

Chapter VI

Experience of Development of Small and Medium Enterprises in the Food Processing Industry

THE UNIVERSITY OF CHICAGO
DIVISION OF THE PHYSICAL SCIENCES
DEPARTMENT OF CHEMISTRY

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1. Outline of small and medium sized enterprises in food processing

1.1 Structure of the industry

- Establishments employing fewer than 300 persons dominate the food processing industry. The number of establishments and number of employees in the industry are declining.
- The industry is third largest among all manufacturing sectors in terms of the value of shipments.

When viewed in terms of the structure of the industry, one characteristic of the food processing industry is that compared with others, it embraces a wide scope of activities ranging from those at subsistence level that operate entirely on a manual basis to highly automated factories. A large number of these firms are subsistence-level operations.

The businesses are nearly all self-contained, procuring raw materials, producing, and selling independently. Raw materials consist of imported and domestic products, and finished products are for export and domestic consumption.

The food industry, more specifically food processing, can be considered as a health-related industry, and this fact should be emphasized in promoting the related policies. When the importance of elevating or maintaining the country's self sufficiency ratio in food, the level of employment in the industry, and the overall situation regarding related industries are considered the awareness has increased of the necessity for this perception as a health-related industry.

Of the final amount of consumer outlays for food and beverages, 70% relate to food industries (food processing costs, distribution costs, services at food & beverage establishments).

a. Number of establishments and workers, and value of products shipped

The food industry, like other businesses, started mostly from scratch out of the ruins of war. But because of the fundamental importance of food, it made a more rapid recovery than other industries. As a result, the production level of the entire industry began to take off in the 1950s and food processing commenced a period of extended growth.

Subsequently, while other industries were growing, the number of food processing establishments fell from 102,000 in 1963 to 65,000 by 1997, a 36 percent drop (see Table 1-1: MITI, "Table of Industry Statistics" 1997 and Figures 1-1 to 1-4).

i) Cash wages

There is no significant gap between the growth in total annual cash wages of people employed in food processing and other manufacturing industries, but in terms of the absolute amount, wages are conspicuously low.

	Enterprises (thousand)		Workers (thousand)		Wages (million)	
	1963	1997	1963	1997	1963	1997
Total Manufacture	563	613	2,970	46,057	0.305	4.397 (14.4)
Food Manufacture Industry	88	57	893	1,154	0.204	2.958 (14.5)

Source: MITI, "Table of Industry Statistics" 1997.

ii) Composition of major industries' shipments of manufactured products

At present the number of businesses, number of workers and value of products shipped by food processing industries account for approximately 11 percent of the total of all manufacturing industries. The amount of this shipped value is far greater than that of chemical or textile products, and is third behind the amounts for the electric machinery and transport machinery industries.

Electric, mechanical	18.7%
Transportation machine	14.7%
Foods & beverages	10.9%

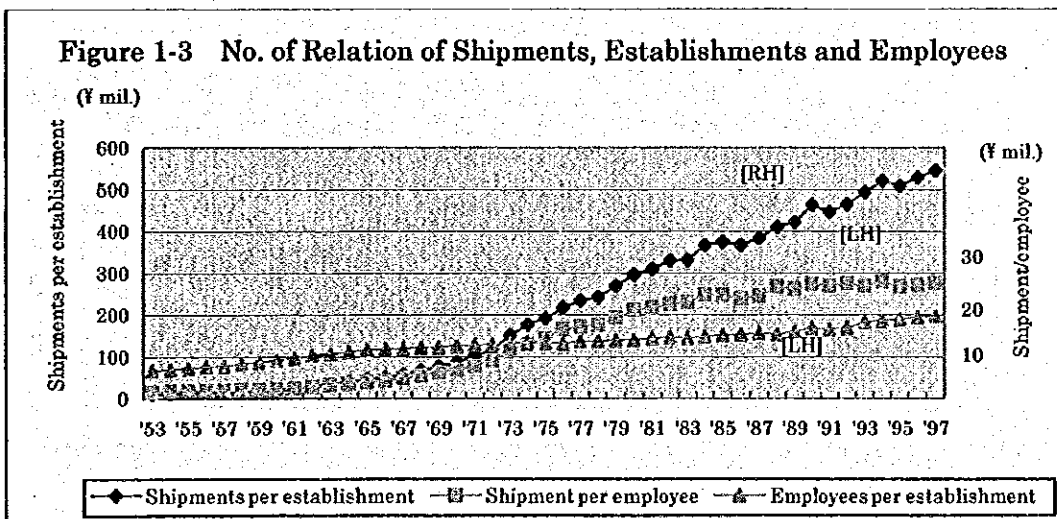
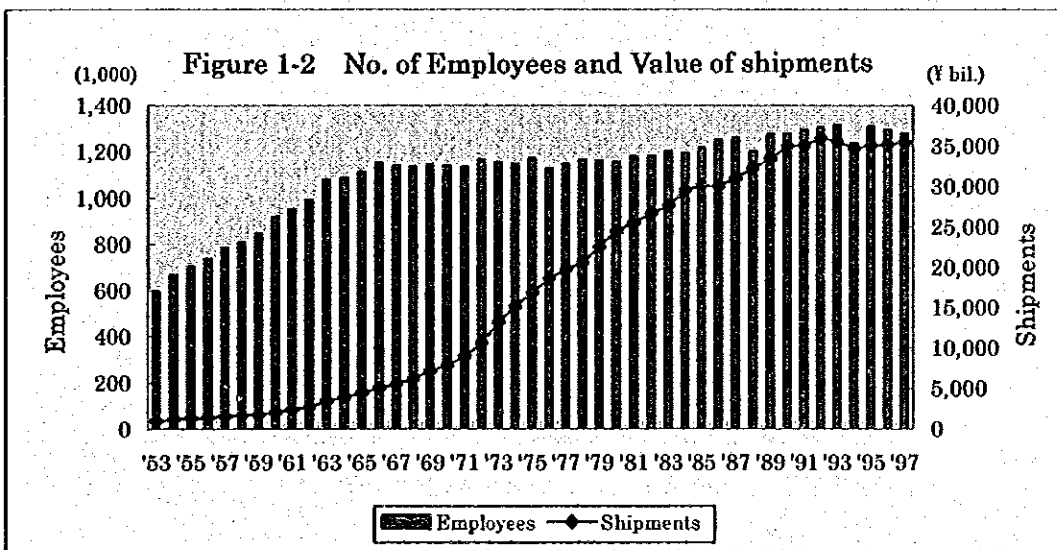
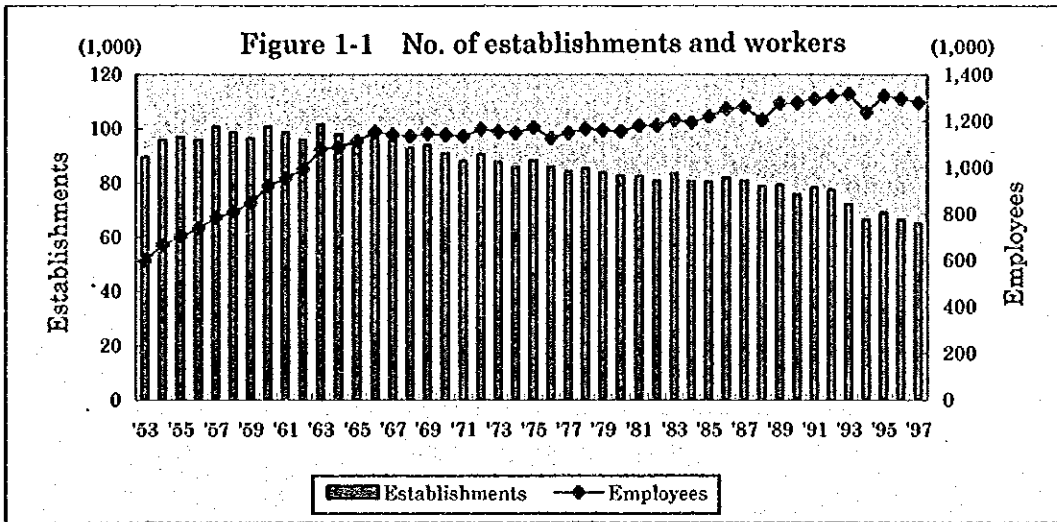
Source: MITI, "Table of Industry Statistics" 1997.

Table 1-1 Change in the Size of the Food Processing Industry

Year	No. of establishments	No. of employees	Value of goods shipped (¥ mil)	Shipments per establishment (¥ mil)	Shipments per employee (¥ mil)	Employees per establishment
1955	97,000	703,000	1,284,000	13.24	1.83	7.25
1960	101,000	919,000	2,036,000	20.16	2.22	9.10
1965	96,000	1,113,000	4,447,000	46.32	4.00	11.59
1970	91,000	1,140,000	7,891,000	86.71	6.92	12.53
1975	88,000	1,172,000	16,828,000	191.23	14.36	13.32
1980	83,000	1,156,000	24,458,000	294.67	21.16	13.93
1985	80,000	1,218,000	30,076,000	375.95	24.69	15.23
1990	76,000	1,277,000	34,974,000	460.18	27.39	16.80
1995	69,000	1,307,000	35,052,000	508.00	26.82	18.94
1997	65,000	1,279,000	35,443,000	545.28	27.71	19.68

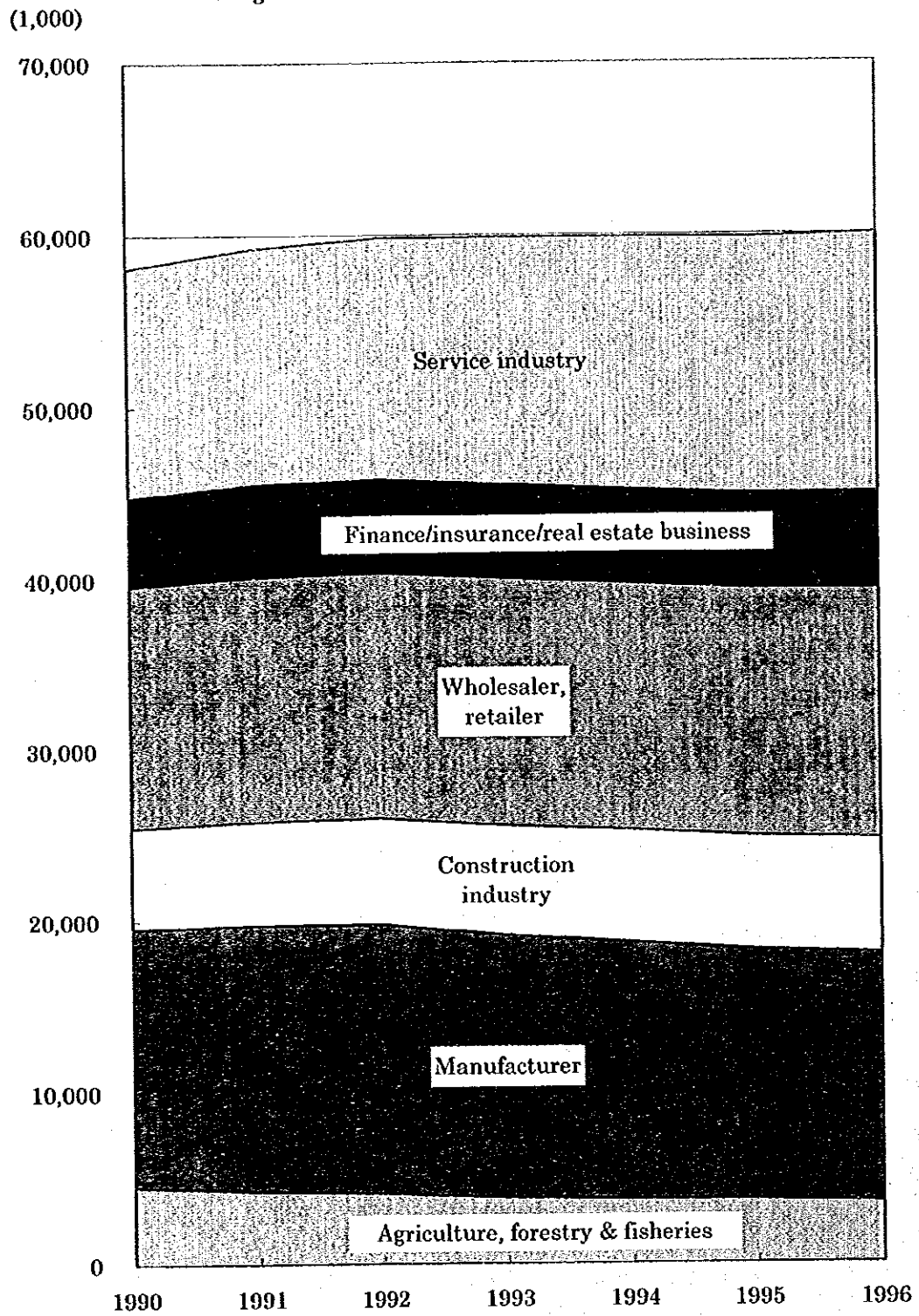
Source: MITI

Size of the Food Processing Industry Over Time



Source : MITI, "Industrial statistics".

Figure 1-4 Structure of Employment



Source : ILO, "Year Book of Labour Statistics"

iii) Number of employees per business

In Japan, food processing has been classified by the Ministry of International Trade and Industry into food manufacturing businesses (43 categories), plus beverages/tobacco/animal feed products industries (13 categories). Adding such businesses as soft drink manufacturing, alcoholic beverage manufacturing (fruit wines, beer, Japanese rice wine, distilled alcoholic beverages and blended alcoholic beverages), tea and coffee production and food manufacturing businesses brings the number to 50. Of these, businesses employing fewer than 30 workers account for 87.4%. Yet 67% of all workers in this sector are at firms that employ more than 30 workers.

There are 20,491 food manufacturing businesses of *56 categories* (31.6% of the total of 64,941 businesses) employing fewer than 4 workers number. These employ 3.6% of the total of 1,279,000 workers in this sector, which averages to only 2.2 workers per establishment. (see Figures 1-5 to 1-7)

Number of enterprises and workers of food manufacturing businesses of 50 categories

	Enterprises	Workers (thousand)	Workers/ enterprise
More than 30 workers factory	7,889	820	104
Less than 30 workers factory	55,647	433	8
Total (<i>50 categories</i>)	63,536	1,253	20

Source: MITI, "Table of Industry Statistics" 1997.

b. Concentration

Concentration in terms of the value of production and grouping the top five firms in each industry gives the following.

This information was used to identify product sectors where SMEs are dominant, and companies in such sectors were visited for this study. The following groups were identified.

Figure 1-5(1) Number of establishments, by number of employees per establishment, in thousands

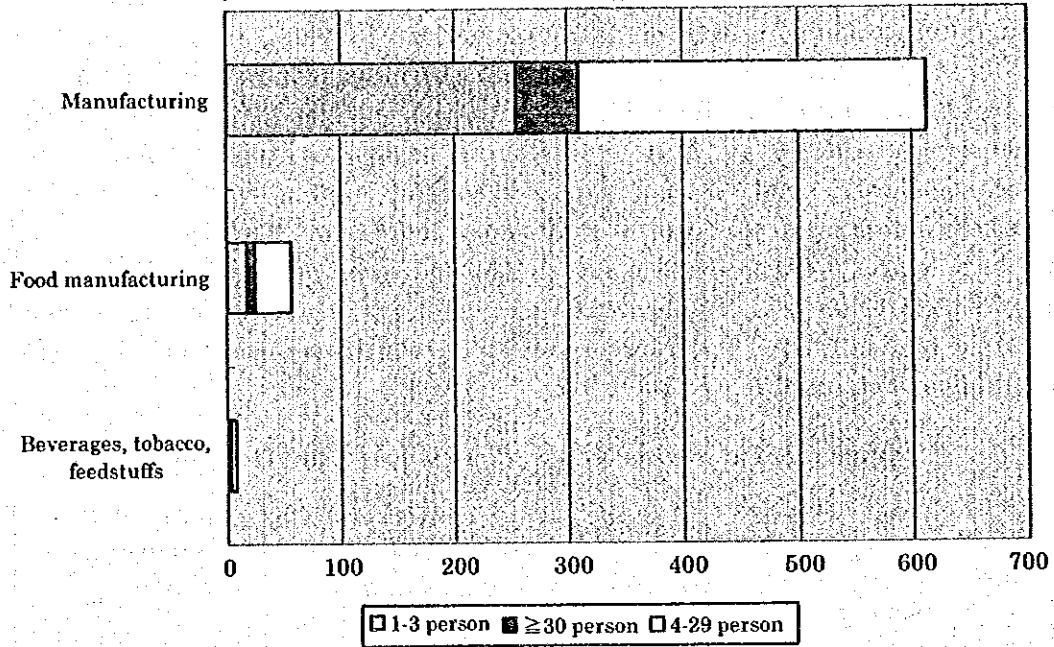


Figure 1-5(2) Number of establishments, by number of employees per establishment, in millions

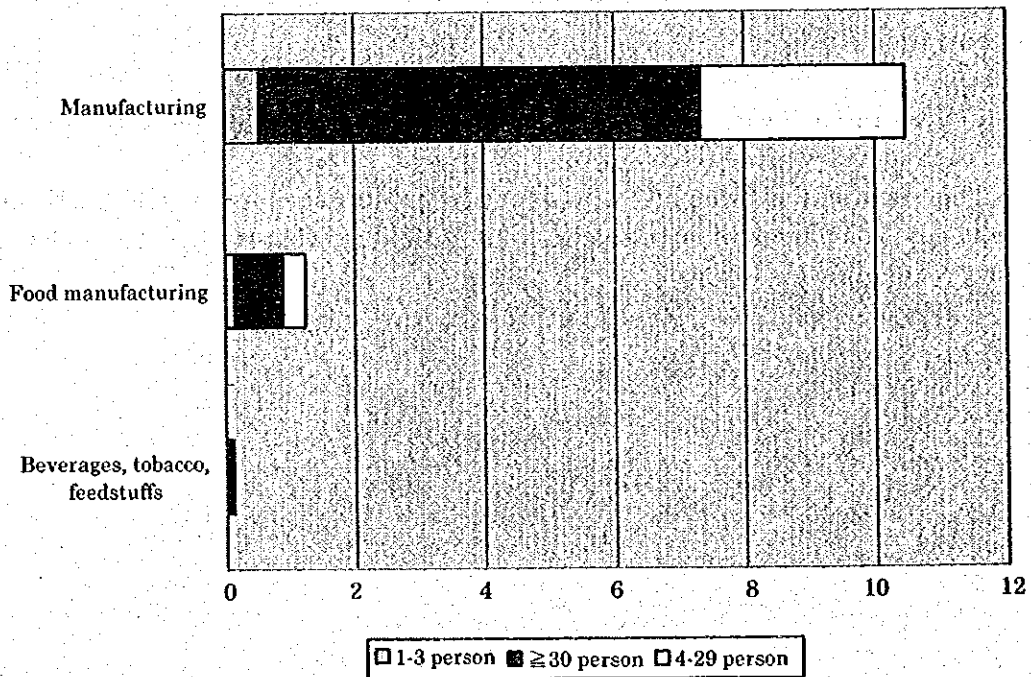


Figure 1-5(3) Number of establishments by subsector by scale of employment per establishment

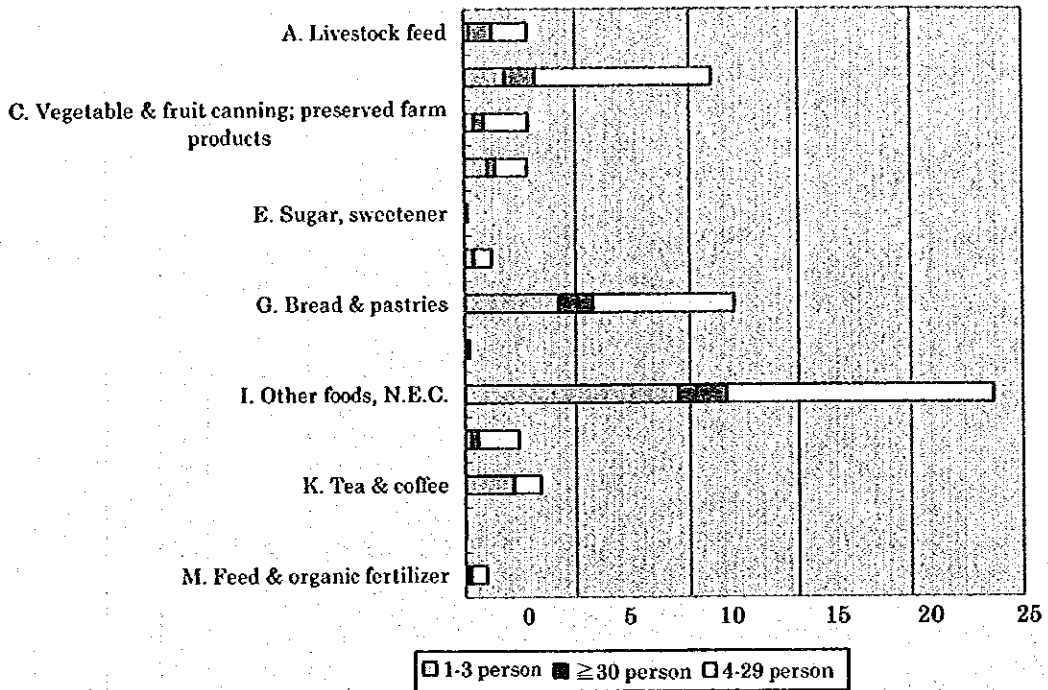


Figure 1-5(4) Number of Employees by Subsector by Scale of Employment per establishment, in thousands

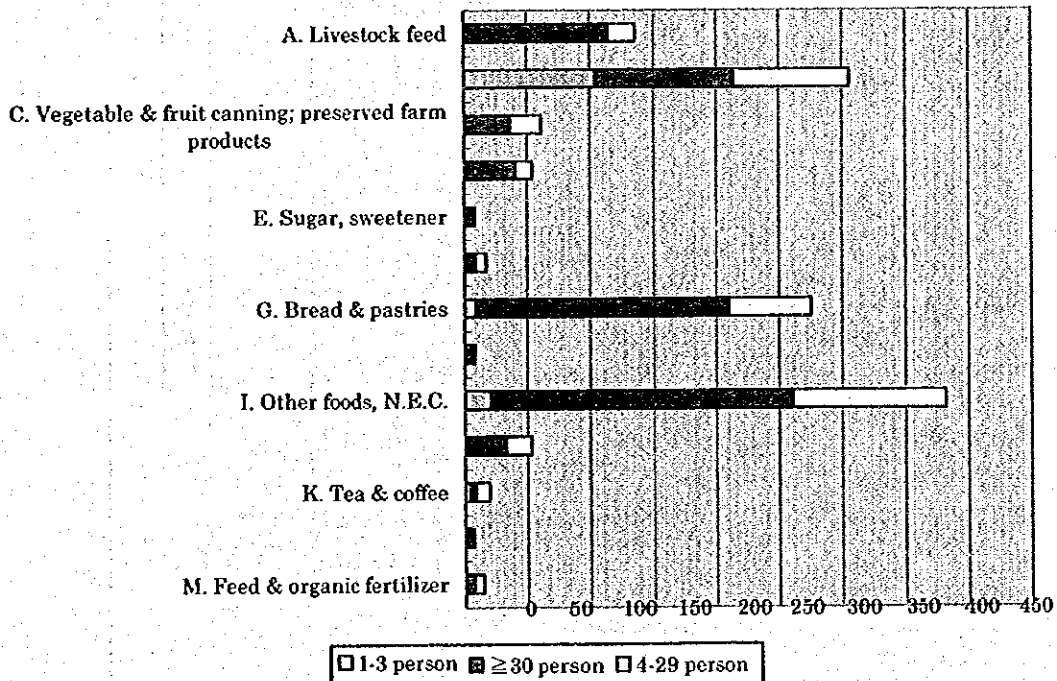


Figure 1-6 Comparison of Smalles (<300 Employees) and Larges (\geq Employees) Food Processing Firms

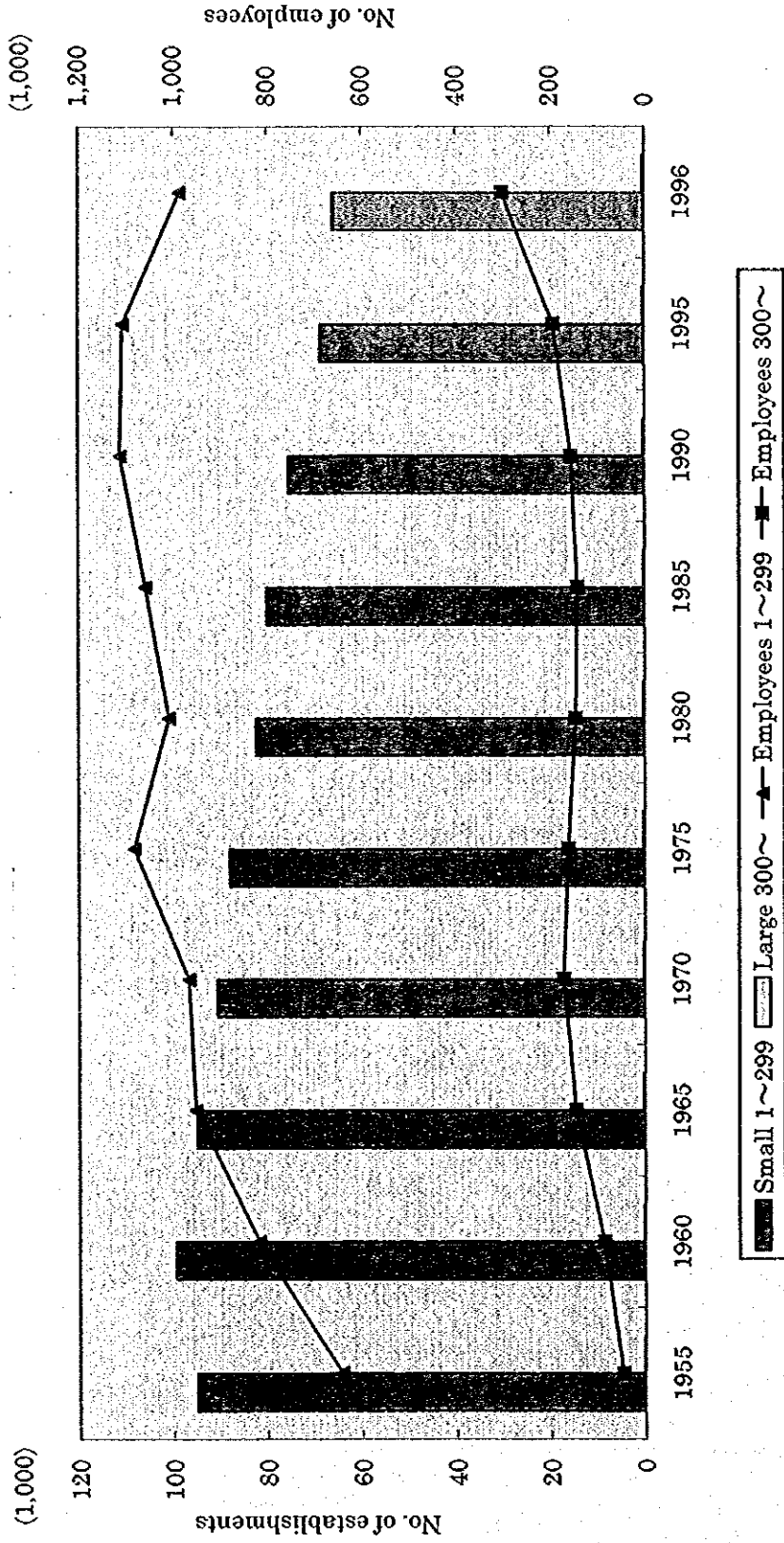
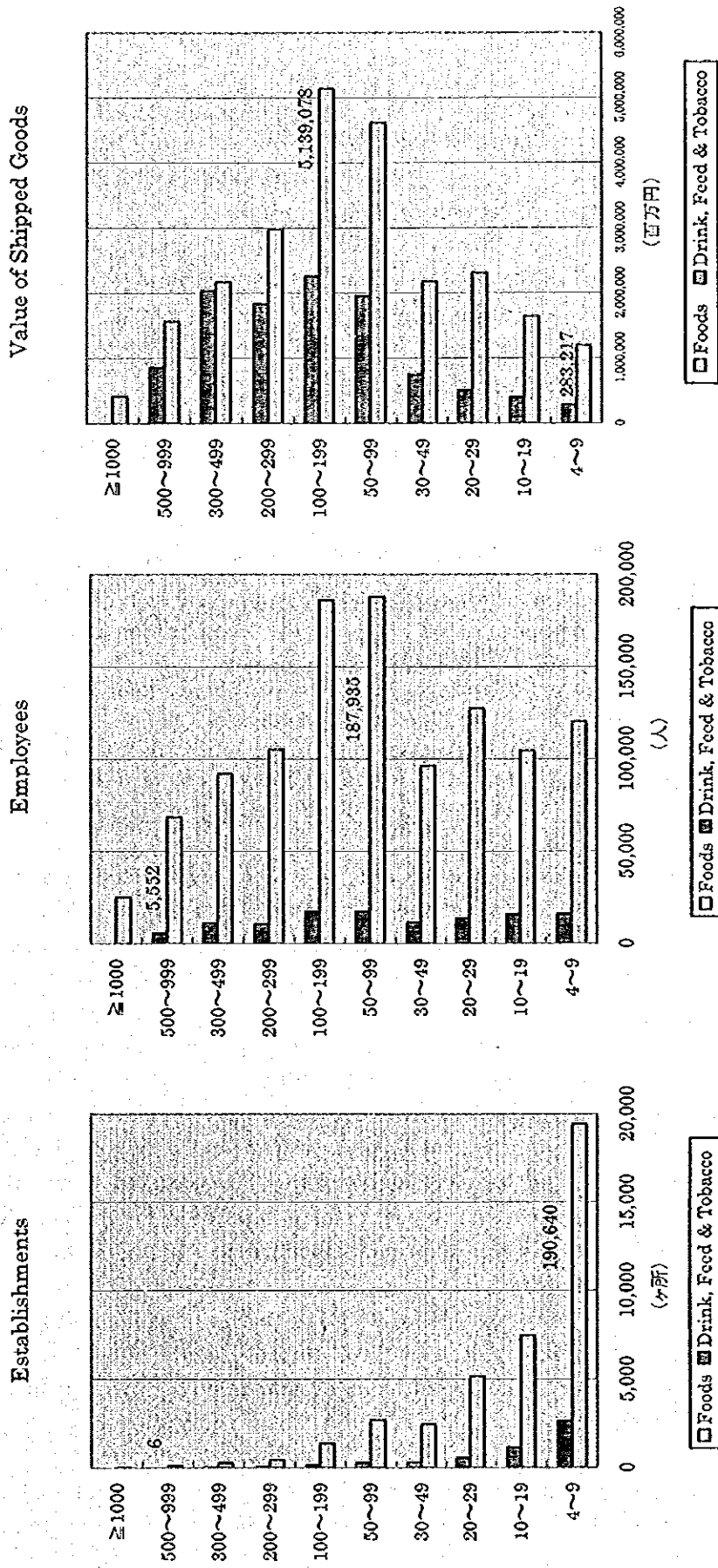


Figure 1-7 The Food Processing Industry, by Number of Employees per Establishment (1997)



Source: MITI, "Industrial Statistics".

Large industry product groups

Fish, meat, ham, sausage, chemical seasonings, sugar refining, vegetable oils, wheat flour, beer, others (instant noodles, potato chips, instant coffee), etc.

Large and medium industry combined product groups

Meat products, dairy products, vinegar, glucose and syrup, bread, biscuits, dried confections, starches, frozen prepared products, soft drinks, etc.

Medium to small industry product groups

Canning and bottling of ocean produce, vegetable pickling, miso, fresh confections, bean curd, etc.

1.2 Position of small and medium enterprises in food processing

- Food processing is an industry wherein giant companies can coexist with minute companies possessing little capital -- companies in both groups can be profitable.
- Companies were made stronger by policy expressed in the Law for Promotion of Modernization of Small and Medium Businesses.
- The materials used by food service establishments and in households for meals are supplied (with few exceptions) primarily by small and medium size businesses.

The food processing industry has long lacked any focused measures, squeezed as it is into a niche between what the Ministry of International Trade and Industry classifies as "measures for industries with the exception of those concentrated in the field of food processing" and what the Ministry of Agriculture, Forestry and Fisheries terms "measures upon which the agriculture and fishing industries have applied efforts." Consequently, it is difficult to state that effective measures in support of the industry up to now have produced sufficient results.

Under such conditions, the law for Promotion of Modernization of Small and Medium Size Enterprises, aimed at formulating measures for food processing, was promulgated in 1963. The stated objective of this law was, "To survey the conditions of small enterprises based on their types, to formulate plans for their modernization in accordance with those conditions, to promote modernization, and thus contribute to the people's sound development."

The law underwent revision in 1969, with the aim of making the law more effective, so as to further promote structural improvements in each respective sector: the phrase "The industry is expected to make efforts on its own initiative" and take supplementary measures," was added.

Out of the growing concern that large companies would use their capital strength to displace the small enterprises in the same industry, the smaller businesses

moved to modernize by efforts to boost their competitiveness or protect their markets. Public agencies took measures to assist them. Accordingly, enterprises formed cooperatives or groups to obtain funding at low or no interest from national or small business financing corporations or from small business groups.

As a result, small businesses joined forces (or merged) and were able to improve their internal conditions. For example, in Kagoshima Prefecture, three medium-sized manufacturers of soy sauce were able to procure semi-finished products from the local miso-soy sauce cooperative, boosting efficiency while enabling them to market specialized products. A similar case can be pointed out in Oita Prefecture; in any case, the Kyushu-based companies developed the strengths needed to contend against large manufacturers.

At the time the above mentioned statute became law, 20 types of industries, including canning, bottling, rice wine production, etc. were classified as "specific types of businesses." Those that afterwards achieved their objective were removed from the list, but around 1990, six remained: industries engaged in production of rice wine; rice oil; frozen tofu (soy bean curd); wheat flour; soy sauce; and wholesaling of rice grain.

By 1995, rice oil and frozen tofu production had been dropped, and in 1996, production of shochu (neutral grain spirits) had been added. All of these were dependent on the raw material of grains for which the prices or volume of imports were controlled by the government. The above can nonetheless be considered as good examples of cases in which public agencies provided assistance to small enterprises.

Characteristics of food processing

Both large and small scale companies are engaged in processing of foods, but small companies are more numerous. Small-scale production facilities can be acquired at low cost, meaning low barriers to entry and a large number of small firms.

The impact of agricultural policies is great.

There are import controls, customs requirements, price regulations, trade agreements and other influences especially on rice, wheat, sugar and some marine products.

Dependency on overseas sources of primary food products is high.

Supply quantities and prices of primary food products fluctuate greatly. Climate and weather conditions as well as market speculation influence supply and market prices.

A high degree of responsibility is accorded to producers. They are expected to provide at least a certain degree of stability of supply, stability of price, safety, freshness, quality, taste and give attention to the environment of the products.

Preferences vary according to individual consumers, region, and season.

There is a great variety of foods on the market.

1.3 Change in Food Processing in the SME Sector

- The number of establishments and number of employees are declining. (see Figures 1-1 and 1-6)
- Domination, diversification and technological innovation are advancing.

a. Reduction in the number of firms

For the following reasons the number of firms engaged in processing is declining.

First, there is a short supply of funds for investment in plant and equipment. Previously many SMEs were engaged in food processing because production facilities were inexpensive, but changes in production technology, regulatory requirements, greater attention to shelf life, greater attention to hygiene, and a shortage of labor that requires greater investment in automation have combined to place small firms at a disadvantage.

Second, SMEs tend to have difficulty in finding successors to continue family businesses.

Third, the combination of a shortage of funds for research and development and a shortage of R&D workers have made it difficult to remain competitive by developing new products.

Fourth, the SMEs are weak in such non-price competition areas as distribution and advertising and promotion.

b. Domination

Some companies that have secured dominant positions by being highly successful with their business strategy or affiliating with a larger firm enabling them to enjoy an advantage over nearby rivals.

c. Diversification

Some firms have been successful in sticking to their original line of business but there are some which have succeeded in competitive situations by diversifying as a means of making the firms grow.

The strategies they have used are primarily (1) diversification of products, (2) extension of product lines through acquisition of other firms, mergers or affiliation with corporate group, and (3) entry to new fields. Regarding product diversification, what the firms have done is to add products that they had not made in the past, or to make new products through changes in packaging or the form of the product, or to start production of functional foods (e.g., baby food, foods for elderly people, diet foods, health foods, etc.)

d. Technological innovation

Efforts are being made to keep up with technological innovation and change by acquiring equipment and machinery that enable work efficiency and product quality to be improved.

Technological innovation has encompassed (1) automation of production processes, greater use of powered transport devices in plants and warehouses, and use of conveyors, (2) acquisition of refrigerators, freezers and chilled storage facilities, and (3) computerization.

e. Increase in production costs

Production costs have risen owing to (1) higher labor costs, (2) new investments in plant and equipment, (3) higher distribution costs consequent to marketing to wider areas and sending smaller but more frequent shipments, and (4) costs of protecting the environment.

f. Diversification of customers

Four processes have been involved in the diversification of customers: (1) selling to high-volume retailers as compared to local (same area) retailers and food service establishments, (2) supplying merchandise to local customers from a national network of wholesalers, (3) supply of merchandise to box lunch companies, institutional meal service companies (schools, hospitals, welfare institutions, etc.), and (4) forming affiliations with the very large retailers (chains), distributors, and food service businesses.

1.4 The Role of Food Processing in the SME Sector

- Functional foods --- convenient to prepare (or not needing preparation), easy to eat and improved in safety and hygiene are being developed and sold.
- Jobs are being created in local communities.
- Traditional processing technology continues to be used.

The food processing industry is made up of producers and suppliers of agricultural and marine or aquatic foods, wholesale and retail distributors, and the food service industry.

The range of food processing is extremely wide, spanning micro-level activities (small-scale operations serving a limited, local market) and macro-level activities (especially core activities related to the nation's staple food and related policy).

At the outset the food processing industry used local products and sold to local markets. This type of business still exists, and as a small economic unit is nevertheless vital to local economies and communities. These firms also have the function of preserving (and developing) traditional processing technology, contributing

to the economy and creating jobs in the local communities where they are based.

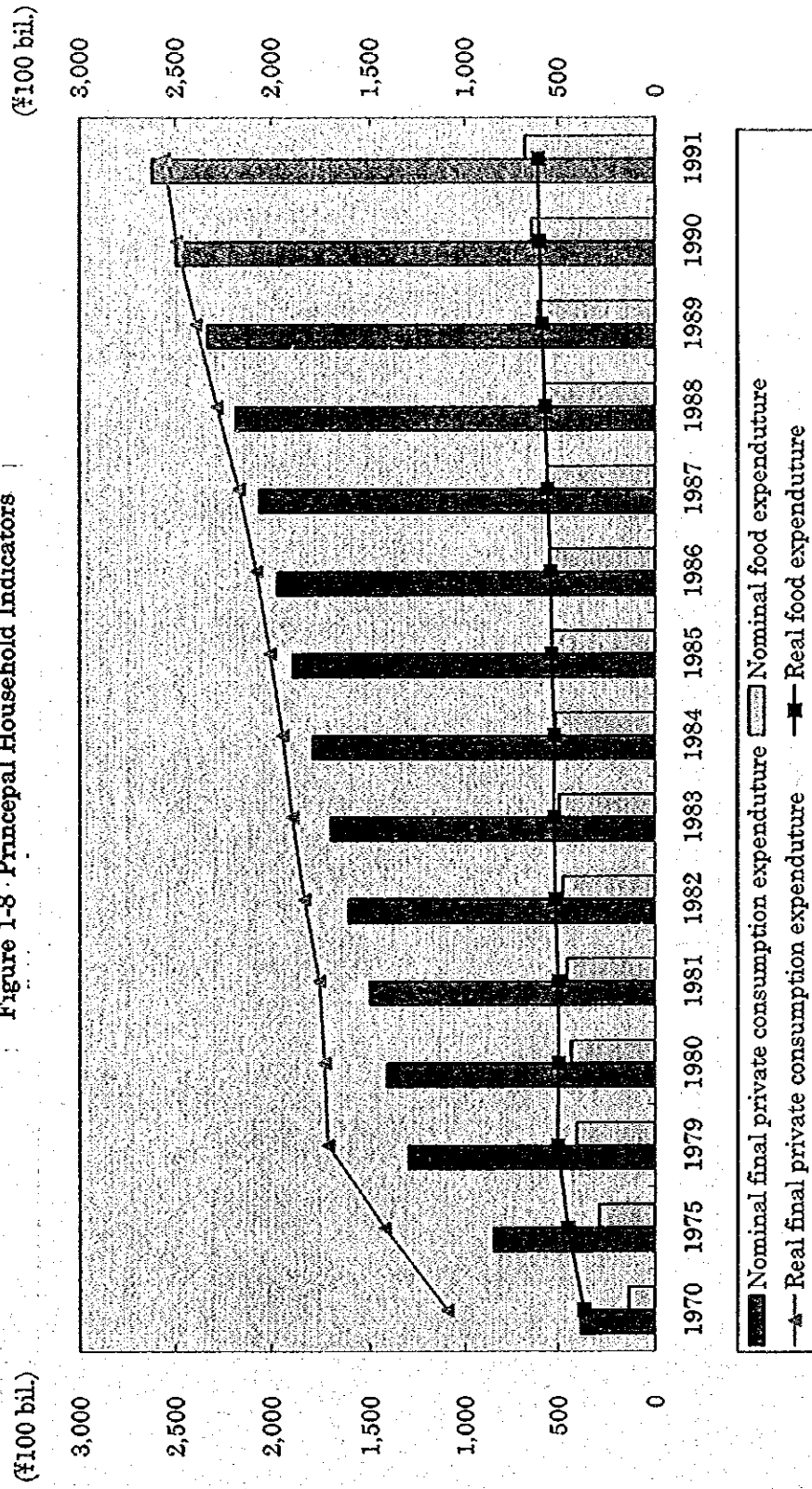
There is great value to having the ability to promote creation of easily-formed local food processing enterprises through efforts to encourage the economic development of a specific region or district, such as by the "one-village, one-product" movement. In Japan there is a perennial concern for the stability of foodstuff supply because of the high dependency on overseas sources of primary food products. This concern can be reduced by making use of traditional foods and processing techniques, often with the addition of modern technology for processing and packaging. In addition, innovating technology and systems also helps reduce this concern over the secure supply of food by making greater use of local resources and keeping imports of food at a acceptable level.

As stated above, a large majority of food processing firms in Japan are SMEs. From companies that are part of large organizations and make merchandise that bears the brand name of a large corporation, to companies that have their own brand, the products of SMEs are shipped to large and small mass-market stores, restaurants, cafeterias, box lunch makers, coffee shops, noodle restaurants, and other food service establishments, as well as schools, hospitals, private homes and others. The processed food industry thus facilitates the supply of food and convenience to the people of the nation, while also having roles of providing safe, hygienic foods.

1.5 Industrial parks for food processing firms

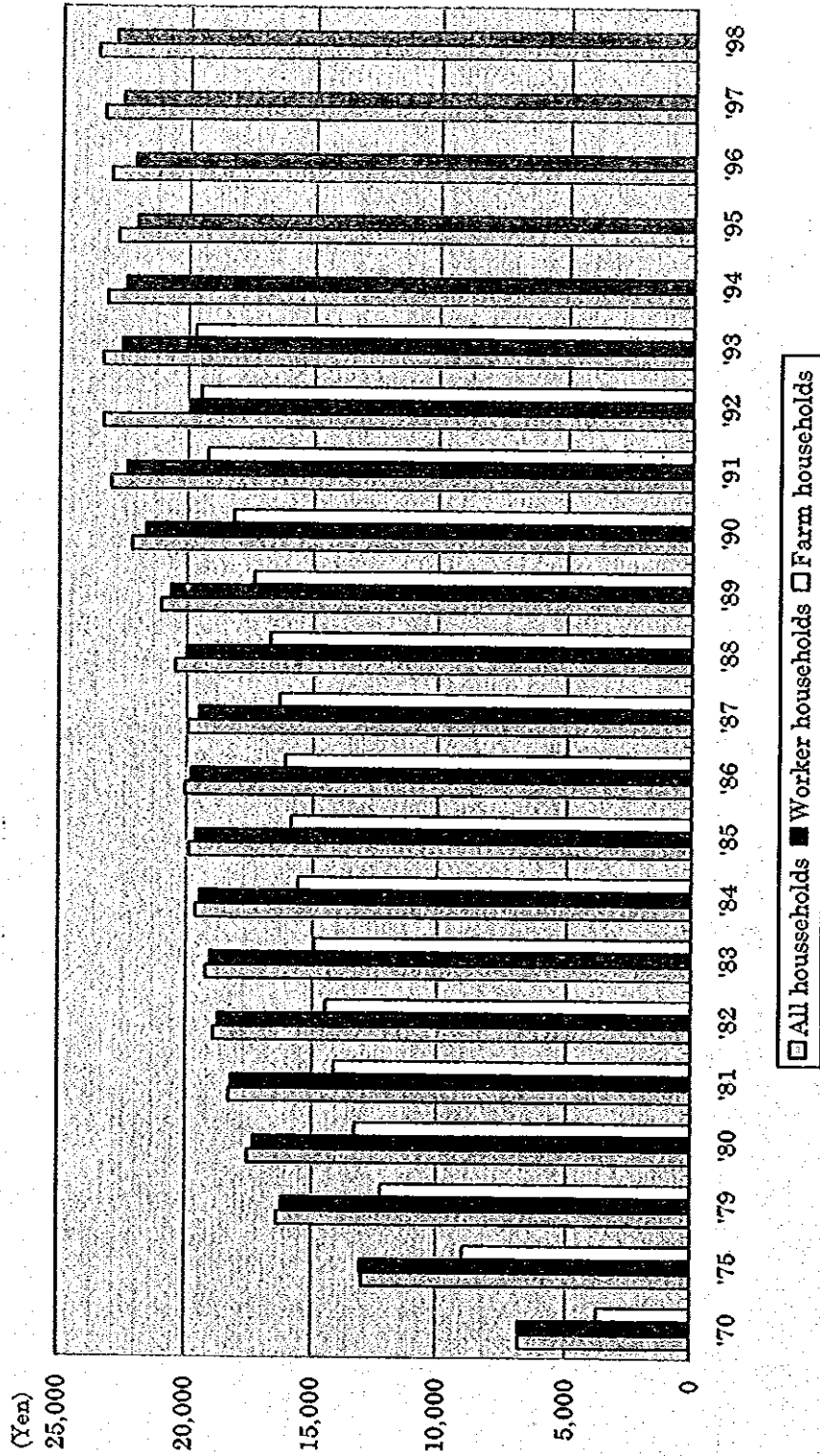
- Since the mid-Sixties local governments and other agencies have created industrial parks as methods of attracting industry and creating job while contributing to greater efficiency in the small business sector.
- The example of a marine products park has been selected as being valuable for consideration in connection with developing countries' development efforts.

Figure 1-8. Principal Household Indicators



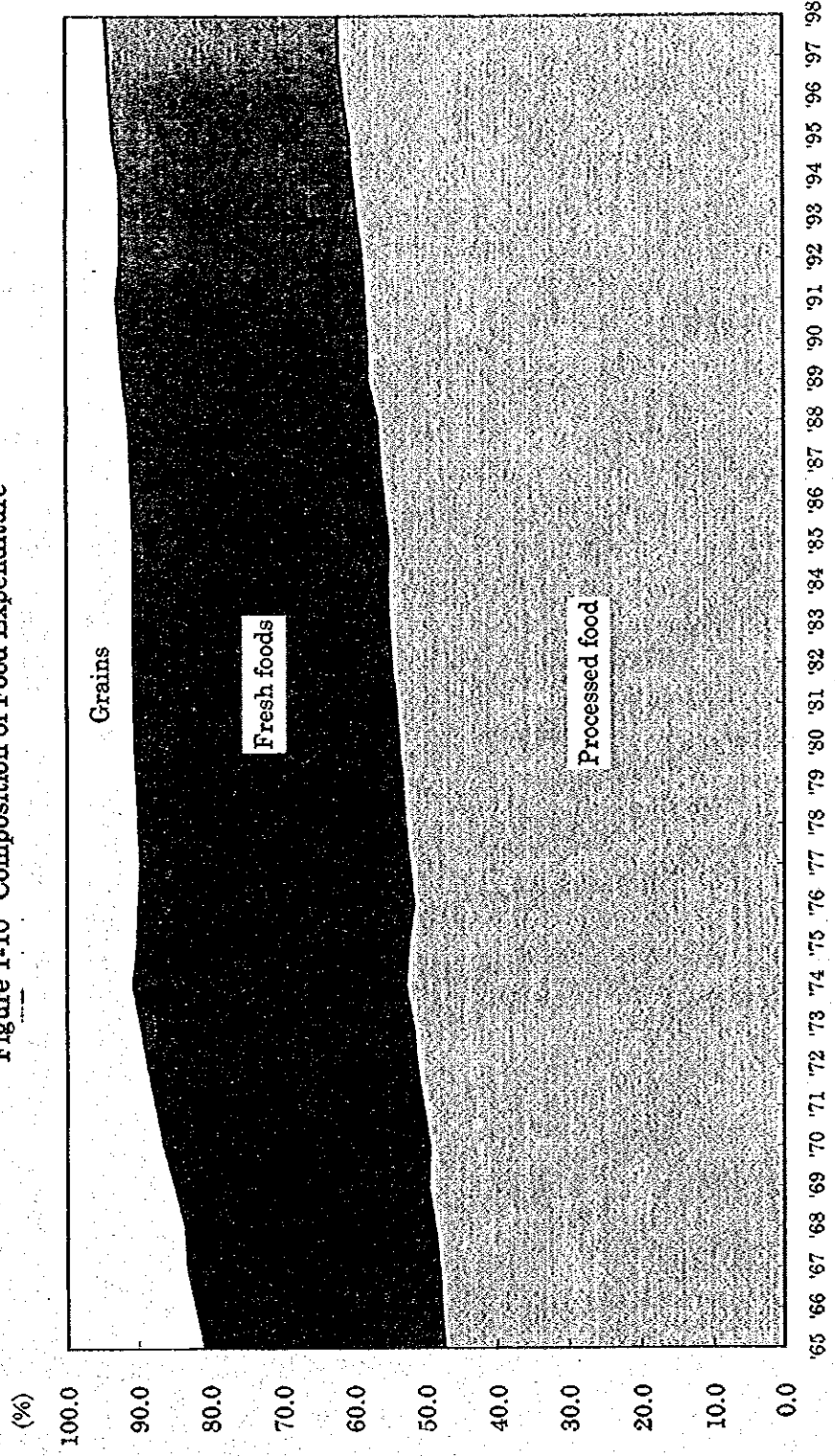
Note: Real value in 1990 prices.
Source: EPA, SNA

Figure 1-9 Food Expenditure per Capita per Month



Source: MCA, "Household Survey"

Figure 1-10 Composition of Food Expenditure



Note: Excludes meals away from home.
 Source: MCA, "Household Survey" all households.

(1) Background up to formation of food processors' industrial parks

i) Reason for making industrial parks

In September, 1970, the Ministry of Agriculture, Forestry and Fisheries (MAFF) compiled guidelines for the creation of industrial parks specifically for firms in the processed food business, with the objective of fostering adoption of integrated production schemes, while also promoting modernization and rationalization in the sector. Emphasis was placed on securing processing bases that would help improve the security of food supply, by locating the industrial parks near ports of entry for major foodstuffs.

In December of that year a law was passed to control the pollution of water resources and national standards and penalties were established for the quality of water discharged from industrial or commercial establishments. Subsequently, food processors' industrial parks were established in many parts of the country. The industrial parks were provided with common-use facilities for treatment of waste water as well as step-down power transformer facilities, boilers, water supply systems, waste treatment facilities, pier side facilities, grain silos, fire prevention systems and facilities, gas supply facilities and the like. In all cases, the companies in the industrial parks benefited economically from lower costs for larger volumes.

ii) Number of firms in the industrial parks

At most industrial parks the number of firms ranges from five to fifteen. At times, the original intentions of firms could not be realized, and subdivisions in some industrial parks were left unsold after the opening. There are at present 32 industrial parks where there are vacancies. Part of the reason for this is the surge in construction of such industrial parks during the past ten years; it is evident that there is an oversupply.

**Objectives Behind Founding of Food Processor Industrial Parks,
1964-1998**

Objective	No. of Industrial parks
Mass relocation of firms as an environmental measure combined with promotion of SMEs	29
Environmental measure combined with desire for consolidation in marine food product processing	25
Promotion of local industry and the local economy (through job creation)	24
Improvement of fishing ports combined with strategic relocation adjustment of processing and distribution of marine food products	7
Processing base for main food grains (and feed grains) combined with port improvement	7
Other	21
Total	111

Source: MAFF, Food Processing Industrial Park Survey Report, 1998.

(2) Support measures (individual companies; industrial parks)

Planning stage: Help in identifying a location, the category (ies) of industry to be in the park, decide on the scale of the undertaking, etc. Assistance for formation of an organization of park companies.

Site acquisition and improvement: Help has been provided by issuing of local government bonds to obtain a site

Joint-use boiler/steam facilities and waste water treatment facilities: These have been built at local government expenses in some instances. Central government subsidies are available for this.

Ensuring the industrial park has a "core attraction": It is important to offer an incentive available only at the park. This may be supply of trade information, technical information, guidance concerning HACCP, etc.

(3) Types of Industrial Parks

MAFF classifies industrial parks as described below. The "General Industrial Parks" are primarily occupied by big business, and there are only seven in the "Others" category. Below, this report concentrates on industrial parks for processors of sea-foods.

For most of the industrial parks there is a utilities company that supplies power, boiler facilities, water supply, and water drainage to all firms in the industrial park.

i) General Industrial Parks (68 in number)

Of these there are two subtypes, "Integrated Production" and "Hybrid".

The Integrated Production industrial parks (five in number) are planned for use by primary and secondary processors of raw materials that are unloaded from seagoing or coastal vessels arriving at ports from foreign or domestic ports of shipment. In addition, these parks are used by companies that process waste from those companies to produce feed. These industrial parks tend to be large and be occupied by companies associated with large firms.

The Hybrid industrial parks (63) combine production facilities operated by both large and small companies that are for the most part not linked by equity ownership relations or long-term transaction records. In the same industrial park of this kind we can find beer brewers, candy makers, coffee roasters, soup makers and other types of food processors.

ii) The Seafood industrial parks (36)

These are limited to companies processing marine materials.

iii) Others (7)

These are all industrial parks of like companies, such as feed (five industrial parks), candy (one), and mushrooms (one).

(4) Results of formation of food processing industrial parks

In compliance with official policy to promote overall improvement of the nation's small businesses, many local governments have assisted the creation of industrial parks as a means to modernize and rationalize small businesses, and have promoted joint ownership and use of utility facilities. These local governments have also provided subsidies for land acquisition and preferential financing for factory equipment renewal and expansion. Through these measures, considerable support has been provided to companies in the food processing business.

The result of promoting relocation of firms to these industrial parks has been that modernization of the food processing industry, its rationalization, and promotion of local or regional economies has been largely successful.

As examples of success achieved at Seafood Industrial parks, the following individual results are worth attention.

i) Major Result: Modernization and Rationalization

Production area

- Renewal of equipment on occasion of relocating in the industrial park raised

productivity.

- Relocation made it possible to exploit earlier experience and adopt a factory layout that of itself increased productivity.
- Relocation provided optimum timing for an increase in production output.
- Efficiency was improved by becoming able to keep raw materials and products required for one or two days in storage, thus improving inventory management.

Quality

- The new factory had improved sanitation and hygiene compared to the old one, so product quality and efficiency could be improved.
- The industrial park was furnished with large, modern freezers for raw materials and products; quality maintenance was improved and this made it possible to obtain better quality and efficiency.

Environmental considerations

- Previously each company operated its own, small boiler, but at the industrial park a single large boiler served all. This reduced gaseous emissions.
- Operation of joint waste water treatment facilities reduced operating costs.
- Because joint facilities for processing undesirable waste (e.g. animal waste with blood, or malodorous waste) were built, the environment for residents in the area of the industrial park was protected.

Other

- Joint health facilities made a good impression and made it easier to hire workers.

ii) Major Result: Promotion of the Local or Regional Economy

- Because creation of the industrial park facilitated acquisition of modern equipment and facilities for seafood processing, more fishing boats (from other home harbors) began to bring their catch to the port. This increased turnover in the local fish-market, increase wharf fee income, created jobs for local truckers, and stabilized the supply of raw-material seafood. Purchases of fuel and food at the port by operators of those additional vessels also contributed to the local economy.
- Supporting industry type firms were attracted to the area: small box makers, and processors of food factory waste, for example. Their arrival provided opportunities to sell or rent real estate, and this improved the tax base.
- More jobs were created.

2. Examples of Successful Development of Food Processors

2.1 The Small Business Promotion Agencies, a Public Corporation

- Industrial parks specifically for food processing companies have been helpful in promoting SMEs. (see previous section)
- The non-profit Small and Medium Business Promotion Corporations each have contributed to SME development through loans for equipment acquisition and support of subcontracting.
- The "local SME support center" concept has made such support more accessible.
- A key current issue is how to better publicize the services available.

a. Overall public support measures

The Japanese government adopted a wide range of measures for support of the SME sector, including the creation of industrial parks, establishment of the Small Business Promotion Public Corporation (SBPPC) as a medium for policy implementation, and so forth. Here, information is presented especially on industrial parks specifically for food processing companies (topic 1) relating to the development of SMEs in the food processing industry, as well as on the activities of the SBPPC (topic 2).

i) Support related to investment finance

When SMEs invest in plant and equipment, they can finance by making installment payments to the SBPPC or use leasing arrangements through the same body (see the example from Kagoshima Prefecture). SMEs have also been able to obtain financial assistance from local governments when they located operations in an industrial park.

ii) Support related to financing working capital

Funds for use as working capital have been made available for SMEs by various means including guarantees by local governments and trade or industrial organizations, and low-cost or even interest-free loans from governmental financial institutions. Information on the availability of such financing is obtained from local government financial institutions and the SBPPC (see the example of Company M in (3)).

iii) Supply of business opportunities

Business leads for selling goods or services to other companies or to the government are provided to small businesses. This is one of the services of the SBPPC, often through meetings at organizations such as local chambers of commerce and industry, or when a company comes in to ask for advice. For opportunities overseas, assistance is provided by JETRO.

iv) Technical support

Local governments have helped SMEs to learn about research institutes, experiment stations, university programs and have often helped establish direct industry-academia ties. Research bodies and colleges have sent technical experts to assist SMEs, have provided general technical help, contributed to improvement of process control by methods including HACCP (explained below) to improve food safety, and provided advice and ideas regarding equipment, factory management and other subjects.

Further, there is a scheme whereby funds can be obtained for new product development, from the Japan Small and Medium Enterprise Corporation and other organizations

v) Industrial parks for food processors

As described in detail in (5) Industrial Parks for Food Processing Firms, excellent results have been achieved from support for relocation to industrial parks as well as measures in connection with processing, quality management, pollution controls and other areas.

vi) The Small Business Promotion Public Corporation

Here we provide a brief account of the establishment of the Small Business Promotion Public Corporation, its activities, future plans and relations to the food processing industry.

The Small Business Promotion Agency, a governmental financial institution that had been engaged in lending funds to assist small and medium scale businesses acquire equipment was reformed in 1977 to both engage in such lending and to promote subcontracting on behalf of SMEs.

The lending of equipment is an arrangement whereby the corporation purchases equipment and provides it to small or medium businesses on the basis of a monthly payment of installments of the purchase price or through a lease, so as to reduce the financial burden of obtaining the equipment.

Subcontracting activities comprise providing business opportunities for SMEs by introducing potential clients as well as measures to rectify conditions when there is a delay in payment to subcontractors. Subsidies are provided for other activities as well.

In 1999 it was given the additional functions of providing SME support through information, technology and managerial activities in accordance with a newly adopted concept of "regional SME support centers", by March 2000 at the latest.

The example of Shiga Prefecture is presented below as an instance of reorganization on behalf of SME Promotion. In April of 1999 the Shiga Industrial

Support Plaza was formed by the merger of four existing entities, the Shiga Small Business Promotion Corporation, the Shiga Small Business Information Center, the Shiga Retail Trade Support Center, and the Shiga Industrial Technology Promotion Association.

The new organization thus integrates in a single network diverse key functions and brings together industrial, governmental and academic efforts for supporting SMEs in the prefecture.

The operating departments are responsible for Planning Information, Financial Support, Commercial Support, and Industrial Support. For the food processing industry, this Plaza provides information and support services at a single location.

For technical support, the prefectural university and two newly established universities are cooperating by setting up a center for development (primarily for R&D).

In the examples presented here, companies in the food processing line (all SMEs) were able to make full use of the library, video library, and financial support of the Shiga Prefecture Industrial Plaza (see example C, Company M, in (2.3)).

• Support provided, and its results

The Small Business promotion Agency, in order to make its services known to the SMEs, has been distributing pamphlets, sponsors lectures, and uses the internet to disseminate information.

The said agency, reborn as a new organization, has been distributing information ever since. However, the system of evaluating the effects of supports has not been sufficiently constructed, and need to be enhanced to meet the needs in the future effectively.

Activities up to the present have been concentrated on support for installment purchase or leasing as means of obtaining equipment.

The following table is useful as an example of accomplishments in Kagoshima Prefecture with regard to food processors.

**Small Business Promotion Corporation Accomplishments
in Kagoshima Prefecture**

	1996 (processed foods industry)		1997 (processed foods industry)		1998 (agricultural, forestry and fisheries industry incl. processed foods industry).	
	No. of Companies assisted	No. of pieces of equipment obtained	No. of companies assisted	No. of pieces of equipment obtained	No. of companies assisted	No. of pieces of equipment obtained
Installment payments	13	29	9	34	10	23
Lease	2	10	5	17	2	3
Total usage by manufacturing industry	59	156	48	123	40	104

2.2 Factors in the development of corporations

- Companies that have succeeded have not over-invested in plants and equipment, have been in a favorable location, have developed good ties with their customers, have done well at developing new products, and have made a special effort to develop employee skills.
- Companies that have succeeded have used public support programs several times.

a. Usage of public support programs

Many if not most of the companies that have used public financial assistance at an early stage made use of it again later on, for acquisition of additional facilities or renewal of existing ones.

With one exception, the companies visited for purposes of this study have benefited from public support in one way or another.

b. Causes for corporate success or stability

Some factors have been identified to have had effect in common by a multiple number of companies that either succeeded or have experienced stability.

- In the area of corporate management, they are as follows.
 - A high degree of caution regarding fixed investment.
 - Not attempting to imitate large corporations.
 - Favored by an environment within which financing could be readily accomplished.
 - Availability of good customers.
 - Swift reactions to business opportunities as well as complaints.
 - Dedication to the company and not to growth for the sake of growth.
 - Being a family-operated business that succeeded in a transition to second-generation control.
 - Being a well-established firm having a long and good reputation.
 - Being a firm where the owner did not primarily seek to take out personal profits from the business.

- Having collected a wealth of information through contacts and exchanges with companies in other lines of business.
- Location too has been important:
 - Easy to obtain raw materials.
 - Proximity to centers of consumption.
 - Easy availability of raw materials and good road conditions for them to be trucked in.
 - Ample supply of good labor.
- Relations with the local community also have been important.
 - Cooperation has been obtained from the community, in such forms as publicity in tourism literature, and the supply of employment information.
 - Tax holidays.
 - Benefits from recycling a portion of profits to the community.
 - Gifts and donations.
- In the area of operations, the following were identified.
 - Designing the procedures of changing product materials and product forms, and those of advertisements and exhibitions.
 - Operated own delivery vehicles for greater reliability and improved image.
 - Performed functions usually performed by wholesalers
- In the production area, the following were identified.
 - Focused on development of new products
 - Production of products to meet the needs of the times:
 - A wider variety of flavors (e.g., sweet, salty, spicy).
 - Made products not available from large corporations.
 - Were able to profitably make goods high labor content.
 - Were able to make foods that had special qualities of taste.
 - Sold to commercial customers.
 - Effectively used technology-assistance from public technical centers.
- Labor too was often a factor.
 - Workers were well motivated.
 - Workers possessed versatility; did well at developing human resources. Workers had broad knowledge of work processes upstream and downstream from their own stations.
 - Used outsourcing to have internal computer software developed.
 - Took good care of the employees. Hired older workers.
- In the area of technology:
 - Succeeded in keeping raw materials fresh longer by using cold storage or freezers.
 - Replaced facilities when needed.
 - Automated packaging.

- Improved efficiency in purchasing supplies.
- Standardized packages.

c. Issues facing SMEs (environmental issues)

Environmental issues related to food processing include the following:

- Proper treatment of solid wastes including food residues.
- Proper treatment of material discharged from various processes, requiring capital investment to clear environmental standards.
- Air pollution caused by incineration, especially dioxin.
- Obnoxious smell from factory operation, which is becoming major concern.

2.3 Successful cases in company activities

- Case studies were selected from each of three regions; Kanto, Koshinetsu, Kansai and Chugoku Districts.
- One company studied made no use of public financial support but benefited from the cooperation of the local government
- Executives (owners) who succeeded strove hard to make good products, educate their workers, and have close relations with their customers.

a. Company A (Tokyo region)

i) Profile of the company

The company built its factory in 1976 having been capitalized at one million yen at the time. Using its experience in food sales at department stores, it started making Japanese-style side dishes and grew to the point at which capital could be increased to ¥12.7 million and annual sales were at the level of ¥1.1 billion. As the president had a technical background the company succeeded in developing a special package made of plastic that facilitated sales to large department stores (all of these stores in Japan have large food departments) and supermarkets. Sales to box lunch makers were increased. Two pilot shops were opened where the company sold box lunch and take-out salad packages in which its own products were used. Strong efforts were made to develop a diversity of skills among the employees and all were trained in use of the computer. All workers were given instruction in matters related to food hygiene, by a specialist invited to visit the company at various times over a period of three years, so that every one of them could undertake hygienic inspections or tests of the food.

ii) Use of public support programs

At the suggestion of a business associate, in 1988, ¥50 million was borrowed from the Small Business Finance Corporation. At that time interest rates were high but the opportunity to use public funds was seized and a factory was constructed. Seven year later another ¥50 million was borrowed and used to expand the factory.

During 2000, funds for working capital were borrowed from the municipal small business finance institution in the city where the company was located. The city's terms and conditions for this "business stabilization loan" are that the maximum principal to be lent is ¥30 million, with a guarantee fee of 1% and bearing (at the time) 2.6% annual interest, but the city itself provided a subsidy for half of the interest charges for a period of three years.

At present the company continues to monitor the availability of public funds.

iii) Reasons for success

This company has succeeded because of the following major reasons. First, all its products are pure in keeping with the policy of putting security and safety of consumers first. It succeeded in marketing a premium product on this basis.

Second, it educated and trained workers so as to diversify their skills.

Third, it improved motivation and performance by emphasizing that each worker evaluate his or her own attitudes and performance.

Fourth, while the company makes a wide variety of products, only one product of a kind is sold to a given single customer.

iv) Company's comments on public support

The firm is of the opinion that access to public funds should be made easier in the case of factory renewal, because if there is no financial support, firms can not survive.

It also notes that there is not enough of an effort to make the public support programs known in the small business community. It had never heard about such programs from business acquaintances.

b. Company S (Koshin district, Nagano Prefecture)

The case of Company S is special in that it is located in a remote region but was still able to market products for export.

i) Profile of the company

A native of Nagano Prefecture residing in Tokyo, through a Tokyo club composed of people from his district, got the idea of using the abundant local water resources of his prefecture to do something that would bring economic benefit to the district. He nurtured his plans over a period of three years and in 1985 put together ¥10 million, hired eight persons and started a mineral water business. The company is still operated by eight persons.

The township was assisted at the outset by a second person from the locality who together with the company's founder made a trip to France to visit the Evian company, a company known worldwide for its bottled water. The township decided to propose a sister-town relationship with Evian as a means of helping the venture to

succeed.

In 1986 the company started to offer its product to commercial customers. It was the first company to use the term "natural water" in Japan. It succeeded in gaining a degree of international recognition when the famous Hotel New Otani agreed to serve the water - furnished free of charge - at a Summit meeting. Subsequently, the company contracted with airlines (Air Canada, British Airways, Northwest Airlines, Virgin Atlantic and others) and operators of long-distance trains, hotels, large companies operating employee cafeterias, drive-ins and others. In addition to selling the water in ready-to-use bottles it started to sell water coolers and succeeded in competing against much larger firms also in the mineral water business. Sales are now on the level of ¥200 million a year.

ii) Use of public support programs

All financing for the company was obtained from informal sources. Support from the township, however, was crucial for success. The township secured the consent of six property owners to make their land available, enabling the new company to use the land that it needed. The township made site improvements and widened the road to the site.

The township is still receiving rent from the use of the land, and a small fee for costs, and pays money to the landowners.

Maintenance of the land by the township has included activities to organize landowners for cooperative efforts and to clear away snow. The town, that is known for its natural attractions and is visited by a large number of tourists, has publicized the water in tourism brochures.

Particularly important was that local business interests and the town government cooperated to prevent anyone from building a house in a large area of the watershed, and to prevent anyone from entering the area.

iii) Reasons for success

Six reasons for success can be cited.

Favorable publicity was obtained early in the development process. This was through a TV program introducing the venture as an example of stimulating a local economy through new activities. A newspaper carried a feature about the town's water. The National Land Agency included the town's water in a list of "The Hundred Best Places in Japan for Water."

The timing was fortunate, as there were currently widespread concerns about the taste of drinking water.

The company concentrated on selling to commercial customers only, and had fewer competitors than if it had entered the retail consumer market.

At one point sake brewers entered the bottled water market and competition intensified but the Nagano company persisted in specializing in a single product.

The local chamber of commerce and the township were cooperative.

Selling outlets were extended through sister-town relations.

Avoiding competition in the domestic market, the company successfully arranged for stable export sales.

c. Company M (Kansai district)

Company M was begun as the work of an independent vendor but the second generation succeeded in winning contracts to supply large department stores in the Tokyo area.

i) Profile of the company

In 1922 a man began to make and sell directly a bean and seaweed food used as a side dish in family meals. The following year he used public financing to open a shop for selling his product.

In 1994 he built a small factory to make box lunches and opened a free cafeteria on the second floor where people could try the firm's product without obligation of any kind.

When he built the factory it was necessary to spend ¥20 million of the total investment of ¥160 million on water processing facilities in order to avoid an adverse effect on the water quality of the nearby Lake Biwako. In 1995 equipment was installed on the roof to process waste into odor-free fertilizer that is provided to farmers free of charge. Water used to wash vegetables is filtered and reused.

New processing facilities were added in 1999, enabling capacity to be tripled.

ii) Use of public support programs

From the outset it was decided to not borrow from commercial institutions. In 1973 when the need to borrow arose, the company went to a public financial institution for funds. This enabled the company to build a shop and raise sales to ¥15 million. By 1992 sales had doubled. At this point ¥230 million was borrowed, and a new shop and office building were constructed. In 1999 the processing facility was added and the total of ¥350 million that was borrowed all came from public sources including ¥290 million from the Small Business Finance Corporation.

The use to which the funds were put was ¥150 million for land, and ¥140 million for the building. This investment is based on a target sales figure of ¥150 million in 2003.

The company makes use of business information supplied by the prefectural government

iii) Reasons for success

The following are the reasons this company has succeeded.

For one, it has had clearly defined goals. It had a goal to be the leading firm in its region. When it decided on selling to large retailers it decided it would sell to not one but three. Once this decision was made the company focussed all of its resources

on the question of what the company should do and what the products should be. The improvements that were made related to the merchandise, pricing, product line, hints to consumers on use of the products, and point of sales. Coverage by the mass media has helped make it possible to reduce direct efforts at promoting the products.

The company has been open about its business performance. It has been diligent in reporting to its creditor institutions the results when the books are closed and in explaining at that time plans for the new fiscal term.

The company has taken good care of its workers. It calls them comrades, not employees. When the books are closed they are told about results and plans. Forty percent of after-tax profits are allocated to retained earnings. Thirty percent is used for welfare facilities and the remaining 30% is distributed as bonuses.

Information received from sales at department stores and self-operated outlets is used promptly to control production. In the case of new products, a free fax service is provided so that consumers can provide feedback to the company.

All employees including part-timers are trained to think as if they are managing the company.

The trust of suppliers has been obtained by prompt cash payment of bills.

The company donates generously to local causes. It has won the trust of the community by thus recycling a part of the firm's profits.

iv) Company's comments on public support

The company is of the opinion that it is more important to establish a brand name and especially one that evokes images or thoughts of the local community than to seek an SME subsidy. For instance, creating an image of a product with a good brand name leads to increased awareness of the community producing it. Customers, on hearing the name of "Shiga" for example, have an unexplainable feeling of familiarity, or they feel the desire to purchase it.

Public agencies should provide timely information for education of workers and managers.

It is hoped that public agencies assisting SMEs be able to offer knowledge and other support needed to exploit a given business opportunity.

d. S Food Company (Chugoku District)

i) Profile of the company

The company was founded by its former president in March 1946 to produce and sell soda pop, after he acquired the bottling right for soda pop. It had working capital of 20 million yen and employed 6 persons.

The capital was increased to 50 million yen in 1963. In FY1999, it reported annual revenues of 3 billion yen from production of soft drinks (not including lactic acid drinks) and had 55 employees.

The company has proprietary technologies related to the filling of liquid into PET bottles and pouch containers as well as sterilization, which has been developed jointly with Food Industry Technology Center, under the Hiroshima prefectural government. The company is planning to produce hospital food.

ii) Use of public support programs

Public funds and support have been used whenever possible, including loans from the Central Bank for Commercial and Industrial Cooperatives and the insurance scheme covering cooperatives in Hiroshima Prefecture.

At present, for development of new products, the company is applying for the subsidy and loan by Japan Small Business Corporation under the Program to Promote Technological Innovation in FY2000.

- Public support for technological upgrading: Consultation and guidance by Food Industry Technology Center in various fields including HACCP.
- Electronic commerce and other IT-enabled efforts: The company participated in the Internet Workshop held by the Ministry of International Trade and Industry and established its web site relatively early under the assistance of the prefectural government. It also participates in seminars (free) conducted as part of the Software Adviser Program of Japan Small Business Corporation and benefits from consultation service by an outside advisor assigned under the program.
- Energy saving: The company benefits from consultation service by an outside advisor on energy saving related to operation of boilers and air-conditioners, as assigned under the Energy Saving Adviser Program of the prefectural government.
- Equipment modernization: The company received interest-free loans to finance pollution control measures in 1970.
- Labor force: The company received workers from Sichuan, China, for three years, who worked at the company's factory and learned production skills.
- Long-term working capital: The company borrowed 20 million yen under the guarantee of the Credit and Loan Guarantee Association.
- The company obtains information on public assistance through the E-mail service of the Office of Trade and Industry in Chugoku District.

iii) Reasons for success

As mentioned above, the company effectively used public assistance programs Focused on development of human resources and promotion of self-initiatives; the company will pay the cost of licenses for staff members who desire to have licenses.

iv) Company's comments on public support

Under the present financial assistance programs operated by government and other public organizations, it is very difficult to borrow funds to cover marketing activities beyond capital investment; it is desirable, therefore, that said programs may

extend to the former.

3. Applicability to Developing Countries and Points to Consider

- Though developing countries involve environmentally adverse conditions in this field, it will be useful for them to learn from the experience of Japan in the food processing industry.
- It is important to increase the market reputation of a company's products, by producing and supplying food products, safe, hygienic and tasty.
- Public agency support is valuable.

As introduced above, even if there are some difference in the socio-economic environment, the successful examples we have achieved can be used as model cases for developing countries, especially in their development process. With regard to Japanese public support and policies, we believe they can also be used as good models for developing countries.

3.1 Efforts by enterprises

Making products that are safe and hygienic is especially important in food processing.

It is only when product quality is good that it is possible to achieve steady growth in sales, and establish a solid base for a company.

It is important to meet the following the common requirements. First of all, the taste must be good. The products should have a consistent shape and standard amount. They must be uncontaminated, the packaging should be attractive, and the price moderate.

It is not reasonable to expect that a newly developed product should meet all of these requirements from the beginning. Therefore, the product should first gain a good reputation on the market, for its taste, the most important element.

We will now consider two examples from developing countries where a company both sold food products in the domestic market and exported. In Pakistan there is a biscuit maker near Karachi. The products from this maker, enjoying a good reputation, sell well around the Iranian border in the distance, in spite of high prices. This biscuit maker has been successful because their biscuits have better taste and shape, are packed in sturdy attractive packages, and are able to be transported long distances than other companies.

Also, another successful example is a dried squid surimi (fish paste) maker in Thailand. Almost all of the output was exported, but the quality was good and by selling the product as fish balls it was accepted in the market. Some people travel nearly two hours to buy the fish balls at the factory. This product had a unique color and taste and was different from the foods previously available in the area.

3.2 Support by the government

Many of financial and technical support to individual companies have been effective in promoting the food-processing sector in Japan. But in addition to this, we can say that aid in the form of construction of food-processing industrial parks and joint ownership have worked well for the same purpose.

General support measures (individual companies; industrial parks)

Support for investment in plants and equipment (lending of equipment; leasing)

Help in obtaining working capital (guarantees for loans from financial institutions; supply of credit at preferential terms and conditions)

Introducing business opportunities (introducing other companies; helping look for new business)

Technical assistance (introducing research institutions, dispatching technical advisers, etc.).

We provide some detailed information on assistance in constructing industrial parks which has been implemented in Japan.

Points of caution regarding building food processing industrial parks in developing countries

Many developing countries have a strong desire to expand processing of marine food products for export in order to make the best use of their natural resources. The best strategy to accomplish this is thought to be to promote construction of industrial parks. The following would be advised.

Study whether raw materials and supplies are readily available.

Conduct a study of the marine resources that would supply the raw materials suitable for processing are available in the target region (e.g., what species inhabit the region or are available there).

Find out whether the methods and technology needed to obtain the raw materials are available. When marine culture or aquaculture is to be used, are the methods and technology available?

Find out about government regulations regarding fishing (e.g., size of boats, equipment that can not be used, species that can be taken and quantities that can be taken).

Find out if there is a shortfall in supply of raw materials or whether or not the required quantities can be imported.

Distribution

Is there ready access to a port, roads, rivers or other means of transport?

Securing materials

Find out if there are local sources or import possibilities regarding cans and lids, fuel for smoking fish, tubes for packing products, and other materials.

Water resources

Is the water to be supplied for factory use hygienic and clean (including river water, groundwater, rainwater).

Waste water treatment

Determine what has to be done to treat waste water, and find out about availability or access to treatment facilities.

Energy supply

Check that there are no problems regarding power supply, boiler operation, etc. If there are voltage drops or interruptions in supply to the industrial park, is self-generation a viable possibility?

Take steps to adopt HACCP if it is intended to export the products.

Obtain the services of someone or persons familiar with HACCP.

When the export market is a target, HACCP (Hazard Analysis and Critical Control Point) becomes important.

HACCP requires employee training.

HACCP was developed as a method of ensuring the safety of foods to be eaten by astronauts, and involves analysis and control of potential causes of problems at all stages of production from raw materials through processing, transport and storage. It was subsequently the basis for guidelines released in 1993 by a joint FAO-WHO committee and is still expanding in terms of use in the EU, United States, Japan and elsewhere.

One procedure in HACCP requires all persons involved in handling foods to be trained in hygiene and be able to control any danger rising from hygiene-related causes. What is meant by danger in this context is any threat to consumers arising from bacterial, chemical or physical causes.

In its application, HACCP includes establishment of monitoring points at places in the production process where hygienic conditions are particularly important, to check on temperature, sterilization, etc. Records are kept of observations made at these points and used for planning any remedial measures that may be needed.

An especially important problem faced by companies that adopt HACCP procedures in order to export products is adaptation or change of equipment to support application of the procedures. It is particularly difficult to clear EU standards, and during 1999 the EU ruled that frozen shrimp from Oman and Pakistan had to be returned because standards there had not been met. It was only after changes were

made, EU inspectors visited the plants and provided advice that exports could be restarted.

Acquire the services of a person or persons knowledgeable about international trade and about information processing.

It would be helpful if there is an organization of the employees in the industrial park who are familiar with international trade, information processing, and computers. Their cooperation will be a boon to development of the park.