

The Flavor Industry in Japan

By Leslie L. Blau, PFW/Hercules, Middletown, New York

Not a day goes by without another article in the newspapers and magazines directed toward the subject of understanding "Japan Incorporated." Much of the material is excellent, but a word of caution is in order. Care must be exercised to avoid arriving at generalities from specific studies, or the converse, making assumptions about individual situations from the perspective of reported generalities.

My information on the flavor business in Japan is based on personal experience and impressions gained during my seven years of working in Japan. I was sent to Japan to set up the PFW operations and later was given the responsibility to run the Hercules Far East offices for Japan, Korea, Taiwan, Hong Kong and the People's Republic of China.

It is not our purpose to study centuries of history, cultural development, nor the details of socio-economic Japan. If we wish to understand Japanese business, however, we must understand the context in which it operates.

Background of Japan

Japan is a country of approximately 120 million people living on a group of islands having a land mass of about 150 thousand square miles. The typical comparison is to position half the population of the United States into the state of Montana.

If Japan were to be moved around the globe, staying at the same latitude, the north end would be near Boston, Massachusetts and the south end would be near Daytona Beach, Florida. Japan covers about the same latitude as the US, and has similar climate. In land area, the US has more than 20 times the space for less than twice as many people.

Only 18 percent of Japan's land is arable and a high

percentage of that is devoted to inefficient, government subsidized rice production. Much of the food that Japan needs to survive is imported. While Japan's climate is favorable, the country is subject to earthquakes, typhoons and landslides. The standard cliché is that Japan's only resource is its people.

Japan is an urban nation with great masses of people centered in the Kanto and Kansai regions where Tokyo and Osaka are located. This concentration has forced the development of customs and habits that foster group cohesiveness, respect for the rights of others, and cooperation as opposed to confrontation. The lack of street violence is partly the product of cultural heritage and partly the need for social survival in a congested community.

The Japanese people perceive their country to be small and congested, and vulnerable to raw material, food and energy imports for its survival. Japan is a country extremely proud of its heritage and its accomplishments.

Japan's business environment is not static. It is a changing scene influenced by physical conditions, cultural background, historical development, technological advances, and changing international relationships.

Japan's Economic Growth

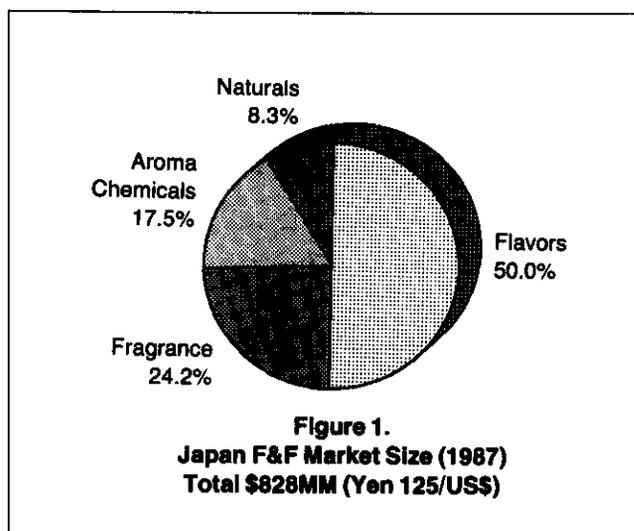
Despite congestion and the lack of natural resources, post-World War II Japan has emerged to develop into one of the highest per capita incomes in the world within an incredibly short period of time. Much of the structure of Japanese business originated and developed during and after the occupation. Japan is a society that in general, values harmony rather than confrontation, obligation rather than

rights, and consensus rather than direction.

A Confucian sense of position in society is strong. Age, education, and job status are important, but they are more to identify where a person fits in a group than to give individual status. While Zen has declined as a religious force, its tradition of respect for work and productivity lives on. Japanese business of today is influenced by its recent past. It has enjoyed economic stability with a rapid rate of growth and is influenced by a competent and effective bureaucracy. Its primary resource and preoccupation is its people. Japanese business is supported by a high sense of mutual obligation and a respect for hard work and performance.

Flavor Business in Japan

As far as the flavor business is concerned, Japan is one of the largest flavor markets in the world, second only to the United States. The Japanese spend 26 percent of their income on food, in comparison to Americans who only spend 15 percent. Flavor business, in the proper sense, started more than 100 years ago. Tsunekichi Matsuzawa, grandfather of the chairman of Chuo Koryo (Koryo means in Japanese, both flavor and fragrance) a small to medium-size flavor company, started importing flavors in Tokyo in



the first half of the Meiji Era, around the year 1882. In Osaka, Ogawa Koryo started the flavor business in 1893. In the early years, most of the flavor needs and flavor technology, in terms of raw materials and finished flavors, were imported from Europe and the United States. In the early 20th century, a very strong Japanese local flavor industry has emerged characterized by very strong research and development programs, and very aggressive sales and promotion efforts primarily in Japan, Asia, and now throughout the world.

The total flavor and fragrance market is estimated to be 120 billion yen or approximately \$828 million (One US dollar equals 145 yen) (Figure 1). It is interesting to note that in Japan, flavors are 50 percent of the total output in comparison to the United States where they are about 40 percent. In most countries, the fragrance business is larger than the flavor business. In Japan, it is the other way around.

The best way to understand the industry is to look at the membership of the Japan Flavor and Fragrance Manufacturers Association (JFFMA). It is composed of the following industry groups.

1. *Integrated houses:* Integrated houses manufacture and distribute natural products, fragrances, flavors and chemicals. In other words, they cover the entire gamut of product ranges associated with the fragrance and flavor industries. Examples of such companies are Takasago, Hasegawa, Ogawa, Soda, etc.

2. *General houses:* General houses manufacture and distribute compounded flavors and fragrances. They are not primary manufacturers of natural raw materials and/or chemical raw materials. Examples of

Editor's Note: Figures 1 and 2 are from the Japan Flavor and Fragrance Manufacturers Association. All other figures are the author's estimates.

Flavor Industry in Japan

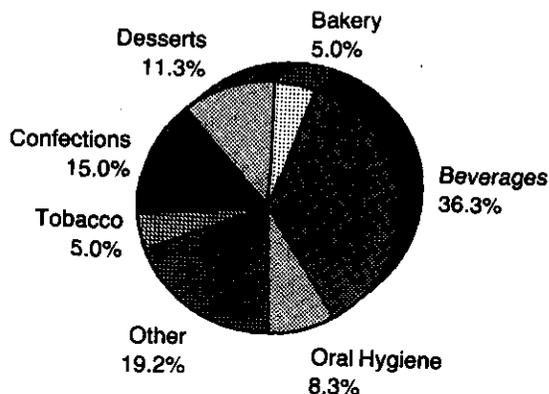


Figure 2.
Flavor Consumption in Japan
Total 1987 \$415MM ... (Yen 125/US \$)

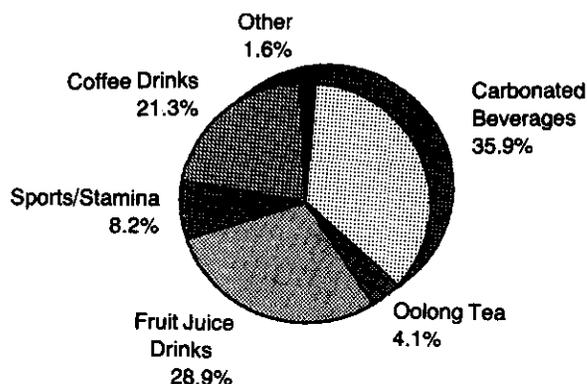


Figure 3.
Beverage Industry Sector (1987)

such companies are Takata, Nagaoka, and many more medium and small size companies.

3. *Synthetic chemical producers:* These are traditional manufacturers and distributors of chemical raw materials used in compounding by the flavor and fragrance industries. These are mostly petrochemical and pharmaceutical companies. Examples of such companies are Kyowa Hako, Takeda, Toda, Mitsui, etc.

4. *Dealers:* These are the people who are primary and secondary flavor and fragrance wholesalers. Examples of such companies are Seikodo Ishida, G. Shimizu, Daisho, etc. The dealer business in Japan is very unique to Japan. The dealers are not only wholesalers but also finance transactions for their customers. In fact, what they do is order products, import and/or inventory products and then they give very long credit terms. It's not uncommon in Japan to find that companies in general give credit of 120 days. Dealers would even extend longer credit terms (180-210 days).

5. *Agents:* Agents are mostly representative of international companies such as flavor and fragrance companies and/or raw material companies from abroad.

There are a total of 210 members in JFFMA.

The total flavor consumption in Japan is estimated to be 60 billion yen or \$415 million at an exchange rate of 145 yen per one US dollar (Figure 2). The soft drink industry is by far the largest customer group—36.1 percent, followed by confections—15 percent, desserts—11.1 percent, toothpaste—8.7 percent, bakery and tobacco—five percent each. Others, representing 19.2 percent, is made up largely by Ramen (an instant noodle), pharmaceuticals, etc.

Japanese Beverage Industry

The major market segment of the flavor industry is the beverage industry (Figure 3). Carbonated

beverages represent the largest share of this market at 35.9 percent. Many beverage products that are not so popular in the US are consumed in large quantities in Japan. Examples are canned tea and canned coffee. Distribution for this market is somewhat different in Japan than in the US. The most significant difference is the large vending machine distribution. Vending machines are found everywhere in Japan.

Some of the major manufacturers and their market

Table I. Carbonated Beverages

	<u>Ranking (Market Share %)</u>	
Cola flavored	1. Coca Cola	(90.1)
	2. Pepsico	(8.1)
	3. Others	(1.8)
Lemon lime	1. Coca Cola	(31.9)
	2. Asahi	(21.6)
	3. Kirin	(19.5)
	4. Others	(27.0)

Table II. Other Drinks

	<u>Ranking (Market Share %)</u>	
Canned coffee	1. Coca Cola	(31.3)
	2. UCC	(17.3)
	3. Pokka	(11.9)
	4. Daido	(10.1)
	5. Kanebo	(5.1)
	6. Others	(24.3)
Sports drinks/ stamina drinks	1. Ottsuka	(65.6)
	2. Coca Cola	(12.0)
	3. Yakult	(4.0)
	4. Others	(18.4)

Table III. Major Domestic Flavor Companies in Japan

<u>Company Name</u>	<u>Market Share %</u>
Takasago	21.2
Hasegawa	17.4
San-ei	8.6
Nagaoka	7.8
Soda	7.6
Shiono	6.6
Ogawa	6.6
Takada	4.0
Others	7.9

shares for carbonated beverages is shown in Table I. Coca-Cola is by far the market leader in the cola flavors, followed by Pepsi-Cola. In lemon-lime flavored beverages, Coca-Cola is the leader again, followed by Asahi, Kirin and others. Table II shows canned coffee, a large consumed product. The market leader is Coca-Cola followed by UCC, Pokka, Daido, Kanebo, and others. Other very significant markets in Japan are the sports drinks and the stamina drinks. The market leader is Ottsauka, followed by Coca-Cola, Yakult and others.

Japanese Food Industry

The food industry served by the flavor companies is characterized by a high degree of product diversification resulting from variations and changes in consumer preferences, habits and lifestyles. As a consequence, most consumer products have relatively short life span of less than five years.

Increasing consumer sophistication leads to demands for greater product individualization which means that flavor market research is required constantly, seeking to create a new product with special appeal to market subgroups, such as teenagers, singles, senior citizens, etc.

The major flavor suppliers to the Japanese food industry are shown in Table III. These are familiar domestic flavor companies. They represent 88 percent of the total flavor business in Japan. The largest flavor company is Takasago, followed by Hasegawa, San-ei, Nagaoka, Soda, Shiono, Ogawa, Takada, and approximately another 80 small to medium-sized companies. Only Takasago is a public company; the others are still privately owned.

Most of the flavor companies are located in the Tokyo and Osaka areas. Although both cities reflect a very Western facade, the people and customs remain very traditional and very Oriental. The business environment can be characterized as very conservative, based on a close relationship between suppliers and users. These relationships are built slowly based on total mutual trust and total commitment by the flavor companies to their customers.

Training of Flavor Chemists

The typical Japanese way of doing business both within the company organization and in approach to the market is characteristic of all Japanese flavor companies. Life-time employment and promotion based on seniority are a few worth mentioning. What makes these companies very special is perhaps best illustrated by the way they train their flavor chemists who stay with the company from the beginning to retirement (somewhat different than in the United States).

One of the reasons why it is said that the Japanese flavor chemists are not as creative as their Western counterparts is because, other than cultural and educational reasons, in Japan flavor chemists do not get an opportunity to be exposed to different ways of approaching flavor problems by working for different masters in different companies. Basically they are hired right out of college and they are trained within the company following a very systematic training procedure.

A flavor company selects candidates from graduates of technical universities. All new candidates, chemists or engineers, are assigned to the flavor laboratories after passing the vocational aptitude test. In the first stage, they have to comprehend completely both by smell and taste specific characters and features about flavor and fragrance raw materials, i.e. aroma chemicals, natural essential oils, absolutes, oleoresins, etc. This stage takes about two to three years.

In the second stage, in the flavor laboratories they

continue with the basic study of flavor-compounding based on fundamental formula and the analytical data from the analysis of natural compounds by gas chromatography, etc. During this stage they may ask for any advice from the senior flavor chemists. While compounding by themselves through trial and error, they come to understand more clearly how each specific character and feature of the raw material will affect and influence the finished flavor. The flavor chemist always has the objective to produce natural and/or artificial flavors such as to reproduce the taste as closely as possible to its natural counterpart. This stage takes another two to three years.

In the last stage, or in the sixth or seventh year of training, they study the effects and changes each flavor shows during processing of the food in which it is used. This study is made systematically so the flavor's effect can be maximized with minimum changes to the application. This stage takes an additional three to four years bringing the total years trained to about ten years.

Finally the candidate is assigned as a flavorist to a specific division. At this stage, a flavorist is required not only to do his flavoring work, but also to work with customers, visit them with salesmen for technical support, joint projects, etc.

Table IV. Major International Flavor Companies in Japan

<u>Company Name</u>	<u>Market Share %</u>	
IFF	2.2	(17.9)
Firmenich	2.2	(17.9)
Hercules/PFW	2.1	(17.1)
Quest	1.7	(13.8)
Givaudan	1.7	(13.8)
Haarmann & Reimer	0.9	(7.3)
FDO	0.5	(4.1)
Felton	0.5	(4.1)
Dragoco	0.1	(0.8)
Others	0.4	(3.2)
	100.0	100.0

Many flavor chemists, based on their seniority, are promoted into positions of top management, therefore, being able to influence company policies. There are many well qualified senior flavor chemists employed by Japanese flavor companies. Emphasis in flavor creation is placed on quality and quick response time to the needs of end users.

It is not unusual for a senior flavorist to receive the comments on his submission made in the morning by 4PM the same day and for him to work through the night so that the sales representative can present the modified submission the following morning.

Flavor Market Percentage

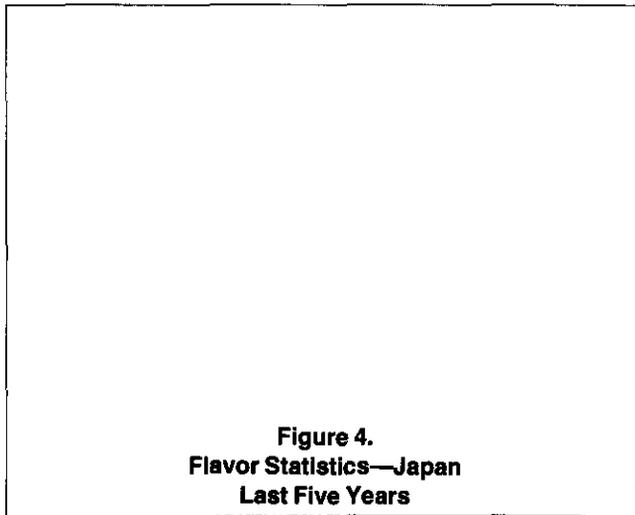
The major international flavor companies present in Japan represent 12 percent of the available flavor market (Table IV). They are all different in size of organization and are actually handling different geographic responsibilities. For instance, many international companies like IFF and Hercules/PFW have their area headquarters in Tokyo from where they cover other markets like Korea, Taiwan, Hong Kong and mainland China.

International companies have a dual approach to the Japanese market. Some of them sell only to the end user customer. Some of them also use the traditional sales channels using the local flavor companies and dealers to distribute their products. The numbers in the parentheses in the figures represent the percent imported flavor market share that is available to the international flavor companies.

Future Growth Possibilities

The past growth of flavors in Japan shows a year by year increase for the past five years, and the forecasts for 1988 show an increase over the previous year (Figure 4).

As the international companies are represented in Japan, the Japanese companies are coming and establishing locations in the United States and Europe.



Right now, the time is right for them to do so because of the strong yen. The strong yen travels and that will facilitate their establishing offices and manufacturing locations in the US and Europe. They most probably will be very successful by applying the same approach as in Japan. In other words, a total commitment to the market, very service oriented, and spoiling customers to no end. Just think what hap-

pened to the auto and electronic industries.

The auto industry reminds me of the following story, of a Japanese boy in an American high school. He is in a class of American history. The teacher is questioning the students about various aspects of American history and asks, "Who said: 'Give me liberty or give me death'?" Nobody answers. Finally, the Japanese boy up front says, "Patrick Henry, Virginia legislature, 1775." The teacher then questions, "Well, who said: 'Speak softly and carry a big stick'?" Once again, only the Japanese boy speaks up: "Theodore Roosevelt, Washington, DC 1901." The teacher continues, "Who said: 'We have nothing to fear but fear itself'?" The Japanese boy again is the only one to reply: "Franklin Delano Roosevelt, inaugural speech, Washington, DC, March 4, 1933." Then a voice from the back of the room calls out, "Those God damn Japanese." And the Japanese boy, quite calmly, says, "Lee Iacocca, Detroit, 1982."

I do not want to imply that flavor and fragrances will ever become a reason for trade friction between Japan and the US, but as a matter of fact, I'm looking forward to that challenge.

Address correspondence to Leslie Blau, PFW/Hercules, 33 Sprague Avenue, Middletown, New York 10940, USA.

