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【要旨】

This study investigates how small corporations in rural areas arranged funds and reassesses the role of market-based financing for Japanese small and medium-sized enterprises from the 1880s through the 1910s. Whereas previous studies have focused on the financing of large corporations in urban areas, this paper argues that corporations of various sizes, including small ones in rural areas, arranged their funds from the stock market during Japan's industrialisation. By applying this style of financial arrangement, these corporations expanded their production scales, accelerating the local formation of specialised producing regions and boosting the regional economy.

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Market-Based Financing for Small Corporations during Early Industrialisation: The Case of Salt Corporations in Japan, 1880s–1910s[*]

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Abstract

This study investigates how small corporations in rural areas arranged funds and reassesses the role of market-based financing for Japanese small and medium-sized enterprises from the 1880s through the 1910s. Whereas previous studies have focused on the financing of large corporations in urban areas, this paper argues that corporations of various sizes, including small ones in rural areas, arranged their funds from the stock market during Japan's industrialisation. By applying this style of financial arrangement, these corporations expanded their production scales, accelerating the local formation of specialised producing regions and boosting the regional economy.

Keywords: market-based financing; industrialisation; small and medium-sized enterprises (SMEs); over-the-counter market; salt industry; Japan.

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Introduction

Economists and economic historians assert that financial market activity is positively correlated with economic growth (Antje & Jovanovic, 1993; Cameron, 1967; Goldsmith, 1969; Jung, 1986; King & Levine, 1993). Given these assertions, these scholars investigate bank- and market-based financing. Much of the literature that emphasizes the role of banks argues that closer connections between banks and industrial clients mitigated information asymmetries, promoting faster economic growth during industrialisation (Chakraborty & Ray, 2006; Hoshi, Kashyap, & Sharfstein, 1990, 1991; Levine, 1997, 2002). These banks expanded their underwriting services, and as a result, bank- and market-based financing were mutually dependent on one another (Dietl, 1998: 62–64).

By contrast, some research on German finance claims that the above arguments overestimate the roles of banks in corporate finance. While Chandler (1990) indicates that many historians have thought that Germany's universal banks had a significant role in German industrialisation, Neuburger & Stokes (1974) criticize this view. Edwards & Ogilvie (1996) stress that private corporations (joint-stock companies) that used underwriting services represented a rather small part of German business operators before World War I.

Given the German case, some scholars have discussed the function of bank-based financing in Japan at the turn of the twentieth century. Graham (2007) cites the Japanese case as an example of effective bank-based industrialisation. Patrick (1967) reveals that in this period, Japanese commercial banks were divided into large-scale banks in urban areas and small-scale banks in rural areas. Both types accepted deposits from Japan's agricultural sector and supplied funds to Japan's industrial sector. Consequently, bank-based financing fostered the expansion of Japan's industrial sector.

Ueda (1994: 90) and Vitols (2001: 197) reassess this view and argue that financing through equities or bonds was as important as bank lending in Japan until the 1920s. By focusing on large corporations in urban areas, Teranishi (2011: 899–902) highlights the role of market-based financing in Japanese industrialisation and strengthens the arguments made by Ueda (1994) and Vitols (2001). However, Teranishi (2011) adds that small- and medium-sized enterprises (SMEs) in conventional industries, which were located mainly in rural areas, arranged their funds from commercial banks. If that is the case, it begs the question: who invested in these SMEs, and why?

From the 1880s, numerous SMEs were established in not only urban but also rural areas (Abe & Tanimoto, 1995: 95–96, 1998: 88–114; Nakamura, 2010: 18–69; Takamura, 1996). For example, in Fukuoka Prefecture—a representative local region approximately 900 km from Tokyo—SMEs were established at the turn of the twentieth century (Mukai & Nagae, 2007; Nakamura, 2010: 70–192). These SMEs contained many corporations. Imuta (1976: 40) shows that corporations held about 90% of Japan's total paid-in capital of companies between 1895–1911. These corporations contained many SMEs in rural areas. Japanese scholars pay attention to the establishment process of rural corporations and assert that Japanese shareholders tended to hold shares of indigenous corporations to overcome informational asymmetries in this period by examining the investment of large asset holders in rural areas. These local investments promoted regional economic growth (Hanai, 2006: 231–232, 2015: 93–94; Ishii, 1986: 16–24; Ishii, 2013: 157–186; Nakamura, 2006: 164–202; Nakanishi, 2016b: 529–532).

However, these studies focus mainly on corporations, which were part of planted modern industries such as cotton-spinning and railway-building, or large asset holders. They analyse business reports issued by listed corporations on stock exchanges or historical materials of large shareholders. In contrast, small corporations in conventional

industries tended not to issue their business reports because their shares were unlisted, and historical materials of small asset holders, who were large shareholders of small indigenous corporations, do not exist (Nakanishi, 2016a: 57). This situation causes difficulties for Japanese historians examining market-based financing for small corporations in rural areas, an important area of study, as these corporations contributed to economic growth by supplying food and processed agricultural products such as salt, *sake* (rice wine), and soy sauce to urban areas during early industrialisation, and urbanization transformed rural areas into productive regions that specialised in making local products for urban markets and consumers (Takeda, 2003: 16).

Accordingly, faced with the above-mentioned limitations on the unavailability of historical materials, we focus on the financial arrangements of small salt corporations in Utazu Town, Ayauta County, Kagawa Prefecture from the 1890s through the 1910s, examining whether small corporations in rural areas raised funds through equity and who invested in them, in order to reassess the historical role of market-based financing for Japanese SMEs.

Kagawa Prefecture, a typical Japanese rural area, is located on Shikoku Island; Japan's major cities, including Tokyo and Osaka, are located on Honshu Island (Appendix 1). In this prefecture, the salt industry was the largest indigenous industry and salt corporations were representative indigenous enterprises. The business reports, ledgers, and shareholder registries of these corporations can be found at the Sakaide Salt Industry Museum and the Salt Industry Center of Japan. The rest of this paper, analysing these materials, is organised as follows.

Section 2 illustrates the outline of Japan's industrialisation and salt industry at the turn of the twentieth century. Section 3 presents the establishment process of salt corporations, while Section 4 analyses their business conditions. Sections 5 and 6

investigate the financial arrangements and shareholder distributions of salt corporations, respectively. Finally, Section 7 concludes.

Industrialisation and the Salt Industry in Japan

From the late nineteenth century, the Japanese economy developed rapidly. The five-year average of Japan's net domestic product (NDP) was eight times higher in 1915–19 than in 1890–94. In the same period, Japan's industrial structure changed. Primary industry decreased from 42.8% to 30.9% of NDP; however, manufacturing and mining industries grew from 12.3% to 27.5% of NDP. The five-year average value of NDP in these growing industries soared by 17.9 times during 1890–94 and 1915–19, while that of primary industry increased 5.8 times (Okawa et al., 1974: 202, 240). Conventional industries and newly planted modern ones led Japanese industrialisation simultaneously.

In the early stages of Japan's industrialisation, its food industry was a pillar of manufacturing. Food industry's real production value (RPV) in manufacturing industries was 48.1% in 1890–94. The food industry consisted of conventional sectors such as *sake*- and soy sauce-brewing. These conventional sectors grew alongside planted modern food industries, such as beer-brewing and mechanised flour-milling industries: the five-year average RPV of soy sauce and flour increased 2.2 times and 2.6 times, respectively, from 1890–94 to 1915–19. However, Japan's machinery industry grew faster. The machinery industry held only 1.1% of Japanese manufacturing's RPV in 1890–94, but 13.6% in 1915–19, when its RPV skyrocketed by 41.3% (Shinohara, 1972: 144–147, 166–169).

The growth of Japan's conventional food industries during industrialisation raised demand for salt. The five-year average volume of salt consumption in Japan increased by 21% from 6.1 million tons in 1896–1900 to 7.4 million tons in 1915–19. The majority of

salt was produced by domestic suppliers.[1] In 1908–19, 30% of all salt was used for household consumption, 23% as raw material for making soy sauce, 17% as raw material for making *miso* (fermented soybean paste), and 16% was used for preserving fish (Maeda, 2018a). In other words, salt was a raw material for a principal industry (soy sauce-making) during early industrialisation.

After the First Sino-Japanese War (1894–95) and the Russo-Japanese War (1904–05), Japan acquired Taiwan and Liaodong Peninsula, respectively. These Japanese colonies were well-suited for producing solar salt, and Japan's five-year average of colonial salt imports increased 5.3 times during 1905–09 and 1915–19. However, in 1915–19, domestic manufacturers produced 81% of Japan's salt supply. In 1919, Kagawa Prefecture accounted for 27% of domestic salt production volume and was the largest salt-producing region in Japan (Maeda, 2018b).

In 1890, Kagawa Prefecture produced only 13% of salt (by volume) in Japan (Japan Monopoly Public Corporation, 1966: 278–283). After this period, 13 salt-producing SMEs were founded in this prefecture, including four in Utazu Town, which had the largest salt fields in the prefecture. These salt corporations were large for local corporations, but relatively small compared to the national average. For example, Utazu Enden Corporation, the largest salt corporation in the prefecture, had 120,000 yen in paid-in capital; of the 121 corporations in the prefecture, only five had more than 100,000 yen in paid-in capital in 1907 (Kagawa Prefectural Government, 1909: 70–71). On the other hand, in the same year, the national average amount of paid-in capital was 209,000 yen, and 30% of corporations had more than 100,000 yen in paid-in capital. Salt corporations

[1] We cannot estimate the volume of salt consumption, including imported salt, for years before 1896, because the Japanese government began recording salt import statistics in 1896.

in Kagawa Prefecture were typical of growing SMEs during Japanese industrialisation (Toyo Keizai Shimpo Sha, 1927b: 594–596).

Establishment of Salt Corporations in Utazu

Asset holders in Ayauta County

In 1891, the *Kagawa Shimpo* newspaper argued that the 'salt industry in Kagawa Prefecture is not developing because of capital shortage. Thus, the people involved in the salt industry should devise some way to raise capital' (Sanuki no Kaizō Hō, 1891). In Ayauta County, the assets held by indigenous holders were small, and a capital shortage arose. We can confirm this by examining the amount of direct national tax payments in 1898, since there are no data on individuals' assets in Kagawa Prefecture until the 1920s.

Until 1914, the direct national tax consisted of land tax, income tax, business tax, mining tax, and medicine-trading tax. The Japanese government did not impose taxes on holding and trading securities (Ministry of Finance, 1937: 548). Land taxes were 85% of all direct national tax payment in Kagawa Prefecture in 1898. Like previous studies on Japanese asset holders, we regard the amount of direct national tax payments as a proxy variable for the amount of assets. The government imposed the land tax on land values, and the net burden on taxpayers increased in the early 1880s, when fiscal austerity policies caused deflation. Under these circumstances, small-sized land owners relinquished their agricultural land; consequently, large-sized landowners emerged in the 1880s (Nakanishi, 2019: 16). A large portion of assets held by wealthy people in Japan until the 1910s were land; therefore, we can observe how many assets indigenous holders held by analysing their direct national tax payments.

In 1898, there were only two large taxpayers in Ayauta County. Katsutarō Kamada, the top taxpayer and a major salt field owner within the county, paid 1,544 yen;

however, he is not representative of large asset holders in either Kagawa Prefecture or Japan (Kagawa Prefectural Government, 1889). In the same year, Kōzaburō Age, the top taxpayer in Kagawa Prefecture, paid 2,956 yen; Bukichirō Nozaki, a leading Japanese salt field owner in Okayama Prefecture, which is adjacent to Kagawa Prefecture, paid 8,708 yen (Suzuki, 1898: 29, 56). In short, there were few large asset holders who could establish corporations only via their investments.

Furthermore, the bank in Utazu Town could not raise and supply sufficient funds to establish corporations. Urban banks in Tokyo and Osaka and those in trading ports such as Yokohama and Kobe accumulated large deposits. However, bank accounts in rural areas were rather small. Ishii (1999: 271) asserts that bank deposits in Kagawa Prefecture were also petty in the beginning of the twentieth century. Unlike modernized banks, which accumulated deposits and supplied money, these rural small banks tended to lend their founders' money (Shimura, 1969: 49–52). Their lending capacities were insufficient, and the local bank in Utazu Town was no exception.

Utazu Bank was established in 1898, and its deposits amounted to 59,313 yen in 1910 (Kagawa Prefectural Government, 1910: 104). This is equal to about one-thousandth of the deposit amount of Japan's largest bank, and equivalent to half of paid-in capital of the largest salt corporation in Utazu Town (Ishii, 1999: 279). Therefore, the bank in Utazu Town could not raise and supply sufficient funds to found a corporation at the turn of the twentieth century. The best way to raise capital in the town was to issue shares as a form of equity to arrange small funds.

Early stage of salt field development

Until the mid-nineteenth century, Utazu Town had only nine hectares of salt fields (Ministry of Finance, Monopoly Bureau, Sakaide Monopoly Office, 1910: 364–365). In 1871, Sanuki Takamatsu Domain, which governed the town as a clan government, began

constructing 143 hectares of salt fields in Utazu. However, the Japanese government abolished the clan government as a part of the Meiji Restoration in 1871, interrupting construction. Construction was later continued by Kōzō Age, a large asset holder from outside the town in Kagawa Prefecture. By 1886, he had built 37 hectares of salt fields, and over 100 hectares remained unfinished (Age, 1899; Furutakamatsu Kyōdoshi Hensan Iinkai, 1977: 593; Utazu Enden Kaisha, 1891). Accordingly, Kamada was willing to resume construction in 1889, when salt prices more than doubled. He established the Utazu Enden Corporation in July 1890.

After its establishment in 1890, Utazu Enden bought 103 hectares of unfinished salt fields for 5,000 yen from Age. It estimated building costs at 31,000 yen and arranged 36,000 yen in capital (Enden Kaisha Seikōshiki Shukubun, 1891; Miyai, 1891; Utazu Enden, 1891–1911). By the following year, the corporation had built only 44 hectares of salt fields at a cost of 35,822 yen (Japan Tobacco Co., Ltd., Takamatsu Salt Centre, 1992: 8–9; Ministry of Finance, Monopoly Bureau, Sakaide Monopoly Office, 1930: 365). Utazu Enden did not have sufficient funds to build the other unfinished salt fields. Accordingly, it abandoned the building and planned to establish a new corporation, Utazu Seien Corporation, to build the other unfinished salt fields in 1893 (Utazu Enden Corporation, 1989: 40).

Establishment of follower salt corporations

Utazu Seien was established in 1894 with 40,000 yen in capital. The same year, Utazu Enden handed 46 hectares of unfinished salt fields to Utazu Seien (Utazu Seien, 1940). However, the following year, commodity prices shot up amid the First Sino-Japanese War, and builders required Utazu Seien to increase the contract price. Accordingly, Utazu Seien raised its total capital to 64,000 yen and succeeded in building 29 hectares of new salt fields in 1896 (Utazu Enden Kōji, 1895; Utazu Seien, 1896–1906, 1940). In 1907,

Utazu Enden increased its capital to 120,000 yen and bought 19 hectares of salt fields for 63,000 yen from Sakaide Sangyō Corporation (Enden Kabunushi Sōkai, 1906; Utazu Enden, 1891–1911). Utazu Seien began building three hectares of salt fields in 1910, and increased its capital to 80,000 yen in 1911 (Utazu Seien, 1940).

This same period saw the establishment of several new salt corporations. In 1902, Isamu Abino, an auditor of Utazu Seien, established Utazu Higashi Enden Corporation with 13,750 yen paid-in capital to build 17 hectares of new salt fields (Utazu Higashi Enden, 1941). Up to 1905, Utazu Higashi Enden had built 16 hectares of salt fields and increased its paid-in capital for future planned expansions. However, the company was in poor financial condition because it had borrowed 60% of its paid-in capital from the Kagawa Agricultural and Industrial Bank, which did not accumulate private deposits and issued financial bonds to raise funds (Utazu Higashi Enden, 1902–1921). Accordingly, Utazu Higashi Enden established a new corporation, Utazu Ōhigashi Enden Corporation, to build the salt fields in 1906, as had happened when Utazu Enden created Utazu Seien. Utazu Higashi Enden transferred its unfinished salt fields to Utazu Ōhigashi Enden in the subsequent year and finished building its salt fields in 1909 (Ōhigashi Enden Shunkō, 1909; Utazu Higashi Enden, 1902–1921).

The construction costs of salt fields were high for salt corporations. Construction costs were more or less the same amount as each corporation's paid-in capital, and furthermore, no one could predict construction costs accurately. Until the 1920s, salt manufacturers boiled seawater down in brine pans made of clay, since Japan lacks rock salt or a suitable climate for producing solar salt. Salt corporations often encountered hardship in building salt fields, either due to environmental reasons (waves and flooding) or the cost of reclaiming land from the sea for their operations. This made it difficult to predict construction costs. To counteract these risks, salt corporations often established

new corporations, such as Utazu Seien and Utazu Ōhigashi Enden, to build and manage salt fields. For this reason, there were many small salt corporations within the same area, and they were managed by magnates around Utazu.

Salt corporations and magnates

During 1890–1920, there were 19 executive officers of four salt corporations in Utazu Town. All of them lived near Utazu Town and 17 of them were elected as councillors of towns and villages, members of the Kagawa prefectural assembly, or members of the national diet (Appendix 2). They were appointed as interlocking directors of the salt corporations and held shares of both corporations for which they were on the board of directors and corporations for which they were not. In other words, these magnates established and managed salt corporations as directors and shareholders from the 1890s.

The business environment changed at the turn of the century. In 1904, Japan required 17 billion yen for the Russo-Japanese war (Toyo Keizai Shimpo Sha, 1927a: 497–498). Accordingly, the Japanese government raised tax rates, imposed new taxes, and introduced the salt monopoly system (SMS)—through which the Ministry of Finance obliged salt manufacturers to sell to itself—in 1905. The SMS also reduced the manufacturers' inventory risk and forbade salt manufacturers and landowners from building new salt fields after September 1906 to improve administrative efficiency (Ministry of Finance, Monopoly Bureau, 1915: 555–556). After introduction of the SMS, salt corporations abandoned expansion of their salt fields and their business conditions stabilised.

Salt Corporations' Management

In this section, we analyse the profit-and-loss statements and balance sheets of three salt corporations, except those for Utazu Ōhigashi Enden, whose accounting records do not

exist.

Breakdown of income and expenses

Salt corporations' operating income fluctuated with salt prices in accordance with the leasehold contract on salt fields between the salt corporation and its tenant. Most salt manufacturers utilized a tenancy system whereby tenants conducted all production operations and paid their rent in salt. Under this system, salt corporations earned about 85% of their revenues from land rent (Appendix 3). However, after the introduction of the SMS, salt corporations forced tenants to pay land rent in cash to save the effort of converting salt into money. Under the SMS, the government determined the price of salt and price fluctuations reduced. Thus, corporations could not obtain the marginal gains they had under the previous system and began calculating rent payments by multiplying the annual average salt price by the stipulated quantity of salt in each field (Utazu Enden, 1907). As a result, salt corporations could avoid the volatilities of salt production and stabilised fluctuations in operating income (Ministry of Finance, Monopoly Bureau, 1913: 1004–1005).

The operating expenses consisted of construction, maintenance, and overhead costs. These varied in accordance with the construction and destruction of salt fields. When salt corporations built their new salt fields, they included these expenditures in the construction cost. If the salt field was destroyed, the salt corporation had to pay to rebuild it according to the leasehold contract, which stipulated that a tenant had only to assume responsibility for the day-to-day maintenance of salt fields. Consequently, these costs fluctuated wildly. Overheads consisted mainly of wages and were relatively stable (Utazu Enden, 1939).

Variation in operating income and expenses

Figure 1 illustrates the operating income and expenses of salt corporations and the price and production indexes of salt in Ayauta County.

(Figure 1 around here)

The variations in operating income were similar to salt price fluctuations, with two exceptions. First, the operating income of Utazu Enden increased from 1907 to 1908, when salt prices did not increase; this was caused by an increase in its salt production due to the purchase of salt fields in 1907. Second, although salt prices increased, the operating income of all corporations did not increase in the mid-1900s owing to defects in the SMS.

Defects in the SMS

Under the SMS, the government intervened only in trade between producers and wholesalers in production areas and allowed wholesalers and retailers in distribution centres and consumption regions to trade freely (Miwa, 1982: 687–703). Government intervention disrupted salt transactions in production areas and complicated salt production soon after the introduction of the SMS in 1905. Utazu Higashi Enden mentioned that 'The climatic condition is normal in 1907. However, the operations of the SMS are suppressing an increase in salt production' (Utazu Higashi Enden, 1908). This situation resulted from two defects in the operation of the SMS.

First, the government could not purchase salt smoothly. When the SMS was established, the government's warehouses could store only 90,000 tons of salt. By comparison, the average annual volume of national salt production was 6.7 million tons during 1900–1904 (Ministry of Finance, 1906b: 526–527). Thus, the government had to sell its salt as soon as possible after purchasing to control the volume of stored salt. However, wholesalers began purchasing lower volumes of salt after the introduction of

the SMS, when prices increased and stabilised (Onishi Kamekichi shi Engyō Shisatsu Yōryō, 1906). Accordingly, the government often ordered salt manufacturers to suspend production in summer (Shio Senbai no Kinkyō, 1906).

Second, the government refused to purchase low-quality salt and bought only salt which was over 70% sodium chloride. In Ayauta County, however, salt manufacturers sacrificed quality to offer lower prices: the average content of sodium chloride there was only 67% (Ministry of Agriculture and Commerce, Fishery Bureau, 1903: 520). When manufacturers delivered only average-quality salt, the government refused to purchase from them. In fact, in 1906, Utazu Higashi Enden argued that 'The government is attempting to improve the quality of salt. As a result, we are forced to reduce the production volume' (Utazu Higashi Enden, 1908).

The reduction of salt production volumes damaged tenants, because land rent was fixed. As a result, tenants demanded land rent exemptions, and even went on strike intermittently in 1905–06 (Sakaide Seien Gyōsha no Kyūgyō, 1905). Under these circumstances, Utazu Enden and Utazu Higashi Enden remitted land rent partially until 1907 (Engyōsha no Fungi Matomaru, 1906; Engyōsha no Ranbō, 1906; Utazu Enden, 1891–1911; Utazu Higashi Enden, 1902–1921). Utazu Enden was forced to remit its commission on salt sales and abandon its claim for repayment of cash advances against its tenants in 1906 (Utazu Enden, 1891–1911; Utazu Enden Jinushi to Kosaku Fungi, 1907; Utazu Higashi Enden, 1902–1921). Consequently, although salt prices increased in 1905, the operating incomes of the salt corporations reduced (Figure 1). This situation changed gradually after 1907, when the government began improving the SMS.

The business environment under the SMS

In July 1907, the government rented warehouses in 10 distribution and consumption centres and began to transport salt from producing regions to the warehouses on its own.

This measure enabled the government to purchase salt smoothly (Ministry of Finance, Monopoly Bureau, Sakaide Monopoly Office, 1930: 18–19, 24–25). The government also began to send inspectors to salt fields to check salt quality before purchasing. This measure was intended to prevent the government from refusing the purchase of low-quality salt (Senbai Kyokuin no Nessei, 1912). As a result, salt production volume increased and fluctuations in salt prices determined variance of salt corporations' operating income after 1908 (Figure 1).

Operating expenses varied among salt corporations. Each corporation described two factors that temporarily increased maintenance costs in their business reports: fires and natural disasters (Appendix 4). The fictile brine pans often collapsed while in use owing to their fragility. Fires occurred frequently and often spread, since buildings and equipment in the salt fields were made of wood (Utazu Enden, 1891–1911; Utazu Seien, 1896–1906). Moreover, salt fields often suffered damage from rain, wind, and storms since they were located on the coast. These disasters destroyed production equipment and increased operating expenses.

Operating and net profits on sales

Figure 2 indicates the operating and net profits on sales of the analysed salt corporations.

(Figure 2 around here)

Both indexes for each corporation showed nearly similar trends, but both trends varied. According to Figures 1 and 2, the operating profit on sales decreased as the operating expenses increased, until the 1900s. Even if salt fields suffered minor damage or the corporations expanded their salt fields, general business conditions had still changed greatly since these corporations were small. In particular, the scale and frequency of damages varied wildly among the corporations, due to most fires being accidents and most natural disaster damage happening only along the coast. Consequently, the operating

expenses and local business conditions differed from corporation to corporation. However, the operating profit on sales had a different trend from the net profit on sales, due in part to the following two points.

First, the net profit on sales of Utazu Enden decreased greatly in 1905 owing to an exemption from land rent. Utazu Enden posted an extraordinary loss of 5,353 yen—60% of its operating expenses—that year, thereby reducing its net profit on sales in 1905 (Utazu Enden, 1906). Second, the net profit on sales of Utazu Higashi Enden had been lower than its operating profit on sales until 1911. This was caused by borrowing from Sanuki Agricultural and Industrial Bank in 1904. Utazu Higashi Enden settled its debts in 1911 (Utazu Higashi Enden, 1912).

In contrast to the 1900s, the operating and net profits on sales of all corporations were relatively stable in the 1910s (Figure 2). In this decade, two factors suppressed an increase in operating expenses. First, the salt corporations suspended expansion of their salt fields, as mentioned above. Second, the corporations enforced fire prevention measures (Utazu Higashi Enden & Utazu Ōhigashi Enden, 1911). As a result, the frequency of fires decreased (Appendix 4). This shift in business conditions affected fluctuations in the share earnings of salt corporations.

Profitability of Investment in Salt Corporations

Dividend rates

The shares of salt corporations were profitable for investors around Utazu Town. Figure 3 illustrates the dividend rates of representative corporations in and outside Utazu.

(Figure 3 around here)

Figure 3 indicates that the dividend rates of salt corporations were higher than those of other corporations, and significantly higher than those of other major corporations in

Kagawa Prefecture. There were two characteristic changes in the dividend rates of salt corporations.

First, the dividend rate of Utazu Enden decreased from over 40% to about 20% in the mid-1900s, after a decrease in the corporation's net profit on sales and an increase in its paid-in capital. At that time, Utazu Enden bought salt fields for 3,158 yen per hectare. By comparison, the value of its salt fields built in the early 1890s was just 821 yen (Utazu Enden, 1891–1911). In fact, the price of salt fields in Utazu increased rapidly from the early 1890s to the mid-1900s with the introduction of the SMS and an almost threefold increase in the cost of building materials (Sanuki no Suisan (4), 1909). The SMS brought salt field owners consistent earnings because it ensured that salt manufacturers had a secure market to sell to and boosted the price of salt fields. Consequently, from the 1890s to the early 1900s, Utazu Enden suppressed their amount of paid-in capital because the value of its salt fields was lower than that of other corporations' assets. In this way, the corporation was able to maintain its high dividend rate.

Second, according to Figures 2 and 3, the fluctuations in dividend rates were more stable than those in net profits on sales. The salt corporations adjusted their dividend payout ratios to stabilise dividend rates. Figure 4 shows the dividend payout ratios of the salt corporations.

(Figure 4 around here)

Until the 1900s, when net profits on sales varied wildly, dividend payout ratios also fluctuated actively. Whenever net profits on sales decreased, salt corporations raised their dividend payout ratios during the same period (Figures 2 and 4). However, this measure could not completely suppress the fluctuations in dividend rates.

Figure 4 also represents the year-on-year percentage changes in the dividend rates of salt corporations. Until the 1900s, these changes fluctuated between minus 25% and

plus 50%. Conversely, in the 1910s, when net profits on sales were stable, the percentage changes remained above zero, and the stock yield volatility risk of salt corporations decreased. This change in the risk of shareholding drastically transformed shareholder distribution within the corporations. Below, we analyse the shareholding structure by focusing on Utazu Enden and Utazu Seien, since shareholder registries of Utazu Higashi Enden and Utazu Ōhigashi Enden do not exist.

Shareholding structure

(Figure 5 around here)

Figure 5 illustrates the ratios of small shareholders to all shareholders and the shareholding ratios of both large and small shareholders. In the 1890s, large shareholders took on significant risk to build new salt fields, since the shareholding ratios of large shareholders remained high and stable. By contrast, in the 1900s, the ratios of small shareholders to all shareholders and the shareholding ratios of small shareholders increased significantly. During the same decade, large shareholders sold their shares, and share trading became active (Appendix 5).

In the 1900s, buyers and sellers of salt corporations' shares could earn high income and capital gains. The dividend rates of the corporations were also high (Figure 3), and buyers could obtain high gains. Accordingly, the share value was high, and the selling prices of their shares were higher than their face value: for Utazu Enden, it was 450 yen and 120 yen, respectively, and for Utazu Seien, it was 60 yen and 40 yen, respectively (Utazu Bank, 1898–1921).[2] Sellers could earn the difference between the

[2] There are no time-series price data of salt corporations' shares, since the shares of Utazu Enden and Utazu Seien were not listed on the stock exchanges.

selling price and face value as capital gains. Under these circumstances, many shares were distributed and numerous individuals around Utazu entered the regional stock market.

In the 1900s, some of the large shareholders who had led the establishment of the salt corporations as town elders died in old age, and their families sold their shares for capital gains (Appendix 2). On the other hand, some small shareholders who had held their shares since the 1890s increased their holdings, and newcomers who had no shares in the 1890s bought their first shares: 81% of small shareholders of Utazu Seien in 1910 bought their first shares after 1900 (Utazu Seien, 1921a, 1921b, 1921c, 1921d, 1921e). Furthermore, Utazu Enden split its shares simultaneously with an increase in its paid-in capital, and the face value of its shares reduced from 120 to 20 yen in 1907 (Utazu Enden, 1891–1911). This six-for-one share split made it easier for individuals to buy Utazu Enden's shares, and the number of Utazu Enden's small shareholders increased dramatically in the late 1900s. These small shareholders attempted to hedge their risks by investing in different salt corporations within the town.

Small Shareholders' Investment

Share trading in the over-the-counter market

Salt corporations in Utazu raised their capital within the town. In the cases of Utazu Enden and Utazu Seien, the average ratios of shareholders in Utazu to all shareholders were 62 and 68%, respectively, from the year when each corporation was established to 1920 (Utazu Enden, 1891–1911, 1912–1921; Utazu Seien, 1921a, 1921b, 1921c, 1921d, 1921e). This situation resulted from the character of the stock market.

Before World War II, share brokers on Japan's stock exchanges engaged mainly in futures trading. For example, in 1919, futures trading accounted for 88% of the total trading volume on the Tokyo Stock Exchange (Tokyo Stock Exchange, 1928: 19).

Accordingly, investors had to trade actual shares in the spot stock market outside the exchanges. This market was an over-the-counter market: there was no organisation managing trades, and we cannot observe how investors traded actual shares (Noda, 1980: 237). However, fragmentary information indicates that investors in Utazu could trade the shares of salt corporations at the turn of the twentieth century via share brokers around the town. For example, a crockery dealer in Marugame City—about three kilometres from Utazu Town—dealt in shares as a side business in 1911 (Murakami, 1911: 431–434).

Small taxpayers' investment

In this sub-section, we analyse the salt corporations' shareholders and their direct national tax payment as proxy variables for the amounts of assets, according to our investigation in the previous section. Table 1 indicates the number of each salt corporations' shareholders classified by direct national tax payments within Utazu Town in 1911.

(Table 1 around here)

Shareholders who paid more than 10 yen in tax were relatively prosperous in the prefecture. In the 1900s, the Japanese government granted the right to vote in the national diet only to male high taxpayers whose direct national taxation was more than 10 yen.[3] In Kagawa Prefecture, these voters were 5.2% of the male population in 1911 (Kagawa Prefectural Government, 1912: 9, 57). On the other hand, when we focus only on voters, most salt corporations' shareholders can be classified as small asset holders. In 1911, a top taxpayer, Kamada, paid 3,407 yen in tax (Yasui, 1912: 13). Previous studies on investment activities in Japan investigated similar top taxpayers; however, 90% of these

[3] Accordingly, the historical record of taxpayers who each paid less than 10 yen does not exist, and we cannot observe taxpayers who each paid less than 10 yen.

shareholders paid less than 100 yen (Table 1). Nevertheless, owning shares was already common, among even the smallest taxpayers.

The total average shareholding ratios of each bracket increased in proportion to the amount of tax payment. More than 90% of the taxpayers, each of whom paid more than 50 yen, and 44% of the smallest taxpayers held salt corporation shares. They had different trends in investment behaviour. The largest taxpayers, who paid more than 100 yen, passively invested in follower corporation shares. By contrast, the smallest taxpayers actively invested in follower corporation shares. They tended to hold shares thinly and broadly.

(Table 2 around here)

Table 2 shows the tax payments and investments of salt corporations' shareholders within Utazu in 1911. The ratio of shareholders to head count increased as average tax payments decreased. The average investment of each bracket increased as average tax payments increased; the highest tax payment bracket invested 13.2 times as much in the salt corporations as the lowest tax payment bracket. Conversely, the ratio of shareholders to the head count of the highest tax payment bracket was only double that of the lowest tax payment bracket.

These small taxpayers had a strong tendency to invest in more than two salt corporations. According to Table 2, although the highest tax payment bracket had the highest ratio of multiple shareholders to head count, there were limited differences in these ratios among the three brackets of taxpayers each paying less than 100 yen. These ratios increased as average tax payments decreased.

The investment style of small taxpayers was aimed at hedging risks in asset management. In Japan, major corporations had been established in large cities in the railway, cotton-spinning, and silk-reeling industries since the 1880s. These corporations

tended to issue their shares to large shareholders and the business partners, relatives, and acquaintances of their executives until the early twentieth century (Noda, 1980: 276–277). These corporations required investment from large asset holders in both urban and rural areas. Consequently, to hedge risks, large asset holders subscribed the shares of major corporations in remote locations and held many diverse shares of different industries in different locations and in corporations of different sizes. By contrast, small asset holders did not own enough assets to invest in various securities and could not obtain information on the private subscriptions of major corporations in remote locations. Because each salt corporation experienced different fluctuations in dividend rates until the 1900s, small asset holders, specifically those in Utazu Town, could hedge risks by investing in different salt corporations within the town. However, they could only hedge risks resulting from fluctuations in operating expenses, not those resulting from variations in operating income.

Conclusion

In contrast to previous research findings, this paper argues that even small corporations in conventional industries located mainly in rural areas arranged their funds via market-based financing. The main findings are threefold. First, SMEs in rural areas arranged their funds from asset holders through a regional over-the-counter stock market. Second, small asset holders provided funds thinly and broadly to follower SMEs to hedge risks. Third, SMEs accelerated the formation of local, specialised production regions in rural areas, even though few large asset holders lived there.

During industrialisation, Japanese entrepreneurs established many corporations in both urban and rural areas, and asset holders invested in these corporations. In this period, numerous SMEs had just been established in rural areas, and thus, had weak financial foundations. Even if SMEs invested in small-scale equipment and suffered few accidental

events, their business conditions were not ideal. In Utazu Town, business conditions fluctuated wildly from firm to firm based on the costs of building salt fields and those fields' susceptibility to damages. This situation provided an advantage to small asset holders within the region: they could hedge risks by investing in multiple indigenous corporations. Their investments in follower corporations promoted the formation of a producing region.

However, the advantages of investing in indigenous corporations disappeared as industrialisation progressed. SMEs generally attempted to enlarge their management scale and strengthen their operating foundations to secure competitive advantages. These measures stabilised fluctuations in business conditions and created a foundation for business development. On the other hand, these measures meant that small asset holders in rural areas were unable to hedge risks. In fact, as salt corporations stabilised their business conditions and dividend rates in the 1910s, share trading became passive in Utazu. The function of financial arrangement, based on the weak foundation of SMEs' business in the first decades of industrialisation, declined in the age of full-fledged industrialisation.

We have to consider the particularities of Japan's salt industry caused by the SMS, which stabilised business conditions for salt corporations. Although these corporations evolved alongside the SMS, their management scales began to grow before 1905, and the SMS was just one of multiple factors which altered business conditions. In subsequent decades, the SMS suppressed fluctuations in salt prices and forbade salt corporations from building new salt fields. These measures affected salt corporations' operating income and expenses. The expansion of salt corporations' management scales before the introduction of the SMS also stabilised business conditions, and the corporations attempted to stabilise operating expenses by introducing and enforcing fire prevention measures.

We focus only on a particular industry and a narrow region of Japan at the turn of the twentieth century. Further studies should identify the significance and limitations of market-based financing for small corporations during the early industrialisation process in Japan and other countries.

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Table 1. Numbers of Salt Corporation Shareholders in Utazu, 1911

Tax payment (yen)	***Head count (A)***	***Utazu Enden***			***Utazu Seien***			***Utazu Higashi Enden***			***Utazu Ōhigashi Enden***			***Total***		
		No. of SH (B)	*B/A*	Av. SHR	*No. of SH (C)*	*C/A*	Av. SHR	*No. of SH (D)*	*D/A*	Av. SHR	*No. of SH (E)*	*E/A*	Av. SHR	*No. of SH (F)*	*F/A*	Av. SHR
Over 100	10	9	90%	4.1%	7	70%	3.3%	4	40%	3.3%	3	30%	2.9%	9	90%	2.8%
50–99	12	3	25%	2.3%	3	25%	3.0%	5	42%	1.2%	4	33%	1.8%	11	92%	0.7%
20–49	33	8	24%	0.7%	7	21%	0.6%	7	21%	0.8%	10	30%	1.3%	20	61%	0.3%
10–19	43	6	14%	0.2%	8	19%	0.6%	11	26%	0.7%	5	12%	1.3%	19	44%	0.2%
Total	98	26	27%	1.9%	25	26%	1.6%	27	28%	1.2%	22	22%	1.6%	59	60%	0.7%

Notes: No. of SH denotes the number of shareholders and Av. SHR denotes the average shareholding ratio. The average shareholding ratio was computed by dividing the number of each corporation's shares held by the shareholders of each tax payment class by the number of each corporation's shares issued. The same ratio in the Total line was computed by dividing the number of four corporations' shares held by the shareholders of each tax payment class by the aggregate number of four corporations' shares issued.
Sources: Yasui (1912:11–19); Utazu Enden (1912–1921); Utazu Higashi Enden (1902–1921); Utazu Seien (1921a, 1921b, 1921c, 1921d, 1921e).

Table 2. Salt Corporation Shareholding in Utazu, 1911

Tax payment (yen)	*Head count*	*Average tax payment*		*Average investment*		*Ratio of shareholders to head count*		*Ratio of multiple shareholders to head count*	
		Amount (yen)	*Rate (times)*	*Amount (yen)*	*Rate (times)*	*Percentage*	*Rate (times)*	*Percentage*	*Rate (times)*
Over 100	10	285	19.0	8,099	13.2	90%	2.0	70%	3.3
50–99	12	68	4.5	2,030	3.3	92%	2.1	25%	1.2
20–49	33	29	1.9	947	1.5	61%	1.4	21%	1.0
10–19	43	15	---	613	---	44%	---	21%	---

Note: Rate (times) denotes the ratio of the index in each tax payment bracket to that in the 10–19 bracket.

Sources: See Table 1.

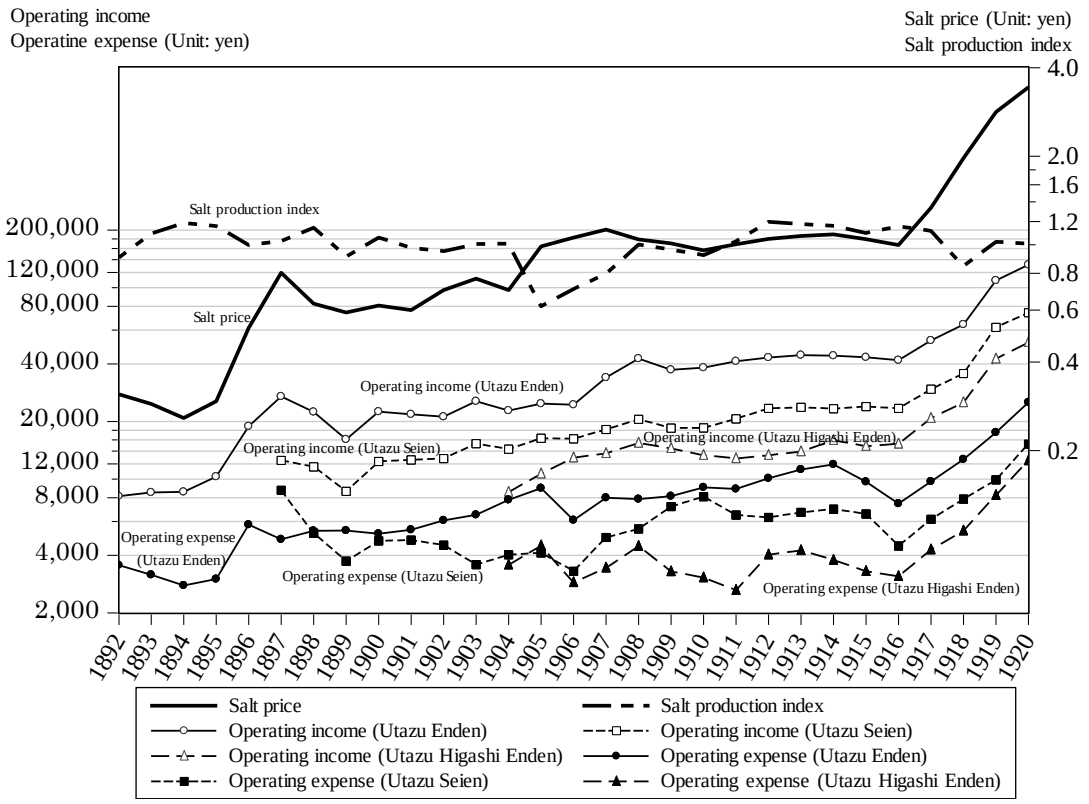


Figure 1. Operating Income and Expenses of Salt Corporations in Utazu

Note: 'Salt price' denotes the wholesale nominal price per 100 *kin* in Ayauta County, and 'Salt production index' is based on the average volume of salt production in Ayauta County from 1900 to 1904.

Sources: Kagawa Prefectural Government (1894–1923); Utazu Enden (1892–1911, 1912–1921); Utazu Higashi Enden (1902–1921); Utazu Seien (1940).

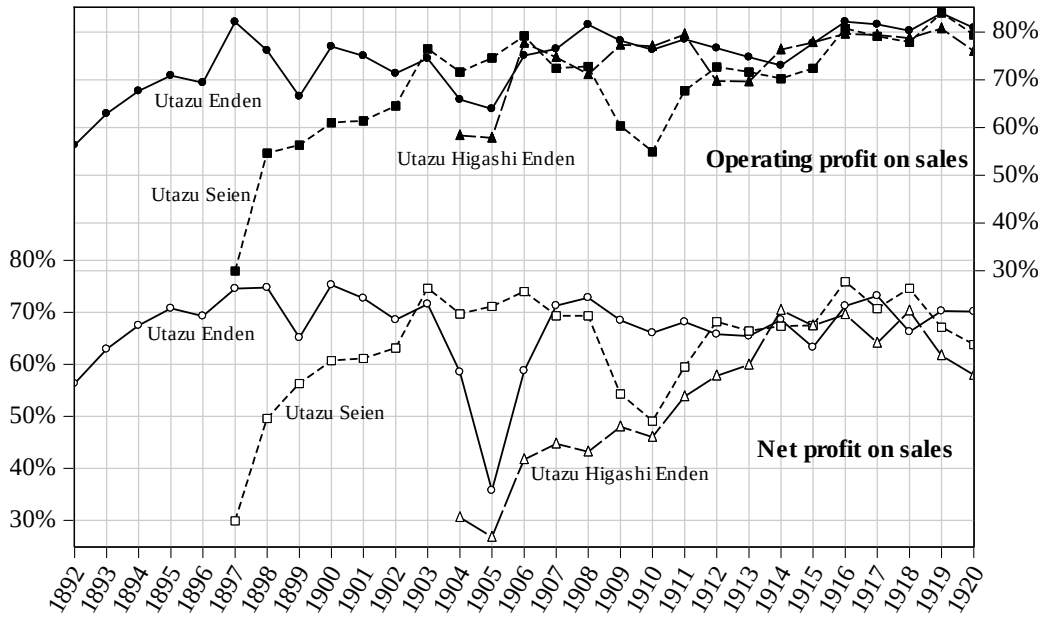


Figure 2. Profits on Sales of Salt Corporations

Sources: Utazu Enden (1892–1911, 1912–1921, 1939); Utazu Higashi Enden (1902–1921); Utazu Seien (1940).

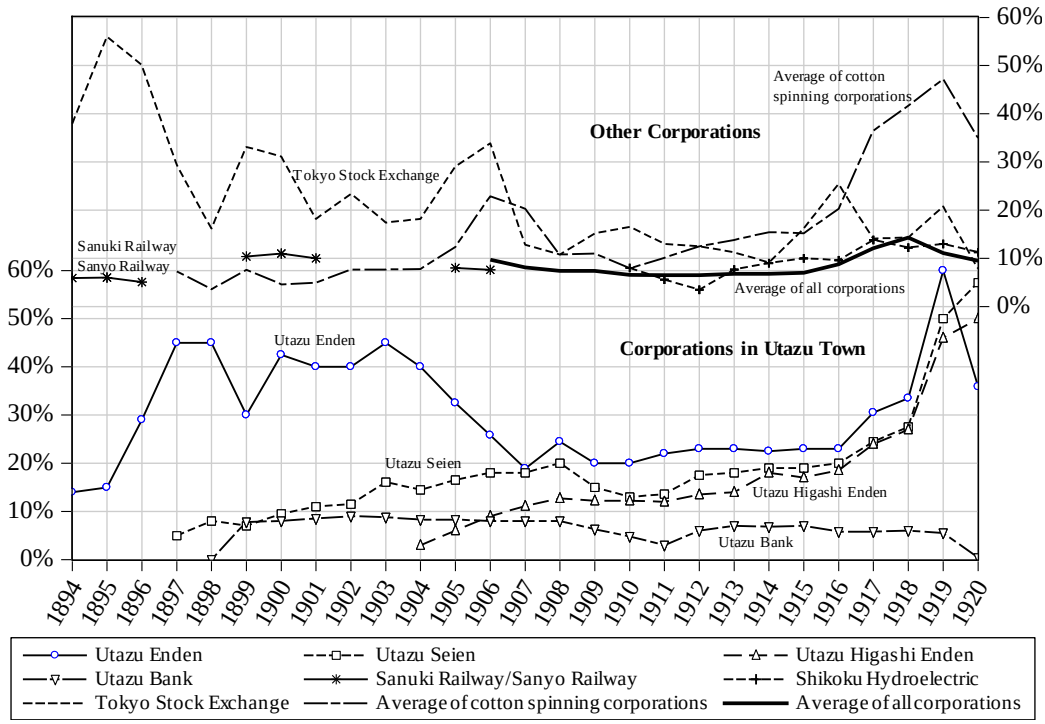


Figure 3. Dividend Rates of Representative Corporations in and outside Utazu

Notes: Sanuki Railway Corporation was taken over by Sanyo Railway Corporation in 1904 and Sanyo Railway was nationalized in 1907. Accordingly, there are no data for Sanyo Railway after 1908. In addition, there are some missing values for Shikoku Hydroelectric Corporation, which was established in 1903, and for the average of all corporations.

Sources: Utazu Enden (1892–1911, 1912–1921, 1939); Sanuki Railway (1894–1896, 1899–1902, 1905–1907); Utazu Bank (1898–1921); Utazu Higashi Enden (1902–1921); Ministry of Finance (1906a, 109–110); Shikoku Hydroelectric Corporation (1995); Toyo Keizai Shimpo Sha (1927b, 279, 604–609); Utazu Seien (1940).

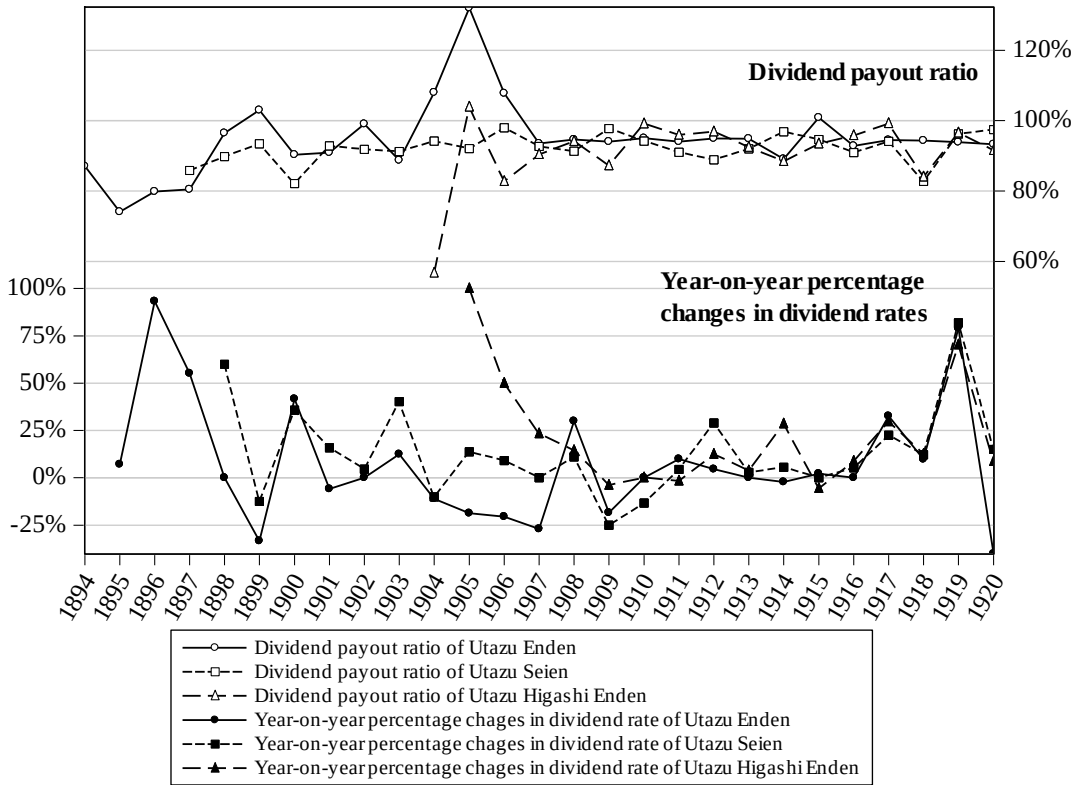


Figure 4. Dividend Payout Ratio and Year-on-year Percentage Changes in the Dividend Rates of Salt Corporations

Sources: See Figure 2.

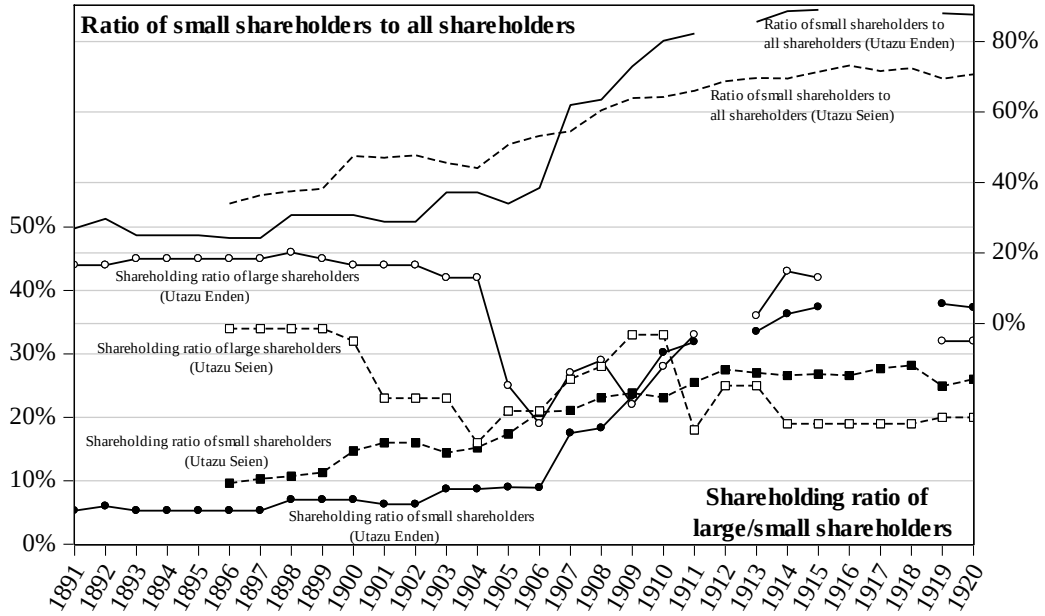


Figure 5. Ratio of Small Shareholders to All Shareholders and Shareholding Ratios of Large/Small Holders

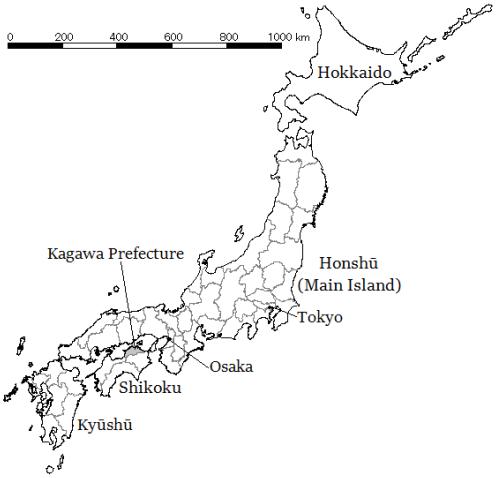
Note: A small shareholder is one whose shareholding ratio was below 1%; a large shareholder has a shareholding ratio of above 5%.

Sources: Utazu Enden (1892–1911, 1912–1921); Utazu Seien (1921a, 1921b, 1921c, 1921d, 1921e).

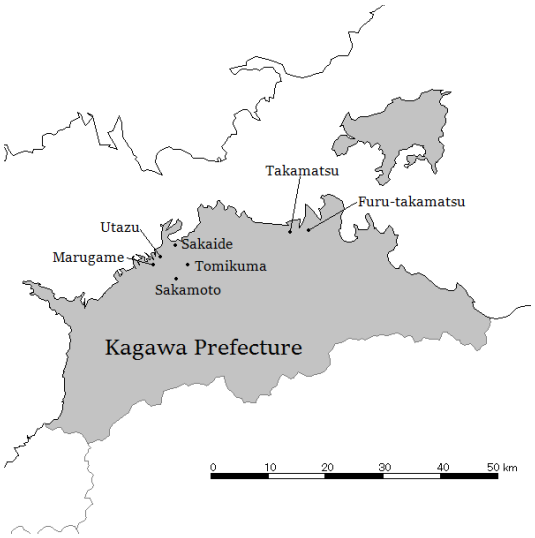
Appendices

Appendix 1. Maps of Japan and Kagawa Prefecture

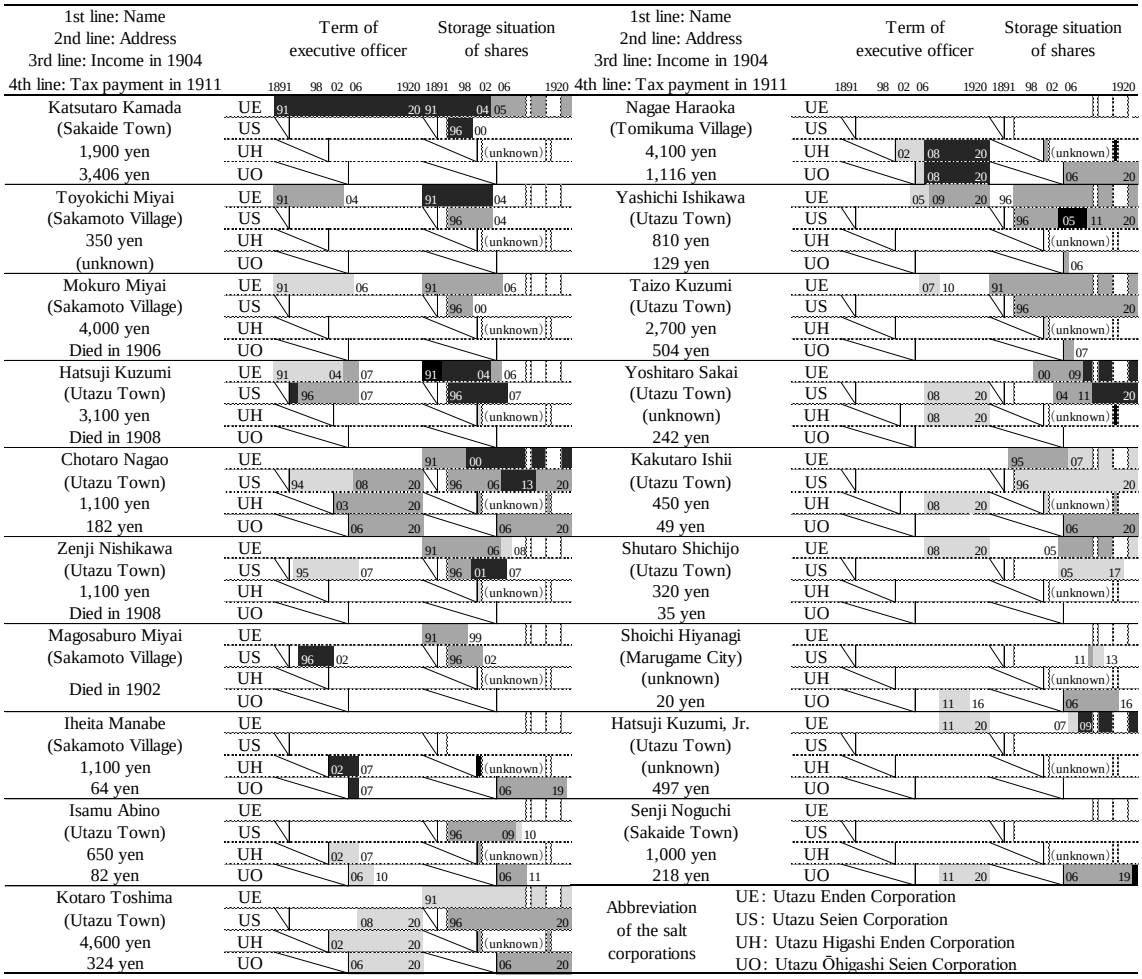
(a) Japan



(b) Kagawa Prefecture



Appendix 2. Executive Officers of Salt Corporations in Utazu, 1890–1920



Notes: The significance of each coloured bar in 'Term of executive officer' is as follows—black: president; charcoal: executive managing director; light grey: director. Coloured bars in 'Storage situation of shares' denote each corporation's stockholding ratio as follows—black: more than 5%; charcoal: 1–5%; light grey: below 1%.

Sources: Utazu Enden (1891–1911, 1912–1921); Utazu Higashi Enden (1902–1921, 1941); Takeuchi (1905, 17–25, 41–61); Yasui (1912, 11–19); Utazu Ōhigashi Enden (1921a, 1921b); Utazu Seien (1921a, 1921b, 1921c, 1921d, 1921e, 1940).

Appendix 3. Five-year Average of Income and Expenses from 1910 to 1914

Account Item	*Utazu Enden*		*Utazu Seien*		*Utazu Higashi Enden*	
	Amount (yen)	*Ratio (%)*	*Amount (yen)*	*Ratio (%)*	*Amount (yen)*	*Ratio (%)*
Operating Income	42,273	---	21,918	---	13,835	---
Land rent	36,287	86%	18,553	85%	*unknown*	
Commissions	5,290	13%	3,050	14%	*unknown*	
Other income	695	2%	314	1%	*unknown*	
Non-operating income	0	---	0	---	0	---
Extraordinary income	0	---	0	---	0	---
Operating expense	10,230	---	6,908	---	3,541	---
Construction & Maintenance	5,644	55%	4,462	65%	1,960	55%
Overhead	4,586	45%	2,446	35%	1,581	45%
Non-operating expense	0	---	471	---	1,358	---
Extraordinary expense	44	---	0	---	0	---
Tax and public dues	3,761	---	967	---	896	---
Net income	*28,238*	---	*13,573*	---	*8,040*	---

Note: There are no detailed data on the operating income of Utazu Higashi Enden Corporation.

Sources: Utazu Enden (1891–1911, 1912–1921, 1939); Utazu Higashi Enden (1902–1921); Utazu Seien (1940).

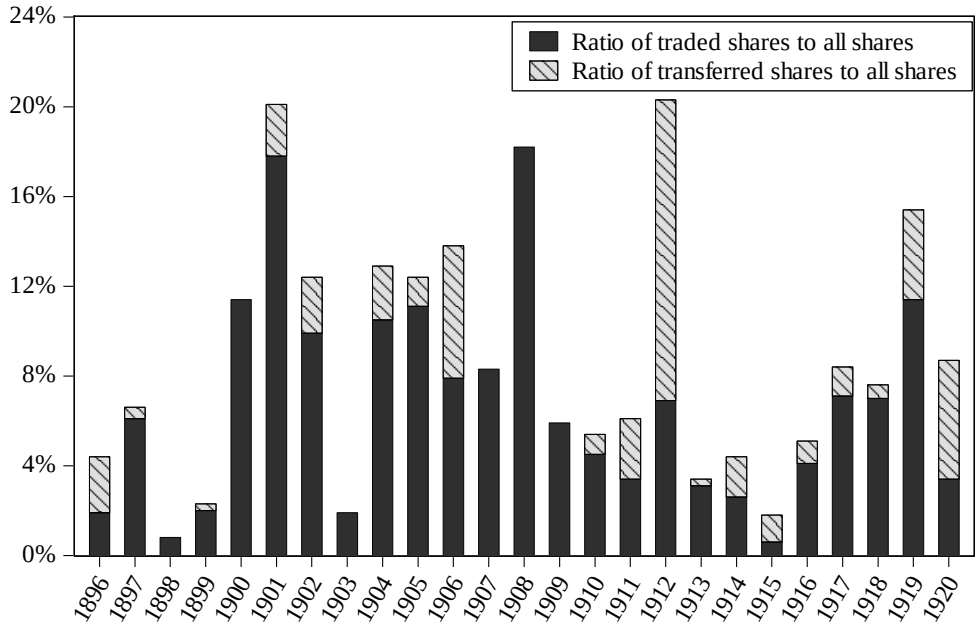
Appendix 4. Factors Behind the Increases in Maintenance Costs of Salt Corporations

Decades	*Corporations*	*Number of factors*		
		Fires	*Disasters*	*Others*
1890s	Utazu Enden	2	5	0
	Utazu Seien	1	0	0
	Utazu Higashi Enden	---	---	---
	Total	*3*	*5*	*0*
1900s	Utazu Enden	8	0	1
	Utazu Seien	2	0	1
	Utazu Higashi Enden	1	2	0
	Total	*11*	*2*	*2*
1910s	Utazu Enden	2	3	0
	Utazu Seien	unknown	unknown	unknown
	Utazu Higashi Enden	0	2	0
	Total	*2*	*5*	*4*
Total		*16*	*12*	*6*

Notes: Utazu Higashi Enden Corporation was established in 1902. The number of factors for Utazu Seien Corporation in the 1910s was unknown, since no business reports exist.

Sources: Utazu Enden (1891–1911, 1912–1921); Utazu Seien (1896–1906, 1940); Utazu Higashi Enden (1902–1921, 1941); Utazu Higashi Enden no Suimonban Hason (1904).

Appendix 5. Ratio of Traded and Transferred Shares to all Shares for Utazu Seien Corporation



Sources: Utazu Seien (1921a, 1921b, 1921c, 1921d, 1921e).