Manpower Management in the
Tokugawa Legacy and
the Early Meiji

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Japan’s social change and industrialization begin with the further of military oriented firms that would be designed to provide material incomposition to western colonization and keep in existence Japanese an independented country for self defense. In general, Army choose for the French pattern of composition and the navy in England. The government operated these arsenals which it had taken over from Tokugawa regime. At the same time it was necessary to development a transportation and communication that would serve both to intensify the national defense and to rich the country itself. The latter purpose was important in view of overturn conditions, political, social and cultural, the decade of war following the regime. At a time, modern manufacture was necessary for the mining, ship building and other industries in order to support the millitary manufacture.

The pressing problem of increase in foreign trade provides the raw

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materials for heavy and military industries enhance in Japan. In the early years of the Meiji period, government established a Tomioka model plant utilizing the modern technology and for vocational training the manpower management necessary for the function numerous other model plants main in the textile industry, were developed. Very little of this occurred in the private sector utilization of the imported technology also required employment of foreign talents. Foreign engineers had to be employed in order to provide install and to originate operations of the machinery, vocational training of Japanese technical know-how, and skills required by operate. Since 1868 until the early 1880's the government invited more than 4,000 foreign talents. At the peak, more than 2,000 foreigners were in Japan for these purposes at one time. Of the total bring into Japan, at least one-fourth were teachers and one-third engineers. They were employed in different government bureaus and military arsenals. Main efforts of the government for industrializing were done around the Kōbusho, where were trained workers for the home building. Each of these departments had six-year training programs for both on-the-job training and classroom. Most of them continue in the same state in production until about 1895. In addition, vocational training program of a similar nature were established for in agriculture and in commerce and in other government.

The major technique in these vocational training programs was to attach a Japanese to the foreign talents at each level of the organization for both practical and theoretical study. As a result, within a few years a flow of manpower management came in to existence.
all levels of skill, including teachers, engineers, technicians, and skilled craftsmen. These became the main source for the new vocational establishment and for managing the industrial plants.

In the Meiji period, high-level talents manpower management proceed from various sources. Probably the most important were the bureaucrats who had previously been Samurai in the Tokugawa period. The second major origin was Japanese scientific and engineering, vocational trained in the traditional facilities, who turned their efforts towards mastering western technology in order to strengthen the Shogunate government. The third major origin was the wealthy merchants and farmers who exerted strong influence over the financial of the Tokugawa and Meiji government. It was especially the last group that became the leader in the banking, and private industrial man. They were prepared to take over the government developed firms when they were transferred to private hands in the beginning of the middle term. Also with the transfer to private ownership various government bureaucrats became the leaders in the new private industries.

This industrial group for the part was educated in the Tokugawa schools, Terakoyas. On the other hand, there were some members of the industrializing elite who had Keio Gijuku formal education, such as Heigrō Sōda (Mitsubishi), who rise from the tyro ranks at the Mitsubishi Trading company to become a powerful business elite with strong social, political, cultural and economical influences.

The occasion to rose to the elite was fairly open at that time. It was possible to rose to the highest regardless of vocational, social and cultural background. By the end of the 1880's, the univer-
sities, essentially the Universities of Tokyo and Keio Gijuku, had begun providing major recruits for the managerial and the engineering. The University of Tokyo became the principal origin for the mechanism bureaucracy. Within a few years, the modernizing elite was dominated by the graduates of the principal universities, a tendency which has continued up to the present.

The crisis of the Zaibatsu in which capital was highly contracted for purposes of industrial and commercial undertaking, also made the high-level talents available in Japan. For example, the Mitsubishi Zaibatsu moved from a single family in Tosa, Nagasaki and Osaka that had taken furnish fully of the financial system for the Tokugawa and feudal classes. The Mitsubishi held the anti-Tokugawa standpoint, and during the period of the Restoration progress to establish a Tosa Trading Company by 1869. The Mitsubishi Zaibatsu, owing to the leadership of Heigrō Sōda, steward of the Iwasaki family, went on to other ventures in variety of industrial and commercial firms. Similar accounts may be given for Mitsubishi, Sumitomo, and lesser Zaibatsu, although their origins differed and the process of expansion followed some what different route. In any occurrence of some importance, it was these family-based groups that took over those firms which the government began to dispose of in the middle 1867–1870.

Generation of modern skilled talents began in the government-owned model plants and arsenals under the instruction of foreigner talents and craftsmen. These workers received vocational training in special talents, particularly for steel making, ship building, and weapons manufacturing. In change the position, those who were vocational trained in this way taught other inexperienced Japanese workers. It was through this vocational training pattern that a new worker hierarchy came forth based on Oyabun-Kobun relationships. The main focus of the vocational training was the operation of machinery imported from advanced countries. As the result, an entirely new set of occupations arose. Traditional caftsmen were unable to operate the mechanism so that new profession, such as lather operator, boilermaker, and steelworker, were established.

For example, when the Yokosuka shipyard was initiated by the Tokugawa regime, Ten Freshmen were employed, to train the Japanese Ship-wrights out of the Samurai families. When the Meiji government took over the shipyards, even more foreigners were employed to train the Japanese workers. This operation continued for another 13 years. Concurrently around Tokyo the government established an arsenals, taken over from the Shogunate, and employed Belgian and French officers to teach the Japanese to become firemen, gunsmiths, coppersmiths, blacksmiths, cast iron workers, saddle makers.

The Meiji government modernized the Kamaishi Iron Works which had been established toward the end of the Tokugawa regime. For
this purpose, English engineers were introduced to teach modern steel making techniques to native craftsmen, such as blacksmiths. Eventually, Workers at Kamaishi as well as a similar group vocational training at the Nagasaki Iron Works became the central part of the skilled work force for the beginning to exist Japanese steel industry. In change the position, they were later to become the source of skilled workers for machinery manufacturing.

In the process of vocational training up a skilled work forces, a new job hierarchy came forth in which foreigners were ranked at the top and under them Japanese work forces were classified into three hierarchy. Salaries for foreigners often were five times as high as those paid to the highest paid Japanese employee in the administrative hierarchy. To influence foreigners, Japan offered such a high salary, if not the highest in the world. Below the foreigners and the Japanese administrators came the highest ranking craftsmen trained by the foreigners and known as the an admiral. Their pay was about 10 per cent lower than the Japanese administrators.

In the newly industries outside of ship building, arsenals and steel-making, other systems rule over in the vocational training process. In the mining industry, for example, although it was also run by the government following the Restoration, the traditional Oyabun-Kobun system dominated. As to the textile industry, when a modern factory systems was to come forth, still another hierarchy came into being. The textile industry followed the model of the Tomioka factory which had been founded by the government in 1872. The government employed French engineers and workers to training the

(2) Masatoshi, Hiratsuka. Besshi 250 Years, Sumitomo Honsha 1941, p. 131.
Japanese daughters, most of whom were women of Samurai families. By the 1890's when these textile spinning manufacture had developed speedily so as to meet export requirements, the industry no longer relied on Samurai daughters for labor force, but changed increasingly to employ young women from all social, cultural and economical background, special peasant families.\(^{(3)}\) In the process of recruiting and keeping this labor force, companies established dormitories for the women, who received standard vocational training and group discipline in the work factory.

Throughout the duration of the period in which foreign experts were employed to improve Japanese modern industrial technology, there still remained a large number of pre-modern constituted system, mostly of very small size. These constituted system, for the most part were family firms, utilizing traditional handicraft methods.

Traditional craftsmen generally were formed by combining of two groups. One was the building trades, and the other the making of luxuriance, special localized produces. Among those craftsmen has developing groups of stratifications, years where several were required to learn the skill.

Following the Meiji Restoration, the fast growth and spread of industrialization significantly affected occupational requirements. As the result, professional hierarchies also underwent a change. In general, the wages of factory workers increased, while those of traditional craftsmen were in diminish. Consequently, many of the traditional craftsmen sought wage-earning status by leaving their family firms and entering factories as semi-workers. Still others learned new

\(^{(3)}\) Toyobo 75 Years History, 1953, p, 302.
trades such as dressmaking, shoemaking, hat-making, and the like. Nonetheless, craftsmen tyro vocational training system was maintained among the traditional for the most part.

The traditional vocational apprentice system followed the Oyabun-Kobun adjustment by agreement. In building trades, for example, traditional apprentice were first employed as members of the family and spent working hours doing family chores or advantage jobs for master. He was taught to use a basic instrument. After about two years, apprentice began to learn about the trade and their vocational training lasted about three years, when they would be recognized as journeymen.

The master, or Oyabun, exercised authority over all subordinate journeymen and apprentice. They worked together and lived together as if in a community, thus strengthen group allegiance and collective apprentices. The master tended to be high paternalistic and treated his emphasizes as server, who were expected to be obedient to the master and full his paternalistic jurisdiction. In this context, there was little need for formal vocational training.

As modernization proceeded, many of the master-apprentice groupings became contracted, but in the process the feudalistic relationship between the master and his subject also weakened. This was due the fact that the employers, the managers, took over the paternalistic functions of the masters, as apprentice became classified as wage earners. This did not happen suddenly, but gradually.

This transformation, did not occur but emerged imperceptibly and gradually. The result was that the traditional Oyabun system continued within the factory as a means for vocational training now
workers.

Likewise, in the construction and mining industries of the early Meiji period, such paternalistic systems for vocational training persisted. In these early years, a large migration occurred from rural areas to the cities. In the course of employment, the immigrants were organized and controlled by Oyabun who channeled them into industrial work through the master-apprentice systems. The Oyabun determined the wages and wholly controlled their personal lives. These too became groups of subcontracted labor. For all practical purpose, paternalistic vocational practices were much the same as the traditional apprentice system.

Soon after the Restoration there was a determined effort to industrialized the mining industry where the workers were largely unskilled and members of feudal-type Oyabun-Kobun system. In additional, the government recruited a large number of prisoners who were put to work along side peasants, paupers, loafers, and others of similar type in the mining. Again, all these were placed under the control of Oyabun; who by himself or through trusted subordinates provided the vocational training and discipline for the these recruits. The Oyabun's authority over them usually was absolute.

To an exceptional degree in the metal mines where such working group were called Tomoko Kumiai (Dōmei), which an especially strong Oyabun system. (In the coal mining, similar groups were called Naya.) On the other hand, for the skilled craftsmen in the mining, particularly the technics, vocational training was provided through an apprentice whereby boys from 15 to 17 years of age were approved as apprentices and began to take the vocational training for
the calling for two or three years. Some of them all through the
time and some ceasing for a time.

Particular consciousness must be given to the vocational training of
manpower in the small and medium-sized firms that characterize much
of Japan's industrial development. Although modern factories in-
creased in numbers after 1700, most were still small handicraft in-
dustries, majority of which were small establishments in the textile
industry with labor forces dominated by unmarried females.

Around the turn of the century, not only did a large number of
modern factories come into existence but there was seen proliferation
of small and medium-sized establishments. Profession varied greatly,
because of a wide diversity of industries. As a result, there was very
little uniformity in skill vocational training and hence few formal
vocational training systems even for the skilled profession. Most
workers learned their skills on the job by watching experienced
workers and by moving from one factory to another. In the early
years of the nineteenth century the Oyabun-Kobun system expanded
greatly, especially with the development of heavy manufacturing
around the time of the Russo-Japanese war in 1904-05. There de-
veloped now a need for systematic vocational training of much larger
numbers of workers. Untill the war time, most heavy industrial
developments had been in the hands of government firms which gen-
erated much of the modern industrial manpower. It was this voca-
tional trained manpower development that became the key personel
for the private industrial expansion in the first decade of the twentieth
century. While the detailed study of specific industries is to be made,
it is well to note here some of the general patterns of recruiting and
vocational training work forces in the private sector. For example, by 1890 in the silk and cotton the spinning had entered the stage of large factory production, playing a key role in Japan's foreign trade. Young female workers were employed, drawn from rural areas to join the relatively simple operations of the factory. In silk manufacturing, incentive piece rates were instituted in order to motivate the young girls. Bonus system was adopted. At the same time, dormitories were built mainly to instill a collective work discipline among these female employees. Moreover, the dormitories became locales for carrying on instruction in specific types of work. As time work specialization had emerged in the factories and a stratification system appeared among the girls. The dormitory, therefore, since that a means of reinforcing this stratification which came to accord with the social organization within the dormitory. Thus, group discipline sent hand in hand with vocational training.

As another example, in the mining industry, modern miners were vocational trained in the government mines during the early part of the Meiji period. As mines were turned over to private development, these workers tended to disperse among the private firms. While the subcontract system through which unskilled workers were collected continued to be under the control of Oyabun, around the time of the Russo-Japanese war private mines came to employ skilled miners directly within the context of personnel management system that belonged to the firms themeselves.

The demand for systematic training, however, was strongeat in the metal and machinery industries which expanded so rapidly after the

war. With total industrial production rising 4 times in 1917 as much as in 1905, and heavy industry alone increasing 7 times as much in the same period, new complex organizations emerged in this sector of the socio-economy. The recession following the war further encouraged rationalization among firms as well centralization which drove out of business many small and medium scale firms, or reduced them to the status of sub-contractors.

Colleges and universities became the almost exclusive sources of supply of the managers and engineers. Throughout these years, however a several shortage of skilled workers because the institutions were unable to provide effective vocational training for industrial careers. Institutional students, who had received journeman type vocational training within the institution, rarely became craftsmen to become medium-sized business. Thus, the large companies felt impelled to establish their own independent vocational training systems.

The large firms founded their own disciplinary system which tended to combine on-the-job vocational training and classroom instruction. According to a government survey in those days, about one-third of the 2,267 factories then in existence had their own vocational training programs, providing with more supplementary vocational programs than in the case of specific skill vocational training. It was around the time of the first world war that many of these vocational training programs were formally converted into quasi-technical institutions, supplement institutions, youth vocational centers, and similar types of institution.
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