

FASHION INDUSTRIES IN JAPAN; ITS STRUCTURAL CHANGES AND RE-ORGANIZATION OF SPACAL DIVISIONS OF LABOR

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1. Introduction

Textile industries had played an important role in the growth of Japanese economy, on the modern and contemporary period. But after the rapid growth of economy, Japanese economy shifted its leading part to heavy chemical industry. Textile industries were obliged to shift their industrial centers to East and Southeast Asia. Especially after 1970, many Japanese factories were built in East and Southeast Asia and Middle and South America (Table 1). These factories were aimed to secure those countries' market and export commodities to other countries. After the Oil Crisis, inroad factories were decreased. But in this stage, textile industrial centers in East and Southeast Asia aimed to export their commodities not only to other countries but also to Japan. This trend have grown especially after 1985, inroad factories have rapidly increased. Especially in China and Thailand, many Japanese factories have been built. In those countries, workers' wages are cheap, and industrial techniques are comparatively high. So many textile makers have moved their industrial centers to China and Thailand. These factories aim to export their commodities to Japan. One more trend of this stage is that many enterprises have made inroads into West Europe and North America. These enterprises are not factories. They aim to support domestic trade and industry which produce high quality commodities. They gather informations and export fashion goods to Japan. Textile makers have changed their industrial structures to proceed with international divisions of labor. They have re-organized domestic industrial regions and have made inroads into East and Southeast Asia by their strategy.

On the other hand, after the 1980s, by the stable growth of economy, the recession has been got over, and consumers demanded high-class commodities. Textile industrial regions in Japan have corresponded to this trend, and they have been re-organized their industrial structures to produce commodities of high quality. But not only most of buyers and weavers in industrial regions but also 'shosha' and wholesalers in metropolitan area can not correspond to this change. They can not collect information of fashion enough, can not design new fashion, and can not make clothes in a short terms. They have lost the role of the organizer of textile and fashion industry. Apparel makers in Tokyo and Osaka take leadership. What are apparel makers? They are firms which design, produce and wholesale clothes. Many of them are small and medium-sized firms and till the 1970s they could not take leadership of fashion industry. They grouped few sewing factories and produced clothes by their own

Table 1 Numbers of Japanes Textile Factories Made Inroads Into Foreign Countries

Area	～1959	60～64	65～69	70～74	75～79	80～84	85～89	90～92	Total
East Asia	0	3	6	32	7	11	62	22	143
Southeast Asia	1	7	6	29	16	10	26	32	127
South Asia	1	0	0	0	1	0	0	0	2
Southwest Asia	0	0	0	0	1	0	0	0	1
Africa	0	1	1	1	0	0	0	0	3
West Europe	0	1	1	6	6	12	25	25	76
North America	6	3	3	11	8	13	27	10	81
Middle and South America	3	3	6	21	6	4	2	0	45
CIS and East Europe	0	0	0	0	0	0	0	1	1
Oceania	0	0	1	3	1	2	5	2	14
Total	11	18	24	93	46	52	147	92	493

Source: Table of Enterprises Made Inroads Into Other Countries. 1993 Toyokeizai Data Bank

design. But their works were not rated highly. The demand of high quality fashion was limited and consumers did not rate ready-to-wear clothes. But some able designers grew up through the 1970s, and apparel makers' designing ability began to be rated. Many of them were located in center of Tokyo (especially Minato-ward, Shinjuku-ward, and Shibuya-ward) and formed some fashion towns (Harajuku, Aoyama, Shibuya etc.). These fashion towns are growing still now, and have formed the center of fashion. Many apparel makers had grown in this stage. After the 1980, with the spread of high class fashion, they can adopt quickly to new circumstances, collect information of fashion and plan fashion designs and commodities.

They group buyers, weavers, knitters and other factories in industrial regions, and produce clothes and goods of high quality. Apparel makers have strengthened their production systems and begin to produce fashion goods (for example handbags, shoes, scarfs, accessories etc.). They have produced 'total fashion brand'. But apparel makers do not have enough plans and know-how to manufacture fashion goods and do not have organized their industrial systems.

So apparel makers must depend on their traditional industrial systems. Many fashion goods have manufactured in metropolitan area. Apparel makers are conveniently located to make use of them, and re-organized linkages of fashion industries.

Building factories in foreign countries is closely related to the re-organization of structures of textile industries and re-organization of their spacial divisions of labor.

The purpose of this study is to make clear the structure of fashion industries (not only textile industry but also fashion goods industries) and their regional re-organization. Following, on some case studies, I will try to achieve these purposes.

2. The structural change and making inroads into foreign countries of synthetic fiber maker — Case study of Torey —

Torey is the biggest textile company in Japan. It accounts for more than \$5,000,000,000 of business a year. And its production quantity of nylon and polyester is greatest in Japan.

Torey cooperated with Du Pont in 1951, and started to produce nylon fiber. Torey also started to produce polyester fiber in 1957, and rapidly magnified synthetic fiber production. Torey increased its domestic factories' production capacity. On this time, Torey based on domestic demand and export was not so large.

Torey and other synthetic makers grouped buyers and weaving factories to keep and enlarge their market. In Japan, many textile industrial regions were there, and had formed their own industrial structures. Buyers in textile industrial regions played a role of channel through which the products were distributed in the central market or all Japan. They organized many weaving factories and made original industrial structure. Synthetic makers destroyed their traditional industrial structures and re-organized them. Synthetic makers and 'shosha' (for example, Itouchu, Marubeni, etc.) supplied fibers to buyers in textile industrial regions, and buyers made their grouped weaving factories to produce synthetic clothes. Synthetic clothes were sold by shosha. This production system was called 'chop production system'. But Torey and other synthetic fiber makers didn't have enough know-how to manage industrial systems. So they withdrew from textile industrial regions in a short period except for some regions which had great production capacity.

But after 1965, Torey and other synthetic makers' strategy changed. The trigger of their making inroads into foreign countries was the depression in 1965. After the depression, synthetic makers increased their exportation which took the place of reduced domestic market to keep their profits. But domestic factories gradually lost their competitive power. With the economic growth of Korea and Taiwan, Japanese textile import increased greatly. These countries with their cheap labor were trade rivals of Japan. Japanese buyers and weaving factories were distressed by them and competitive power of Japanese buyers and weaving factories were weakened. Domestic factories were based on only domestic demand. The decrease of producing textiles means the decrease of consuming synthetic fibers. So synthetic fiber and textile makers built their factories in East and Southeast Asia to secure those countries' market and export to other countries (Table 2).

Fiber and textile makers re-structured their industrial systems. Many fiber and textile makers did not only increase their exportation but also build their new and powerful factories in East and Southeast Asia (Korea, Taiwan, Indonesia, Thailand etc.). They also prepared domestic factories and increased their productivity and cut costs.

After the Oil Crisis, Japanese textile industries lost their competitive power, and textile import increased rapidly. Torey was no exception to this rule, and decreased its operation rate. After the depression of 1965, Torey had built many factories in East and Southeast Asia. Domestic factories based on only domestic demand, and could not increase their exportation.

Table 2 Torey's Made Inroads Enterprises Into Foreign Countries

name	established year	inroaded country	undertaking
Trilon Co.Ltd	1956	Hong Kong	import and sale of textile
Thai Torey Textile Mills	1964	Thailand	spinning and weaving
Ceylon Synthetic Textile Mills	1965	Sri Lanka	weaving
Torey Industries Inc.	1965	U. S. A.	office
Ethio - Japanese Synthetic Textile Share	1966	Ethiopia	weaving
遠東紡織股份有限公司	1966	Taiwan	making synthetic fiber, weaving, apparel
Torey Nylon Thai Co.Ltd	1967	Thailand	making nylon fiber
Industries Sinreticas de Cnrtro America	1967	El Salvabor	spinning and weaving
Hilana C.A.	1967	Venezuera	spinning
Thai Kurabo Co.Ltd	1970	Thailand	spinning and weaving
新光合成纖維	1970	Taiwan	making synthetic fiber
Torey Europe Ltd.	1970	England	office
Sian Synthetic Textile Indusury Ltd.	1970	Thailand	weaving
Kolon IndustriesInc.	1971	Koria	spinning
P.T. Textfiber Indonesia	1971	Indonesia	making synthetic fiber
P.T. Indonesia Synthetic Textile Mills	1972	Indonesia	spinning and weaving
P.T. Century Textile Industry	1972	Indonesia	spinning and weaving
第一合織	1972	Koria	spinning and weaving
Luckytex Ltd	1972	Thailand	spinning and weaving
Matoray Ltda.	1972	Brazil	office
General Cotton Mill Ltd.	1973	Nigeria	spinning, weaving and making apparel
P.T. Indonesia Torey Synthetics	1973	Indonesia	spinning
Torey Industries Ltd.	1974	Hong Kong	office
C.T.T. International Ltd.	1974	Hong Kong	trading office
Penfiber Sdn. Bhd.	1974	Malaysia	spinning
P.T. Acryl Textile Mills	1975	Indonesia	spinning
Penfabric Sdn. Bhd.	1975	Malaysia	spinning and weaving
P.T. Easterntex	1975	Indonesia	spinning and weaving
Alcantara S.p.A.	1975	Italy	making man made leather
東榮	1980	Taiwan	trading office
Toray Industries Pte. Ltd.	1984	Singapore	office
Toray Industries Inc.	1985	U. S. A.	making film
Mitsiam Textile Marketing Co.Ltd.	1985	Thailand	marketing
Societe des Fibres de Calbone S.A.	1985	France	selling carbonic fiber
Torey Deutsland	1986	Germany	selling plastic goods
大韓精密	1987	Korea	selling machines
HIFLO Inc.	1988	U. S. A.	making plastic goods
Pacific Dialysis Center Ltd.	1989	Hong kong	medical service
Pensanko Precision Sdn.Bnd.	1989	Malaysia	making resin goods
Torey Plastics Malaysia	1990	Malaysia	making ABS resin
Dupon Torey Pte.Ltd.	1991	Singapore	making polyurethan fiber
Torey Fibers Ltd.	1992	Thailand	making synthetic fiber

Source : Tabele of Enterprises Made Inroads into Other Countries 1993 Toyokeizai Data Bank

So they had to increase their productivity to cope with the depression.

By the stable growth of economy, the recession was got over. Especially after 1980, Torey increased its production capacity and productivities. In those days, Torey sifted its main products from synthetic fiber to chemical products, ABS resin and film (Table 3). But after 1988, the exchange rate of yen have risen and importation have increased. Especially synthetic fiber makers in Taiwan have increased their production capacities and export synthetic fiber and textile to Japan. So Torey has decreased its production. Before 1988, Torey and other Japanese synthetic fiber makers' production capacities and productivities (which include their factories made inroads into foreign countries) were great and their products distributed over East and Southeast Asia market. But after 1988, Taiwan and Korea strengthened their competitive power, and they export not only textiles and clothes but also synthetic fibers. Their competitive power have exceeded Japanese factories' power. The growth of Taiwan and Korea enterprises have made new international divisions of labor.

Re-structuring of synthetic fiber makers influence on textile industrial regions. In the next chapter, I will investigate a structural change and re-organization of textile industrial region.

3. Structural changes and re-organization of textile industry during the rapid growth of economy: Case study of Mitsuke weaving industrial region, Niigata prefecture

In this chapter, I will try not only to explain a regional study but also to make clear the changes of Japanese textile industry during the rapid growth of economy on the case study of Mitsuke weaving industrial region.

Mitsuke is one of traditional small and medium-sized industrial regions in Japan. Its products are distributed all over the country. Now, I focus on a part of synthetic makers and other large firms (especially apparel makers) based on Tokyo and Osaka which played an important role in the change of industrial organization in Mitsuke.

In the period 1950~59, there were two different agents who distributed the textile fabrics produced in Mitsuke. The one was buyers who took orders from wholesalers in the metropolitan area and gave them to weaving factories. Therefore the buyers played a role of channel through which the products were distributed in the central market or all Japan. The other was wholesalers in Mitsuke region who bought products weavers had manufactured without any order and sold them to retailers. The wholesalers in Mitsuke region distributed the goods only in some limited local markets. The buyers had a strong power than the wholesalers in Mitsuke region, so that a lot of weaving factories in Mitsuke were dominated by the former. Both the buyers and the wholesalers lived in Mitsuke, and capital outside this city, namely large firms based in the metropolitan areas, had not invaded the industrial organization in Mitsuke yet.

In those days, large firms producing synthetic fiber sought to dominant traditional small and medium-sized industrial regions, where textile fabrics were manufactured, in order to keep

Table 3 Toray's Main Production Capacity of Domestic Factories

factory	1960	1965	1970	1975	1980	1985
Shiga	R/Fi 2625t/m N/Fi 204t/m	N/Fi 1250t/m N/S 225t/m N/F 52t/m Film 230 t/m T 43000m ² /m	N/Fi 2177t/m N/S 255t/m Film 1100t/m T 28000m ² /m	N/Fi 2177t/m N/S 255t/m Film 1000t/m T 5000m ² /m	N/Fi 1831t/m N/S 204t/m Film 950t/m	N/Fi 1181t/m N/S 204t/m
Ehime	R/S 3780t/m R & N/Fi 381t/m T 939000m ² /m	P/S 682t/m To/S 633t/m R/S 3078t/m T 6000m ² /m	P/S 2315t/m To/S 3510t/m R/S 1302t/m T 4000m ² /m	P/S 3338t/m To/S 3960t/m T 1000m ² /m	P/S 4637t/m To/S 3953t/m	P/S 6403t/m To/S 3586t/m
Seta	Sp 706t/m T 491000m ²	Sp 644t/m T 599000m ² /m	Sp 603t/m T 567000m ² /m	Sp 554t/m T 55000m ² /m	Sp 575t/m	Sp 175t/m
Nagoya	N/S 450t/m N/F 24t/m To/S 90t/m	N/S 601t/m N/C 335t/m ABS 180t/m	N/S 794t/m N/C 950t/m ABS 500t/m	N/S 794t/m N/C 1170t/m ABS 900t/m	N/S 1080t/m N/C 1600t/m	N/S 1380t/m N/C 2400t/m
Aichi	N/Fi 1854t/m	N/Fi 1955t/m	N/Fi 2542t/m	N/Fi 2542t/m	N/Fi 2498t/m	N/Fi 2519t/m
Okazaki	N/Fi 602t/m	N/Fi 1872t/m N/S 1569t/m	N/Fi 3799t/m	N/Fi 3812t/m P/Fi 90t/m	N/Fi 3641t/m P/Fi 585t/m	N/Fi 3819t/m P/Fi 1095t/m
Mishima	P/Fi 339t/m P/S 924t/m	P/Fi 1405t/m P/S 1569t/m	P/Fi 3799t/m P/S 2188t/m	P/Fi 3914t/m P/S 2523t/m	P/Fi 4016t/m P/S 2671t/m	P/Fi 4310t/m P/S 1089t/m Film 1600t/m
Kawasaki			Ph 315000t/y	Ph 450000t/y	Ph 450000t/y	Ph 450000t/y
Chiba			ABS 1500t/m	ABS 1800t/y	ABS 3600t/y	ABS 4600t/y
Tsushima			Film 250t/m	Film 900t/m	Film 1000t/m	Film 1000t/m
Gifu				Film 730t/m	Film 2000t/m	Film 2300t/m
Ishikawa				P/Fi 603t/m	P/Fi 2130t/m	P/Fi 2280t/m N/Fi 447t/m

Notes : N : nylon P : polyester R : rayon To : torelon T : textile ABS : ABS resin Ph : pharmaceuticals Fi : fiber F : filament S : staple
C : chip Sp : spinning fiber

Recent yeras, Toray does not publish each factories' production capacity.

Source : Yearly Report of Toray

and enlarge the yarn market. This strategy succeeded to some extent, and almost all the weaving factories in Mitsuke came to manufacture the synthetic fiber into cloths in the 1960s. The small and medium-sized weaving factories could sell their products with some chop or brand in this way. This is called "chop production system". This re-organization was, however, promoted not by the large firms but by the buyers, so that the power of the latter was strengthened in the industrial organization in Mitsuke. On the other hand, the large firms did not always find that their interests could be developed in this system. It indeed worked only for several years. But chop production system made large influence on Mitsuke industrial region. On traditional production system, production plans which play an important part in fashion industry were made by buyers. But, on chop production system, production plans were made by shosha, and buyers lost their planning ability. So after the 1960s, Mitsuke weaving industrial region lost its individuality, and became a subcontract of large firms in metropolitan area.

The so-called "policy for structural improvement" was carried out in the period 1967~73 for the purpose of modernization of the weaving industry in Mitsuke. As a result of governmental policy, almost all the weaving factories and buyers in Mitsuke industrial region were involved in a merger movement to strengthen their international competitive position and some new weaving companies were born. These became perfect subsidiary companies of the large firms or, in some case, of some shosha which acted as an agent of a large synthetic fiber makers. These large firms based in the metropolitan areas took the initiative in promoting this new re-organization, but not on their own risk. While the large firms could realize their aims, many weaving companies found their business less and less profitable under the increasing competition with other countries (especially Korea and Taiwan) and some went even bankrupt. The background of this decline of the weaving industry in Mitsuke was that the large firms ignored the traditional relations between weaving factories and buyers. They furthermore withdrew some part of their capital from weaving industry in Mitsuke and invested it overseas instead, as a new international divisions of labor proceeded. We may well conclude that the textile industry in Mitsuke has declined because of the corporate strategy of the large synthetic fiber makers.

After the Oil Crisis, Japanese textile industries lost their competitive power, and textile import increased rapidly. Many textile industrial regions lost their productivity, and traditional industrial structures had been broken. Mitsuke region was no exception to this rule, many merger companies went bankrupt, and Mitsuke weaving industrial region lost main production capacity. Survived weavers' and buyers' production capacities were not so large, and kept traditional industrial structure.

On those days, apparel makers grew rapidly in metropolitan area. They grouped buyers and weaving factories in industrial regions, and produced clothes and goods of high quality. After the 1980, apparel makers advanced also into Mitsuke region. I will investigate the industrial structure of apparel makers in next chapter and also investigate structural change of Mitsuke weaving industrial region after the 1980s in chapter 5.

4. Industrial structure of apparel makers

In this chapter, I want to make clear the industrial structure of apparel makers. To achieve this purpose, I investigated to 32 apparel makers in Tokyo, in 1992 (Table 4). Investigated firms were selected at random. But the firms which have more than 100 employees were almost investigated. There are some large enterprises, but almost of them are small and medium-sized firms. Many of them manufacture ladies' wears. Because ladies' wears are expensive and profit is very large. Manufacturing processes of these firms are following: design 26 firms, weave and knit 2 firms, print 3 firms, sew 10 firms, retail sale 5 firms, other 5 firms. Many apparel makers take charge of designing and wholesaling, and do not have manufacturing function. These apparel makers manufacture clothes depending on factories to subcontract. The location of subcontract factories are pointed out in Fig. 1. Weaving and knitting factories are largely distributed. These factories range all over Japan, and some factories make inroads into East and Southeast Asia (Korea, China, Taiwan and Thailand). But sewing factories and direct management factories are concentrated on Tokyo metropolitan area.

Weaving and knitting processes need high technical skill. So apparel makers must depend on traditional industrial regions. Apparel makers have grouped weaving and knitting factories and produced commodities of high quality. Only few apparel makers have made inroads into East and Southeast Asia to down their production cost. Because factories in East and Southeast Asia can not keep their quality level high. Comparatively mass-produced commodities are made in these factories. So it is important for apparel makers to organize domestic textile factories. Apparel makers have re-organized many domestic weaving and knitting industrial regions. In next chapter, I will try to investigate the re-organization of industrial regions on some case studies.

On the other hand, sewing factories are concentrated on Tokyo metropolitan area. Generally speaking, sewing factories are located in local area to use cheap labor. In Japan, many sewing factories have built in Northeast region. But local factories can not keep their quality level high, and apparel makers can not manage them enough. And it is difficult for local factories to deliver commodities to apparel makers in short terms. So apparel makers organize subcontract factories and build their direct management factories in Tokyo metropolitan area. For sewing factories, management of apparel makers is very important. Apparel makers always check their commodities, and amend them in short terms. Apparel makers' designers always visit sewing factories and discuss with workers. So sewing factories can not leave Tokyo metropolitan area.

Apparel makers also manage weaving and knitting factories. But weaving and knitting processes need very high technical skill, so designers can not manage craftsmen enough. Thus designers do not visit weaving and knitting factories often, and they can leave Tokyo metropolitan area. Apparel makers must depend on traditional industrial regions. The distance from metropolitan area has provided textile industries' regional re-organization and spacial divisions of labor.

Table 4 Industrial Features of Apparel Makers

Firm	Number of employees	yearly turn over	manufacturing clothes	manufacturing processes	forwarding shops
1	530	20,000,000,000¥	ladies' and men's wear	1, 4, 6, 7 * 1	1, 2, 4, 5, 6, 9, 10* 2
2	350	11,000,000,000	ladies' wear	1, 4, 5, 6	1, 5, 7, 8
3	260	7,500,000,000	ladies' wear	1, 6, 7	1, 2, 5, 8
4	90	4,500,000,000	ladies' wear	4	3
5	82	3,300,000,000	ladies' wear	1, 4, 5, 6	7, 8, 9
6	106	3,270,000,000	casual wear	1, 6	5, 6, 7, 8, 9
7	17	1,100,000,000	ladies' wear	1	N.A.
8	10	840,000,000	casual wear	1, 6, 7, 8	1, 2, 10
9	11	800,000,000	ladies' wear	6	7
10	16	800,000,000	casual wear	1, 6	5, 6
11	14	800,000,000	ladies' wear	1, 2, 3, 4, 6	4, 5, 7, 8
12	12	800,000,000	ladies' wear	6	7, 8
13	14	640,000,000	ladies' wear	1, 6	5, 6, 7, 8
14	9	600,000,000	ladies' and men's wear	1, 7	7, 8
15	7	550,000,000	children's wear	1, 4, 6	3, 4, 5, 6
16	30	500,000,000	ladies' wear	1, 6, 8	1, 5, 7, 8
17	10	450,000,000	children's wear	6	7, 8
18	10	400,000,000	ladies' wear	1, 4, 6	3, 4, 7, 8, 9
19	6	400,000,000	ladies' wear	1, 6, 8	2, 3, 4, 9
20	6	300,000,000	ladies' wear	6	2, 3, 4, 7, 8, 9
21	5	300,000,000	ladies' wear	1, 4, 6	7, 8, 10
22	6	220,000,000	ladies' wear	1, 6	7
23	4	210,000,000	ladies' wear	1, 2, 3, 4, 6	3, 10
24	5	2100,000,000	ladies' wear	6	9
25	4	200,000,000	ladies' and men's wear	1, 3	3, 8
26	4	200,000,000	ladies' wear	1, 6, 8	5, 7, 8
27	4	130,000,000	ladies' wear	1, 6	4, 5, 7, 8
28	4	120,000,000	uniform	1, 3, 4, 6	10
29	6	80,000,000	cut sew	1, 8	N.A.
30	2	50,000,000	ladies' wear	1, 6	7, 8
31	7	35,000,000	ladies' wear	1, 6	5, 7, 8
32	2	29,000,000	ladies' wear	1, 6	7, 9

notes : * 1 1 : design 2 : weave and knit 3 : print 4 : sew 5 : button 6 : wholesale 7 : retail 8 : others

* 2 1 : direct management shops 2 : franchise chan 3 : wholesalers in metropolitan area 4 : wholesalers in local city 5 : department store
6 : supermarket 7 : specialty stores in metropolitan area 8 : specialty stores in local city 9 : general clothing stores 10 : others

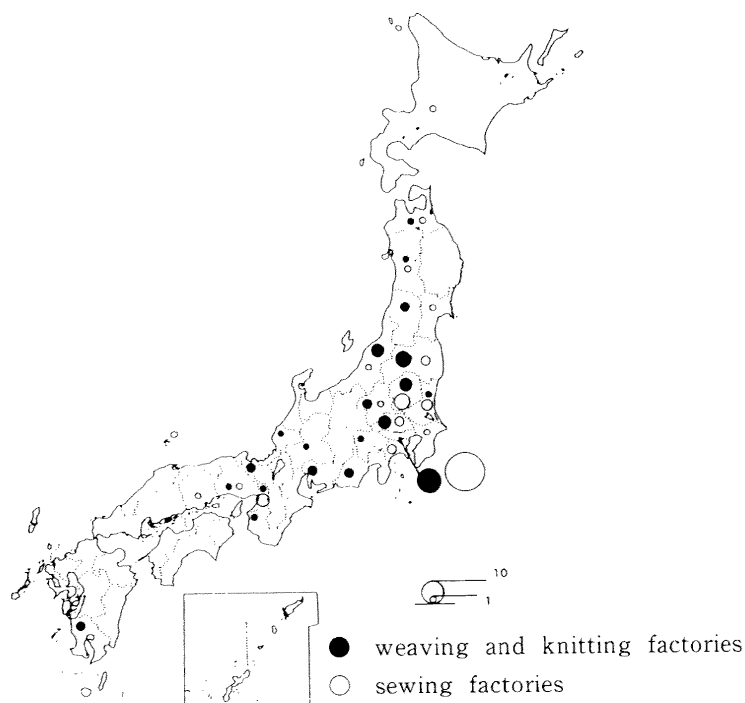


Fig 1 The location of apparel makers' subcontract factories

Next, I will investigate apparel makers' forwarding shops. Their forwarding shops are following: direct management shops 5 firms, apparel makers' franchise chains 5 firms, wholesalers in metropolitan area 8 firms, wholesalers in local city 7 firms, department stores 12 firms, supermarkers 5 firms, specialty stores in metropolitan area 20 firms, specialty stores in local cities 18 firms, general clothing store 8 firms, others 5 firms. The rate of directly forwarding to shops is very high. Especially many apparel makers forward their commodities directly to specialty stores. Before the 1980s, apparel makers could not forward their commodities to shops directly. The circulate of textile commodities were managed by wholesalers. But wholesalers mainly dealt with commodities of common quality. After the 1980s, they can not deal with high-class commodities which consumers demand. The growth of apparel makers changes the circulate route of textile commodities.

Next I will investigate apparel makers' 'total fashion'. Some apparel makers produce fashion goods to make more profit. On my investigation, 8 apparel makers produce fashion goods (Table 5). But all apparel makers do not make fashion goods by themselves. They only take charge of designing and wholesaling, and depend on traditional industrial regions (many of them are located in metropolitan area). But these apparel makers are limited to comparatively large firms. These firms have grouped fashion goods factories, and re-organized their industrial structure. I will investigate about this in chapter 7.

Table 5 Fashion goods produced by apparel makers

miscellaneous goods	5 makers
handbag	5
belt	3
hat	3
shoes	3
jewel	3
accessory	2
handkerchief	2
necktie	2
others	3

5. Structural change of weaving and knitting industrial regions

With the growth of apparel makers, weaving and knitting industrial regions have been re-organized by them. In this chapter, I will investigate re-organization of industrial structure on some case studies.

(1) Re-organization of Mitsuke weaving industrial region, Niigata prefecture

As I have investigated in chapter 3, before the 1980s, Mitsuke weaving industrial region was managed by buyers in Mitsuke region. Buyers had collected information of market, and had received orders from wholesalers in metropolitan area. They grouped weaving factories in Mitsuke region and manufactured textile.

After the 1980s, buyers have lost designing function and they only hand over apparel makers' orders to weaving factories. Buyers and weaving factories are grouped by apparel makers. But the relation between apparel makers and buyers is not so close. Apparel makers do not place orders continuously, and do not forbid buyers and weaving factories manufacture other apparel makers' orders. This means that apparel makers do not bear the responsibility for management of buyers and weaving factories. Why their relationship is so loose? The reason of this is that apparel makers do not deal in mass produced commodities. They change their commodities in short term, so their lots of orders are frequent and very small. Apparel makers must cope with much designs, but each weaving factory can not manufacture all of them. So apparel makers trade with many weaving factories at the same time and the relationship with each buyer and weaving factory become loose.

But apparel makers' re-organization has some influences on Mitsuke industrial region. Weaving factories must correspond to small lots and short delivery. Before the first half of the 1980s, 1 lot was about 500~1,000m, and delivery was about 60~90days. But now, 1 lot is about 300m, and delivery is about 45days. This is smallest and shortest limit for weaving factories to manufacture textile. Weaving factories have to equip themselves new machines to correspond this change. But apparel makers' amount of payment is not so large. Weaving factories must share more cost by themselves.

Weaving factories have shifted their cost onto their subcontract factories. In many Japanese traditional industrial regions, social divisions of labor have been formed. Using this system, weaving factories correspond to apparel makers' orders and manufacture commodities of high quality.

(2) Re-organization of Hobara-Yanagawa knitting industrial region, Fukushima prefecture

Hobara-Yanagawa knitting industrial region is located in north area of Fukushima prefecture. Its main production is sweater for young ladies. Hobara-Yanagawa knitting industrial region was organized after the World War II. It has only short history, and its character differs from traditional industrial region like Mitsuke. There is no buyer in Hobara-Yanagawa industrial region, and each knitting factory is related with 'shosha' and wholesalers in metropolitan area directly. Before the Oil Crisis, they manufactured only mass produced commodities for domestic and international market. At that time, consumers did not demand high-class commodities so much, and the technical level of knitting factories in Hobara-Yanagawa region was not so high. But after the Oil Crisis, domestic market was rapidly reduced, and the rise in the exchange rate of the yen made knitting factories lost export market. Hobara-Yanagawa industrial region had fallen into a recession. This recession had continued till the mid-1980s.

After the mid-1980s apparel makers have grouped knitting factories instead of 'shosha' and wholesalers in metropolitan area. On this stage, designing function is monopolized by apparel makers, and knitting factories lose their originality.

Apparel makers demand knitting factories to manufacture small lots of commodities (1 lot is about 50 clothes) of high quality in short terms (30~60 days). But it is impossible for knitting factories which have only old type machines to correspond to apparel makers demand. Knitting factories must equip 'computer organized machine'. But 'computer organized machine' is very expensive (it needs about \$100,000~400,000 to equip one machine) and the life of it is only 4 years. Knitting factories must continue large investment in machines. Knitting factories in Hobara-Yanagawa region bear large expenses for trading with apparel makers.

On the other hand, some knitting factories in Hobara-Yanagawa region have grown. By the trading with apparel makers, the technical level of knitting factories has been risen and they equip highly efficient machines. Different from weaving factories, knitting factories manufacture completed clothes. So knitting factories can forward commodities to shops directly if they have enough designing ability. Some knitting factories employ designers and produce their own commodities. They take their originality back. But they are limited to some large factories. Almost factories do not have designing ability and do only subcontracted work.

As the popularization of high class fashion, apparel makers monopolize the designing and wholesaling function instead of 'shosha', wholesalers in metropolitan area and buyers in industrial region. They have re-structured weaving and knitting industrial regions, and re-organized spacial divisions of labor. According as the re-organization, the role of metropolitan area is strengthened and local area's place has been fallen.

6. Textile makers' international divisions of labor —Case study of Wacoal—

Textile makers have changed their industrial structures to proceed with international divisions of labor. They have re-organized domestic industrial regions and have made inroads into East and Southeast Asia by their strategy. In this chapter, I will study international division of labor at present time with case study of ladies' underwear maker — Wacoal.

Wacoal is largest ladies' foundation garments maker in Japan. Wacoal's sales of 1992 was about 1,110 million dollars (foundation 916 million \$, night wear 157 million \$, underwear for kids 37 million \$).

Wacoal is known to produce highest quality ladies' foundations. Wacoal have 10 factories in Japan (Miyazaki, Kumamoto, Nagasaki, Fukuoka, Osaka, Kyoto, Fukui, Shizuoka, Niigata, and Fukushima) and more than 40% of commodities are produced by them. Underwear is comparatively cheap and many makers produce them in East and Southeast Asia. Wacoal also built factories in Korea, Taiwan, and Thailand in 1970 (Table 6). These factories aimed to produce commodities using cheap labor and export them to Japan. But they could not keep their quality level high, so Wacoal did not build new factories in foreign countries till middle of 1980s and increased productivities of dominant factories. One more reason is that it is impossible to get enough texture and parts (for example metal wire etc.) to produce high quality commodities in East and Southeast Asia. So Wacoal must export them to factories in foreign countries from Japan, and cost price rises to about 70% of dominant factories. The merit of building factories in East and Southeast Asia is small for Wacoal. Comparatively mass-produced commodities are made in these factories.

To cover this weakness, Wacoal does not only re-import foreign countries' production to Japan but also sell them in East and Southeast Asia. Wacoal uses foreign countries' factories to magnify its market.

On the other hand, domestic factories of Wacoal are managed to increase their productivities. Employees are trained to produce any commodities, so domestic factories can produce many types of high quality commodities in short term. Commodities of Wacoal are composed of high quality produced by domestic factories and common goods produced by foreign factories.

7. Industrial structures of fashion goods

As I investigated in chapter 4, apparel makers begin to produce fashion goods after the mid-1980s. But they can not manufacture fashion goods by themselves, and depend on traditional industrial regions. In Japan, many fashion goods are manufactured in metropolitan area. Apparel makers are conveniently located to make use of them, and have made a close relation with them. In this chapter, I will investigate the structure of fashion goods industry on some case studies.

Table 6 Wacoal's Made Inroads Enterprises Into Foreign Countries

name	established year	inroaded country	undertaking
Wacoal Korea Co. Ltd. 台湾華歌爾	1970	Korea	making and selling ladies' inner wear
Thai Wacoal Co. Ltd	1970	Taiwan	making ladies' inner wear
Wacoal Singapore Pte. Ltd.	1970	Thailand	making and selling ladies' inner wear
Wacoal International Corp.	1980	Singapore	selling ladies' inner wear
和江留投資	1981	U. S. A.	investment office
Wacoal America Inc.	1983	Taiwan	investment office
Atlantic Mfg. Corp.	1983	U. S. A.	selling ladies' inner wear
Carlism Mfg. Corp.	1983	Balbados	making apparels
General Fashions Corp.	1983	Puerto Rico	making apparels
Wacoal Hong Kong Co. Ltd.	1984	Puerto Rico	making apparels
北京華歌爾服裝	1984	Hong Kong	selling ladies' inner wear
Philippine Wacoal Corp.	1986	China	making and selling ladies' wear
Saradona MFG. Corp.	1989	Philippine	selling ladies' inner wear
Wacoal France S.A.	1989	Dominica	making apparels
Indonesia Wacoal Co. Ltd.	1990	France	selling ladies' inner wear
	1991	Indonesia	making and selling ladies' inner wear

Source : Tabele of Enterprises Made Inroads into Other Countries 1993 Toyokezai Data Bank

(1) Structural change of handbag industry

In Japan, leather bag has a long history. It is manufactured in large city (Kyoto, Osaka etc.), and mainly used by soldiers. As construction of Tokyo, new leather bag industrial region was formed in its down town area. After the World War II, consumers demanded many handbags, and handbag industry had grown with the rapid growth of economy. In the 1960s, handbag factories designed new fashion and Tokyo became the center of Japanese handbag industry. In that days, handbag factories grouped many craftsmen and made them process leather parts of handbags. Handbag factories assembled them and forwarded commodities to wholesalers. As handbag factories were located in Tokyo metropolitan area, there was no regional buyer. So, handbag factories also had the function of buyers. This structure is basically inherited still now.

After the 1980s, consumers demand handbags of high class fashion. But handbag factories and wholesalers can not correspond enough to this demand. On this stage, apparel makers begin to design handbags. Apparel makers have produced 'total fashion brand', and produce various fashion goods. They put their designing ability to practical use, begin to design handbags instead of handbag factories. Similar to weaving and knitting industrial regions, handbag factories have lost their originality and they have become to do only subcontracted work. By this change, handbag factories' profit have decreased. To keep their profit, handbag factories have increased their subcontract factories and have shifted their cost onto their subcontract factories. Now one handbag factory has more over 10 subcontract factories. Apparel makers have re-organized traditional industrial structure, and have weakened handbag factories and wholesalers.

(2) Structural changes of accessory industry

Accessory industry is located also in metropolitan area. The feature of accessory industry is the linkage to metal industry. Accessory industry has formed social divisions of labor, similar to other fashion industry. It must depend on casting, planting, and other metal processing industry. So it has to be located near metal industrial region. In Tokyo metropolitan area, there are some industrial complex region. Especially down town area, many fashion, metal and other industries are located, and they support each other. Fashion industries which are located in metropolitan area have a clear advantage over which are located in local area. Apparel makers are also supported by neighbouring to this industrial regions. The role of industries in metropolitan area is very important for fashion industries. But recent years, Tokyo has shifted its economic leading part to information and finance industry, and traditional industries have declined. But if we lose few industries in metropolitan area, we will not be able to produce high added value fashion goods.

Accessory industry have been supported by industrial complex in down town area, and organized by wholesalers also in it. Wholesalers design accessories and place orders for accessory factories. Accessory factories group subcontract factories and manufacture commodities. But recent years, new industrial structure is formed. Some accessory shops

directly place orders for accessory factories instead of wholesalers. Wholesalers can not correspond to change of fashion and various circulation. Now, direct trade is increasing.

But shops which can trade directly with accessory factories are limited by their location. Accessories are not so expensive, and it is difficult for shops to make sure of their profit. If shops in local area want to trade directly with accessory factories, they will not be able to make profit. The distance from metropolitan area is very important not only for factories but also for shops.

The spread of high class fashion have re-structured fashion industries' spacial divisions of labor. The superiority of metropolitan area has been strengthened.

8. Japanese textile industries, its classifications of stages

Textile industries were obliged to shift their industrial centers to East and Southeast Asia. Building factories in foreign countries is closely related to the re-organization of structures of textile industries in Japan. By some case studies, I classify the trends of Japanese textile industries into some stages which are related to changes of industrial structures and regional re-organization.

The 1st stage (1950-65): In this stage, textile industries aimed at mass production. By the World War II, many factories were destroyed and could not supply people with enough clothing. In the first half of this stage, buyers in textile industrial regions took leadership. They played a role of channel through which the products were distributed in the central market or all Japan. They organized many weaving factories and made original industrial structure.

In the latter half of this stage, synthetic fiber makers (Torey, Teijin etc.) grouped many buyers and weaving factories. But synthetic fiber makers didn't have enough know-how to manage industrial systems. So they withdrew from textile industrial regions in a short period except for some regions which had great production capacity.

In this stage, both export and import of textile were not so large. Production systems were based on domestic demand.

The 2nd stage (1966-73): In this stage, textile trade made great increase and caused some problems. With the economic growth of Korea and Taiwan, Japanese textile import increased greatly. These countries with their cheap labor were trade rivals of Japan. In those days, Japanese textile market did not mature enough yet, quality of commodities were comparatively low. Both of domestic factories and made inroads factories into other countries made same type commodities. So growth of import from Korea and Taiwan influenced Japanese textile industry. At this time, synthetic fiber makers took leadership. They organized buyers and weavers, and made production teams in industrial regions. But Korea and Taiwan made rapid growth of economy beyond their expectation. Many production teams bankrupted. Many industrial regions lost their production capacity and regional leaders.

In this stage, many fiber and textile makers built their factories in East and Southeast Asia.

The trigger of their making inroads to foreign countries was the depression in 1965. After the depression, fiber and textile makers re-structured their industrial systems. They increased the productivity of domestic factories and cut labors. But domestic factories gradually lost their international competitive power, and they were based on domestic demand. So textile makers built their factories in East and Southeast Asia to secure those countries' market and export to other countries.

The 3rd stage (1973-79): After the Oil Crisis, Japan textile industries lost their international competitive power, and textile import increased rapidly. Many textile industrial regions lost their productivity, and traditional industrial structures had been broken. Many textile makers built factories in East and Southeast Asia, and began to export clothes to Japan. In this stage, textile industrial centers in East and Southeast Asia aimed to export their commodities not only to other countries but also to Japan.

The 4th stage (1980-): After the 1980s, apparel makers have grown and have produced commodities of high quality instead of wholesalers in metropolitan area and buyers in industrial regions. Apparel makers have monopolized the designing function and local industrial regions have lost their originality. Factories located in local industrial regions have lost their designing ability and do only subcontracted work. Apparel makers have re-structured weaving and knitting industrial regions, and re-organized spacial divisions of labor.

Not only textile commodities, apparel makers also have produced 'total fashion brand', and produce various fashion goods. They put their designing ability to practical use, begin to design various fashion goods instead of fashion goods factories and wholesalers. Apparel makers have re-organized traditional industrial structure, and have weakened factories and wholesalers. According as the re-organization, the role of metropolitan area is strengthened and local area's place has been fallen.

On the other hand, textile makers built factories especially in China. In China, workers' wages are cheap, and industrial techniques are comparatively high. So many textile makers moved their industrial centers to China. These factories aim to export their commodities to Japan. Japanese market is composed of commodities of high quality produced by domestic factories and commodities of common quality produced by foreign factories.

Textile makers have changed their industrial structures to proceed with international divisions of labor. They have re-organized domestic industrial regions and have made inroads into East and Southeast Asia by their strategy.

Japanese textile market is stratified in some classes by the quality of commodities. And these classes correspond to international divisions of labor. So in spite of rising the exchange rate of yen, textile industries in Japan keep domestic industrial structure, and make strong its industrial linkage.