東邦学誌
第32巻第1号
2003年6月
論　文

Entrepreneurial Origin of the Greater Nagoya Industrial Region - The Role of Tradition and Indigenous Industry [1)]

Kazuaki Okabe

Contents:

Ⅰ. Nagoya's Entrepreneurial Time

Nagoya Region: 1.2% of Global GNP

Located in central Japan, the Greater Nagoya Metropolitan Area is one of the most vital industrial regions in Japan. Administratively the region roughly equals with Aichi Prefecture (population: 7 million) whose prefectural seat is Nagoya City (population: 2 million). Toyota Motor Corporation has its world headquarters here (in Toyota City in the suburbs of Nagoya). Denso, Daido Steel, Brother Industries, Takashimaya, Noritake, Shikishima Baking and other large corporations are headquartered here. Sony's founder Seiichiro Morita came from a family that had operated a brewery business for more than two hundred years in the Chita peninsular area, 50 kilometers south of Nagoya. The neighboring western Shizuoka Prefecture (primarily around Hamamatsu) spawned Honda, Suzuki, Yamaha, Kawai, and other auto and musical instrument makers. Aichi Prefecture alone has an annual manufacturing output of 300 trillion yen ($2.5 trillion U.S. dollars), the highest among Japan's 47 prefectures. It tops in production of aerospace, transport vehicle, iron and steel, general machineries, plastics, textiles, furniture and ceramics among others. The region produces 1.2% of the global GNP. [2)]

In the current economic stagnation of Japan, the region seems to be a lone exception. Yet, the region is "a typical Japan within Japan" as it is often called. Aside from being geographically central, the region supposedly has typical Japanese characteristics culturally, socially, and economically. It contrasts with Tokyo, which is called "a foreign country within Japan," because of its central role for western style industrialization. The exceptionally strong manufacturing the Nagoya economy boosts represents just another typical Japaneseness of the region (probably being more Japanese

than current Japan).

This article examines the birth of this vital industrial region, thus giving insights to causes of Japan's industrial rise from the feudal Edo (Tokugawa) economy.

Where It started

If you divide Japan's history into three phases for the purpose of this article, [3] the first phase starts with an ancient unified nation established in the 6th century, modeled after the Chinese empire system such as the Sui and Tang Empires'. More indigenous forces, later known as bushi (samurai), gradually took power, culminating into Sengoku Jidai (the Era of Warring States) of the late 15th and 16 centuries, when hundreds of feudal loads fought against each other. Powerful loads to rule the country - first, Nobunaga Oda (1534-1582), second, Hideyoshi Toyotomi (1537-1598), and third and final, Ieyasu Tokugawa (1542-1616) - defeated all others to unify the conflicting nation. Interestingly all the three powerful loads originated from current Aichi Prefecture (Owari and Mikawa regions).

Ieyasu Tokugawa assumed the title of shogun in 1603 and based his government in Edo, current Tokyo, in 1606, thus starting the second phase of Japanese history: the Edo period. It lasted more than 260 years through 1867. Closed to the outside world, yet stable inside, Edo Japan represents the climax of indigenous development of Japanese society. The third phase starts in 1867 when the emperor-backed Meiji government replaced the Tokugawa shogunate. The new government pushed for a rapid westernization and industrialization, followed by wars and conquests against other countries. It is still arguable if this was really a progress, especially if a progress from environmentally sustainable Edo society. Yet, a western style socio-economic structure took root in Japan during the Meiji period and became reinforced after the World War II with introduction of American style democracy.

Meiji: Fist Venture Business Boom

Tomoyo Kazumi, [4] tracing Japan's "venture business" (entrepreneurial startup business) history, concludes that the Meiji era (1868-1912) was the first period of venture business boom in Japan. It is commonly understood that there are three periods of venture business push in the post World War II Japan: 1970-73, 1983-85 and the 1990s. However, looking at a longer history gives us another, possibly the first, venture boom during the industrialization in Meiji. Kazumi gives five examples of startups at the time that still dominate the Japanese economy: Mikimoto Pearl (establishment: 1899), Suntory (1899), Hankyu Railway (1907), Hitachi (1908), and Showa Denko (1908).

Meiji was a transition time from the feudal Edo society to a modern, industrial Japan. People's value and mindset were greatly changed. The government pushed for a catch-up industrialization. New products and businesses flooded the market. Freed from feudal restrictions, people began

freely pursuing individual success and happiness. The first notable boom for business startup came in the late 1880s. The number of corporations increased from 1,793 in 1883 to 2,389 in 1889, with the invested capital from 106.32 million yen to 194.60 million yen. [5] Then came booms of the late 1890s and late 1900s. Figure 1 shows increases of corporations and invested capital during the pre-World War II period.

Figure 1 Increase of Corporations and Invested Capital

	Number of corporations	Amount of Capital Invested (million yen)
1896	4,596	397
1900	8,588	779
1905	9,006	975
1910	12,308	1,481
1915	17,149	2,167
1920	29,917	8,238
1925	34,345	11,160
1930	51,910	19,633
1935	84,146	22,352
1939	85,122	34,025

(Source: Miyamoto Matao, "Sangyoka to Kaisha Seido no Hatten," Shunsaku Nishikawa & Abe Takeshi ed., *Nihon Keizaishi 4: Sangyoka no Jidai I*, Iwanami Shoten, 1990, p.375)

Nagoya Emerges

By the time the Tokugawa period ended in 1867, Nagoya and its surrounding regions had remarkable economic advances. [6] The Bisai area, centered around Ichinomiya, 15 kilometers north of Nagoya, saw a semi-capitalist production system emerged in its cotton textile industry. Many handicraft factories with 5 to 10 employees manufactured cotton textiles for regional and national distribution. Kimio Shiozawa explains:

"In the late Tokugawa period, especially in the first half of the 19th century, the Owari region showed brilliant economic development that may have been most advanced in Japan at the time. In the Bisai area, centered around current Ichinomiya City in the Nobi Plain, farmers had produced shima-momen (striped cotton cloths) since the mid Edo period. In the first half of the 19th century, the production advanced into the level of "factory-based handicraft manufacturing" that employed several to a dozen female employees. Such development was not seen even in Osaka that was considered most advanced in Japan's cotton textile manufacturing. The type of manufacturing in Bisai, though without powered machines, was that of a capitalist factory production. The owners of the factories (capitalists) in Bisai were all farmers.

The many farmer-manufacturers emerged in the Owari region represents a bottom-up, indigenous capitalist development that occurred in Japan at that time." [7]

In the following Meiji period, such indigenous manufacturing fully developed to machine-powered factory manufacturing. Aichi Prefecture was one of the top cotton textile production areas in Japan; in 1897 its

cotton textile production was ranked first, with its output of 6.88 million yen, 16.3% of the national total. In the mid 1880s, Nagoya Spinning, Mie Spinning, and Owari Spinning built steam engine powered cotton mills. In 1893, they merged into a new Mie Spinning that produced two thirds of cotton thread output in Aichi Prefecture in 1907. Mie Spinning then merged with Osaka Spinning in 1914 to form Toyobo, the top spinning company in Japan.

The cotton thread industry dominated the Nagoya economy. Its output of 3.5 million yen in 1903 was highest among different industries in Nagoya, followed by industries such as the miso, shoyu, tamari and vinegar brewing (1.9 million yen), textiles (1.6 million yen), potteries and porcelains (0.9 million yen), and matches (0.9 million yen). [8]

Cotton Textile and Other Indigenous Industries

Aichi is where Japan's cotton growing started. Farmers in Mikawa, the eastern part of current Aichi Prefecture, grew cotton by the end of the 15th century. [9] Cotton growing quickly spread to the surrounding regions to create specialized textile product areas. Beside the above-mentioned Bisai, Western Mikawa and the Chita peninsular area were famous. Those and other indigenous industry areas, tapped and transformed the tradition in the modern industrial framework. Unique among them was Western Mikawa's Garabo spinning, which was operated on riverboats using water wheel power. Adapting to a specialized market for rough, thick threads, this indigenous industry survived well into the 20th century, with some of the operations even after the World War II.

The cotton thread and textile industry led Japan's Industrial Revolution that took place roughly in the 1890s and early 1900s. Japan's spinning output grew from 67,000 yen in 1889 to 757,000 yen in 1899. [10] The number of corporations in Nagoya (in all industries beside banking) increased from 42 in 1895 to 131 in 1899. [11] The cotton thread and textile industry sometimes directly built the basis of a modern industry. Auto giant Toyota, for example, started from a cotton textile factory in Nagoya, using power looms invented by its founder Sakichi Toyota. (See next chapter.)

Behind the emerging Nagoya industrial region, and possibly Japan's industrialization, lay the indigenous industries that had already attained a certain level of development before Meiji. There was a long list of flourishing indigenous industries around the Greater Nagoya region. [12] Seto, 15 kilometers northeast from Nagoya, had been a powerhouse for pottery and porcelain production for hundreds of years. In Japan, "Seto-mono" (Seto Product) is synonymous with all kinds of ceramic wares. Tokoname on the Chita peninsular was another center for pottery production. Tapping the tradition, Tokoname became the center for earthen pipe production in Meiji. Tokugawa's Owari clan that ruled the western part of current Aichi Prefecture promoted the manufacturing of guns and

clocks. Also famous in the Greater Nagoya region were karakuri puppets that were typically used on traditional festival floats since the Edo period. The mechanical engineering behind the karakuri prepared for skill basis of Aichi manufacturing such as Toyota's. In the Edo period, sake, shoyu (soy source), and vinegar breweries were also widespread in the region, particularly in the coastal villages of the Chita peninsular. Many of the breweries were factory-based, with dozens of empoloyees working at the sites. As shown in the above-mentioned Nagoya industrial output of 1903, manufacturing miso, shoyu, tamari, vinegar, potteries, porcelains, and other traditional products still constituted a sizable part of the output from Nagoya in the late Meiji period.

Sakichi Toyota, the founder of a textile business that later became Toyota Motor Corporation, was motivated to invent a new loom by his experiences of watching his mother's hard work at home with an inefficient loom. Seiichiro Morita of Sony grew in and was backed by a family which had operated a brewery business for more than 200 years. The father of Sotaro Honda, the founder of Honda Motor Co. Ltd was a traditional black smith. In many ways, entrepreneurs in Meiji had imprints of the indigenous businesses / technologies of the previous time.

It is also noteworthy that the Nagoya region did not receive a strong government support in the early Meiji period, which was characterized by a massive state-led westernization and industrialization.[13] Most of the money went to Tokyo- and Osaka-based "seisho" (capitalists with strong ties with politicians / bureaucrats). Except for the state-run Aichi Spinning factory built in Okazaki in 1881, few government's factories were introduced in the region. Railroads opened between Tokyo and Yokohama in 1872, and between Osaka and Kobe two years later. The first Nagoya area railroad was built further 12 years later in 1886, when the Taketoyo Line opened to connect Nagoya's Atsuta and the Taketoyo port at the foot of the Chita peninsular. While Yokohama and Kobe received "trade port" status before Meiji (in 1858), Nagoya had it in 1907. Tokyo-based Mitsui, Mitsubishi, and other conglomerates are said to have grown due to such financial / capital and other supports from the central government. Nagoya was left out to pursue a more indigenous route. It had to rely even more heavily on entrepreneurship succeeded from the past. Whether that was bad is debatable.

Indigenous Industry and Industrial Revolution

Even after its Industrial Revolution, Japan's economy was dominated by indigenous industries. A 1909 document shows that only 23% of Japan's 32,000 factories with 5 or more employees used mechanical power such as steam, gas, oil, or electricity.[14] Others used only human power (72%) or traditional water wheel (5%). Japan's Industrial Revolution is charac-

terized by a substantial input from small-scale indigenous industries. Takafusa Nakamura pioneered in research on this subject. He defines the indigenous industry (zairai sangyo) as follows:

"Indigenous industry is an industry that produces and distributes traditional goods of premodern origin, consists of small businesses relying primarily on family labor, sometimes with a small number of employees, and, in its broader term, includes the primary industry (agriculture, fishery and forestry) and, in its narrower term, excludes it." [15]

Examining the pre-World War II economy, Nakamura found that the modern industrial sector had only 12% of the total working population as late as the early 1930s. The agriculture and forestry constituted 54% of the working population. The (narrower term) indigenous industry constituted 42% of the working population. Contrary to the common belief that the modern industry is to replace the indigenous industry, Japan's indigenous industry actually *increased* its share from 27% in the early 1880s to 42% in the early 1930s. [16]

One of the reasons Japan's Industrial Revolution kept its indigenous industry is that new technologies came from the west to a culturally very different society. Daily goods and other people's end consumption usually constitutes about 80% of GNP in many societies. Demands from the ordinary Japanese consumers still had to be met largely by the indigenous industries that produced traditional daily goods. For example, western power spinners were introduced to make cotton threads, but the threads were woven by the indigenous industry into kimono and other traditional clothing. As late as in 1926, in Japan's most fashionable Ginza-Nihobashi area of Tokyo, a surprising 99% of the female pedestrians wore Japanese clothes. Male pedestrians were one third for Japanese clothes and two thirds for western. [17] Different data indicate that ordinary people's foods and houses were even more persistently Japanese. The indigenous industry in Japan tapped this wealth in consumption patterns. Nakamura details the roles the indigenous industry played in modern Japan:

"The main businesses of the indigenous industry was to produce and distribute traditional consumer goods and services. Its coverage and scale rapidly grew for expanded demands due to increase of urban population and general consumption. More concretely, production and distribution of daily goods such as foods, clothing, fuels, toiletries, furniture and stationeries are mostly in the hands of the indigenous industry. Even many of the western consumer goods such as western clothing, bread, matches, and tin wares came under the indigenous industry once its technologies were brought into Japan. Some of the export-oriented industries such as cotton spinning or miscellaneous

goods were also in the indigenous industry. On the other hand, production materials and machineries, investment goods, and military products were manufactured by modern industries. For example, while the cotton spinning industry produced threads and foreign market-oriented goods, the produced threads were woven into domestic clothing by indigenous textile weavers at various locations. There was an division of labor between the modern and indigenous industries. With few instances of competition, they were rather in a mutually subsidizing position." [18]

Ⅱ. Meiji Entrepreneurs

The Nagoya region produced many entrepreneurs in the Meiji and following periods. Connections between their modern entrepreneurship and the indigenous industry can be found in many instances. The sketches below gives a glimpse of that.

Sakichi Toyota (1867-1930)

Inventor of a series of modern looms and founder of a textile company that later became Toyota Motor Corporation. Sakichi Toyota was born in Yamaguchi Mura (in current Kosei City), Shizuoka in 1867, the year Meiji started. His father was a skilled carpenter of traditional breed. Sakichi grew seeing his mother work at home weaving with a crude loom. Not educated at a modern university, nor at middle or high school, he helped his father's carpenter work after graduating from elementary school. In 1890, at the age of 24, Sakichi made his first invention: Toyoda wooden handloom. The same year, he had visited National Exhibition of Japan held in Tokyo, where western looms apparently impacted him. His next major inventions were a yarn winder in 1894 and a Toyoda auto loom in 1896. After starting Okkawa Mempu and Igeta Shokai, Sakichi established Toyota Shokai in 1902, which began full operation to make Toyoda power looms. In 1925, he completed invention of the renowned non-stop shuttle charge automatic loom, Type G. Platt Brothers & Co of U.K. bought its patent in 1929. Sakichi's son Kiichiro Toyota (1894-1952) devoted himself to develop automobiles, introducing his first mass-produced passenger car AA and truck GA in 1936. Toyota Motor was established in 1937.

Akio Morita (1921-1999)

Founder of Sony. Akio Morita was born in the Chita peninsular city of Tokoname, 30 kilometers south of Nagoya. The Chita peninsular area was historically industrious with pottery and brewing businesses. The Morita family is one of the largest brewery companies in the area, established in 1665, with products in sake, soy source and tamari. Akio was to be the 15th successor of the family business, but left home to start an electric equipment business. In 1946, a year after the World War II, the 25-year-old Akio Morita and his lifelong colleague Masaru Ibuka started Tokyo Tsushin

Kogyo, whose first major product was Tape Recorder G that hit shelves in 1950. Within the same year they adopted "Sony" trademark and announced Japan's first transistor radio TR-55. The rest is history. The Morita family played an angel's role for Sony, financially supporting Akio's business. Akio's younger brother Kazuaki succeeded the family's brewery business. He expanded it to include foods distribution (Izumic) and convenience store chain (Cocos) businesses.

Zenpei Morita (1862-1937)

Another entrepreneur from a Morita-related family in current Tokoname on the Chita peninsular. Zenko Morita is the founder of Shikishima Baking. Having experimented with beer, starch, macaroni and other western foods and beverage businesses, he started bread production in 1919. His Shikishima Bread is now one of the three largest bread brands in Japan and the oldest among them. Zenko Morita's family had operated a sake brewery business for five generations until the fifth, Zenko's father Tasuke, stopped it in 1883, when the Meiji government's tax policy hit the business hard. The family of Sony's Morita was "honke" (master family) of Zenko's family; the former had provided business trademark "Yamaizumi" to the latter. In the Chita areas, entrepreneurs often intermarried between families. For example, Zenko's sister Uta married to Hisazaemon in Sony's Morita family, and Zenko's brother was adopted to the Nakano family in nearby Handa, a traditional vinegar business family now operating Mitsukan Vinegar. [19]

Ichizaemon Morimura (1839-1919)

Ichizaemon Morimura established Nihon Toki at Noritake in current Nagoya in 1904. The reason the company, which now markets the Noritake China brand, chose this location is "because it was close to Nagoya Railway Station. They can easily transport their products and raw materials nationwide using major rail lines such as Tokaido, Kansai, and Chuo Lines. There were also many skilled craftsmen available in Nagoya. The company could tap this ample resources with a preferable condition. They employed as many as 1900 workers when establishing the Noritake factory. It was an unusually large scale employment campaign." [20] This also explains the background for overall industrial concentration in Nagoya. The Morimura group grew and spawned Toyo Toki (current TOTO), Ina Toki (current INAX), Nihon Gaishi and other ceramic companies.

Masaka Okuda (1847-1921)

Prominent business leader in the burgeoning era of the Nagoya industry in Meiji. Masaka Okuda established Mie Spinning (1886), Owari Spinning (1887), Meiji Bank (1896), Nihon Sharyo (1896), Nagoya Gas (1906) and other core corporations of the Nagoya region. He also reigned the Nagoya Chamber of Commerce for more than 20 years (from 1893 to 1914). Born in Ueno Village in current Aichi Prefecture to

a lower samurai class of the Owari clan, Masaka Okuda was one of the few samurai who could successfully change their career in middle of life. He started a miso and soy sauce brewery business that ranked 4th among the Nagoya soy source businesses by 1900. He was instrumental to connect different (sometimes conflicting) forces in the Nagoya business circle. [21]

Momosuke Fukuzawa (1868-1938)

Called "the King of Electricity," Momosuke Fukuzawa started Toho Electric (current Chubu Electric), Daido Electric (current Kansai Electric) and many other power related companies in the 1910s and 1920s. In 1889, he was married to the second daughter of Yukichi Fukuzawa, a prominent civic leader and intellectual of Meiji, who is known as, for one, the founder of Keio University in Tokyo. Momosuke started his business career at Hokkaido Coal Shipping in 1889-1895 and 1901-1906. He, with help from Nagoya-based Shimoide (See below), bought out Nagoya Electric and Aichi Electric Railway and started Denki Seiko Sho (current Daido Steel) in 1916. Then he established Toho Electric and Daido Electric in 1922.

Tamiyoshi Shimoide (1861-1952)

Entrepreneur who started coal, gas, steel and electricity enterprises in Nagoya from the 1980s to the 1920s. Tamiyoshi Shimoide was also known as an educator who established a private school Toho Shogyo (current Toho Gakuen University / Junior College and Toho High School) in 1923. At one point he supported his son Yoshio's publishing business. Tamiyoshi Shimoide was born in Kishiwada in Osaka. His family was "intellectual and half farmer and half samurai." [22] His father Tamiou sold tea ceremony tools but "always read books, with his business usually carried out by my mother," Tamiyoshi recalls. At age 5, Tamiyoshi entered a terakoya school. Before the Meiji government installed a centralized education system, there were more than 10,000 decentralized private elementary schools around Japan. They taught reading and calculation, and used Chinese classics as textbooks. An institution created by local intellectuals / entrepreneurs, the terakoya school seemed to have impacts on Tamiyoshi who later established a private school. After one year training in teaching, Tamiyoshi became a teacher at an elementary school in Sakai at an astonishing age of 13 in 1875. After teaching there for 10 years, he entered current Kansei University to study law. In 1888, he moved to Nagoya to start a business to distribute coal, which was a big demand due to the steamengine based Industrial Revolution that was under way in Japan. Aichi Sekitan Shokai was his first company created in 1889. He hit a business success in marketing powdered coal that had been wasted as a refining by-product. Together with lifetime colleague Momosuke Fukuzawa, Shimoide managed Nagoya Electric in the late 1910s. He became the first president at Denki Seiko Sho (current Daido

Steel) established in 1916. He also helped establish Toho Electric and Toho Gas in 1922. Later he established Toho Gakuen in 1923 and served as a parliamentarian at the national Upper House from 1928 to 1945. [23]

Masakichi Suzuki (1859-1944)

Masakichi Suzuki was Japan's first violin producer. His father was a samurai moonlighter to make shamisen in Nagoya. Masakichi succeeded his father's craft business that soon failed. In the push for westernization in Meiji, he naturally became interested in shamisen's western counterpart: violin. In the 1880s, he started to manually produce and sell violins. He founded the Suzuki Violin Factory in 1900. By 1910, his factory was producing 65,800 violins per year. Nagoya became the manufacturing center of string musical instruments.

Soichiro Honda (1906-1991)

Born in Tenryu, Shizuoka Prefecture, Soichiro Honda started a business that later became Honda Motor Corporation. Shizuoka, a prefecture neighboring Aichi, produced many entrepreneurs. Other motorcycle giants Suzuki Motor and Yamaha Motor, as well as musical instrument manufacturers Yamaha Corporation and Kawai Musical Instruments started in Hamamatsu in the western part of Shizuoka Prefecture. Sakichi Toyota, the founder of the Toyota group, was also born in this region and started his textile bussiness in the culturally close eastern Aichi region of Mikawa.

Soichiro Honda's father was a traditional black smith. Soichiro grew "surrounded by hardware tools at home." Not attracted to formal education, he left home after graduating from middle school to start an indentured career at an auto repair shop in Tokyo. In 1928, coming back home in Hamamatsu, he started his first business, a branch of his master's auto repair shop. After its business success (and his "Sturm und Drang" years), Soichiro started to manufacture auto parts and piston springs. In 1939 he became CEO of Tokai Precision Heavy Industry that soon received orders from Toyota. After the World War II, he sold the business to Toyota and established Honda Motor in 1946. The company first made primitive motorcycles, then the Dream E motorcycle in 1951, which was a big hit in the market. In 1972 the company ventured into four-wheel car manufacturing. It is now the second biggest automaker in Japan.

Ⅲ. Tradition from Edo Entrepreneurship

Causes of Japan's Industrialization

There are two (inner and outer) factors that made Japan's industrialization possible.

(1) Existence of the indigenous rural industry since the previous Edo period

(2) Rapid westernization and market changes

As discussed in the previous chapters, the existence of traditional industries that had attained a certain level of development in the previous Edo period played a positive

role in Japan's industrialization. The indigenous industry was largely rural and consisted predominantly of small family businesses. You could call them SOHOs (small offices home offices). They were self-employed, sometimes by-employed, doing other businesses while farming. The hypothesis here is that a widespread independent, self-employed business operation in the Edo period industry harnessed ingenuity and entrepreneurship necessary for industrialization in the next age of Meiji.

Ingenuity needed to meet an opportunity. The opportunity came when Japan opened the country. A flood like westernization started. That can be destructive under some conditions, but can be an opportunity for prepared entrepreneurial minds. A rapid change of culture and society caused a rapid change in market equibrium. New products came in. New wants and demands arose from the masses of people. New technologies made possible things that were not possible before. The open market created export opportunities. In today's world, technological innovation is a major cause for entrepreneurial economy. New products created by technological innovations change the market equilibrium and bring in new business opportunities. Cultural and social changes can do the same in other times.

It's basically a simple case of indigenous capacities and outside influences. The world always needs both. Remember that even the creation of life indigenous to our planet needed impacts from the outer world in the form of meteorites-riding proteins. The world moves forward when these seemingly conflicting forces - indigenous development and outside impacts - interact and synthesize. This article mainly discusses the first factor, leaving the second for a later opportunity.

Changed Image of the Edo Period

David L. Howell notes a changed image of the feudal Edo period that was brought to us by historians' efforts, saying: "The past decades have been good to the Tokugawa period. Raised from the depths of feudal stagnation, it is now appreciated as the time of cultural awakening and intellectual vitality. Its economy is looking better all the time, too, thanks to the efforts of historians and demographers who have uncovered clear evidence of a rising standard of living during the latter part of the period." [24]

The Edo society was long seen as a savage, poor, oppressive one that was finally and reasonably abolished by a modern government of Meiji. While not being a perfect time in Japanese history, the Edo period Japan had many positive characteristics as historians uncovered in recent times. The Meiji government, which needed to show some legitimacy in having replaced the Tokugawa shogunate, may have been biased toward ridiculing the Edo society. Yet, the Edo Japan at least did not invade other countries. It had Ukiyo-e, Haiku, Kabuki and other rich cultures. Eisuke Ishikawa, who extensively researched on Edo society,

found more positive characteristics of the period. [25]

◆ It was a "plant based society." The Edo period people ate plants (rice, soy beans, vegetables, etc.), built houses with plants (woods, paper, thatch, etc.), and wore plants (cotton, hemp, and other textiles).

◆ It recycled everything, including human feces that was transported out of cities to enrich agricultural lands.

◆ There was no population explosions. In 1726, there were 26,548,998 people in Japan. In 1848, there were 26,907,625.

◆ Price was stable for 260 years. Maximum rice price during the time was only twice the minimum.

◆ Contrary to popular belief that samurai exploited farmers to death, actual tax on farming was about 25% on average. Virtually no tax was levied on non-rice farm production. Negligible tax for merchants and craftsmen in cities.

◆ People freely homebrew sake as well as miso and shoyu. They were tax-free. Meiji government banned sake-homebrewing, and imposed heavy tax on registered brewers.

◆ Samurai were poor. Their power seemed to be based more on cultural and educational attainment (especially in Confucian readings). There were not many samurai killing of farmers as seen in the movies. Lower class samurai moonlighted. Edo (Tokyo) had samurai's industrial parks for pottery painting and umbrella making. Among the Mohri clan of Choshu, 90% of samurai had to leave their expensive castle town to farm on rural lands in the early 1800s.

◆ In Edo, the world's biggest city at the time with over one million people, there were only 290 police officers (yoriki and doshin). Community policing dealt with light offenses, which seemed not numerous.

◆ By the mid 17th century, Edo had a water system with a 150 kilometer underground duct network. (London installed a similar aboveground water system in 1618. Paris did not have a comparable system till the 19th century.)

◆ By the end of the Edo period, there were 16,000 terakoya (private elementary schools) in Japan. In Edo, the number was 1,500. In the mid 19th century, 80% of the Edo children studied at terakoya. (In big cities in the Victorian (19th century) Britain, about 20 to 25% of the children went to school.)

◆ Christianity was banned, but all different Buddhist sects were allowed. Shintoism was tolerated and Confucianism was promoted.

◆ In villages, public matters were decided in town meetings (yoriai) in which every household can participate. Three voluntary councilors (Murakata Sanyaku) did tax and other public works. Daikan, a samurai bureaucrat sent from the shogunate could not do much with a small staff under him. The three councilors were in the middle between daikan and common villagers. There is evidence that the

councilors were recalled by villagers. In the late Edo period, the councilors were often elected by popular votes (irefuda).

Entrepreneurial Edo Society

Particularly interesting among historians' claims is that the Edo society was full of self-employment, by-employment and various home businesses. Keiichi Tanaka, another historian who revolutionalized the Edo period research, says, "Main players in Edo history were hyakusho (often translated as farmers), common people in households that were production units at the time. Farmers and merchants often became brewers, weavers, traders, and such. Villages spawned urbanized districts within. Hyakusho included farmers, but it also included farmers who do other businesses." [26]

The Edo society had long been considered as a stagnated agrarian society, with more than 90% of the population farmers. Tanaka, however, having examined village documents in current Niigata Prefecture, provides ample evidence for a different picture. A 1679 document from a typical "core village" (zaigo mura) of Shiozawa, along a Shinano tributary shows that 40 men (mostly householeads) in the village of 165 households had no taxable farm land but sold salt, tea, paper, salted mackerel, salted sardine, tobacco, candies and other non-agricultural products at their storefronts or peddled them. Shiozawa had a household increase of 37 families in 60 years from 1624 to 1689. Most of the newcomers were involved in non-farm businesses. [27]

Thomas C. Smith, who had done similar research as early as the 1960s, provides an interesting passage from a document in the coastal village of Hirao in Choshu domain (current Yamaguchi Prefecture).

> "Every able-bodied person works at salt-making and other employments insofar as farming permits. The average amount of arable land per farm family is only 2.1 tan of paddy and .6 tan of upland, and cultivation is relatively easy since the terrain is level. In time free from farming, men make rope and rush mats and other articles by hand; and women work in the salt fields from the third to the eighth month and during the rest of the year devote themselves exclusively to weaving cotton cloth, not even taking out time to cut firewood and gather grass for compost (traditional female farm work)." [28]

Of course, there was no national census on self-employment and home business in the Edo period. Historians have to check this and that isolated documents remaining in different villages to get an overall picture. We are doing the same here.

In 1843, as many as 82.1% of the 279 households (including 90 households without farmlands) of Uda-Otsu Village in Izumi, south of Osaka, were engaged in "nokan yogho"(side work in times free of farming): 60.6% in spinning, 23.6% weaving, 15.8% other home businesses, and 26.2% in outside employment. (Multiple answers recorded.) [29]

Kitano Village in Iruma County, Saitama

Prefecture has a document to detail the status of its 220 farmer households in 1875, only 8 years after the Meiji Restoration. Two hundred and eighteen of them (99.0%) were involved in grain and other agricultural work with average output of 30.7 yen per household. Eighty households (36.4%) were involved in tea production with average 25.7 yen output; 142 households (64.5%) in cocoon production with 6.5 yen; and 85 households (28.6%) in cotton textile with 41.1 yen. The village's agricultural output was 6,754 yen, while its total nonagricultural output was 6,465 yen (tea: 2,057 yen, cocoon: 917 yen, cotton textile: 3,491.[30] That means farmers' nonagricultural production was as high as their agricultural production only 8 years after the Edo period ended.

According to Shunsaku Nishikawa,[31] nonagricultural output equaled agricultural output also in Choshu domain (current Yamaguchi Prefecture) in the 1840s, with the former production 58,000 kan and the latter 64,000 kan. More than 80% of Choshu's non-samurai population were recorded as hyakusho (typically translated as farmers). Nishikawa concludes that many of those hyakusho were involved in non-farm side businesses ("nokan yogyo"). According to Shinbo and Saito,[32] "the word nokan yogyo in the Edo period had an extensive meaning, having at least four meanings: nonfarm family business, moonlighting (side business), semi-agricultural productions (such as dried persimmon making and silk growing), and seasonal outside employment. In short, all the economic activities that do not produce rice were called "yogyo."

The Edo "farmers" not only moonlighted, but avoided farming all together to start a new business. Yet they were still called hyakusho, mistakenly translated as farmers.

Hyakusho were roughly "people of all kinds" or "all who were given family names (by the emperor)" in its original meaning. There were fisherman, forester, merchant and craftsman hyakusho. However, modern historians mistook the word to mean farmers only; thus bringing in a false notion that more than 90% of the Edo period people were farmers, or that the Edo society was agrarian and stagnated.

Yoshihiko Amino gives us a more correct picture, by carefully examining a 1842 document from the Nagato domain (western Yamaguchi Prefecture). For example, in the rural Ohshima County (4,161 hyakusho and 6,949 kado-otoko households in 30 villages), including the estimated number of samurai and other households, farmers (nojin) consisted of 60% of total population.[33] Yet, one fifth of them are estimated to have been involved in side business. So Amino's conclusion is that the actual farming population, was slightly less than 50%. He also calculates the ratio of occupations in a nearby harbor town Kaminoseki. Among the 437 non-samurai households, farmers were 29.5% and merchants and ship owners were 41.6%, for example.

Independent Farmers

The Edo society was a society of the self-employed. First, farmers were self-employed people. Then they became involved in a myriad of non-farm side businesses. Finally others totally left farming and started a new business: from breweries to weaving, ocean shipping, and all kinds of crafts and retail businesses. Where were salaried people and wage laborers who are so prevalent in today's world? There were not many, probably except among the samurai, who were largely salaried bureaucrats. (However, even samurai sometimes started side businesses as indicated before.)

It is now largely a consensus among historians that the Edo farmers were more or less independent and that they practically owned their land. Serf-like status of the Middle Age farmers ceased when Hideyoshi Toyotomi conducted a nationwide Kenchi (cadastral land survey) between 1587-1597. Kenchi had been explained as an oppressive feudal act to maximize the lands registered for taxation. However it officially registered farmers - actual cultivators - to the land, eliminating influences from middleman landlords (Principle of Icchi Issaku Nin - One Land One Cultivator). It in effect gave farmers land ownership, which in turn gave farmers an incentive to produce more from their land. [34]

The Kenchi instigator Hideyoshi Toyotomi came from Owari, the western part of current Aichi Prefecture. Nobunaga Oda came from the same area. Ieyasu Tokugawa came from neighboring Mikawa. Why did all the big three of the 16th century come from this region?

If you look at a map, the Nobi Plain in current Aichi is one of the largest alluvial plains in Japan, yet close to the Kansai region (the Kyoto-Nara-Osaka area where political power historically rested). Rather than smaller Kansai plains, the Nobi Plain resembles the Kanto Plain, Japan's biggest where Ieyasu Tokugawa built his capital city Edo (Tokyo) in 1603. Up to the 14th and 15th centuaries, limited agricultural technologies contained farming in smaller, more controllable diluvial plains. Technological developments expanded arable land to vast, flood-ridden alluvial plains in the 16th and 17th centuries. [35] Nobunaga and Hideyoshi built their power on this newly developed agricultural land and economy. Hideyoshi Toyotomi was born to a poor farming family in the Nobi plain, and was raised here till his ascent to Nobunaga's right hand man. Once completed, Hideyoshi's Kenchi further helped expand farm land, because it ensured those who developed new land own it. The arable land increased from 1.64 million chobu in the early 16th century to 2.97 million chobu in the early 18th century. [36]

Aichi's strong agriculture continued to modern times. In the 1920s, Aichi's farm production topped among prefectures while its manufacturing still hovered around 3-4th. [37] Now with manufacturing at the top, agriculture ranked fifth, with an output of 3,419 billion yen as of 2000. [38]

East Asian Small Farmer Society

There is an argument to connect East Asia's successful industrialization and its small farmer society. A decade ago we had an active discussion on the "Confucian origin" of East Asian economic development. [39] But the weak points in the discussion, says Miyajima, [40] was that "the argument was arbitrary over connections between economic development and Confucianism" and that "there were no fundamental discussions about why East Asia was a Confucian society at the first place." To fill the gap, Miyajima examines a small farmer based society that emerged in China around the Ming Dynasty (in the 15-16th centuries), and in Korea and Japan around the 17th century. Miyajima says:

> "The small farmer society is where small farmers are dominant and, whether they own their lands or cultivate rented lands, conduct an independent farming operation only by themselves or with their family labor. Even if they use labor besides his own or his family's, the employed labor plays only a secondary role. This kind of small farmer society may seem to exist universally in many ages and places, but East Asia's version after a certain historical period was quite exceptional, as small farmer played such a dominant role in economy." "Another important characteristics of the East Asian small farmer society is that there were few agricultural workers, or more broadly, few farmers who could not constitute an independent business. It is commonly known that the neighboring Southeast Asia and the Indian subcontinent area, for example, had high ratios of agricultural workers in the farming population, which has become a problem of great concern. In East Asia, however, even those who didn't own land commonly became tenant farmers who do their farming like a business." [41]

Small farmers emerged when, in the case of China, the farming in Jiangnan (region south of the Yangtze River) shifted from tributary plains to main river deltas during the Ming Dynasty. Similar processes occurred in Japan during the 16th and 17th centuries, the period of Hideyoshi's Kenchi and Ieyasu's opening of the Edo shogunate, and in Korea during the 15th to 16th centuries.[42]

Then economically motivated small farmers shaped East Asian societies. "The emergence of this small farmer society has a larger significance than just being agricultural progresses and village structure changes. In a bigger perspective, the characteristics of the East Asian social structure that has persisted to today's world, emerged with this small farmer society. It was a breakthrough that divides East Asian history into different two." [43]

Though Miyajima stops short of directly connecting the small farmer society and industrialization, he seems to have determined the economic base of the East Asian Confucian society that created economic success

in modern times.

Can the Self-Employed Save the World?

The entrepreneurs in Meiji, those who pushed for Japan's Industrial Revolution, sprang up from the vitalities of the villages in the Edo period. The vitalities came from the power of the self-employed: small independent farmers, moonlighting hyakusho and samurai, and a myriad of small businesses from sake, miso, shoyu breweries to cotton textile mills.

Long before "venture business" and SOHOs (small offices home offices) were loudly talked about as a clue for economic revitalization, such independent endeavors were main stay in the previous society - in our history of hundreds of years. In those times, people were extremely vital to survive and prosper, sometimes probably threatened by starvation. Without turning to government help, or waiting for an employment under big corporations, people created a business of their own to try to live. With a rapid westernization and industrialization, Japan succeeded in adapting to new norms of an organized corporate society. Maybe too successful.

Then came a prolonged economic recession. Where are the entrepreneurs? The Japanese adapted too good to the corporate-employment society, finding difficulties in adapting to a new approach of the post industrial society. We can look into the future for a solution, but the answer may also lie in our past: in our entrepreneurs of Meiji or in hyakusho farmers of the Edo period. The self-employed and small businesses have always been an inspiration for an innovative society. Think with your brain, own and control what you do, make your own decisions and take risks, and take responsibilities for the consequences. Creativities come only from such minds.

At least we need a good balance between the independent initiatives of entrepreneurs and the organized structure of corporate employment. Japan needs to shift the balance a bit toward the former. Prosperities come to those who help themselves whether that is in Edo villages, in Meiji Nagoya, or in our high-tech modern world.

Notes:

1) The research for this article was based on a collaborative research project of Chubu Sangyo Shi Kenkyu Kai (Chubu Industrial History Research Team) of the Community Business Research Institute at Toho Gakuen University.
The project was funded by the Shikishima Academic and Cultural Promotion Foundation for fiscal year 2002. The author greatly owes to discussions in the project team, but the responsibilities for the content of this paper (especially larger historical perspective) and its mistakes are the author's.

2) Statistics Bureau Management and Coordination Agency, *Japan Statistical Yearbook* (annual), Japan Statistical Association; Aichiken Kikakubu Tokeika, *Aichiken Tokei Nenkan* (annual), Aichiken Tokei Kyokai; Aichi International Association, *Pocket Guide Aichi,* March 2003; Aichi Trade Association, *Aichi: Always on the Move;* Aichi Prefecture Web site: http://www.pref.aichi.jp/index-e.html

3) For more complete history, see, for example, Edwin O. Reischauer, *Japan: Tradition and Transformation,* Houghton Mifflin, 1989.

4) Shuichi Matsuda and Takeru Ohe, ed., *Shirizu Bencha Kigyo Keiei 1: Kigyoka no Haishutsu*, Nihon Keizai Shinbun Sha, 1996, pp.20-21.

5) Miyamoto Matao, "Sangyoka to Kaisha Seido no Hatten," Shunsaku Nishikawa & Abe Takeshi ed., *Nihon Keizaishi 5: Sangyoka no Jidai I*, Iwanami Shoten, 1990, p.371.

6) Masaru Iwahashi's "Chiiki Keizai Kozo no Chirigaku - 'Koiki Nobi Chiho Ken' no Bunseki" details the economic status of the "Greater Nobi Regional Area" in the first half of the 19th century. See *Nihon Keizaishi 2: Kindai Seicho no Taido*, Iwanami Shoten, 1989, pp.219-266.

7) Kimio Shiozawa, Isamu Saito, and Tetsuo Kondo, *Aichi-ken no 100 nen*, Yamakawa Shuppan Sha, 1993, p.3.

8) Saburo Shiroyama, *Soi ni Ikiru: Chukyo Zaikaishi*, Bungei Shunju, 1994, p.129.

9) Manabu Tsukamoto & Kikuo Arai, *Aichi-ken no Rekishi*, Yamakawa Shuppan, 1970, p.179.

10) Fumihiko Gomi, Toshihiko Takano, and Yasushi Toriumi, ed., *Nihonshi Kenkyu*, Yamakawa Shuppan, 1998, p.373.

11) Saburo Shiroyama, *Soi ni Ikiru: Chukyo Zaikaishi*, Bungei Shunju, 1994, p.97.

12) For details of these and other pre-Meiji industrial and technological development in the Greater Nagoya region, see Kuniaki Abo, "Chubu Chiku no Sangyo Shi," *Toho Gakushi*, vol.31, no. 2 (December 2002), pp.1-14.

13) Kimio Shiozawa, Isamu Saito, and Tetsuo Kondo, *Aichi-ken no 100 nen*, Yamakawa Shuppan 1993, pp.5-6.

14) Shunsaku Nishikawa & Abe Takeshi ed., *Nihon Keizaishi 5: Sangyoka no Jidai I*, Iwanami Shoten, 1990, pp.7-8.

15) Takafusa Nakamura, *Meiji-Taisho Ki no Keizai*, Tokyo Daigaku Shuppan Kai, 1985, p.177.

16) *Ibid.*, pp.188-189.

17) *Ibid.*, p.187.

18) *Ibid.*, pp.182-183.

19) For details, see Kuniaki Abo, "Shikishima Seipan Shi - Sono Zenshi," *Toho Gakushi*, Vol. 30, No. 2 (December 2001), pp.1-17.

20) Saburo Shiroyama, *Soi ni Ikiru: Chukyo Zaikaishi*, Bungei Shunju, 1994, p.130.

21) See Saburo Shiroyama, *Soi ni Ikiru: Chukyo Zaikaishi*, Bungei Shunju, 1994.

22) Hisaji Ozaki, *Shimoide Tamiyoshi Jiden*, Toho Gakuen, 1978.

23) Jun Ohtahara, "Shimoide Tamiyoshi no Denryoku Jigyo ni kansuru Noto," *Toho Gakushi*, vol. 31, no. 2 (December 2002), pp.75-85.

24) David L. Howell, "Proto-Industrial Origins of Japanese Capitalism," *The Journal of Asian Studies*, 51, no.2 (May 1992), p.269.

25) Ishikawa published many fascinating accounts of Edo people's life. Basic among them are Eisuke Ishikawa, *Oedo Seikatsu Jijo*, Kodansha, 1997.

26) Keiichi Tanaka, *Hyakusho no Edojidai*, Chikuma Shobo, 2000, p.34.

27) *Ibid.*, pp.154-161.

28) Thomas C. Smith, "Farm Family By-employments in Pre-industrial Japan," *The Journal of Economic History*, vol. 29, Issue 4 (December 1969), pp.687-715.

29) Masanori Tanimoto, "Zairai Sangyo no Henyo to Tenkai," Kanji Ishii, Rou Hara, & Haruto Takeda, *Nihon Keizai Shi I: Bakumatsu Ishin*, Tokyo Daigaku Shuppan Kai, 2000, p.165.

30) *Ibid.*, p.164.

31) Shunsaku Nishikawa, *Nihon Keizai no Seichoshi*, Toyo Keizai Shinpo Sha, 1985, p.97.

32) Hiroshi Shinbo and Osamu Saito, "1 Gaisetsu: 19 Seiki he," *Nihon Kindai Shi 2: Kindai Seicho no Taido*, Iwanami Shoten, 1989, p.12.

33) Calculated from Amino's estimate. See Amino Yoshihiko, *Nihon no Rekishi Vol.00: Nihon to wa Nani ka*, Kodansha, 2000, pp.276-277.

34) Keiichi Tanaka, *Hyakusho no Edojidai*, Chikuma Shobo, p.50.

35) For example, refer to Uzo Mizoguchi, Takeshi Hamashita, Naoaki Hiraishi, and Hiroshi Miyajima, ed., *Ajia kara Kangaeru 6: Choki Shakai Hendo*, Tokyo Daigaku Shuppan Kai, 1994, p.78.

36) Fumihiko Gomi, Toshihiko Takano, and Yasushi Toriumi, ed., *Nihonshi Kenkyu*, Yamakawa Shuppan, 1998, p.265.

37) Kazuhiko Kanamori, "Chapter 5. Industrial Links in Tokai Chiiki," Tetsuo Ninomiya, ed.,

Tokai Chiiki no Shakai to Bunka - Brain Community, Ochanomizu Shobo, 2002.

38) Norin Suisansho Tokai Noseikyoku, *Aichi Norin Suisan Tokei Nenkan*, vol. 49, 2003.

39) For example, Rozman, Gilbert Rozman, *The East Asian Region: Confucian Heritage and its Modern Adaptation*, Princeton University Press, 1991 is good to get an overall picture.

40) Hiroshi Miyajima, "2. Ajia Shono Shakai no Keisei," Uzo Mizoguchi, Takeshi Hamashita, Naoaki Hiraishi, and Hiroshi Miyajima, ed., *Ajia kara Kangaeru 6: Choki Shakai Hendo*, Tokyo Daigaku Shuppan, Kai, 1994, p.68.

41) *Ibid.*, pp.70-71.

42) *Ibid.*, pp.78-82.

43) *Ibid.*, p.86.