the trade balance from every country. "We have procured parts by air from Japan to Indonesia when Indonesian parts maker could not cope with the promptly raised the number of the order from Malaysia. We also managed to avoid stopping our line in Taiwan factory by procuring our parts from other country by air when we could not import our parts from Indonesia because of the riot. Thinking of these cases, it's not time for Indonesian automobile parts industry to export their parts, and it is the time to improve their QCD producing their parts for Indonesia itself." (Company T) There is deep-rooted recognition that there are some problems of procurement in Indonesia compare to Thailand and Malaysia.

### 11.4.5. Obstacles and problems to import Indonesian products

■ **Problems of quality and cost**

The competition in the parts market is severe. "Japanese car manufacturers have been forcing their parts manufacturers to reduce their cost by 30%." (Company D) Additionally, improvement of quality of the parts is also demanded. Under this situation, the disband and restructuring of the Keiretsu are advancing. In the end, only powerful parts manufacturers can survive.

On the other hand, according to procurement research done by each automobile manufacturer, Indonesian products are inferior to their Malaysia and Thailand counterparts.

However, there is a possibility to improve QC by mass production effect and mastery of the technology, even in the case that QC is inferior in the present especially for the press part and engine parts which each automobile manufacturer are planning to concentrate production in Indonesia strategically.

■ **The problems concerning to stable supply**

By supply-chain-management point of view, overseas parts manufacturer is at disadvantage compared to parts manufacturer in Japan. Also concerning with Indonesia's relative competitive power in Asian region, "The frequency of Indonesian ship is less [than any other countries in Asia] and its association with the custom office is complicated and usually involves under-table money."**(Company I)**

Moreover, as is mentioned before, in view of recent unstable situation in Indonesia which might cause discontinuous supply, Indonesia name tend to be crossed out of the procurement lists. In this case, image improvement is very necessary.

■ **Problem that is related to the exclusive use part and investment in plant and equipment**

As mentioned before, there are many exclusive parts in each automobile model. Investment in plant and equipment including the metallic mold are necessary for the production of the exclusive parts.

Even after they invested in plant and equipment, the production lot is small. In turn, depreciation cost will be large and will affect the cost performance of the products. For example, the specification of parts for Japan model car differs fairly from the specification of parts for the Asia model cars, and the parts for Asia model cars cannot be used for the Japan model car.

■ **Problem of development**

Automobile technology in Japan is currently undergoing massive conversion. Safe, information and environment are the imperative factors. Changes related to engine power such as hybrid

engine or fuel battery, reduction of frame weight by application of new materials, development of the high fuel efficiency car which covers 100 km with 3 liters fuel, zero emission car, development of new materials that raised safety, etc. can be found in the concept cars.

Under such gigantic leap, automotive manufacturers must collaborate in developing these new technologies. Usually, in the development of a new concept car, the automotive manufacturer and parts manufacturer collaborate from the planning stages and discuss over and over during a period of one or two years. Under such condition, competition among parts manufacturers is severe: "Discussion by face to face is necessary to develop a new car and the necessary parts. Our company deals with many parts manufacturer including from America, under world optimal procurement strategy. Those parts manufacturer have liaison offices in Japan and arrange the engineer's participation in the discussions."**(Company T)**

"We prepare the place and parts manufacturer organize the exhibition once a month. They will make presentations to us regarding new technology. **(Company D)** Parts manufacturers need this type of correspondence to supply their parts to the automotive manufacturer.

### 11.4.6. The conditions required to increase export

As mentioned above, there are many problems to increase to export of automotive parts from Indonesia to Japan and ASEAN region. Quality, cost, stable supply, exclusive parts and investment in plant and equipment, are important success factors. The enabling conditions to overcomes such problems are as follows:

1) Establish "Technology Institute" or "HRD/ Training Center" in order to improve the production technology to meet the high quality standard.

2) Improve the infrastructure for exports such as road, port and software for handling export process (custom, port handling).

3) Establish consultation facilities and liaison offices in Japan to understand Japanese business practices and to keep good communication with customers.

### 11.4.7. Potentially good product

During the interview survey, staffs of procurement division of Japanese automotive

manufacturers said as follows: "If a potential supplier offers good-quality, reasonably-priced products, plus good-delivery, and willing to stick with the contract, then we can start dealing with that supplier. We do not care if it is an Indonesian company or not."(Company H) " Now, we do global optimum purchasing system. If a certain automotive part has competitive value over other manufacturer's product, we would procure that part. Basically, we would like to procure from all over the world."(Company D)

Each automotive manufacturer offers an open door policy in order to develop the global optimum purchasing. On the other hand, an automotive parts manufacturer who wants to sell to automotive manufacturer must excel over their competitors, and the competition condition is very severe. According to the buyer's survey, excluding AM, automotive parts manufacturers which export to Japan and ASEAN are automotive parts manufacturers which have taken technical assistance from Japan.

Therefore, if a domestic automotive parts manufacturers want to export to Japan or ASEAN, acquiring technical assistance from Japan PM is very important.

① Sell to automotive manufacturers in Indonesia and make good relation with them.
② Entering mutual complementation in ASEAN supported by automotive manufacturer
③ Entering Japanese Market

In ASEAN, automotive manufacturers and big automotive parts manufacturers aim to establish an integrated business system in ASEAN. For this purpose, they try to increase procurement from ASEAN countries and decrease procurement from Japan. For example, Company D has established a material evaluation center in Singapore which is similar to the one that the company established in USA. Using this center, the company plans to increase procurement from ASEAN countries from 50% in 1999 to 80% in 2003. This presents a good chance for automotive parts manufacturers who want to export their products. Among the potential parts for Indonesian parts manufacturers are press parts and engine parts.

## 11.5 Diagnosis Analysis of Export Companies

### 11.5.1. Outline of the Survey

1) Method :
Field Survey. The diagnosis survey was carried out by pre-sending questionnaire to the targeted

exporters. In the meeting with, diagnostic of the company's conditions was conducted to the management. After diagnosis, factory inspection was done.

2) Duration :
From 30th November 1999 until 9th December 1999

3) Selection of target companies :
Production technology : We mainly selected companies whose production technology are pressing and casting.
Capital : We selected companies whose capitals are 100% local.

Characteristics of companies :
1) Companies who sell directly to assemblers (1st tier supplier)
2) Companies who sell to parts manufacturers (2nd or 3rd tier supplier)
3) Companies who sell directly to the after market (AM)

### 11.5.2. Visited companies

| | Jakarta | Bandung | Surabaya | Total |
|---|---|---|---|---|
| Medium-Large | 2 | 1 | 2 | 5 |
| Small-Medium | 3 | 2 | 2 | 7 |
| Total | 5 | 3 | 4 | 12 |

### 11.5.3. Model Companies Selection

Based on the diagnostic survey, we categorized their export style and strategy into 3 groups below and pick one company for each group :

1) Export-oriented companies:
Companies in this group have already export their products. A high percentage of their products are exported. They sell their products to foreign assemblers (FA) and to after market (AM).

2) Companies which mainly sell to domestic market, however they have plan to export to FA:
Companies in this group mainly sell to domestic assemblers (DA) or domestic parts manufacturers (DP). They plan to start or to increases selling to FA, foreign parts manufacturers (FP) or AP.

3) Companies which mainly sell to AM

Companies in this group mainly sell to domestic AM or foreign AM.

**Table11.5.1. Outline of target companies : Products, Technologies, Address, Employee, Export ratio**

| | EST | Products | Technology | Address | Employee | Customer | Direct Export Rate |
|---|---|---|---|---|---|---|---|
| ① | 1986 | Forging Parts, Jacks, Hand Tools | Forging, processing, Mould & Dies | JAKARTA | 250 | Assembler | few |
| ② | 1990 | Transmission Case, Clutch Housing, Cylinder Head Cover, Bearing Cap, Crank Case, Brake Shoe, Brake Lever, etc | Al Casting, Processing, Welding | JAKARTA | 540 | Assembler, Parts Manufacturer | few |
| ③ | 1985 | Press Parts, Spare Parts | Press, Processing, Welding, Mould & Dies | JAKARTA | 80 | Assembler, Parts Manufacturer | 0 |
| ④ | na | Mould & Dies | Mould & Dies | JAKARTA | na | Manufacturer | 0 |
| ⑤ | 1992 | Press Parts, Spare Parts | Press, Processing | JAKARTA | na | Parts Manufacturer | 0 |
| ⑥ | 1986 | Press Parts, Spare Parts | Press, Processing, Welding, Mould & Dies | Bandung | 80 | Assembler, Parts Manufacturer | few |
| ⑦ | 1980 | Brake, Brake Disk Pad & other Component, Spare parts | Casting, Processing, Welding, Mould & Dies | Bandung | 200 | Assembler, Parts Manufacturer | 3% |
| ⑧ | 1990 | Exsost Manifold, Spring Case | Casting, Processing | Bandung | 80 | Parts Manufacturer | 0% |
| ⑨ | 1958 | Leaf Spring, Coil Spring | Spring forming | Surabaya | 300 | Assembler, Parts Manufacturer,After Market | 8% |
| ⑩ | 1991 | Wheel | Al Custing, Processing | Surabaya | 780 | Assembler, After Market | 95% |
| ⑪ | na | Spare Parts and Accessories | Press, Processing, Welding, Plating, Mould & Dies | Surabaya | 95 | After Market | 20% |
| ⑫ | na | Rubber Parts | Rubber Parts Forming, Mould & Dies | Surabaya | 25 | Parts Manufacturer | 0 |

## 11.5.4. Summary of diagnostic survey

1) Management (Vision, Plan)

- Many of them want to expand their export to recover production volume.
- The companies should have detail plan to export. Some SMEs have no plan to expand their exports.
- Many exporters evaluated that their manufacturing technology is the strong point. They have good QCD (Quality-Cost-Delivery) supported by long term relations with Japanese manufacturer.
- In many cases company's management pointed out that their weakness is mainly in marketing.

2) Export strategy, Marketing

- Most of them recognized that business means to meet QCD customer requirement.
- The opportunity for direct export can be initiated by attending exhibitions overseas.
- In case of indirect export, the assembler (Japanese JV) can provide some part of the jobs with their own risk.
- In many cases they suffer from lack of information. For example information on exhibitions, customer's requirements and network.

3) Production

- In many cases, it is impossible to buy raw material from domestic sources, because the quality does not meet the standard.
- The technology to make die and mold is inefficient.
- In many cases, QCD is not a problem anymore because Japanese JV has transferred their know-how. However after the crisis, the number of visit of Japanese JV has reduced.
- Many companies have problem with low discipline workers in spite of introducing a good system as ISO 9002 or QS9000.

4) Finance

- Some of them suffered from inefficiency of working capital.
- They often consult with a bank or their parent company.

5) Human Resource Development (HRD)

- Big companies have their in-house training programs. However most of the SMEs do not have it.
- They think the best way to get appropriate technology is to invite foreign engineer to Indonesia or to send the subcontractor's employee to Japan.
- Many part makers find it difficult to get high technology production skill especially in making die and mold. The domestic training center to train the technology is not sufficient.

6) Request to Government

Indonesian parts manufacturers should focus on molds and dies that have potential to compete with ASEAN countries. Government should improve supporting activities for exporters with strategic viewpoint in order to promote export:

- Market Information Center
- R&D of production and design technology
- Training course

・ Examination facility

### 11.5.5. Model company A

Company A (Export-oriented, Large) : The company plans to increase its AM market size by acquiring high-level production technology learned through OEM business.

Company A is a company which produces Al casting parts. The founder learned production technology in Taiwan, and then established a company to apply the technology in Indonesia. From the beginning, company A was export-oriented and mainly exported to AM in USA. It is in 1995 that the company saw a turning point for further expansion. Hit by the decrease of export to USA, Company A felt the importance of quality to export to other countries. Company A then, in the same year concluded a technical tie-up contract with Japanese PM in order to improve its technology. The company sent employees to Japan and invited engineers from Japan. In 1997, it started to sell to Japanese assembler which is currently the main customer of the company. In spite of the currency crisis in 1997, the production volume increased smoothly. In 1997, it sold 150 thousand units and in 1999 the company predicted a sales volume around 300 thousand units. Currently, the company is investing to increase their production capacity to 6 times original capacity by middle 2000.

1) Management

Company A plans to expand export to South East Asia, Europe and USA, spurred by self-confidence through successfully entering OEM market (Japanese assembler). The company is currently using the brand of Japanese PM. In the future, the company plans to expand their business by using their own brand.

2) Export strategy

The export strategy of Company A is to emphasize on the high-level technology used which was obtained from Japanese PM and product's reasonable price. The company has also obtained ISO9002 and quality standard of Japan and German. From now on, it plans to get QS9000 in order to sell to American assemblers. The weakness is high yield rate compare to Japanese PM, that push up the production cost.

3) Marketing

The target market of Company A are assemblers from Japan, Europe, USA and other countries. Its first target is to get OEM business. In the first step, it plans to learn quality level and favorite design in target countries through OEM business. As a second step, it plans to sell to AM in which the high profit ratio is expected. The company considers to get stable and long-term profit from OEM market, and high profit from AM market. For the moment, the company develops potential customers through attending major exhibitions held in Europe or USA.

4) Production

Company A operates 3 shift and the working day is 363 days in a year. It means full capacity. The production system has been acquired through technology transfer from Japan. There are no problems at this moment.

It imports all raw material, however it poses no problem because the company exports almost of their products by using foreign currency. Problems occurred when employee does not work as specified in the procedures. This is pointing to problem in human resource.

The company aims to decrease the production cost through improvement of productivity and of yield rate. Most of the costs are a materials expense. However it is difficult to reduce the material expense, because it can not procure the raw materials domestically. The company then aims to achieve the target by motivating the employees.

In regards to delivery, there is no significant problem. Japanese assembler sends a 5-month schedule every month. The schedule consists of 3 parts. First part is confirmed schedule of next month. Second part is estimated plan of next 2 month and third part is just information of next 2 month. In the case of sudden purchase change because of market demand, the products can be sent by air to meet the expected schedule.

In the case of AM business, delivery is based on purchase order and usually poses no problem to production and delivery schedule.

5) Finance

In the financing aspect, Company A has had troubles in opening LC, as most companies in

Indonesia were facing. However, currently the situation is improving.

6) HRD

Company A applies both in-house training and outside training.

Outside training covers sending employees to Japan for training or to use training course held by Japanese JV domestically.

In-house training covers OJT and training in the factory using instructors from Japan.

### 11.5.6. Model Company B

Company B (Medium size) : Main target is the domestic OEM. However, it plans to export their products to avoid relying only on domestic market.

Company B produces forged parts. At first, the company produced the products and sold them to AM directly. In the second half of 1980s, the company received a request from an assembler to supply automotive parts during the enforcement of localization promotion policy by the Government of Indonesia. The company then decided to have a technical tie-up with Japanese PM, and refurbished the facility. Currently, the company's main business is for domestic assembler.

After the refurbishment of the facility, the company expanded smoothly, primarily supported by the development of automotive industry in Indonesia. However, at the turn of the economic crisis, the company suffered a great deal. Hence, the company realized the importance of not relying only in one market. Currently, the company plans to sell 80% of their products to domestic assembler and 20% to foreign countries. A portion of the products to domestic assemblers include indirect export to ASEAN countries. While for export market, half will be exported to FA and the remaining half to AM.

1) Management

Company B plans to be a Global Company which can sell directly to foreign countries.

The company has good QCD supported by the fact that the company sells their products to

Japanese JV and the company has R&D ability to make dies and mould. The company can design dies by using CAD/CAM after the customers provide them with drawings or sample parts.

The weakness of the company mainly is that the company does not have know-how in exporting the products directly to the target countries.

2) Export strategy

Company B has a basic export strategy. The company plans to expand indirect export for ASEAN market through complementation plan of Japanese assembler and direct export for outside ASEAN market.

In 1999, the company acquired QS9000 based on a request by American assembler. It is also part of the strategy to expand export outside ASEAN market.

In overall, the company targets 80% for domestic market (domestic and indirect export) and 20% for export market (direct export). For domestic market, the company targets 100% products sold to OEM market. For direct export, the company targets 50% for OEM market and 50% for AM market.

3) Marketing

The company is currently in on-going negotiation with a German dealer, American PM in Singapore and American PM in Canada for direct export. Negotiation with German Dealer is for AM market, while the rests are for OEM market. The deal with the German Dealer was initiated by attending exhibition in German, while the deals with US companies are through information from US Trading Company.

4) Production

Almost all raw materials are imported. The raw materials come mainly from Japan, Korea, Taiwan and Australia. It is actually better to procure from domestic, however, large quantity-based cannot be procured domestically.

Company B can comply with the Japanese JV's requirements and deliver 100% good products.

From the delivery side, the company also complies with KANBAN method, a strict delivery method which require delivery once or twice a day.

The company also targets to reduce cost by the improvement of productivity.

5) Finance

Before the crisis, the banks that Company B was using allowed 180 day credit. However, after the crisis, the banks required a 100% cash deposit, which the Company cannot provide.

6) HRD

Company B applies Japanese production technology system. The company could not find suitable domestic training, and therefore sent their employees to Japan for training and invited Japanese engineers to their company.

For quality control and computer skills, the Company B relies on domestic training centers.

The company also conducts in-house training. They employ 10 trainers who are all Indonesian, who had been sent to Japan for training previously. Among the training subject is how to use production matrix.

### 11.5.7. Model Company C

Company C (SME): Target is AM
Company C is a SME producing various spare parts, with main customers are retailers/ distributors. The company deals with more than 300 shops and can produce 1500 kinds of spare parts. The company can produce dies and mould just based on the sample parts given by the customers.

1) Management

The vision of Company C is simply to continuously expand business.

2) Export strategy

Company C can make dies and produce trial product within from 2 week to 1 month after they receive the sample parts. The company considers to expand the export market by increasing number of orders from time to time.

3) Marketing

Company C exports to Malaysia, Philippine, Singapore, Brunei and Australia. All their customers came to the company by bringing sample parts. Those customers know the company from exhibition. The company strong point is reasonable price.

It does not do marketing activities but attending exhibitions. Because it is SME, it can attend exhibition with no fee. Its all export business comes from exhibition.

4) Production

Company C has various production technologies in order to meet every customer's demand. It uses old machines. One machine is operated by one operator. Employees can not deal with several/ plural machines. It wants to buy new machine though, using old machine results cost saving. Now it produce small lot and various kind, that is suitable to this production system. If it can get stable big order, it considers to buy new machine to improve productivity.

## 11.6. Export Competitiveness Improvement Strategy

### 11.6.1. Management

The important point it how to set up targets of the companies. For export, there are two main market segments. The first market segment is OEM market. The second market segment is AM market.

Customers in the OEM market usually request high level QCD and profit margin is normally lower than that of AM market. However, once they acquire a deal with assemblers, usually the orders are stable and long-term.

When an assembler decide to approve a company as their supplier, they check the company's management as a method of assuring the ability of that company to provide stable supply. A few

aspects such as whether the company has a stable management, whether management applies PDCA system or has management plan, are among the inspection list.

Profit generated from sales in the AM market is usually higher than that generated from the OEM market. However, sometimes due to too many variety should be produced, profit can become small. Profit is usually relatively high for constant seller such as batteries, plugs, filters, and so on.

When companies try to develop their export strategies, it is very important for them to understand fully the merit and demerit of each market. This understanding is important to choose which market they should enter (first).

In summary, the following management aspects are important to achieve :

① Stable strong management
② To have a business plan
③ Good understanding of OEM and AM market

### 11.6.2. Marketing

In many cases for automotive parts, customers already prescribe the form and design of the parts. Therefore, both for OEM and AM markets, it is important that the company comply with the drawings or sample parts given. If the company can not meet these requirements, they usually can not deal in long-term.

In the diagnostic survey conducted by the team, many companies pointed out that customers were usually appealed to a company who has the technology to design, make and maintain dies and mould. Customers were also appealed to companies with combination of technology, good production skill and system.

The technology to design, make and maintain dies and mould means the company can produce trial products in short term. Furthermore, a company can produce more added value products if the company can combine various production skills such as dies making, pressing, processing, plating, and heat treatment.

If a company considers doing business with OEM, it is essential that the company can meet the QCD requirements demanded by the customer. In the diagnostic survey, two most important

qualifying factors came out during the interview with several companies. The first qualifying factor is an experience dealing with other assemblers for long-term duration. The second qualifying factor is that the company has acquired technology from a foreign company. Another qualifying factor for export to OEM in the US is QS9000.

The processes to deal with assemblers also take a long time. This is true not only for Japanese assembler, but also for Europe and American assemblers. One company who participated in the survey stated that it took them 3 years to set a deal with an American assembler, even though the company has already an experience dealing with Japanese assembler. One method to speed up the process above is to obtain QCD assurance from PM.

In the case of AM market, target market segment determines the marketing strategy. If a company wants to sell to AM market using their own brand, they products are competing with the genuine parts. Several successful companies pointed out that it is effective to start with OEM market and get good reputation, and then enter the AM market. In the case of low-end AM market, pricing strategy is the most important aspect of gaining the market size.

Companies who succeeded in AM market pointed out that attending exhibition is very important. Especially for the company who wants to expand the market to Europe and USA, attending Automecanica in German or SEMA in USA is very important.

In selling to AM market, there may be security regulations which should be complied with in the target country. In the case of Company A, the success key to expand AM business in Europe was by passing the TUV test and get KBA number which is needed for sales in German.

In summary, the followings are important marketing points:

1. The evidence of good QCD
   - Long-term experience dealing with foreign assembler
   - Experience as a recipient of technology transfer from foreign countries
   - Has obtained QCD assurance from foreign PM
   - Has obtained QS9000 if you want deal with USA
2. The ability to combine various skill in production
3. Skills to design (R&D), make and maintain mould & dies
4. Exhibition
5. Authorization standard in each countries

### 11.6.3. Production

Sometimes an automotive part's failure can cause serious accident, and below-standard quality products might cause the failures. In such case, the parts manufacturers will take serious damages. Therefore, very strict quality standard is demanded in the production of automotive parts. The importance of QCD is mentioned

There are cases where customers request for 100% non-defect products. One successful company outlined their stages to obtain customer's acceptance :

① Improve production technology by technology transfer from foreign PM;
② Accepted as supplier by assembler;
③ Improve production quality by applying cultivation program offered by assembler.

In regards to cost reduction, the key factors to improve are productivity and yield rate. It is usually difficult to reduce raw material's cost, because many of them are of import-origin. In case of low-end product in AM, quality is not so important and therefore local material can be used. The use of material of reasonable quality and price becomes an important point for attractive product price.

In regards to delivery in OEM market, the important factor is to obtain technology transfer from foreign PM and use cultivation program from assembler, which is similar to QC.

In summary, the following points are important to improve production :

① Technology transfer from foreign PM and apply cultivation program from assembler.
② Availability of liaison office in the target countries.

### 11.6.4. Human Resource Development

To achieve high level QCD, one of the key success factors is excellent human resource. Hence educating employees are very important. Even if a company applies good technology system, it will not work without educating the employees.

There are two main stages to achieve the state of 'excellent employees'. First stage is by educating/ introducing the technology to key persons in the company and second stage is by spreading the knowledge to all employees

In regards to the successful application of high technology, technology transfer from foreign PM and supplier cultivation program by assembler is effective as mentioned before.

In regards to introducing new technology system to employees, it is important to have detailed HRD plan, daily on-the-job training, and periodic training.

In summary, the following are important points to improve HR :

1. Technology transfer from foreign PM and supplier cultivation program by assembler
2. Establishment of in-house HRD system
3. Keep discipline of employees

## Chapter 12. Machinery Parts

### 12.1. Analysis of Export Statistics

#### 12.1.1. Definition of machinery parts

According to data from National Agency for export development, Ministry of industry and Trade, Republic of Indonesia(NAFED), machinery parts are grouped as per their usage. Therefore, all machinery parts except automobile parts, electric and electronic parts are regarded as machinery parts in this report.

#### 12.1.2. Present situation of Machinery Industry

Export value of machinery from Indonesia is US$445milion and 723 million in 1995 and 1996 respectively, which shows about 60% increase for 1995 export. In 1998, the drastic shrink of domestic market has forced manufacturers to export their products overseas. Export value in 1998 seemed to be same level as that of 1997. According to the export data as per machinery items, the share of fabricated machinery, component and electronic machinery is 33.4%, 42.1% and 17.3% respectively. The three items' shares are almost 90% for all export value of machinery.

#### 12.1.3. Production and overseas trade of machinery

Table of comparison for production, export and import of machinery in 1998 for 1995

**Table 12.1.1**

(Unit:US$million)

| | Production | Export | Import |
|---|---|---|---|
| 1995 | 1,296 | 445 | 7,983 |
| 1998 | 665 | 700 | 5,000 |

*Source: Data center of MOIT*

### 12.1.4. Export share of Machinery per items

**Table 12.1.2. Export share of Machinery per items in 1998**

| | Export (US$) | Share (%) | Domestic share |
|---|---|---|---|
| Fabricated machin. | 233,682,975 | 33.40% | 47~91% |
| Agricultural Machin. | 2,796,423 | 0.4 | 85~90% |
| Electrical Machin. | 121,288,366 | 17.3 | 20~85% |
| Machine tools | 3,789,556 | 0.5 | 20~52% |
| Steel construction machin. | 27,284,763 | 3.9 | N.A |
| Construction machin. | 16,347,590 | 2.3 | 20~85% |
| Components | 294,810,326 | 42.1 | - |
| Engineering | N.A | N.A | N.A |
| Total | 700,000,000 | | |

*Source: Data center of MOIT*

As for export values of machinery parts between 1994 and 1998, NAFED report shows as follows.

**Table 12.1.3. Export of Machinery Parts (1994-1998)**

(Unit: US$million)

| Year | 1994 | 1995 | 1996 | 1997 | 1998 |
|---|---|---|---|---|---|
| Value | 129 | 238 | 231 | 189 | 205 |

*Source: NAFED*

Top five machinery parts in 1997 & 1998 are as follows.

**Table 12.1.4. Top five machinery parts in 1997 & 1998**

| | 1998 | 1997 |
|---|---|---|
| 1.Mechanical Handling parts | 28% | 38% |
| 2.Pumps & Compressor Fan Blowers centrifuges parts | 25% | 21% |
| 3.Heating & Cooling parts | 20% | 17% |
| 4.Other non-electrical machinery parts | 10% | 6% |
| 5.Other Machine & Equipment | 9% | 11% |

Main destination for the above are Singapore, Japan, Malaysia, USA, Taiwan, Germany, Hongkong, Korea & Australia.

### 12.1.4. Export and Import of Machinery parts

**Table 12.1.5. Comparison of Export and Import of Machinery parts in 1998**

| | Export Value (US$000) | Import Value (US$000) | Trade Balance (US$000) |
|---|---|---|---|
| 1.Mechanical handling equipment and parts | 59,094 | 425,994 | -366,901 |
| 2.Pumps and compressor Fan & Blower | 51,707 | 322,783 | -271,077 |
| 3.Heating and cooling equipment & parts | 42,438 | 505,474 | -463,036 |
| 4.Other non-electrical machinery tool & apparatus | 20,562 | 215,053 | -194,490 |
| 5.Other machine and equipment | 17,809 | 826,131 | -808,321 |
| 6.Agricultural machinery and parts | 3,632 | 23,247 | -19,615 |
| 7.Machine tool for working metal | 3,457 | 122,310 | -118,853 |
| 8.Ball or roller bearing | 2,914 | 40,885 | -37,971 |
| 9.Tractors | 1,850 | 23,108 | -21,258 |
| 10.Engines and motors non-electric parts | 1,788 | 39,837 | -38,049 |
| 11. Others | 478 | 44,005 | -43,526 |
| Total Machinery parts | 205,729 | 2,588,826 | -2,383,097 |

*Source: NAFED*

The total import value is US$2,589 million, on the other hand the export value is US$205 million. Deficit of export value of machinery parts for import value is about US$ 2,383 million ,and which shows about 13 times for exported value of machinery parts. This is the reason why machinery parts industry of Indonesia is not yet developed and most kinds of machinery parts should be imported in order to operate and maintain machines.

Machinery parts to be exported from Indonesia are mainly order made and labor intensive products. From the viewpoint of raw materials, fabricated steel products, cast iron and steel products and forged products are accepted by overseas market.

### 12.1.5. Hindrance of Machinery parts export

Raw materials, machine and equipment, human resources are key factors to produce

manufactured goods and gain profit. Export is to sell products overseas. In this case, different rules and standard are applied to compare with domestic sale, for which exporters should supply products in accordance with export rules and standard. Generally, export standard is more difficult than domestic standard.

In order to succeed in export, following three are very important.

- Quality
- Cost
- Delivery

Hindrance is mentioned in terms of raw materials, machine & equipment and human resources.

Raw materials

Delivery relies on procurement of raw materials ,production process and quality control.
Most of raw materials for machinery parts are imported. In order to keep enough volume of raw material, manufacturers should keep minimum 3 months stock which impact their cash flow.

Machine and equipment

Machines for producing machinery parts are foreign countries origin therefore, purchase and maintenance should be mostly provided by foreign countries.
Production and maintenance technology is necessary for increase of efficiency, however engineers for it are difficult to find in domestic. Most of Indonesian manufacturers cannot employ such engineers due to limitation of budget.

Human resources

Human resources are evaluated by two aspects of quality and numbers. In Indonesia, engineers and skilled laborers are short. Education center for technology is most needed for development.

Considering the above situation, hindrance are as follows.

1. Short of basic industries
2. High rate of dependency on capital goods, parts and maintenance
3. Short of engineers (production & distribution for export)
4. Short of domestic engineers in quality and numbers
5. Less existence of organization to support export business

These hindrance should be solved by education and industrial developing policy, but private companies should establish network system from upstream business to downstream business to purchase necessary products domestically by utilizing and activating present function of associations.

### 12.1.6. Possibility of export increase

Indonesian domestic companies are divided into foreign joint venture companies and domestic companies. Indonesian companies are state companies and private companies. Such companies are classified into giant companies, medium scale companies and small companies by numbers of employees and assets.

According to this classification, foreign J/V companies and state companies are grouped as giant companies, and most domestic companies are medium scale and small companies. According to the survey on July in 1999, set makers and parts manufacturers of Japanese J/V have shifted their sales from domestic to export. However, they have experienced in export business before economic crisis in 1997 and eventually succeeded in increase of export.

Machinery parts made by technology of welding, cast iron and steel making and forging are said to have competitiveness in world market. Such machinery parts' features are order made and labor intensive ones. Machinery parts in this category can increase export value.

## 12.2 Selection of Target Export Products

### 12.2.1. Selection Method

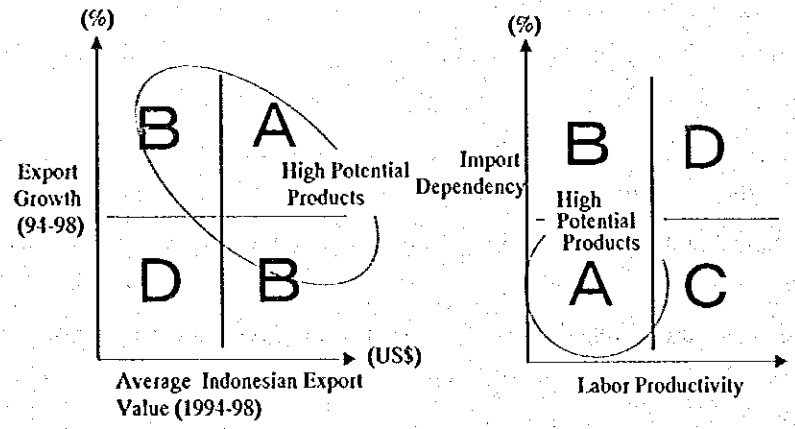
According to the same manner of electric & electronic parts, target export products were selected.

Criteria to select the potential parts
1) Average Indonesian export values in 1994-98
2) Average export growth in 1994 to 98
3) Import dependency (Imported raw materials/ all raw materials)
4) Labor productivity (Gross output/number of employees)

Products that have large export volume and high growth rate have been selected as target items.

For manufactured products, it is important that the procurement of raw materials and intermediate goods do not depend too much on imported goods, other wise the benefit from an increase in exports would be diminished. Indonesia has an advantage of cheap labor cost as compared with other ASEAN countries such as Malaysia and Singapore. Therefore, potential products should have low rate of import dependency and labor productivity (to support labor intensive industry).

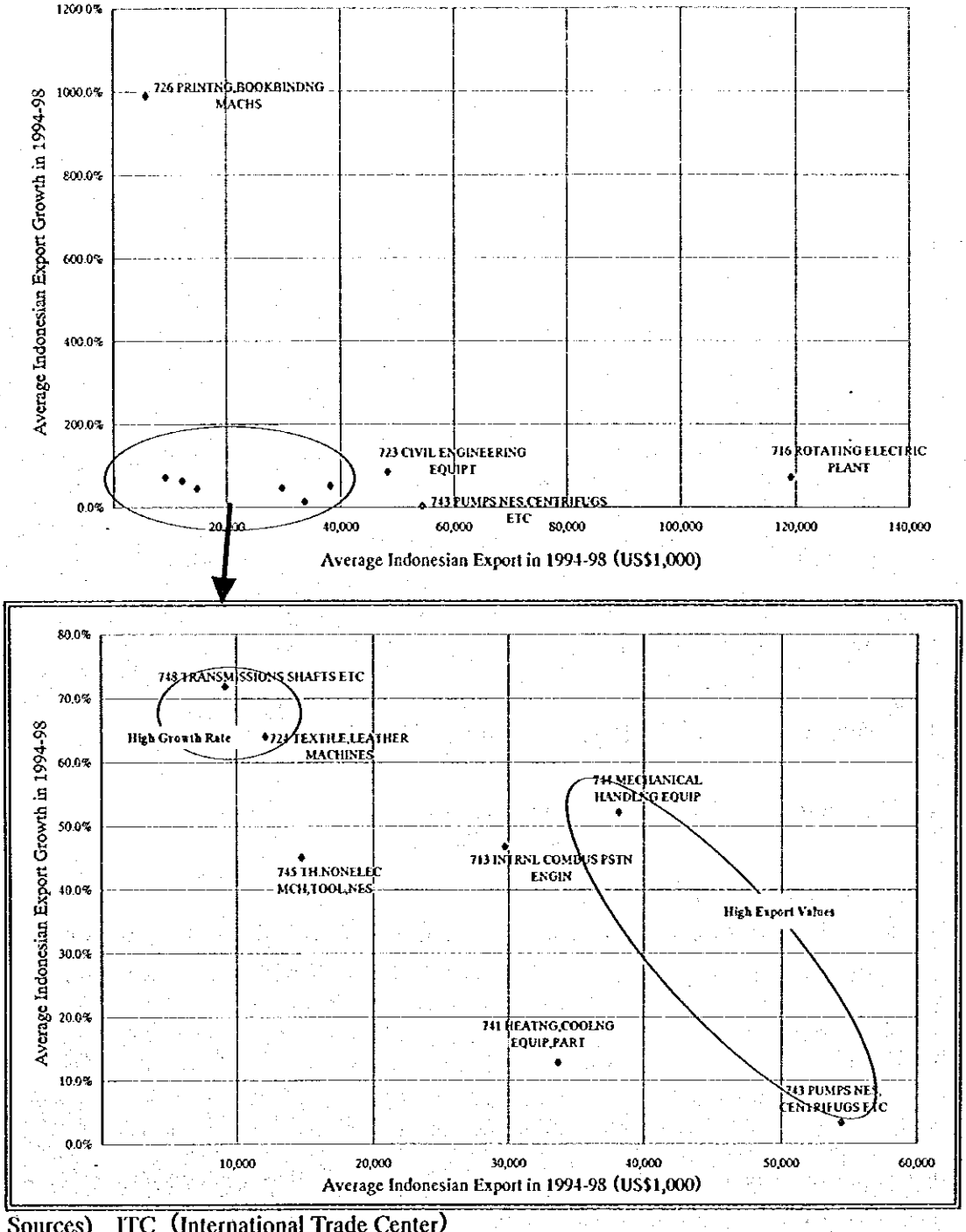
**Figure. 12.2.1. Matrix to select potential products**




### 12.2.2. Selected target products

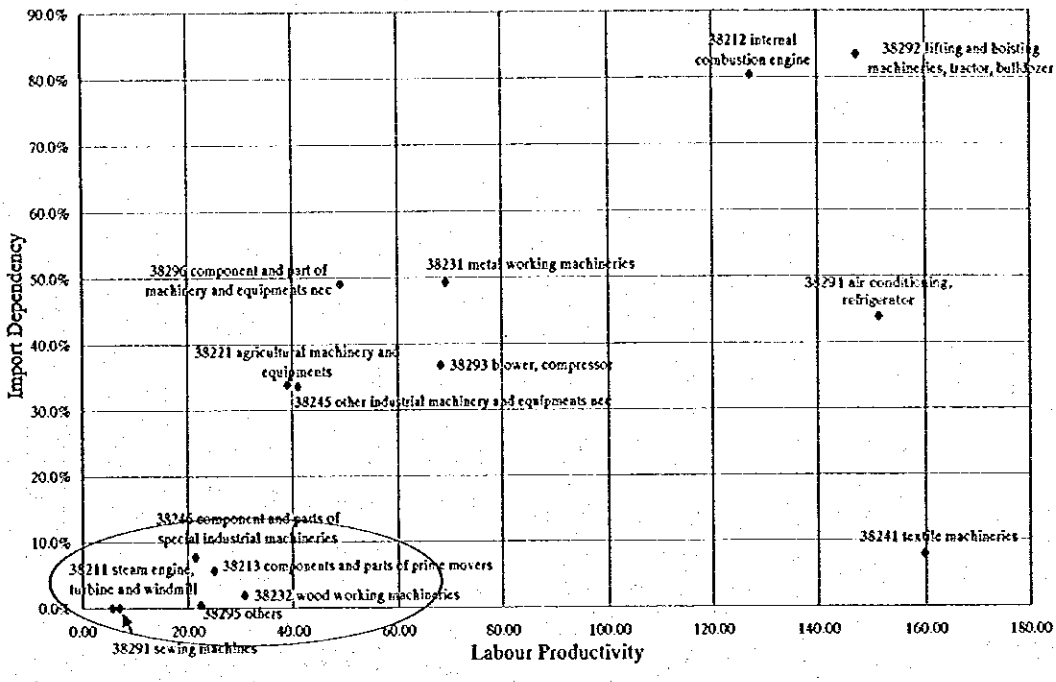
- <u>Direct exports:</u> Generator, Shaft, Pump, Compressor and Steam Engine
- <u>Indirect exports:</u> Sawing machine, Wood working machinery, Agriculture machinery, Lifting and Hoisting machinery and Tractor (Based on the statistical analysis, import dependency of these items are high. However, because of high export values and the assumption that the dependency rate should have decreased by now, we included them as potential products)

**Figure 12.2.2. Selection of potential products (Machinery Parts)**




Sources) ITC (International Trade Center)

**Figure 12.2.3. Import Dependency and Labor Productivity (Machinery Parts)**




*Note) The numbers in front of each items are Industrial code*

*Source) Large and Medium Manufacturing Statistics, BPS 1997*

## 12.3. Buyers' Satisfaction Survey in Japan and Singapore

### 12.3.1. Outline of companies to be surveyed

■ Companies to be interviewed in Japan

We have selected eleven companies which seem to have imported machinery parts made in Indonesia out of Home-page provided by Asean Center, and asked them whether they have imported or not. Location of 11 companies are Kanto Area: 6 companies; Kansai Area: 5 companies.

All companies have never imported machinery parts from Indonesia which have showed little interest about the import of them. Therefore, we have interviewed parent companies which have joint ventured companies in Indonesia in order to evaluate imported products and to know issues to be improved and promising products from Indonesia.

In addition, we have visited Japan Construction Equipment Manufacturers Association (CEMA)to have their information about machinery parts in Indonesia.

Companies to be visited in Japan are as follow:

| | |
|---|---|
| Engine manufacturers | 1 |
| Agricultural manufacturers | 1 |
| CEMA(Association) | 1 |

■ Companies to be interviewed in Singapore

Through our survey of July,1999 in Indonesia, many Japanese J／V companies have established IPO (International Procurement Office) in Singapore to integrate other offices in Asia district in terms of optimum and efficient procurement system. To hear evaluation of machinery parts from Indonesia, we have visited IPO in Singapore.

| | |
|---|---|
| Engine manufacturers | 1 |
| Pump manufacturers | 1 |
| Construction machinery | 1 |
| Construction | 1 |
| Associations | 2 |
| Trading firms | 1 |

### 12.3.2. Import process by the companies

They have established IPO in Japan or Singapore to get necessary information about procuring machinery parts etc. J/V companies in Indonesia have produced machinery parts and some kinds are purchased in domestic. But main parts are imported and supplied from Japan. About 70% of parts are procured in domestic.

As for process of importing machinery parts, there is needed mutual trust about QCD of manufacturers. Trust is grown through process of order, evaluation and improvement. These process is inevitable to set up good relation with importing.

### 12.3.3. Evaluation of Indonesian products

Firstly, we would like to see what kind of technology are applied for machinery parts to be produced in and exported from Indonesia. According to data from NAFED, following technology are applied for machinery parts exported from Indonesia.

1. Assembling & welding
2. Cast iron and steel making
3. Forging
4. Metal plating
5. NC machining

As mentioned before, machinery parts from Indonesia are mainly order made and labor intensive products. Customers in Japan and Singapore have imported machinery parts from cast iron and steel after machining process. As for technical level for such products, that is evaluated in middle class level.

Our evaluation is made for technology for cast iron and steel making and machining by NC machines.

■ Cast iron and steel (FC)

A pump manufacturing in Indonesia is exporting pumps to Japan and south east Asia. There is no problem about quality. So, they are planning to produce new products of larger size pumps and stainless ones. However, main parts are imported from Japan. They have evaluated technical level of cast iron and steel making is in middle.

■ NC machining

An engine manufacturing company is importing complete engines setting parts in Indonesia ,of which NC machining is performed by engineers of Indonesia state company. Until reaching this level of machining, Japanese engineers have supervised them for two years.

Improving technology of NC machining helps manufacturers to produce more sophisticated and value added products. Through several surveys, we understand that many Indonesian companies are interested in mastering new technology, so technical support system will enable them to increase export value of machinery parts.

■ Welding and forging

These technology are applied to constructing steel structure and large components. Indonesia seems to have advantages in these technology.

### 12.3.4. Suggestion for export promotion

Machinery parts manufacturers have to satisfy set-makers' standard of quality and punctual delivery. In case of export, there are two models, such as direct and indirect export.

Indirect export

Export oriented set-makers and part manufacturers can negotiate with export conditions face to face. Technical supervision is also available so that they may have solved problems. These close relations will make good solutions.

Direct export

Sometimes communications are not so easy to compare with living in near places. In order to make smooth solution, mutual trust should be strengthened through order, evaluation and improvement process. As for technical matters, supervised system should be prepared.In order to increase export of machinery parts ,customers claim that Indonesian manufacturers should pay more attention to delivery terms and export packing. Information on export of machinery parts is short because of few special organizations specialized in export. Association should strengthen facility of collecting information about export business.Government is requested to assist exchange of information between set-makers and parts makers by setting up an organization specialized in export.

## 12.4. Competitiveness Analysis of Selected Products

### 12.4.1. Comparison with ASEAN countries

According to the surveys in Japan and Singapore, competitive machinery parts of Indonesian made for export are cast iron and steel products, forged products with machining. As for assembled products, main parts are still imported from Japan, More than 70 % portion are procured in domestic. Destination are Asia, USA, Europe and South America. IPO in Singapore having J/V company in Indonesia has exported as follows from 1994 to 1998.

**Table 12.4.1. Export from Indonesia via IPO in Singapore**

(Amount: US$)

| | 1994 | 1995 | 1996 | 1997 | 1998 |
|---|---|---|---|---|---|
| Unit | 313 | 1,475 | 994 | 635 | 353 |
| Amount | 207,600 | 1,116,100 | 716,361 | 422,980 | 247,701 |

*Source: Interview survey team*

This data is also indicated that competitive machinery parts are from cast iron and steel and forged steel with NC machining. Japanese market is regarded as most severe market in the world. Should machinery parts be accepted in Japanese market, customers are satisfied with their QCD. Export value in Japanese market can be regarded as reflecting export competitiveness among countries.

Since summary about cast iron and steel industry and forging industry in Indonesia are mentioned on former official report of Development Program for industry (Supporting Industry),we want to evaluate competitiveness of Indonesian machinery parts from the import data of MOF Japan in 1997 and 1998.

**Table 12.4.2. Import of casting and forging goods from ASEAN and neighboring counties in 1997/1998**

| | Cast Iron | Duct Tube | Mellab | Cast Steel | Copper Alloy | Forge | Total |
|---|---|---|---|---|---|---|---|
| China'97 | 61,804 | 146 | 5,333 | 12,112 | 382 | 2,281 | 82,058 |
| '98 | 52,649 | 99 | 3,160 | 10,806 | 457 | 431 | 67,602 |
| Taiwan | 1,667 | - | 297 | 334 | 416 | 1,416 | 4,130 |
| | 1,236 | - | 32 | 206 | 273 | 1,007 | 2,754 |
| Korea | 1,300 | 147 | 1,837 | 5,149 | 41 | 219 | 8,693 |
| | 1,385 | 91 | - | 8,906 | 55 | 336 | 10,773 |
| Malaysia | - | 714 | - | 35 | - | 19 | 768 |
| | - | 897 | - | 66 | - | 1 | 964 |
| Thailand | 229 | - | 721 | 210 | 148 | 22 | 1,330 |
| | 191 | - | 370 | 406 | 112 | 3 | 1,082 |
| Indonesia | 109 | - | 164 | 1,191 | - | 396 | 1,860 |
| | 96 | - | - | 1,124 | 1 | 414 | 1,635 |
| S'pore | 2 | - | 1 | 21 | 245 | 13 | 282 |
| | - | - | - | - | 207 | 176 | 383 |
| Phillipine | 512 | - | - | 34 | - | - | 546 |
| | 39 | - | - | 4 | - | 3 | 46 |
| USA | 36 | 26 | 199 | 8 | 82 | 92 | 443 |
| | 15 | 34 | - | 133 | 98 | 11 | 291 |

*Source: Trade Monthly Report of MOF Japan*

Rank of Asean countries per items are as follows.

**Table 12.4.3. Ranking of ASEAN countries per item**

| Cast iron | 1 | 2 | 3 |
|---|---|---|---|
| 1997 | Philippine | Thailand | Indonesia |
| 1998 | Thailand | Indonesia | Philippine |
| Ductile | | | |
| No record | | | |
| Mellable | | | |
| 1997 | Thailand | Indonesia | - |
| 1998 | Thailand | - | - |
| Cast Steel | | | |
| 1997 | Indonesia | Thailand | Malaysia |
| 1998 | Indonesia | Thailand | Malaysia |
| Copper Alloy | | | |
| 1997 | Singapore | Thailand | - |
| 1998 | Singapore | Thailand | - |
| Forging | | | |
| 1997 | Indonesia | Thailand | Singapore |
| 1998 | Indonesia | Singapore | Thailand |

*Source:Trade Monthly Report from MOF*

Above data indicates that Indonesia and Thailand is a competitor except copper alloy products. Indonesia is far ahead in cast steel and forging, but is behind in mellable and copper alloy products. Main cost for casting is wages for workers and electric consumption. After economic crisis, production cost in Indonesia seems to be lower than Thailand. According to JETRO's data, wages for Indonesian workers are 1/3 and salary for engineers are 1/5 for Thailand. Electric rate is 1/3 and water is almost same.

There are many differences for China, Korea and Taiwan. However, it is possible for those countries to relocate their production in Indonesia due to increase of labor cost. It is better for Indonesia to prepare for such trend. Among ASEAN countries, Indonesia regards Thailand as rival and set target to reach level of Taiwan.

### 12.4.2. Point to take advantage in ASEAN Market

Customers are always concerned about QCD of products. In addition to this, Indonesia should study following points in order to keep advantage.

1. Cost

(1) diversify purchase of raw materials and reduce cost

(2) Increase of productivity to reduce cost

(3) Application of Production and Maintenance technology

2. Supply Capacity

(1) Expansion of production equipment

(2) Installation of new production equipment

(3) Application of new technology

(4) Improving present production equipment

3. Quality

(1) Utilize global standard(ISO9000)

(2) Permanent stay of specialists for quality control

(3) Utilize public laboratories

4. Marketing

(1) Collaboration with public organization for export

(2) Utilize "Sogo Shosa"

(3) Set up regular meeting between set-makers and parts makers

(4) Setup network by linkage from upstream industry to down stream industry. At present, we would like to request closer cooperation between public sector and private sector for the purpose of export development. Therefore, following recommendation are considered.

1. Special organization for export promotion for machinery parts

2. Network system for exchange of various information

3.Center for data service

## 12.5. Diagnosis Analysis of Export Companies

### 12.5.1. Outline of visited export companies

Before writing reports on the survey, the meanign of supporting industry (Hereinafter called SI) should be defined.

■ From the point of view by set maker

SI is a supplier of parts and raw materials to set-maker. Set-maker assembles them into finished goods after processing such parts and raw materials. Therefore it needs manufacturers which can supply necessary parts and raw materials, which is called SI. Generally, SI is grouped 4 categories as per character of products

1. Basic Industry (Giant company Heavy Industry)
(1) Steel
(2) Non ferrous metal
(3) Chemical products

2. Capital goods industry(Large scale company)
(1) Industrial Machinery
(2) Metal Molding main parts for press, casting and forming and the highest technology

3. Parts industry
(1) Home electrical appliance. AV parts
(2) Semi-conductor parts
(3) Electrical and electronic parts
(4) Plastic forming
(5) Metal parts-mechanical parts, press parts, machining parts, casting forging parts

4. Process
(1) Metal plating
(2) Heat treatment
(3) Assembling
(4) Packing materials

■ Characters between set-maker and SI

Character of SI is decided by a policy of local factories to be located.

1. Domestic sales oriented
2. Export sales oriented

The above is a definition from the relation between set-maker and parts maker.

3. From the point of view of its own content

There are two differences. One is classified by scale and the other is by status of foreign and local company. Foreign companies are running in the field where highest level of machinery equipment, technology and management are needed. In case of local companies, level of them is rather inferior than foreign ones, but they have advantages in production cost and keep competitiveness for them. Set-maker has urgent need for it to bring up reliable local company in order to reduce production cost.

Classification of company scale from the statistic of Indonesia is as follows.

| Scale | numbers of employees |
|---|---|
| 1.Large | more than 100 |
| 2.middle | 20-95 |
| 3.small | 5-19 |
| 4.home | 1- 4 |

**Table12.5.1. Outline of companies to have made diagnostic survey**

| | Set maker | Parts maker | Basic industry | Total |
|---|---|---|---|---|
| Industrial Machinery | 1 | 1 | 0 | 2 |
| Agricultural Machinery | 0 | 0 | 0 | 0 |
| Textile Machinery | 1 | 1 | 0 | 2 |
| Automobile parts | 0 | 1 | 0 | 1 |
| Melting&refining | 0 | 0 | 1 | 1 |
| Total | 2 | 3 | 1 | 6 |

The location are as follows.

Jakarta Area 3 companies

Surabaya Area 2 companies

Bandung Area 1 company

As per scale of the companies are ;

Foreign companies 2 companies

Local companies 4 companies

Export ratio of the companies are as follow. All companies except automobile parts company have experienced in export business.

Table 12.5.2.

| | Industrial mach | Textile Mach | Automobile parts | Refining. melting |
|---|---|---|---|---|
| Japanese JV | 20~ | 10~20 | - | - |
| Local | 90~ | 1~10 | 0 | 20~ |

Destination for export are Asia, Oceania, USA and Europe.

As for procurement of raw materials

1. Import
2. Domestic purchase

Special steel (High carbon steel and chrome-molybdan steel) are imported.

Regarding preparation for gaining ISO 9000 standard;

Table 12.5.3. Preparation for ISO9000

| | Industrial mach. | Textile Mach. | Automobile parts | Refining Melting |
|---|---|---|---|---|
| Japanese JV | Received | Preparing | - | - |
| Local | Preparing | no idea | Preparing | Received |

Only one middle scale company has no intention to obtain ISO9000. Most companies fully recognize the importance of global standard.

12.5.2. Export Competitiveness

They have experienced in export business and understand that they have competitiveness in export. According to interview, some companies have lost business chances to export due to political instability of Indonesia because foreign buyers have changed supply sources to other countries. Now buyers are starting to come back welcoming political improvement.

Most companies understand that competitor are Taiwanese companies. Taiwan keeps higher level in procuring procurement of raw materials and technology. As for raw materials, this is

related to basic industry matters. If they could get enough raw materials in domestic, they can shorten delivery time and strengthen competitiveness for export. They desire to increase technical level in order to reduce production cost by efficient operation, it is advisable that easier access to such technology through education and training should be implemented.

### 12.5.3. Measures to be taken by individual companies

All companies have established medium and long term program for their management. However, they have hit by economic crisis since July of 1997 and forced to take immediate actions to survive by implementing low operation ratio, layoff and shifting sales from domestic to overseas. Since all companies to be interviewed have experienced in export business before economic crisis, they have less influence of economic crisis rather than domestic oriented companies.

In export business, terms and conditions is harder than domestic business and they have to break through such higher hurdles. Global standard is one of hurdles so that they may get over them. All companies are very positive in export promotion by means of applying new technology for increase of productivity.

Measures to be taken as per production, finance and human resources are mentioned as follows.

- Production

All companies have applied QCD method, but some companies are needed to manage more thoroughly. Production and maintenance technology is desired in order to lessen rejected ratio of products and increase productivity. Japanese experts in this relation is most helpful.

Many companies asked further improvement in order public laboratories to measure sizes ,forms, mechanical character and chemical composition that may issue certificates without delay. Skilled workers and engineers being short ,they have tried best to let them educate and train in house or send them to such institution outside. However their capacity is so limited that public service to this field is awaited eagerly.

- Marketing

They have got necessary information from trading firms, agent and in house. They want to

develop present channel closer. They have certain export portion. One company are trying to export products to Japan again because they have failed in export in 1998 despite they exported about 10% value to Japan in 1997. Other company which supplies parts to set-maker is desirous about export business.

There are a few companies which have employed staffs specialized in export business, but other companies have not special staffs in export business and directors cover export business. Most of the companies have not been informed services on export business information and data by JETRO and NAFED. If parts manufacturers have opportunity to have connection with set-maker, it is possible for them to get enough education and training for export business.

■ Finance

Local companies are suffering from suspension of additional loan. Repayment of the principal and high interest rate have affected management of the companies. They are eager to get financial aid facility ,so much interested in export finance scheme.

■ Human resources

They fully understand importance of developing human resources. At present, they are anxious about shortage of skilled workers and engineers and trying to bring up them by themselves. However education center is needed in order to expand such kind of opportunities to them.

### 12.5.4. Requests to Government

1. Establish new institution to support export companies in information and technology
2. Full preparation for technology education
3. Privatization of public laboratories and to improve services
4. Linkage between upstream industry and downstream industry
5. Activation of existing associations (concentrate in data processing and controlling database)
6. Co-operation between Japanese J／V and local companies
7. Incentives to foreign engineers
8. Simplify and speed up export procedure
9. Utilize activities of Japanese Sogo Shosha

The main points to the above is to establish new institution or organization specialized in export

promotion. Otherwise, effectiveness is not guaranteed. Export business should keep conditions of QCD. Following fundamental frame should be well prepared.

1. Full service by Laboratories
2. Full preparation for technology
3. Full information service about export business

In order to materialize, it is necessary to create vertical and horizontal co-operation among private industries and government.

1.Linkage between upstream and down stream industry
2.Activating associations role
3.Cooperation between Japanese JV and local companies
4.Utilize activities of Sogo Shosha

Regarding procedures

1. Simplify export procedure
2. Review of status for foreign engineers and incentives

It is very useful and easy ways to promote export by means of connecting network by IT.

### 12.5.5. Diagnostic survey for model companies

Following standards are applied to select model companies which are interested in export promotion.

1.From upstream SI to downstream SI proportionally
2.SI should be PMDN status
3.Such SI are export-oriented companies with competitive technology
and strong desire to expand export.
4.SI are medium scale companies.

According to this standard, we have selected 3 companies.

■ **Model Company A**

This company has imported used battery as raw materials to melt and refine them into pure lead

and anti monial lead.
Employees : 150
Export ratio : 20-30%

IT is one of affiliated companies which is manufacturing automobile parts and its management is very stable based on long term program. It recognizes importance of technology and planning to install new anti-pollution equipment.

In order to clear allowable new limited figures for disposal of used water and gas, they should need to renovate equipment for them. Otherwise, they will not be able to operate factory after 2002 where license will be expired.

It needs an engineer of melting technology and want to know public financial support to renovate anti-pollution equipment.

■ **Model Company B**

Company with high export ratio and positive in new technology

It manufactures products of gear, hub and sprocket.
Employees : 100
Export ratio : 95%

It is exporting almost all products to USA, Canada, Australia and Germany. About 60 % are exported to USA and Canada. About 15% each are exported to Australia and Germany. It has prepared for obtaining ISO9000 standard in early of 2000. It is much interested in applying Production and Maintenance Technology and employing Japanese engineers by governmental aid of Japan.

They have exported about 10% to Japan ,but failed in conclusion of contract to Japan in 1998. So, it expects to restart export to Japan in coming year. It has been well managed, therefore we want them to provide opportunity to have access to Japanese market and to utilize Japanese government aid about employing Japanese engineers of Production and Maintenance technology, too.

■ Model Company C

Automobile parts maker.
Only two years have passed since it started to operate a factory. It manufactures automobile parts such as cylinder liner, brake disk and puller for pumps.
Employees : 60
Export ratio : 0%

It manufactures automobile parts of after market. It is much interested in supplying parts to Japanese set-makers. It recognizes importance of technology and has been trained several times by public technical center. It has endeavored to reduce rejected ratio of products, but there is no significant result yet. It has not succeeded in producing 'Gate Valve'. It is very keen in starting export. Therefore, we want to cooperate in applying production and maintenance technology and succeeding in producing 'Gate Valve'. It is also advisable to supply its parts to export-oriented Japanese set-maker in Indonesia.

## 12.6. Recommendations on Improving Export Competitiveness

We have reported present situation about export of machinery parts from Indonesia. Firstly, Indonesia should dissolve big deficit between export and import value of machinery parts. In order to reach this goal, it is most helpful for world famous set-makers in Indonesia to assist and transfer necessary technology to Supporting Industries especially aiming at export business. Present level of Indonesian SI are divided into following 4 groups.

Rank A: There is no problems to supply parts to Japanese set-makers in terms of quality and delivery
Rank B: rather inferior to Rank A in terms of quality , delivery and management, but they have high motivation in quality
Rank C: rather inferior to Rank B in terms of quality, delivery and management, but they have high motivation.
Rank D: Small companies

Rank A has no problem in exporting constantly.
Rank B is possible to expand export with a little support about export
Rank C will need some time to be able to export.

Therefore, it is necessary to support and expand export according to ranking of relative companies. Without proper linkage of each industries between upstream and downstream ,it is difficult to increase export value.

In order to materialize proper linkage, vertical and horizontal cooperation is also needed. As for horizontal co-operation, reactivation for existing associations which consist of 14 associations under Federation of Metal work and Machinery industry should be considered. According to the result of survey, very few associations are respected and other are not evaluated. In our conclusion, we would like to propose as follows in order to expand export of machinery parts.

Goal

1. Achieve balance between export and import of machinery parts
2. Careful watch toward Thailand export trend of machinery parts
3. Reach to the level of Taiwan about export of machinery parts

Program to materialize

1. Bring up casting and forging export in quality and quantity
2. Bring up basic industries
3. Improvement of machining technology
4. Bring up mould and dies making technology
5. Application of Production and maintenance technology

How to achieve

1. Establish governmental organization specialized in export promotion
2. Privatization of public laboratories
3. Establish more education center for technology
4. Establish linkage between upstream and downstream industries
5. Reactivation of association's activities
6. Collaboration with export between Japanese JV and local companies
7. Utilize facility of Sogo Shosha
8. Simplify export procedure
9. Incentive and favor to foreign engineers

IT technology should be used for them to establish network and we are confident in increasing export of machinery parts after implementing the above proposals.

# III. Action Plan

## III. Action Plan

### Chapter13. Action Plan for Export Promotion

In the action plan, there should be specific remarks of the objective, the detailed measures, the responsible person, the Priority, budget and the expected results. In addition, A monitoring system of operation of the plan is usually proposed. As we already mentioned recommendations for export promotion in Indonesia, which cover very wide area and since the new Indonesian Wahid administration is in the process of restructuring governmental organization, it would need more time to define some elements, especially responsible person.

In this chapter, we are going to recommend most important action to be taken and its priorities.

### 13.1. Measures to be taken by Government

In this section, we will focus on most urgent measures among the recommendations of Chapter 5. The measures consist of 1) Restructuring of Organization and Strategy, 2) Strengthening of Marketing Support, 3) Strengthening of Financial Support, and 4) Increasing Efficiency of Logistics. The priorities of each measure are illustrated in the following table. (Here we use the word "Most Urgent" as to be achieved within one year, and "Urgent" as within one to two years.)

**Table 13.1. Priorities of Governmental Measures**

| Target | Priorities |
|---|---|
| 1) Restructuring of Organization & Strategy | |
| ・ Restructuring of Trade Promotion Organization | Most Urgent |
| ・ Restructuring of Export Promotion Strategy | Most Urgent |
| 2) Strengthening Marketing Support | |
| ・ Brand Promotion | Most Urgent |
| ・ Design Promotion | Urgent |
| ・ Promotion of Export Product Model | Urgent |
| 3) Strengthening Financial Support | |
| ・ Strengthening Trade Finance | Most Urgent |
| 4) Increasing Efficiency of Logistics | |
| ・ Increasing Efficiency of Custom Administration and Logistics | Urgent |

*Source: JICA Study team*

**1) Restructuring of Organization and Strategy**

■ **Restructuring of Trade Promotion Organization**

(Action)

1. Establishing high level committee to conduct restructuring
2. Designing new export organization
3. Designing detail restructuring plan including budget
4. Recruiting new organization staff
5. Re-engineering the support system for export promotion:
   - International trade information center
   - Trade training center
   - Exhibition service
   - Consulting service
6. Planning stronger system of linkages among export promotion organizations
7. Implementing the above system
8. Implementing the restructuring plan
9. Public Relations activities of new trade promotion organization

(Priority)

Most Urgent

■ **Export Strategy Master Plan**

(Action)

1. Setting vision for future industrial and trade structure
2. Analyzing business environment of each industry and market
   (Ex. comparative advantage, international division of labor, domestic market size, etc. )
3. Identifying target industries and products and setting export target
4. Identifying target market and setting export target
5. Formulating concrete measures to promote these industries
   ( Ex. Institutional building, financial scheme, etc.)

(Priority)

Most Urgent

**2) Strengthening Market Support**

■ **Brand Promotion**

(Action)

1. Selecting strategic products for brand promotion
2. Surveying Indonesian product image to Indonesian exporters and foreign buyers
3. Making logo for Indonesian national brand
4. Holding brand contest of Indonesian private brand
5. Diffusing the new brand image through mass media, sales mission and trade fair

(Priority)

Most Urgent

■ **Design Promotion**

(Action)

1. Selecting strategic products for design promotion
2. Detailed planning "Design Center" to research the markets needs and train exporters to develop products that meet these needs.
3. Implementing the "Design Center"
4. Employing foreign designers for targeted markets and products.
5. Promoting design show and contest
6. Public Relations activities through issuing design magazines and information
7. Developing local unique design and merchandising

(Priority)

Urgent

■ **Model Products Promotion: One Stop Service**

(Action)

1. Selecting export model products (textile, garments, wood products, furniture, processed food, etc.)
2. Establishing consulting section that handles from business concept to actual export business in the new trade promotion organization
3. Trial implementation of export "One Stop Service" (Expediting license and all administrative process for export)

4. Identifying problems regarding export for model products

5. Solving the above problems

(Priority)

Urgent

**3) Strengthening Financial Support**

■ **Strengthen Trade Finance through Trading House**

(Action)

1. Developing trading finance scheme (through trading house and assemble manufacturer)
2. Developing incentive system for establishing trading house
3. Implementing pilot projects
4. Identifying problems regarding pilot projects
5. Implementing the new trade finance scheme

(Priority)

Most Urgent

**4) Increasing Efficiency for Logistics**

■ **Improving efficiency for custom clearance and logistics**

(Action)

1. Designing complete EDI( Electric Data Intelligence) system and securing budget
2. Trial implementation of EDI
3. Identifying the problems regarding SCM (supply chain management) and warehousing service (Ex. export-import license, handling EPTE cargo, etc.)
4. Implementing pilot projects for SCM
5. Identifying problems regarding pilot projects
6. Planning measures for promoting shipping services
7. Implementing pilot projects for shipping services
8. Increasing shipping capacity by promoting shipping services
9. Opening loading and unloading service license

(Priority)

Urgent

## 13.2. Measures to be taken by Private Sector

### ■ Establishing export strategy plan by individual exporter

(Action)

1. Define the company domain
2. Analyze the external environment: customers, industry, competition and macro-economic condition.
3. Analyze the internal environment; resources, past business performance, weakness and strength.
4. Prepare some strategic options and evaluate them.
5. Select the best strategy and decide the target market
6. Develop a marketing implementation plan

### ■ Strengthening marketing power

(Action)

1. Promoting Public Relations activities by opening internet home page
2. Collecting overseas market information by utilizing internet
3. Product development based on the overseas market information
4. Establishing export cooperatives/trading house by strengthening alliance among SMEs
5. Establishing the above liaison office in major export market
6. Developing business partnership with buyers, trading house or manufacturer in major export market
7. Developing marketing channels

## Table13.2. Export Promotion Action Plan

| Target | | Activities | Tentative Schedule | | |
|---|---|---|---|---|---|
| | | | 1st Year | 2nd Year | 3rd Year |
| Restructuring of Trade Promotion Organization | 1 | Establishing high level committee to conduct restructuring | | | |
| | 2 | Designing new export organization | | | |
| | 3 | Designing detail restructuring plan including budget | | | |
| | 4 | Recruiting new organization staff | | | |
| | 5 | Re-engineering the support system for export promotion | | | |
| | 6 | Planning stronger inter-government linkage system | | | |
| | 7 | Implementing the above system | | | |
| | 8 | Implementing the restructuring plan | | | |
| | 9 | Public Relations activities of new organization | | | |
| Restructuring of Export Promotion Strategy | 1 | Setting vision for future industrial and trade structure | | | |
| | 2 | Analyzing business environment of each industry & market | | | |
| | 3 | Identifying target industries & products and setting export target | | | |
| | 4 | Identifying target market and setting export target | | | |
| | 5 | Formulating concrete measures to promote these industries | | | |
| Brand Promotion | 1 | Selecting strategic products for brand promotion | | | |
| | 2 | Surveying Indonesian product image | | | |
| | 3 | Making logo for Indonesian national brand | | | |
| | 4 | Holding brand contest of Indonesian private brand | | | |
| | 5 | Diffusing the new brand image | | | |
| Design Promotion | 1 | Selecting strategic products for design promotion | | | |
| | 2 | Detailed planning of "Design Center" | | | |
| | 3 | Implementing the "Design Center" | | | |
| | 4 | Employing foreign designers | | | |
| | 5 | Promoting design show and contest | | | |
| | 6 | Public Relations activities | | | |
| | 7 | Developing local unique design and merchandising | | | |
| Promotion of Export Model Products | 1 | Selecting export model products | | | |
| | 2 | Establishing consulting section | | | |
| | 3 | Trial implementation of export "One Stop Service" | | | |
| | 4 | Identifying problems regarding export for model products | | | |
| | 5 | Solving the above problems | | | |
| Strengthening Financial Support | 1 | Developing trading finance scheme | | | |
| | 2 | Developing incentive system for establishing trading house | | | |
| | 3 | Implementing pilot projects | | | |
| | 4 | Identifying problems regarding pilot projects | | | |
| | 5 | Implementing the new trade finance scheme | | | |
| Increasing Efficiency for Custom Clearance and Logistics | 1 | Designing complete EDI system | | | |
| | 2 | Trial Implementation of EDI | | | |
| | 3 | Identifying the problems regarding SCM | | | |
| | 4 | Implementing pilot projects for SCM | | | |
| | 5 | Identifying problems regarding pilot projects | | | |
| | 6 | Planning measures for promoting shipping services | | | |
| | 7 | Implementing pilot projects for shipping services | | | |
| | 8 | Increasing shipping capacity by promoting shipping services | | | |
| | 9 | Opening loading and unloading service license | | | |

# Appendix

# Appendix 1. Questionnaire for 500 Export Companies

Appendix 1. Questionnaire

1. Company Profile

1 - 1. Business Sector :

| A. | B. | C. | D. | E. | F. |
|---|---|---|---|---|---|
| Textile/ Textile Products | Food/ Beverage | Wooden Products | Electric/ Electronic Parts | Automobile Parts | Mechanical Parts |

1 - 2. Year of Incorporation :

| A. Before '69 | B. 1970s | C. 1980s | D. 1990s |
|---|---|---|---|

1 - 3. Address :

| A. | B. | C. | D. | E. | F. | G. | H. |
|---|---|---|---|---|---|---|---|
| JABOTA BEK | West Java | Central Java | Eastern Java | North Sumatra | South Sumatra | Bali | Others |

1 - 4. Registered Capital :

| A. ~100 mill Rp | B. 100 ~ 600 mil Rp. | C. 600 mil ~ 5 bil Rp | D. 5 bil Rp ~ |
|---|---|---|---|

1 - 5. Company Status :

| A. State Owned | B. PMDN (Private) | C. PMA | D. Others |
|---|---|---|---|

1 - 6. Number of Employees :

| A. ~19 | B. 20 ~ 99 | C. 100 ~ 299 | D. 300 ~ |
|---|---|---|---|

1 - 7. Size of Turnover :

| A. ~100 mil Rp. | B. 100~1 bil Rp | C. 1 ~ 5 bil Rp | D. 5 ~ 10 bil Rp | E. 10 bil Rp ~ |
|---|---|---|---|---|

1 - 8. Export Ratio in Total Turnover :

| A. 0 ~ 10% | B. 10 ~ 25% | C. 25 ~ 50% | D. 50% ~ |
|---|---|---|---|

1 - 9. Self Evaluation of Export Competitiveness :

| | A. Very Strong | B. Rather Strong | C. Fair | D. Rather Weak | E. Very Weak |
|---|---|---|---|---|---|
| a. Marketing capability | | | | | |
| b. Financial capacity | | | | | |
| c. Manufacturing facility | | | | | |
| d. R & D | | | | | |
| e. HRD | | | | | |
| f. Information Technology | | | | | |

Appendix 1. Questionnaire

2. Information Related to Export

2 - 1. Items of Exports :

2 - 2. How much the amount of export in 1998 increased compared with that of 1996 ?

| | | | | |
|---|---|---|---|---|
| A. decrease | B. 0 ~ 10% increase | C. 10 ~ 25% increase | D. 25 ~ 50% increase | E. 50% ~ increase |

2 - 4. How much do you want to increase the export in 3 years ?

| | | | | |
|---|---|---|---|---|
| A. 0 ~ 20% | B. 20 ~ 50% | C. 50 ~ 100% | D. 100 ~ 200% | E. 200% ~ |

2 - 4 - 1. What will you strengthen in order to achieve the above ?

| | | | | |
|---|---|---|---|---|
| A. Marketing | B. Finance | C. Human Resource | D. Information Technology | E. Others |

2 - 4 - 1 - 2. Do you have any concrete plan for the above ?

| | |
|---|---|
| A. Yes | B. No |

2 - 4 - 1 - 2 - 1. If your answer yes, what is your plan ?

( )

2 - 3. Country of Exports by Items

| Item | Country of Exports | Competitor's Country |
|---|---|---|
| A | | |
| B | | |
| C | | |

2 - 3 - 1. Your main customer for export : ( )

2 - 5 - 1. Cost structure

| | | |
|---|---|---|
| Materials | _____ % Domestic | _____ % Import |
| Labour | _____ % Domestic | _____ % Import |
| Indirect Cost | _____ % Domestic | _____ % Import |

2 - 5 - 2. What is imported material : ( )

2 - 5 - 3. From which countries do you import the materials : ( )

2 - 5 - 4. What materials do you procure domestically ?

( )

Appendix 1. Questionnaire

3. Export Marketing

3 - 1. What is your export marketing channel ? :

| A. Direct (Self-marketing) | B. Import Trading House | C. Export Trading House | D. Sales Agent | E. Assembly manufacturer | F. Others : |
|---|---|---|---|---|---|

3 - 2. How did you find the export market ? :

| A. Self Effort | B. Importers | C. Export Trading House | D. Consultant | E. NAFED | F. Other Indonesian Govt | G. Industry Association | H. Others : |
|---|---|---|---|---|---|---|---|

3 - 3. What are your sales promotion activities ? :

| A. Exposition | B. Trade mission | C. Show room | D. Public Relation | E. Electronic/ Internet based | F. Others : |
|---|---|---|---|---|---|

3 - 4. What sources do you use for finding customers ?

| A. Self Human Contact | B. Company Resources | C. NAFED and Other Gov't Inst. | D. Trade Exposition | E. Industry Association | F. Articles/ Data Base | G. Internet/ Others : |
|---|---|---|---|---|---|---|

3 - 5. Impediments for Export Business

3 - 5 - 1. Internal Factors :

| | A. Very Serious | B. Serious | C. No Problem |
|---|---|---|---|
| a. Information | | | |
| b. Production | | | |
| c. Quality | | | |
| d. Delivery | | | |
| e. Cost | | | |
| f. R & D | | | |
| g. Others | | | |

3 - 5 - 1 - 1. What kind of information is needed ?

| A. Customer/ Market | B. Production Cost | C. Trade Business | D. Product | E. Others : |
|---|---|---|---|---|

3 - 5 - 1 - 2. What kind of production problem do you have ?

| A. Production Capacity | B. Production Cost | C. Utilities | D. Material | E. Machinery | F. Others : |
|---|---|---|---|---|---|

3 - 5 - 1 - 2 - 1. If you chose D in the question above, why ? :

| A. Import cost increase | B. L/C not available | C. High import duty | D. Others : |
|---|---|---|---|

Appendix 1. Questionnaire

3 - 5 - 1 - 3. What kind of quality problem do you have ?

| A. Not conform to Customers' Spec | B. High rejection rate | C. QC system is not established | D. Equipment is old | E. Others : |
|---|---|---|---|---|

3 - 5 - 1 - 4. What kind of delivery problem do you have ?

| A. Custom is not efficient | B. Port facility is not efficient | C. Forwarders are not efficient | D. Road access is bad | E. Domestic regulation is very complicated | F. Others : |
|---|---|---|---|---|---|

3 - 5 - 1 - 5. What kind of R & D problem do you have ?

| A. Human Resource | B. Cost | C. Advanced technology information | E. Others : |
|---|---|---|---|

3 - 5 - 2 External Factors :

| A. Lack of tax incentive | B. Inefficient port facility | C. Inefficient Custom | D. Inefficient forwarders | E. Others : |
|---|---|---|---|---|

3 - 5 - 2 - 1 If you choose A in the above question, what kind of tax incentive is needed ?

| | A. Very important | B. Important | C. Not important |
|---|---|---|---|
| a. VAT reimbursement for export product | | | |
| b. Abolition of port and port service VAT | | | |
| c. VAT incentive for indirect export | | | |
| d. Others : | | | |

4. Finance

4 - 1. Have you got any financial facilities for SME ? :

| A. Yes | B. No |
|---|---|

4 - 1 - 1. If your answer is yes, what type of finance do you have ? :

| A. Small Investment Credit | B. Permanent Working Capital Credit | C. Mini Credit | D. Special Mini Credit | E. Bahana Venture Capital | F. Others : |
|---|---|---|---|---|---|

4 - 1 - 2. How would you judge the accessibility of the above finance :

| A. Very good | B. Good | C. Fair | D. Bad | E. Very bad |
|---|---|---|---|---|

4 - 1 - 3. What do you think of the financial condition ?

| A. Very cheap | B. Rather cheap | C. Fair | D. Rather expensive | E. Very expensive |
|---|---|---|---|---|

4 - 1 - 4. How long has it taken to get the above finance ?

| A. Very fast | B. Rather fast | C. Fair | D. Rather slow | E. Very slow |
|---|---|---|---|---|

4 - 2. If your answer in No in 4 - 1, what are the reasons ?

| A. Application is rejected | B. Takes too much time | C. Condition is bad | D. Others : |
|---|---|---|---|

4 - 2 - 1. If you choose A or B in the above question, what do you think the problem ?

| A. Insufficient financial statement | B. Insufficient business plan | C. Insufficient capability of financier | D. Bureaucracy of financier | E. Others : |
|---|---|---|---|---|

4. Finance

4 - 3 - 1. Which category does your transacting bank belong to ?

| A. State Owned Bank | B. Private Bank | C. Foreign Joint Venture Bank | D. Foreign Bank (Branch Office) |
|---|---|---|---|

4 - 3 - 2. Does your bank provide the credit at present as the same as before the crisis ?

| A. Yes | B. No |
|---|---|

4 - 3 - 3. Does the importer demand the confirmation by foreign bank on the L/C issued by your (Indonesian) bank ?

| A. Yes | B. No |
|---|---|

4 - 4 - 1. Terms and conditions of payment of your export contract :

| A. Remittance basis | B. L/C at sight basis | C. L/C usance basis | D. D/P - D/A basis | E. Others : |
|---|---|---|---|---|

4 - 4 - 2. If your answer is E, what are the terms & conditions ?

4 - 5 - 1. (Post-shipment finance)
Is your bank providing you the post-shipment finance (in other word : does your bank discount the draft) in case of B/ C/ D of 4 - 4 - 1 ?

| A. Yes | B. No |
|---|---|

4 - 5 - 2. In case of A, in what currency do you want and what currency does the bank provide for the post-shipment finance ?

| | | | |
|---|---|---|---|
| (i) you want | C. Rupiah | D. US dollar | E. Others : (Please specify the currency) |
| (ii) the bank provides | C. Rupiah | D. US dollar | E. Others : (Please specify the currency) |

4 - 5 - 3. In case of B, please answer the reason why the bank does not provide ?

Appendix 1. Questionnaire

4 - 6 - 1. (Pre shipment Finance)
Is your bank providing you the working capital loan for procurement of the export goods or for manufacturing export goods ?

| A. Yes | B. No |
|---|---|

4 - 6 - 2. In case of A, in what loan currency do you want and what currency does the bank provide for the working capital ?

| | | | |
|---|---|---|---|
| (i) you want | C. Rupiah | D. US dollar | E. Others : (Please specify the currency) |
| (ii) the bank provides | C. Rupiah | D. US dollar | E. Others : (Please specify the currency) |

4 - 6 - 3. In case of B, please answer the reason the bank does not provide you the pre-shipment finance (= working capital loan)

4 - 7 - 1. Do you know (i) the post-shipment facility and/ or (ii) the pre-shipment facility and/ or (iii) L/C Opening Working Guarantee Scheme provided by Bank Indonesia through commercial banks ?

Please answer like : (i) A (ii) C (iii) B

| | | | |
|---|---|---|---|
| (i) the post-shipment facility | A. Have the experience to have used | B. Have heard but not used | C. Have never heard |
| (ii) the pre-shipment facility | A. Have the experience to have used | b. Have heard but not used | C. Have never heard |
| (iii) L/C Opening Working Guarantee Scheme | A. Have the experience to have used | b. Have heard but not used | C. Have never heard. |

4 - 7 - 2. (For those answered A)
How do you evaluate the facility ?

| | | |
|---|---|---|
| A. Satisfied | B. Much to improve | C. Totally unsatisfied |

4 - 7 - 3 (For those answer B or C)
Please answer the reason :

| | | |
|---|---|---|
| A. Takes too much time | B. Condition is bad | C. Others |

6. Export Promotion Institution

6 - 1. Have you got any service from NAFED :

| A. Yes | B. No |
|---|---|

6 - 1 - 1. If your answer is yes, from what sources have you got NAFED information ? :

| | | | | | |
|---|---|---|---|---|---|
| A. Newspaper/ Periodicals | B. NAFED itself | C. MOIT | D. Trading House | E. Mouth-to-mouth | F. Others : |

Appendix 1. Questionnaire

6 - 1 - 2. Type of Service :

| A. Market information | B. Buyers information | C. Marketing consulting | D. Trade exposition | E. Trade mission | F. Business training | G. Others : |
|---|---|---|---|---|---|---|
| | | | | | | |

6 - 1 - 3. What is the region of your export market ? :

| A. US/ Ocenia | B. Europe | C. Asia | D. Africa/ Middle East |
|---|---|---|---|

6 - 1 - 4. Did you realize export when you had got NAFED service ? :

| A. Yes | B. No |
|---|---|

6 - 1 - 5. Evaluation by the content of service

| | A. Very satisfactory | B. Rather satisfactory | C. Fair | D. Not satisfactory | E. Very unsatisfactory |
|---|---|---|---|---|---|
| a. Market information | | | | | |
| b. Buyers information | | | | | |
| c. Marketing Consulting | | | | | |
| d. Trade exposition | | | | | |
| e. Trade mission | | | | | |
| f. Business training | | | | | |
| g. Others : | | | | | |

6 - 1 - 6. What kind of information is important ?

| | A. Very important | B. Important | C. Not important |
|---|---|---|---|
| a. Export policy and institution | | | |
| b. Export market information | | | |
| c. Product information | | | |
| d. How to develop export market | | | |
| e. Advanced technology information | | | |
| f. Design information | | | |
| g. Package information | | | |
| h. Others | | | |

7. Expectation to Government

7 - 1. Export Finance

| | A. Very important | B. Important | C. Not important |
|---|---|---|---|
| a. Increase of SME finance | | | |
| b. Export insurance | | | |
| c. Increase of venture capital | | | |
| d. Tax incentive for investment | | | |
| e. Finance for R&D investment | | | |
| f. Tax incentive for R&D | | | |
| g. Others : | | | |

7 - 2. Evaluation of Export Promotion Policies and Institutions

| | A. Very important | B. Important | C. Not important |
|---|---|---|---|
| a. Drawback system | | | |

| | | | |
|---|---|---|---|
| b. Export finance | | | |
| c. Export processing zone | | | |
| d. EPTE | | | |
| e. Assistance to export components | | | |
| f. Others | | | |

8. Open Answer (Present problems of management and expectation to government, etc.)