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C O L U M B I A U N I V E R S I T Y I N T H E C I T Y O F N E W Y O R K

Hagihara Industries Inc.

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Abstract

I visited Hagihara Industries in Kurashiki City, Okayama Prefecture, in April 2013, finding a fascinating, highly specialized textile company. The company was founded in 1892, when Fuichi Hagihara entered the tatami (Japanese floor mat) business. In 1946, his son Fuichi Hagihara II entered the company, and in the 1950s invented a very thin polyester monofilament called “flat yarn” to replace the cotton thread holding the mat reeds together. In 1962, the son established Hagihara Industries to produce flat yarn based on equipment he developed and built. Today, the company – still managed by the Hagihara family – produces a wide range of products for industrial uses based on flat yarn. It has two divisions: the synthetic resin-processed product division makes and sells processed synthetic-resin related products based on flat yarn, and comprises about three-quarters of sales; and the machinery product division designs, manufactures, and sells automation equipment such as slit and winder machinery, a quarter of sales. Its two main strengths are its commitment to innovation and maintenance of a strong corporate culture, emphasizing quality, close working relationships, interdependence, and a widespread feeling of ownership by the workers. Hagihara Industries is an example of a Japanese small listed enterprise that manufactures niche products for broad markets, as distinguished from small- and medium-sized enterprises that sell most of their output to a dominant customer. From tatami to high-tech synthetic-fiber products, the company has woven a history of innovation.

Hagihara Industries Inc.

Hagihara Industries is a fascinating, highly specialized textile company that produces a wide range of products for industrial uses. Its products are based on “flat yarn” which its founder invented. I visited the company, which is located in Kurashiki City, Okayama Prefecture, on April 2, 2013, together with Mr. J. Yoshida of the Development Bank of Japan Okayama office, who had kindly arranged the meeting, and with Mrs. Hiroko Ogasawara, an excellent professional interpreter.

Kurashiki, once an important rice distribution center, is just west of Okayama Prefecture. Many of the rice storehouses have been converted into museums, boutiques, and cafes. The Ohara Museum, holding primarily of western art, has made the city a tourist destination since its founding in 1930.

I had a really good, informative, and enjoyable meeting with Kuniaki Hagihara, President and CEO, and visit to the factory next to the office building. Mr Hagihara is enthusiastic, charming, and of course very knowledgeable; we hit it off right away. While listed since May 2001 on the second section of the Tokyo Stock Exchange, the company is managed by the Hagihara family.

The company’s history begins in 1892, when Fuichi Hagihara, Kuniaki Hagihara’s grandfather, entered the tatami (Japanese floor mat) business. He used locally grown natural rush and cotton thread for the family’s patterned tatami mats. The cotton was grown on reclaimed land that was initially too salty to grow rice.

Fuichi Hagihara II, Kuniaki’s father, returned from Indonesia in 1946 and entered the family business. He decided to produce a strong synthetic filament to replace the cotton thread holding the mat reeds together. He invented a very thin polyethylene yarn in which the fibers are bound to each other essentially side to side to create a strip-like flat body, called flat yarn. Usually, fibers are twisted together (spun) to make thread.

For flat yarn, polypropylene and high-density polyethylene resin are the basic raw materials. Flat yarn has distinct features: it is very strong, becomes stronger when stretched, and can be wound and then cut very precisely.

Fuichi Hagihara II established Hagihara Industries in 1962 to produce flat yarn based on equipment he developed and built. Initially the flat yarn was used to replace cotton warp yarns in tatami. In 1970 the company completed a factory to manufacture durable rice and wheat bags using flat yarn. In 1974 the company opened a factory to weave and laminate uniform rolls of flat yarn sheets up to 3.6 meters wide, under the brand name Tarpee polyfiber. The material has significant tensile and tear strength, with high abrasive content. The company's flat yarn can be used to replace cotton, jute, and paper products.

An important feature of the company's history is its engineering activities in developing slitting (cutting) machines and other specialized equipment for the flat yarn and Tarpee cloth production processes. While Hagihara Industries has some 350 patents, they were not essential, and have now expired; the production process is based on proprietary, secret knowledge.

The company has two divisions. The Synthetic Resin-processed Product Division makes and sells processed synthetic-resin related products based on flat yarn; and the Machinery Product Division designs, manufactures, and sells automation equipment such as slit and winder machinery. The Company has five subsidiaries.

A wide range of industrial plastic sheet products using flat yarn comprise about three quarters of the company's sales and profits, and the very precise slitting mechanism and related production equipment about one quarter. Flat cloth products include water tank liners, flame retardant sheets for scaffolding, jumbo woven sand bags, bulk carrier bags, sheets for agricultural uses (including chicken coops and greenhouses), netting for oriental rugs and other carpets, fumigation tarps, snow slides, and artificial turf, among many other applications. The sheets can be made to either block (BlackOut Cloth, Snowtex) or capture heat (Heatup tex).

While most Japanese companies end their fiscal year on March 31, Hagihara's ends October 31. Total sales for October 2012 were 20.8 billion yen (\$208 million at 100 yen/dollar) and net profits were 1.3 billion yen. The firm is well capitalized. Net worth in 2012 was 12.72 billion yen, essentially retained earnings since paid in capital is only 1.274 billion yen. Debt including current liabilities such as trade notes and accounts payable, predominantly short-term, were 7.118 billion yen.

Raw materials - the polyethylene and other synthetic fiber materials used to produce flat yarn and Tarpee sheets – comprised 54 percent of direct production costs in 2012; labor was 21

percent. Based on the profit and loss statement, production costs were 14.9 billion yen, and other costs 3.7 billion yen, yielding an operating profit of 2.2 billion yen.

Hagihara's dividend policy is noteworthy in that, unlike most of its peers in the chemicals and plastic industry, it pays a dividend. Moreover, on a five-year basis, dividend-per-share growth has been above the industry average even though earnings-per-share growth is in-line with the industry average. Still, like most Japanese companies, the pay-out ratio is quite low – less than 20 percent for 2012. The 45 yen annual dividend on a 1.600 yen stock price provides a currently attractive 2.8 percent yield.

Hagihara Industries has long relied on two major companies, Nippon Petro Chemicals and Mitsubishi Chemical Company, as suppliers for the basic polyester and polyethylene materials. The 1973 oil shock and recession hit Hagihara hard; it was on the verge of bankruptcy even as it was beginning to build its first Tarpee factory, because many suppliers demanded cash payment while customers delayed payments, and banks were not willing to provide working capital loans. However the two major suppliers effectively rescued Hagihara Industries, providing funding and taking a combined 20% equity position, though ownership is now more diversified. Hiroshima Bank is now the company's main bank, but it also has used Shoko Chukin Bank (the government-based bank for SME financing).

With its new equity funding, in 1974 the company was able to complete building its first Tarpee factory, doubling the sheet width to 3.6 meters. This funding kept the company alive. Demand for its products grows dramatically from 1979, thanks to Prime Minister Ohira's public works programs, and the economy's successful growth which created private demand for draperies and other products. On the death of his father in 1977, Kuniaki Hagihara became the CEO at age 31.

Mr. Hagihara carried out the plan to list the company on the second section of the Osaka Stock Exchange in 2000 and then on the second section of the Tokyo Stock Exchange in 2001. One purpose was to have the company meet the challenges of the exchange listing requirements. Another was to obtain company recognition and respect.

In 2010 the company issued further shares to third parties and made a public offering, reducing the family's holdings to slightly over 20 percent. Shareholding is now highly diversified, including 5.7 percent (the third largest shareholder) in a fund for company

employees. As of October 31, 2012, individuals held 40 percent of the shares, financial institutions 22 percent, foreign institutions 11 percent, and other institutions 27 percent.

Hagihara Industries has a dominant market share in Japan. Its main competitors are companies in China and Korea. It has subsidiaries with factories in Indonesia and China. In 2012 82 percent of sales were in Japan, 10 percent in Asia, and 8 percent in the rest of the world.

The company identifies market niches in which it competes through production abroad as well as exports from Japan. An example is a plastic fiber mixed with concrete to strengthen it. Produced in its Indonesian factory, this product has a 70% market share in Australia.

One of the strengths of the company from its beginning has been the development of the machinery, equipment, and technologies to produce flat yarn, Tarpee sheets, and to produce flat yarn for weaving. It exported its flat yarn manufacturing equipment for the first time in 1966 to Taiwan, and exported a plant to manufacture bags in Indonesia in 1976. It has developed slicing equipment and mechanisms for cutting not only Tarpee but also paper and other products. Such machinery (all of which is used by the company itself or exported) comprise about a quarter of Hagihara sales and profits. Mr. Hagihara's target is to have slicing and other machines eventually make up about one-third of sales and profits.

Hagihara Industries has 432 employees. Workers are employed until they are 60, when they are moved to a subsidiary where they have less responsibility, work 30 percent less time, and receive lower wages. Wages and salary are based 30 percent on merit (responsibility and performance) and 70 percent on the standard Japanese seniority system (*nenko joretsu*). Salaries go up substantially when a person is promoted to a managerial position. The average annual wage is about 6.15 million yen, good for the Okayama area.

Mr. Hagihara stressed that the company's two main strengths are its commitment to innovation and, equally important, maintenance of a good, strong corporate culture. In a subsequent email, Mr. Hagihara elaborated by stating that the company has four "fighting strategies": further sharpen its flat yarn technology, develop other functional composite materials, engage in further niche marketing development, and expand its focused ("pinpoint") global marketing. The company's culture emphasizes quality, close working relationships, interdependence, and a widespread feeling by workers of ownership of what one does. The

corporate culture has four strategies: maintain and enhance a development mind-set, have an innovative way of thinking before making actual changes, emphasize the management of core competencies, and think of the company both as a corporate asset and a public asset serving society. In our meeting Mr. Hagihara said that workers feel a deep sense of loyalty to the company; my sense is they are very loyal to him as well.

Mr. Hagihara, at 60 years old, has no definite retirement plans. He indicated he has four very good managers in their mid-50s, highly skilled in management and with good personalities, who have strong commitments to the company. His first son is a musician. His second son, 25 years old, is working for a chemical company (the son's decision) but will join the company within the next several years.

Hagihara Industries is an example of a Japanese small listed enterprise that manufactures niche products for broad markets, as distinguished from small and medium sized enterprises that sell most of their output to a dominant customer, as exemplified by the automobile industry. More adventuresome than most, Hagihara has taken its products directly overseas. From tatami to high-tech synthetic-fiber products, the company has woven a history of innovation.