

Master programme in Economic History

A Comparison Study on Modernization in the Meiji Restoration and the Self-Strengthening Movement

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Abstract: This essay explores modernization in Asia through the lens of the Meiji Restoration in Japan and the Self-Strengthening Movement in China during the nineteenth century. Japan and China, although with similar cultural, economic and social background and under similar contemporary contexts, took separate paths in modernization and therefore experienced very different outcomes. This comparative study starts by presenting into the historical contexts and looking into the preconditions under which both self-initiated modernization movements took place. Then, I examine relevant literatures covering both movements, as well as theories on modernization to achieve a definition of modernization. I subsequently use the definition of modernization to measure and analyze results achieved by the Meiji Restoration and the Self-Strengthening Movement. Finally, I concluded that the Self-Strengthening Movement failed to bring China to accomplish modernization while the Meiji Restoration succeeded to do so.

Key words: Modernization theory, Meiji Restoration, Self-strengthening Movement, industrialization, education, infrastructure, institution.

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1. Introduction

1.1 Purpose and motivation

The purpose of this thesis is to make a comparative study from the modernization perspective between the Meiji Restoration in Japan and the Self-Strengthening Movement in China in the mid-nineteenth century.

This study is mainly concerned with China's and Japan's performance in social and economic development in the mid-nineteenth century in which the Self-Strengthening Movement and the Meiji Restoration inspired to modernization for the respective country. In order to explore their economic and social performance, I am going to use modernization as an entry point. Furthermore, the Self-Strengthening Movement and the Meiji Restoration can be seen as the first attempts of modernization for non-western countries, which adds further interest in exploring such topic.

"The Japanese have interpreted this theme of building a Westernstandard modern state in a material-physical, and not a spiritual, sense and so on, despite the rapid external and formal westernization of science, technology, education, economics, the armed forces and political, spiritual changes have lagged far behind." As a result, the growth of Japan in its economy and society

http://oai.dtic.mil/oai/oai?verb=getRecord&metadataPrefix=html&identifier=ADA154048

¹ Lee, G. H., & Bae, Y. H. (1984:10). Culture in Japanese Labor Relation: A Comparison with Western Industrial Nations. DTIC Document. Retrieved from

has become one of the most successful story in the world to which the Meiji Restoration has made a great contribution. However, the Self-Strengthening Movement did not bring much as influence as The Meiji Restoration. The midnineteenth century witnessed a successful story of modernization from the Meiji Restoration instead of the Self-Strengthening Movement. The modernization reform happened in China when the Qing Dynasty was defeated in a series of wars with foreign countries, from which China and learned in the hard way a lesson that it should be building a strong country. As a strategy, Japan also launched almost half a century long The Meiji Restoration. In addition, Japan itself also experienced the threat from the West such as the Black Ship's Event (Kurofune Raiko).

How did the two reforms perform in modernization perspective? How did they digest and absorb advanced technology from the west? How did they adapt to new institutions?

"The problem of Japan's development is treated here by contrast with that of China. This has been done because of the great dissimilarity in the outcome of their experience despite the fact that the prospect for China was immensely more promising than that of Japan with regard to most of the factors generally considered strategic for these purposes." According to Levy, it seems like that China had promising situation back then compared with Japan. The difference and similarity between China and Japan will be elaborate in the thesis. Therefore, my research questions are as follow:

(1) How does the Meiji Restoration and the Self-Strengthening Movement were intertwined with modernization?

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² Levy, M. J. (1954: 162). "Contrasting Factors in the Modernization of China and Japan." Economic Development and Cultural Change, 2.3, 161-197

- (2) Which are the main components in the definition of Modernization?
- (3) Did the Meiji Restoration or the Self-Strengthening Movement succeed in pushing for the modernization of respective countries?

1.2 Why are the two reforms comparable?

The Self-Strengthening Movement which started in 1860 has several similarities with the Meiji Restoration which happened in 1868. Both countries remained a feudal society before the reforms began. For instance, after having experienced the First Opium War (1840-1842) and Second Opium War (1856), China's economic structure had changed little while the feudal economic system was still dominating in the society. Agriculture and cottage industries formed the foundation of the economy of the late Qing Dynasty. Moreover, the technological trend was not influenced by the West. In the meantime, Japan basically shared the same story as China in Tokugawa period. The leading factor in economy was still the feudal suzerain system. Agriculture was the foundation of its national economy. Famers took a great proportion of over 80% in the productive population. Additionally, almost all the population maintained as self-sufficiency. Other sectors in its economy had developed quite slowly, like handcraft industry (Kiyoshi Inoue, 1936). Furthermore, the western countries were striving for an open-door policy with both Japan and China. Under the threat of being colonized by the Western countries, the Meiji Restoration and the Self-Strengthening Movement were inspired by the potential wars with the Western powers. Since both Japan or China were defeated by the West, the isolation policy in both countries was no longer valid. Facing this kind of threat from the West, the feudal economic system was forced to change both in China and Japan. Therefore, the reforms were

reasonable change for the policy makers to save the respective country. The main purpose was to adopt a policy of "rich nation and strong army" (Liao, Chih-Yu, 2006).

The contents of both reforms shared several similarities. The main achievement in both reforms was to develop their industry especially in military sectors. When the contextual background, historical background and reforms themselves being taken into consideration, the Meiji Restoration and the Self-Strengthening Movement was a proper research topic to study further.

1.3 What is the definition of modernization?

Apparently, the definition of modernization is crucial in the thesis. But why does the definition of modernization matter? Since the thesis is about a comparative study for the Meiji Restoration and the Self-Strengthening Movement, modernization needs to be measured. By giving a clear definition of modernization, the readers can be benefited better from the comparison between the two reforms.

In 1982, Rozman gave a definition to modernization as that society has been changed or shifted under the influence of scientific and technological revolution. "In a broad sense, it is true that 'modernization' can be thought of as a process associated with elements such as independent sovereignty in international society; national identity; democracy and bureaucratization in domestic politics; a financial and economic system to support the three main levels of industry (primary, manufacturing and service production); infant survival rate; life expectancy; equitable distribution of income; social welfare; and the educational level and cultural enlightenment of its people. Through these dimensions, we can examine how successful a nation is in its

modernization."³ However, both definitions of modernization cannot explain the modernization process in mid-nineteenth century,

Unlike 'first-comers' in industrial revolution, China and Japan did not catch the revolutionary trend to promote the development of economy and society, from which I consider China and Japan are the 'late-comers' to industrial revolution. Even though both Japan and China were late for modernization, the main task for them was to learn the military science and facilitate industrial revolution within the respective country. The pattern of modernization for China and Japan was trying to copy from the Western countries (Liao, Chih-yu, 2006).

I think it is necessary to explain the definition of modernization in my thesis and I will elaborate the theory in Chapter Five. Why cannot existing modernization theories properly account for the Meiji Restoration and the Self-Strengthening Movement? Firstly, the concept of "modernization" and "westernization" can be confusing in non-western countries, for which learning from the West was their priority task. However, I think modernization theory has broader and more reasonable explanation to China and Japan in pre-modern period. Secondly, according to Marsh industrialization was the driving force to modernization, ".....it appropriate that the operational definition of modernization from the beginning has emphasized the level of economic development, as measured by GDP per capita." 4 However, the data is insufficient in pre-modern society and it is difficult to conclude modernization performance. Indeed, industrialization was highly linked to the Meiji Restoration or the Self-Strengthening Movement's

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³ Liao, Chih-yu (2006: 5), A comparative analysis of the difference between Chinese and Japanese Modernization in the Mid-Late Nineteenth Century with particular regard to the Idea of 'Rich Nation and Strong Army'

⁴ Marsh, R. M. (2014: 264). Modernization Theory, Then and Now. Comparative Sociology, 13(3)

policy, but it is still too narrow to suit for every policy related to the Meiji Restoration and the Self-Strengthening Movement (Liao, Chih-yu, 2006). Moreover, the definition of modernization is crucial to the analysis part.

To sum up, in order to offer a solid theoretical background to modernization study, I am going to look up the classical theory and neoclassical theory in the development of modernization theory. Also, I use modernization as the research tool instead of using westernization to avoid unnecessary inconsistencies. To clarify the theory, I will demonstrate it in Chapter five with the following steps:

- (1) To give a brief introduction about the development of modernization theory, and to point out the two-main research period: classical period (1949-1970) and modern period (after 1990s).
- (2) To illustrate the representative theories in classical period and modern period and explain which theory is closed to my research field.
 - (3) To distinguish modernization from westernization.
 - (4) To deliver my own definition of modernization.

1.4 Contribution and limitation

The aim of the study is to compare the Meiji Restoration and the Self-Strengthening Movement of Japan and China from the perspective of modernization. The two models of modernization which happened in non-western countries in the 19th century are of great difference comparing with that of the western countries. This research will not only bring forward a new point of view to the existing research literature of the Meiji Restoration and the Self-Strengthening Movement, but also give an inspiration to the research of modernization development in non-western countries.

The primary contribution of this thesis is to use my own modernization definition to probe the development of modernization of China and Japan in pre-modern society by analyzing different theories of modernization. The modernization research about the late Qing dynasty is not sufficient. The buds of capitalism sprouting in the late Ming dynasty still developed very slowly though the process was under severe control by the central government, which means the development of modernization in the Qing Dynasty can be traced back to late Ming dynasty though the Self-Strengthening Movement was the first official attempt in pre-modern history. There is no doubt that the Self-Strengthening Movement was a failure from the economic development but it did change social structure and institution which finally resulted in the ending of the Qing dynasty and founding of the Republic of China. It is reasonable in term of this aspect the modernization of late Qing dynasty was a success to some extent.

The success of the Meiji Restoration did not mean Japan also succeeded in modernization development. Though Japan had made great achievements in military industry and economic development, it maintained as an absolute monarchy from the political perspective until the end of World War two.

Through the research, I can conclude that it is not comprehensive or complete to evaluate the success of modernization only from the economic perspective. Social development and the establishment of political democracy are also very important factors in modernization analysis. Lastly, I think the historical experience can provide an example for the countries today which hope to develop its economy and society. But there is still a limitation in my thesis, due to the fact that the thesis is mainly based on secondary sources. This is due to scarce data on the development of the two nations. I will therefore use

a number of previous studies to be able to discuss different perspectives and different interpretations. Finally, I will discuss whether the two countries were very similar at the start of the reforms or if they in fact had some important differences which we must take into account for in the analysis.

1.5 Outline of the thesis

I divide the thesis into seven chapters.

Chapter 1: As the starting point, this part is the introduction one which includes research questions, main subject of the thesis, contribution and limitation of my thesis and its structure as well. The main research topic is to examine the performance in modernization in respective reform. Furthermore, the main contribution of my thesis is the modernization performance in the Meiji Restoration and the Self-Strengthening Movement. There are a large number of literature about these two reforms, but the comparisons between the Meiji Restoration and the Self-Strengthening Movement have not been fully explored yet. Comparing to The Meiji Restoration, only few literatures are related to the Self-Strengthening Movement. Therefore, I intend to contribute more to the study of the Self-Strengthening Movement more than that of the Meiji Restoration. Many topics are connected to the Meiji Restoration or the Self-Strengthening Movement while I choose modernization because I also want to demonstrate the modernization process in non-western countries. In the meantime, I also discuss the limitation of my thesis because I think the data might lack of accuracy. Additionally, besides the main components of modernization that I discuss in the paper, I think other factors such as politics also be one of the crucial factors in modernization process. Therefore, I divide this section into five subparts: (1) What is the thesis about? (2) Why are two

reforms are comparable? (3) What is the definition of modernization? (4) Contribution and limitation of the thesis (5) Outline of the thesis.

Chapter 2: Contextual background related to the two reforms. Since historical backgrounds had already provided fundamental factors to both the Meiji Restoration and the Self-Strengthening Movement, I am going to give a brief background introduction to both reforms. Additionally, I also mention that the revolutionary trend was not isolated in Asia countries back in the nineteenth century, and instead it turned into a global phenomenon.

Chapter 3: This section is going to cover literature review. I choose to divide this section into two sections. Since I can easily access a large quantity of literatures in Chinese, one section will be reviewing writings of Chinese scholars. The other section will be from Western scholars' perspective. I will summaries the main research related to the reforms on each part and use three divisions, which are positive agreements, negative agreements and neutral agreements towards the Meiji Restoration and the Self-Strengthening Movement. Moreover, since I could not approach literatures directly written in Japanese, I will not divide the discussions on Meiji Restoration in such manner. The Meiji Restoration and the Self-Strengthening Movement are both broad topics and not all the researches are concerning about the modernization in respective reform. However, the analysis is more or less associated with the economic development and social development. I will classify the main ideas for these references and narrow down the ideas connected to modernization.

Chapter 4: I discuss modernization theory in this part. I demonstrate the development of modernization theories which are representative in different period. Also, as the reforms are the attempts of modernization in non-western countries, I also elaborate the difference and similarity between westernization

and modernization. Then I conclude the definition of modernization and I use it as measurement to examine the performance in China and Japan in analysis section.

Chapter 5: I introduce the research methods of my thesis. Since any reliable and systematic statistical data for such measurements are insufficient in premodern society (Feuerwerker, 2015), either China or Japan is not in an exception. I use qualitative study as the research method instead of using quantitative way. The main research methods are comparison and analysis.

Chapter 6, I believe four factors are the fundamental elements of modernization, which are urbanization, industrialization, education and infrastructure. These four elements are the measurement to examine whether modernization was successful. I choose one variable for each element, for instance, using population to testify urbanization, choosing military factories to testify industrialization, selecting education system to see the performance in education and taking railroad construction to testify the development of infrastructure.

Chapter 7, this section is the final part of my thesis. Based on the discussions and comparisons above, I conclude that modernization of the Meiji Restoration preformed more successfully than that of the Self-Strengthening Movement. Nevertheless, China almost became the colony in the late Qing dynasty while it still accomplished some modernization factors as urbanization and industrialization.

2 Contextual Background

Both the Self-Strengthening Movement and the Meiji Restoration are topdown transformational reforms, which tried to change the old regime. These attempts did not only occur in Asia countries such as China or Japan in the 19th century. For instance, the first industrial revolution originally happened in Britain, but other European countries also caught the trend. Generally speaking, this changing trend can be defined as modernization which is a profound social revolution. This revolution resulted in not only the improvement of productivity, but also the changes of production relations and production mode. Due to the close interrelation, interdependence and interaction between productivity and production relation, the improvement of productivity requires the change of production relation, which includes suitable and specific performance of the social system, well-functioned institutions, updated behavior pattern and life styles, modernized ways of thinking and the changes of many other aspects. The arduous and extensive nature of social change in developing countries brings forth a thought-provoking question: What is the role of authoritarian politics in the modernization movement of the backward countries?

According to the performance of modernization in Japan and China, the Meiji Restoration and the Self-Strengthening Movement proved that authoritarian politics was essential in the process of modernization in poor countries, especially in the initial stage.

When the society wants to realize a fundamental change, the whole countries' participation is necessary. Only the authoritarian imperial court or government can achieve the efficiency of the process, as Japan and China, as well as Russia.

For the people who are not familiar with the two reforms may think the Meiji Restoration and the Self-Strengthening Movement happened under similar historic background, while partly was true. Before the Meiji Restoration and the Self-Strengthening Movement, similar problems did exist in Japan and China respectively. On the one hand, both society were facing the internal chaos of political and social situation. On the other hand, both Japan and China worried about being colonized by the west. But when I go deep into the research, I find that the difference of the historic background between the Meiji Restoration and the Self-Strengthening Movement is significant.

2.1 Tokugawa period of Governance

"This era, called the Tokugawa period after the family name of Japan's military rulers between 1600 and 1868, has left a variety of images for later ages. The Tokugawa order was bolstered by harsh laws and restrictions on social and geographic mobility." 5 In order to have a better understanding about Tokugawa Regime, I will discuss this issue in the following aspects.

Firstly, the characteristic of Japanese feudal society was Shogunate system, under which the power between the central government and local government is divided. Before the Meiji Restoration, the Shogunate system was dominant

⁵ Gordon, Andrew. (2003: 231). A Modern History of Japan: From Tokugawa times to the Present. New York: Oxford UP.

in the Japanese society, in which the Shogun exercised the actually supreme power while the emperor was only the namely highest ruler. Under the Shogunate system, the head of the local governments called Daimyos exercised autonomous power at some extent such as judicial power, executive power, taxing power, and could even maintain their own army in the territories. Daimyo encouraged people to conduct business activities to help the economic development.

The decentralized political system and the idea of Emperor Meiji to resume the exercise of supreme power prepared political preconditions for the Meiji Restoration. In 1603, Tokugawa Ieyasu became the leader of the country and the established the Shogunate regime in Edo. Tokugawa period established a truly feudal society in Japan and it lasted over two centuries. In this period, the land with the territories only belonged to the lord. Under this circumstance, the Tokugawa central regime was Shogunate while the Daimyos were the landlord responsible the Shogunate. Below Daimyo, there was a class called Samurais, who were responsible to the upper-class Daimyos. Samurais were not responsible to the Shogunate.

Secondly, natural economy doomed to collapse with the rapid development of capitalism in Tokugawa period. Unlike the Qing dynasty, the development of capitalism fostered wealthy farmers and businessmen class in Japan. In the first half of the 18th century, Japan began to emerge in the buds of capitalism. Handicraft factories also became widespread in late Tokugawa period. Although at that time, the level of the development of capitalism is not high, the wide spreading handicraft factories and the rise of wealthy farmers and businessmen prepared material basis and social class basis for the Meiji Restoration.

The development of the capitalist economy is reflected in the following three aspects.

- (1) The emerging of financial markets accelerated the development of the capitalist economy. Although Tokugawa regime implemented the isolation policy to seclude Japan from the outside world, commodity economy still continued to develop. In 1661, Fuchu Echizen Phan issued paper money, which proved the development of capitalist economy already reached relatively high level. Paper money was widely accepted in the country level in the 1780s. When the commodity trade was getting more and more popular and frequent, banks appeared.
- (2) The second symbol is the unified domestic market and the convenience of transportation. Tokugawa Shogun announced that there were no barriers between different Daimyos' territories. This policy greatly increased the connection between various autonomous regions and facilitated the development of domestic markets and transportation. Each autonomous landlord was required to pay certain goods and materials to the Shogun annually. Many lords dealt with business in Osaka, which was the center of domestic commodity market at that time. Farmers could have sold surplus materials to the market which also contributed to the development of agricultural commercialization. In addition, Japan also established a network of transportation all over the country. Edo became the junction of the public transportation network. There were at least 5 main transport roads connecting the big cities throughout the country. There were also four main sea routes connecting harbor cities such as Nagasaki, Edo and Osaka. The unified domestic market and good transportation network greatly promoted the commodity economy from urban regions towards rural areas.

(3) The third symbol is the collapse of the natural economy. With the development of commodity economy, the merchant class appeared in rural regions. The newel social class lent money to their customers, invested money on wholesale business in the city, and purchased the redundant agricultural products in order to seek commercial profit. Meanwhile, the capitalist relations of production appeared in the cotton textile industry. In the handicraft industry, concentration of handicraft factories with division of labor also appeared. Unlike the Qing dynasty, in the feudal lords in Tokugawa period, Japan implemented the feudal lord land ownership, land could not be traded or transferred literally. Though the newly rising bourgeoisie class had influence on the economy, but they did not have much impact on politics. The bourgeoisie still be regarded as the lower class. This situation changed in late Tokugawa period, when the merchant class were already had accumulated power to against government.

As a result, the self-sufficient natural economy similar to China was going collapse, which also in a certain extent, shaked the Bakuhan system of feudal land ownership, and promoted rural class differentiation. The traditional concept of agriculture-based economy in Japan changed in mid-nineteenth century.

Thirdly, at the beginning of Tokugawa regime, the governors found themselves caught between resisting and accepting the social changes. Considering the political disunity and decades of civil wars, the governors set maintaining political stability of the regime as top priority. In other words, the government tended to safeguard the feudal society. According to Meyer described in A Concise History, "They resisted change, tried to control and freeze society in a number of ways, and suppressed many of the creative tendencies in the land.

In these goals they were successful, for Japan was to enjoy two and a half centuries of social tranquility and domestic seclusion. But these ends were achieved only at great costs, for the shoguns retained anachronistic forms of government and administration at a time when Western countries in these same centuries were breaking their binding medical shackles and were forging ahead in domestic programs and foreign explorations." ⁶ Apparently, Tokugawa regime used the seclusion policy to prevent social changes or revolution. In order to remain the social stability, one of the crucial way was to adopt the seclusion policy, which also was one of main the governing policy in Qing Dynasty. The seclusion policy turned out to be successful since the country avoided revolution, strife, any disturbances or any threat again the regime.

Samurais belonged to the lower class, whose number was very big. After they failed the war of "protecting the Emperor but against the Shogunate", some samurai reformers turned to support learning from the West.

In 1854, the Tokugawa signed "Kanagawa Treaty" and in 1859 it signed "Ansei Five Treaty", these unfair treaties caused national crisis and resulted in the lower-class Samurais' dissatisfaction to the regime (shogunate). Therefore, Samurais joined the line of the e reformers overthrew the shogunate, returned the supreme state power to the Emperor. Thus, the Meiji Restoration began.

2.2 What happened in late Qing dynasty?

In the Chinese feudal society, emperor exercised the supreme power of the dynasty. However, the drawbacks were obvious, the fate of the dynasty was totally determined by the only person. Emperor 's power of Chinese feudal

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⁶ Meyer, Milton Walter. (2013:97). Japan: A Concise History. Lanham: Rowman & Littlefield.

monarchy is absolute, with no constraints at all. There are no checks on this power. The power cannot be divided. Therefore, at the eve of the Self-Strengthening Movement, Emperor Xianfeng was on the throne, whose own impulsive personality traits and lack of far-reaching vision for the society had become a disaster to the Dynasty.

In 1853, the Taiping Rebellion broke out. As Western countries signed several agreements with Qing governments then they rather supported Qing Dynasty instead of Taiping Rebellion. But the attitude of Emperor Xianfeng towards Western countries was relatively hostile, especially to the United Kingdom and France. For instance, Qing government refused Western countries to establish diplomatic and consular missions in Beijing and forbid to open inland cities to foreigners. Issues such as tariffs and opium were negotiable. The Qing government thought the Qing Dynasty a great country or Cathay (heavenly country). Even in the late Qing Dynasty, it still had a few vassals, which were equivalent to Qing government's satellite countries and were dependent on Qing government. If the Qing government allowed Western countries to establish diplomatic and consular missions in Beijing, it would mean to accept that the Qing government and the West government are equal diplomatically. Then the status of Cathay would be difficult to maintain, which would be a humiliation to the dignity of the Emperor Xianfeng. As a matter of fact, the Qing government was forced to open the inland cities and allowed foreign diplomatic and consular missions to settle in Beijing after the Second Opium War. But this change did not have a great impact on the feudal system so far.

Before the Self-Strengthening Movement, the economic and political characteristics of the Qing Dynasty can be attributed to the following three aspects.

Firstly, ancient China's political system was highly unified, centralized and absolute monarchy, and the concept of this system had been running over two thousand years until Qing dynasty. Other features include (1) to implement restraining commerce policy, to combat economic diversification and commercial free development; (2) to prohibit freedom of expression, thoughts and religion. So that China's absolute centralized political system reached the pinnacle degree. This means that the Chinese traditional political forces and the central concept is quite powerful, it was extremely difficult for the emperor to make policies to encourage the development of trade and industry before the Self-Strengthening Movement.

The main reform forces of modernization of the late Qing dynasty originally from bureaucratic landlords' classes in the nineteenth century. The main purposes of the Self-Strengthening Movement were to learn advanced Western technology to consolidate national power. For example, Minister Zeng Guofan was the leading figure of the Self-Strengthening Movement, who thought learning Western technology was to revitalize the collapsing Qing dynasty. He set up Anqing Ordnance. The objective of the Ordnance was to learn the Western military technology such as the manufacturing advanced weapons and to train the forces with Western technology.

Minister Zuo Zongtang was a representative figure of the Self-Strengthening Movement, who set up in Fuzhou dockyard and built up Lanzhou Machinery Bureau in Gansu. His views were influenced by the defeat in the wars, he believed that China's major foreign aggression was from the

southeast sea. Therefore, it was necessary to step up development of coastal defense construction. He also thought Russia was a big threat to northwest China and the government should strengthen the military force in Northwest China.

Minister Li Hongzhang was another important representative figure. On the one hand, he reformed the system of selecting talents, by changing the traditional imperial examination system to select talents. He selected talents only according to the mastering of western science and technology. On the other hand, Li as an important Minister of the late Qing government, he used his status to deal with foreign affairs and to maintain peace and the relationship, which facilitated China's learning and the introduction of advanced technology in modern industry, promoted the development of the cause of China's the Self-Strengthening Movement.

Secondly, the Chinese feudal economic foundation was established on landlord ownership and self-sufficient nature economy. The capitalism was extremely weak. It was very difficult for China to break through the feudal system and establish overwhelming capitalist economy.

In the late Ming Dynasty, the region of the south of the Yangtze River already appeared weak capitalism, but with the demise of the Ming Dynasty, the development of the capitalism was difficult to continue. Until the mid and late Qing Dynasty, capitalism started to recover with the development of production and economy. But Chinese traditional self-sufficient peasant economy was still dominating. At the same time, the government had attach importance to agriculture despise commercial development policy. The government continued to adopt seclusion policy and monopolized large

commercial trade and foreign trade, which made the bud of capitalism grow very slowly, not as fast as that of the western countries.

After the two Opium Wars, a large amount of war reparations and openup of coastal cities brought about the slow disintegration of Chinese traditional small-scale peasant economy, a slight increase in the development of capitalism. In such a feudal society, the capitalist relations of production were far backward comparing to that in Japan even at the eve of the Self-Strengthening Movement. Domestic market was still very small and the development of modern industry was limited to a very limited extent.

Thirdly, Qing government once engaged in an internal war with Taiping Rebellion and experienced failure of a series of war with the west. The old policies and institutions were no longer sufficient to maintain the dignity of Qing dynasty, or applicable to the present society. The military and economic technology of the Qing Dynasty were proved not effective. Therefore, study of Western technology to promote social development inevitably became a new policy of the Qing government.

3 Literature Review

This chapter will illustrate the previous main researches on the Meiji Restoration and the Self-Strengthening Movement. Research related to China and Japan was common even before pre-modern period. Since I can access Chinese literatures, I will divide literature review into two main parts. One is the literature review about Chinese scholars' perspectives to the Meiji Restoration and the Self-Strengthening Movement. The other is the literature review about Western scholars' opinions towards the Meiji Restoration and the Self-Strengthening Movement.

In a broader perspective, according to K. H. Kim (1974), the challenges from the West came in many forms. Ultimately, however, it was Western military and economic strength that persuaded the leaders of China, Japan, and other nations of East Asia to open their countries to Western diplomats, soldiers, missionaries, traders, and adventurers. Confronted with the indisputable superiority of Western strength, the more foresighted among the ruling group concluded that the secrets of the Western Power were advanced science and technology. They then decided to master those secrets in order to strengthen their countries against the West. In the 1860s, China and Japan embarked on significant programs for the introduction of Western science and technology and during the next thirty years the two neighbors engaged in a race toward a common goal of "enriching the country and strengthening the army" (K. H. Kim, 1974).

3.1 The Self-Strengthening Movement in the eyes of the scholars of the "inside world"

Although the Self-Strengthening Movement did not cause much influence to the world economic history, it is still the hot studying topic for Chinese scholars. No matter is the historical background, the beginning, the process or the influence, all of these are the crucial research topic for pre-modern economic history study in China.

Unlike the Meiji Restoration research study, about which there are loads of research achievements, comprehensive studies on the Self-Strengthening Movement are absent. It would be difficult to find the literatures about the Self-Strengthening Movement. Additionally, the Japanese interpreted the idea of building a Western-standard modern state into a material-physical, and not a spiritual, sense, etc. Despite the rapid external and formal westernization of science, technology, education, economics, the armed forces and political forms, spiritual changes lagged far behind.

There is no misunderstanding about the time span of the Self-Strengthening Movement period for the academy. Normally speaking, the Self-Strengthening Movement started from 1861 for establishment of the Anqing Arsenal while ended in 1894 because the defeat of Sino-Japanese War.

Chinese scholars made a greater contribution to the study on the Self-Strengthening Movement than scholars from any other countries. There are mainly two research period, one is from 1960s to 1970s and the other is starting from 1980s. On the comments on the Self-Strengthening Movement, there are three representative kinds of views.

Firstly, some scholars think the Self-Strengthening Movement is a negative and failed reform to the society. Indeed, there were several limiting conditions

in the society were totally against the new reform. (Zhang Guohui, 1979). However, I think this comment is too narrow to conclude the Self-Strengthening Movement. The Self-Strengthening Movement started in 1860, which happened 20 years later after the first Opium War. However, the foreign factories established after 1842 provided convenience for Qing government to learn the advanced science and technology easily.

Secondly, some scholars think the Self-Strengthening Movement is a positive reform to the society. The Self-Strengthening Movement is one of the progressive reform to the pre-modern history (Xu Tailai, 1979). The main reason of this study is because the Self-Strengthening Movement was surpassed feudal society itself. The main purpose of the Self-Strengthening Movement was building strong army and rich country. Under this perspective, they can argue the Self-Strengthening Movement was a positive reform.

Thirdly, some scholars also think the Self-Strengthening Movement both has its and negative and positive influence to the social development (Xia Dongyuan, 1992). I also think the Self-Strengthening Movement could not be simply judges as a good one or bad one. It is a complicated topic which needs to be evaluated from different aspects.

Based on the three main representative comments above, the influence of the Self-Strengthening Movement is controversial. The controversies mainly focus on the following question.

Firstly, how to confirm the nature of the Self-Strengthening Movement? Some scholars think the Self-Strengthening Movement are supported by the national bourgeoisie (Huang Yifeng, 1983). On the contrary, the opponent think the Self-Strengthening Movement are supported by bureaucratic bourgeoisie (Zhang Guohui, 1979). However, I think it is hard to differentiate whether the

Self-Strengthening Movement was led by the national bourgeoisie or the bureaucratic bourgeoisie in China. Strictly speaking, capitalist class did not exist due to the social policy, historic and economic conditions before the movement.

Secondly, how much did the Self-Strengthening Movement contribute the modernization process in late Qing dynasty? There is no doubt that the Self-Strengthening Movement was the starting point of modernization in China. However, the divergence of opinions between different academic group is that the degree of contribution. Some scholars exaggerate the influence of the Self-Strengthening Movement. They think the Self-Strengthening Movement was successful reform and it changed the social structure and establishing the modern industries (Li Shiyue, 1988). The opponents point out that the Self-Strengthening Movement is not of much significance. Additionally, combining with the historical background, I think two kinds of modernization patterns could happen in China. One modernization patter was interfered by the force from the West while the other could ignore the interference from the West. Apparently, the Self-Strengthening Movement belonged to the first one (Hu sheng, 1996). On this issue, I agree with the opponents. Because of the defeat of a series of wars with foreign countries, the Qing government was forced to sign a series of unfair agreements. Huge sum of war indemnity brought great financial difficulties to the government. Besides, the discussions of significance and insignificance of the Self-Strengthening Movement is crucial part of my study. Discussion of the debate is also a crucial part of my study. In terms of the degree of contribution of the Self-Strengthening Movement, I will elaborate it in the analysis part.

Thirdly, Did the Self-Strengthening Movement include the diplomatic activities of the Qing government? Some excluded the diplomatic activities from the Self-Strengthening Movement while others thought these should belong to the Self-Strengthening Movement (Zhang Mingjiu, 1985) Besides, there are certain agreements in the Self-Strengthening Movement topic. I conclude it into two part as follow.

Firstly, the Self-Strengthening Movement was a turning point to development of modernization. Before that, the national policy was the Seclusion policy and it was last for centuries. It was a symbol for Qing dynasty to shift from isolation to openness. Furthermore, the reform lasted for 35 years, like the Meiji Restoration in Japan, it also was an important event in premodern Chinese history.

Secondly, To the Self-Strengthening Movement, there are negative side and positive side. When considering the topic, it should be in a subjective way to demonstrate the question. For example, during the Culture Revolution, the Self-Strengthening Movement was trashed by the academy due to the political reason. It was unnecessary to do the research under prejudice. As a conclusion, the Self-Strengthening Movement is a complicated topic and it contained the contradiction from the old society and advanced society, it included the national crisis with internal crisis, it restricted from feudal society and also there is contradiction from inside of the ruling class. It can study from different perspective and this topic should be study further.

3.2 The Self-Strengthening Movement in the eyes of the scholars of the "outside world"

Foreign scholars have contributed some classical works to the Self-Strengthening Movement. I pick out a few works of representative scholars and make a brief introduction and comment on these works.

John King Fairbank gave a precise definition to the "Self-Strengthening". He thought that "Self-Strengthening" was a new policy of the Qing government, which dealt with the affairs of diplomacy, foreign trade income, businessmen and preachers, including western affair related new plans such as foreign language schools, training of army, establishing of arsenals and shipyards, opening up mines, building up merchant ships and navy forces (John King Fairbank, 1980: 544).

The Ministry of Foreign Affairs (Zongli Yamen) was the main institution responsible to coordinate the affairs of the Self-Strengthening Movement. Concerning reform plans, the Ministry could make it itself or proposed to the imperial court. But in any case, all the reform and proposals still need the approval of the emperor.

As to analysis of the Self-Strengthening Movement, John King Fairbank focused on the key figures in the movement. He both introduced the Manchu nobilities who supported the reform in the central government, and the key persons in the local government. His works were mainly introduction with historical facts, whose evaluation on the state policy and key figures in the movement was objective.

Rozman (1981) set the first modernization in China from 1850-1950. Obviously, the Self-Strengthening Movement was included in this period. Actually, the beginning of modernization in China was very late. He also thought, the modernization in China was strongly influenced by traditional value and political factors. He concluded three reasons why the Self-

Strengthening Movement failed. Firstly, the government missed the opportunity to complete reform in 1860s; secondly, Empress-dowager was selfish and short-sighted; thirdly, the Manchus imperial court tried to control the public with Confucianism. I especially agree with his second point. In feudal China, the emperor held the highest authority, there was no checks and balance to the power of the emperor. Beside Empress-dowager, Emperor Xianfeng's personality of impulsion and short-sightedness brought farreaching impact to the society.

3.3 The Meiji Restoration in the eyes of the scholars of the "inside world"

Japan used to learn from China. Besides China itself, no other country had studied Chinese history so extensively as Japan. This is not surprising due to Japan's long historical and cultural ties with China. Starting from the thirteenth century until the middle of the nineteenth century, kangaku⁷ or Chinese studies were the principal resources of learning in Japan. China and Japan shared similar culture. Though Chinese cultural influence declined since the past century, Japanese scholars maintain their tradition of study on Sinology. They have carried out and are still carrying out studies covering virtually every period of Chinese history and culture from ancient time to the present. The phenomenon illustrates that the influence of Chinese culture is a significant feature in Japan. However, I will demonstrate the main studies to the Meiji Restoration on Chinese scholars' perspectives in this part.

Normally, most of the researchers think the Meiji Restoration period was from 1868 to 1894. The starting point of the Meiji Restoration was 1868, which

⁷ Kangaku, in Japan, sinology was known as kangaku (漢学) "Han Studies".

was the ending point of Tokugawa period and also was the beginning point of Meiji regime established by the reformers. However, there were still two disagreements for the original time of the Meiji Restoration, one is from 1853 to 1894, which the historical events were Kurofune raikō in 1853 and Anglo-Japanese Treaty of Commerce and Navigation in 1894 (Lu Wanhe, 1984). The other was from 1868 to 1911 (Wan Feng, 1981). This definition for the Meiji Restoration was based on the expanding period of Japan. In my study, I follow the research period from 1868 to 1894. Also, the period was highly coincided with the Self-Strengthening Movement from 1860 to 1895.

Compared to the divergence of the Meiji Restoration period, there are several disagreements with the nature of the Meiji Restoration. I conclude these as three main perspectives towards

Firstly, this perspective towards the Meiji Restoration was that this was not a completely bourgeois revolution (Lu Wenzhong, 1962). The sign of "not completely" was that the Meiji Restoration failed to promote liberal capitalist economy or laissez-faire capitalism. On the contrary, the Meiji Restoration provided the nation to use the privilege to develop bureaucratic capitalism. Under this circumstance, the social gap between difference class would be wider and the small-size capitalisms were hard to develop. Without the democracy, there was no such freedom to develop capitalisms (Lu Wanhe, 1987) I think it would be hard to define the Meiji Restoration as a completely bourgeois revolution or not. However, based on the result level, it could not illustrate the Meiji Restoration as bourgeois revolution. Since the political democracy was also one of the essential sign for bourgeois revolution, the Meiji Restoration only completed in its economic part.

Secondly, this perspective defines the Meiji Restoration as a bourgeois

revolution while without capitalisms (Wu Anlong, 1981). This perspective based on the historical background and theory explained that the Meiji Restoration was a bourgeois revolution but without it.

Thirdly, the Meiji Restoration was the bourgeois reform in part of democratic movement of Asia in premodern society (Wang Miao, 1981). Before mid-nineteenth century, Japan used similar policy as the Seclusion policy isolated from outside while after mid-nineteenth century Japan was defeated by the West. Then it gave Japan huge burden to avoid to become the colony from the West. Furthermore, the Meiji Restoration was connected with the requirement of independence from the nations and improvement of society. The leading social class were the samurai who supported the reforms in the Meiji Restoration and it reflected the Meiji Restoration was demanding from the people in Japan (Wan Feng, 1981). However, I agree that the Meiji Restoration cannot ignore the requirements from the people but it core part in the Meiji Restoration was 'rich country with strong army'. If this perspective only started from the social classes and historical background, I do not it is sufficient evidence for democratic movement in Asia.

Except the divergent perspectives, like the Self-Strengthening Movement, there still had server common sense to the Meiji Restoration. From the results, it hard to deny that the Meiji Restoration was a successful revolution and it change the social structure in many ways. Compared to the revolution happened in West, the Meiji Restoration has its own characteristics. Additionally, in theory, the Meiji Restoration occurred under the Western colonialism (Marx, 1867). Even so both the Meiji Restoration and the Self-Strengthening movement were all pursued the goal of 'rich nation with strong army', the Meiji Restoration still had the specific policy that the Self-

Strengthening movement did not have. In the beginning of the Meiji Restoration, the governments were set up a 'continental policy' against China and started the Sino-Japanese War with China in 1895. Japan was desired for expanding the power to other countries in Asia not only thinking about strengthening the countries. For all the reviews from different literatures, I think the Meiji Restoration did not only seek for promoting the economic development but also desired for military expanding.

3.4 The Meiji Restoration in the eyes of the scholars of the "outside world"

Before Japan started the Meiji Restoration, it was ruled by Tokugawa Shogunate. The Tokugawa era also need to be mentioned. Unlike China, the Tokugawa economy produced large surplus beyond peasants' self-consumption, though much of it was 'wasted' in unproductive outlays. Western scholars made a lot of research on the Meiji Restoration, I select a representative point of view in the following passages.

Noman (1940) pointed out that it is worth noting that Japan's transition from the feudal state to the speed of the modern state is amazing, which happened on two reasons: One is the decline of feudal system and the other is the pressure from the western powers. The combination of the internal and external crisis accelerated Japan's process of transition toward modern society. Additionally, one of the Meiji government 's policy was to set up military strategic factories, to prepare for the defense and military expenditure, and to provide a large number of subsidies to the financial class to join the process of realizing this policy.

Another policy of the Meiji government was to that of levy heavy tax on agriculture and limit the development of non-military industry, and was tolerant to any activities or democratic protests which might bring domestic crisis or delay the task of nation construction. Due to this strict policy, Japan's industries, commercial fleet, overseas markets and a strong Navy force could be rapidly built up.

From another angle to view, when the 1868 political revolution once succeeded, Japan could achieve rapid speed of development. Because the model countries Japan was to learn were already successful in terms of technology improvement and economic organization, Japan could directly refer to other countries' successful experience.

But the difficulty is that it is not a simple matter to adapt other countries experience to its own national conditions. Technical blank and lack of important raw materials led to the Japan's disadvantage in the market competition with the western powers, which added the difficulty of Japan's industrialization.

The late development of modernization in Japan (comparing with the western societies) resulted in the tendency of monopoly and exclusion of market, which would influence the politics. Therefore, the zaibatsu developed in Meiji Restoration would try to consider the interests of the interests of the bureaucracy and themselves, which was not good for the development of the society.

4 Theories on Modernization

The purpose of this section is to discuss what modernization theories are, and make a conclusion of my own understanding about modernization theory. I conduct it in the following steps:

- (1) I will illustrate the development of modernization theory.
- (2) what kind of modernization theory was dominating before and how the previous researches are.
- (3) what is the difference between modernization and westernization and what is the difference between modernization happened in Western countries and Asia countries.
- (4) I will make a conclusion about previous research and give my definition about modernization theory.

Before the discussion, I want to give some explanations on the significance of modernization theory. Changing from feudal society to modern society and from close society to open society are the basic process of Asian countries in the last two centuries. How should I use the modernization theory to explain the expression of the Meiji Restoration and the Self-Strengthening Movement in the late 19th century? Did the Meiji Restoration and the Self-Strengthening Movement promote the process of modernization in these two countries? If the two events did change the two countries, what are the changes? Which factors played dominating roles in the modernization process? All these questions are based on the background of modernization theory, which are key points of this chapter.

4.1 The origins of modernization theory

In a broad sense, Modernization is a great revolution of social production mode resulted by modern productivity since the industrial revolution, a great trend which facilitates the rapid development of the world economy and the changes of social adoption. In other words, modernization is a great shift from traditional agricultural society to modern industrial society with the impetus of the revolution of modern industry, science and technology, which makes the industrialism permeate into the field of economy, politics, culture and ideology, result in deep change of social organizations and social behavior (Luo Rongqu). Apparently, the terms of revolution of modern industry, science and technology cannot be applied in the relatively backward countries in Asia. Comparing with western countries which experienced industrial revolution, Asian countries such as China and Japan did not go through industrial revolution in the 19th century. But their experience of modernization is still worth studying.

Modernization theory originally started from the Cold War period as political ideology (Conrad, 2012). According to Marsh (2014), he divided modernization theory into two main research periods, one is from 1949 to 1970 and the other is after 1990s (Robert M. Marsh, 2014). Nonetheless it started in a sensitive political time, modernization theories are still about social changes. As Marsh, he said previous research ".....ignores modernization theory's cognitive and theoretical origins in the Enlightenment and in classical sociology's theories of social changes: Tonies's *Geminschaft-Gesellschaft*, Durkheim's mechanical and organic solidarity, and Weber's traditional (feudal, patrimonial, etc.) and modern rational bourgeois society, among other such

formulations."8 I agree with Marsh. At the same time, some scholars tend to analyze modernization theory from the perspective of different time period. Modernization theory can be clarified in broad sense, narrow sense and the narrowest sense. In broad sense, modernization theory refers to all thoughts and theories relating to modernization since the starting-up of modernization. Modernization theory in narrow sense refers to all thoughts and theories relating to modernization since 1950s. In the narrowest sense, modernization means all the "classical" theories and their variants (modifications) rising up in the west countries especially in the United States. Japanese Sociologist Funaga Kenichi thought, if we set industrialization and democratization as the main indicators of modernization, we can conclude that the modernization theory first rising up in the United States of America in the 1960s. That is to say the rise of social sciences inspired by the Enlightenment is the initial form of modernization. Therefore, Modernization theory in broad sense refers to all the theories relating to modernization research since the Enlightenment. Luo Rongju thinks, "modernization theory" is a set of comprehensive theoretical framework relating the research of modernization issues. In terms of modernization, different schools use different names, such as industrialization theory, modernization theory, the stages of economic growth, the theory of economic development, theory of development, etc. All these theories are either too narrow or too broad, which are not satisfactory. Before we find a precise alternative of this scientific term, we might as well set it tentatively as "modernization theory" or "modern development theory". 2Yang Yu thinks,

⁸ Robert M. Marsh, 2014:263 Modernization Theory, Then and Now. Comparative Sociology, 13(3), 261–283. http://doi.org/10.1163/15691330-12341311

"modernization theory is not a single theory. Generally speaking, all the theories in relation to the study of social changes based on the approach from the traditional society to modern society". The task of modernization theory is to study the characteristics, motivation, process and other relative issues of this change. The definitions given by Luo Rongju and Yang Yu are actually the definition of modernization in broad sense. Modernization in broad sense puts all the doctrines and thoughts concerning modernization into its scope of consideration.

Classical modernization theory thinks that there are nine features in the process of modernization, including the revolutionary process, comprehensive process, systematic process, global process, long term process, periodic process, convergent process, irreversible process and progressive process. The indicators of modernization include political democratization, economic industrialization, social urbanization, religious secularization, ideological rationalization, modernism and universal primary education, etc.

Modernization became a global trend in pre-modern period while only few sociologists and economists could ignore the influence. More precisely, agriculture would not be the only concern. The industries, the services and the information sectors attracted more and more attention from people. Urbanization, the change of education system, advanced communication, social media, transportation, new science and technology, political democratization replaced the old social institutions, which can be seen as the process of modernization.

"Modernization" has been one of the most intensely controversial topics in theoretical and historical social sciences over the last fifty years. Before more than a half century some scholars or policy makers became interested about the topic of modernization.

Its "classical" theory, which originated in the 1950s, attracted more and more attention from the academic circles. It "postulated the process as unidirectional development, in the course of which societies freed themselves from the states of traditionality and increasingly accepted features of modernity" (Thomas Mergel, 2012). "Modernization" in this sense refers to a number of processes, the most important of which are industrialization, democratization, bureaucratization and secularization. I assume that mature modern societies are related to industrial, democratic, irreligious and cannot be steered by bureaucracies.

According to Mergel's opinion (Thomas Mergel, 2012), the origins of modernization thoughts could essentially be traced back to evolution theory. American sociologist Talcott Parsons participated in the theoretical development of the concept of modernization (Parsons, 1967, Sociological Theory). Furthermore, The Israeli sociologist Shmuel Eisenstadt made important modifications to the approach and he can be considered as a "frontier-runner of modernization theory" (Wolfgang Knöbl, 2003). He pointed out that decisive reversals of developments had occurred well before the transition to the modern period (Eisenstadt, Empires, 1963). According to the essay that Mergel published in the 1980s, the discussion initiated by Dahrendorf was led under the normative augury that whether National Socialism had been a modern phenomenon. Many discussants understood this as an inquiry whether the Nazis had been part of a "good" modernity. Particularly from today's perspective, the discussion was narrowly focused on the positive features of modernity, i.e. democracy and participation, and the

negative sides of modernity were simply ignored. Besides, I would like to point out that after 1990s, modernization theory has been faced revitalization and new criticism.

4.2 From Westernization to modernization

Despite the time pattern, scholars think over modernization theory in many ways. For example, some scholars prefer the term "Westernization" to modernization, feeling that it is a more precisely definable concept and that it need imply no more than the great influence of Western models, which all admit.

Economic development and political legitimacy are "some social requisites of democracy," Seymour Martin Lipset said in one of his classical article. Although often caricatured by both supporters and opponents, Lipset's argument was actually fairly sophisticated. He claimed that economic development initiated a series of profound social changes to produce democracy. He noted, for example, that wealthier societies tend to have higher levels of education and urbanization, more sophisticated and varied means of communication, larger middle classes, and greater social equality and mobility. All of these things, Lipset argued, are associated with, and necessary for the emergence and proper functioning of, democratic political institutions.

Following the theory's initial rapid acceptance, by the late 1960s a backlash emerged. Critics argued that it was too linear, too teleological, and too optimistic. Sheri published an article called *What to Read on Modernization Theory* (2009), in which he summarized many famous theories about modernization. One major challenge he mentioned came from Samuel Huntington. In Huntington's book, *Political Order in Changing Societies*, he

discussed the issue from the perspective of the theory's relatively unproblematic picture of social change. He rather believed modernization in negative ways. He argued that modernization theorists were right in evaluating economic development as profound social changes. But thought they were wrong to assume that those changes would necessarily be good or progressive. Societies in the throes of dramatic social transformation, he noted, tend to be unstable and even violent. Positive outcomes are likely to emerge only where healthy political institutions capable of channeling and responding to such changes exist. However, building such institutions is an extremely difficult and time-consuming task.

Due to the diversity of purpose, approach and knowledge among the meaning of modernization, nowadays, there is still some confusion regarding the meaning of "Modernization." A broad definition of modernization is defined as process by which a society replaces institutions, ideas and practices (Knight Biggerstaff, 1966:607). In this sense, modernization would have occurred in any part of the world at any time where basic changes were taking place-during the century that began with the Ch'in dynasty in China, for example, or in Western Europe following the Renaissance.

Furthermore, other scholars expressed their understanding of modernization from a broader view. Asia followed a different path of modernization from Western societies. Asian modernization illustrates a possibility of combining modernization with spirituality. Christian power in Korea invalidates any version of secularization theory including original, neo-and counter- secularization theories by providing a strong religious role in modern development. However, spirituality embedded in both institutionalized and mediatized religions demonstrate social and cultural

problems in Korea. Leading theologians argue, ironically, the foremost problem with Korean Christianity is the lack of spirituality despite the fast growth of Christianity. This new phase of religious power derived by media undermines spirituality by integrating it into the logic of entertainment and of the media industry. (Sunny Yoon, 2014)

In all different analysis from various scholars, I basically agree Knight's opinion. According to Knight, Modernization is a term that has been widely and rather loosely used for some time to characterize the fundamental changes that have been taking place during the nineteenth and twentieth centuries among non-Western peoples. It was first used in this sense to describe developments in Japan, China and Turkey, but with the multiplication of newly independent nations in Asia and Africa since World War II, the term has been applied to them, also.⁹

The study of Modernization has been remarkable increased at twentieth century in the United States and abroad (Knight Biggerstaff), this phenomenon mostly happened in Asian and African country in nineteenth century and twentieth century. One of the limitation of modernization theory is ignored that the modernization also could happen without in a bourgeois society. For Asian countries, the process of modernization can be seen as the process of westernization. Additionally, the concept of Modernization in this essay can be referred as what Knight mentioned in his article (Knight Biggerstaff, 1966).

Based on the related researches, I consider the concept of modernization is a complex and wide topic. In its developing time, modernization theory only

http://doi.org/10.2307/2051494

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⁹ Knight Biggerstaff (1966:607), Modernization and Early Modern China. The Journal of Asian Studies, 25(4), 607.

has developed for decades, in which its golden developing time is after the Second World War. While the two reforms I would like to illustrate are both earlier than that time. The traditional modernization theories may not be suitable for my research.

I would like to emphasize the meaning of modernization, based on the discussion above, I briefly define modernization as industrialization and economic development lead directly to positive social changes. Moreover, in politics, modernization reveals that the governments from despotism to democracy. In economics, modernization shows that market became main influence to the goods or customers. More precisely, in this essay, I would like to define modernization as follow, I consider modernization as a social change from bureaucracies to westernization, while this change in Japan and China during twentieth centuries shows in its industrial transforming, urban development, education reform and infrastructure development. For China and Japan, westernization may suggest the complete replacement of indigenous cultures by Western civilization rather than what is actually taking place. Either Meiji Restoration or Self-Strengthening Movement, their governments selected Western ideas and techniques to adopt their own peculiar ways. Therefore, I will use industrialization, education, infrastructure, institutions as the main elements of modernization.

5 Research Method

As I have introduced in Chapter 1, the main method I have adopted in this thesis is qualitative analysis. Firstly, the focus of the content is the Meiji Restoration and the Self-Strengthening Movement. Based on the collection of historical background, I start my comparison. Secondly, I start my analysis of the two reforms through literature review, while the points of view of both Chinese scholars and foreign scholars have been taken into consideration. Thirdly, I use modernization theory to test both the Meiji Restoration and the Self-Strengthening Movement failed or succeeded. I find it difficult to collect the data of pre-modern society, either the data for the Meiji Restoration or for the Self-Strengthening Movement. So most of the data in this thesis are second handed, which are collected through other literature. The methods of text analysis, social analysis and historical analysis are also adopted in this thesis. Of course, the method of economic analysis is also used in this thesis to show its characteristic of economic thesis. Additionally, methods of class analysis and political analysis are also touched in this thesis. Integrating the research content, research perspective, feature of the subject and characteristics of the research, I introduce the main methods in the following.

5.1 Method of Literature research

Literature is all the materials containing the information of the relevant research object, including private literature, official literature and literature on mass media. Method of literature research is about the collection, identification and organization of research related materials, on which the research and analysis is conducted, indirectly reaching some kind of scientific understanding of the subject. In this thesis, the method of literature research is mainly applied in the analysis of literature review and modernization theory. During the literature research, I have studied a large amount of Chinese materials concerning the Self-Strengthening Movement. Comparing with the Self-Strengthening Movement, western scholars have paid more attention to the Meiji Restoration, because the former is a failure and the latter is a success. In a manner of speaking, the approach of literature conclusion, organization, analysis and research may influence the quality of the thesis to some extent. So the method of literature research is necessary in this thesis.

5.2 Method of historical analysis

According to historical analysis, I use historical facts as research materials, including behavior of historical figures, historical invents and historical relationship. I then conduct analyze and process these materials, take them into the framework of the theoretical analysis and finally reach my own conclusion or point of view. As the reforms of Asian models, the Self-Strengthening Movement and the Meiji Restoration were two important historical invents occurred in the late 19th century. It is necessary to conduct additional analysis and clarification to the concrete historic materials in order to have a clearer picture of the preconditions and invents of the two reforms. Without correctly research and analysis of the related historical materials, it is impossible to reach a right conclusion about the Self-Strengthening Movement and the Meiji Restoration, not even to mention the formation of point of view or opinion that are consistent with real history.

5.3 Method of comparative research

Method of comparative research is to make comparison between two or more research objects, to find out the similarities and distinctions between them, then to reach a scientific understanding of the research object. Comparative research is the key method of this thesis. The comparison of the Self-Strengthening Movement and the Meiji Restoration will be conducted in the following aspects. Firstly, I make comparison between the preconditions of the two reforms. Secondly, I compare the arguments between the Chinese and western scholars on the base of the literature review. Thirdly, in regard to the analysis of modernization, I'll compare the variates of the four factors composing modernization, which are industrialization, education, infrastructure and institution, in order to analyze the behavior of modernization. In the analysis of industrialization, I'll take military industry as a variate. In the analysis of education, I'll analyze the variate of education system. Because both reforms intended to build strong army forces and establish modern education system. In the analysis of infrastructure, I'll discuss the variate of railway. Finally, I'll probe into the government variate while discussing institution.

6 Analysis

In this chapter, I am going to discuss and analyze, based on the definitions of modernization illustrated previously, the manifestations of modernization during the Meiji Restoration and the Self-Strengthening Movement.

6.1 The development of military industries

Industrialization is one of the key manifestations of modernization. The industrialization of Japan followed a similar path as that of China, starting with military industries then expanding to civil ones, and initiated first by the state then by entrepreneurs (Huang Delin, 1988). Moreover, faced by challengers in the West, both the Minji government and the Qing Dynasty put great efforts into building a strong military presence, which contributed to the fact that military industries were prioritized in the process of industrialization. However, the Japanese state provided major support when entrepreneurs began to take part in the industrializing process, establishing new companies and growing rapidly. On the contrary, in case of China, private companies owned by individual citizens had not been recognized legally by the state until the end of the Self-Strengthening movement.

6.1.1 Development of military industries in late Qing Dynasty

Military industries pioneered the Chinese industrialization. During the Opium War, China was stunned by the might of British ships powered by machines and the machine-manufactured foreign weaponry. Like written by

then Prime Minister of China, Li Hongzhang, "Among the old Chinese institutions, the military was despised by the West more than anything else. Its quality was too poor to pose any threats." (Li Hongzhang, 1858) China's defeats in the first and second Opium Wars, while proving the weakness of its military power, also forced the change of China's long-standing isolation policy and encouraged the initial focus on military industries during the Self-Strengthening movement.

In its experience with foreign countries, China was opened up to trade by forces of foreign powers. As a result, when it comes to the understanding of the West, the Qing Dynasty viewed that the victory of Britain stemmed from its superior military technologies. Thus, the first thing the government strived for was to upgrade the obsolete weapons and the military forces. Inside the government, a faction of progressives, known nowadays as the Westernization (Yangwu) Group, promoted the idea of learning the science and technology from the West and bringing machinery to China. The Westernization Group believed that the strengthening of China must begin from "cultivating the military" and "building weaponry". For instance, Yi Xin, a high-ranking official in the government and a prominent figure among the Westernization Group, wrote that "the key to the governance of China is to strengthen the military; judging by the recent affairs, the key to strengthen the military is to strengthen the weapons." Similarly, Zeng Guofan, another leader in the Westernization Group, suggested that "learning from the foreigner to build cannons and ships will yield long-term benefits" and "purchasing foreign guns and cannons is the priority of saving the current situation of China." Even the Prime Minister at the time, Li Hongzhang, explained: "If China wants to rise, the best way is to obtain foreign weaponry. And if China wants to obtain foreign weaponry, the

best way is to obtain the method in which such weaponries are made." (Shi Duqiao, 2002) Thus, the Westernization Group established a large number of new arsenals across the countries, aiming to change the outdated equipment of the Chinese military.

The arsenals opened by the Westernization Group signified the beginning of revolution of China's industrial technologies as well as modernization. With a sizable number of modern arsenals equipped with the latest machine-powered production lines, the Westernization Group produced, or in many cases, copied a great number of western styled weaponry and steam-powered ships made of steel. A good example was Jiangnan Arsenal which, from 1867 to 1895, manufactured 65 thousand guns, 742 cannons, 6.7 million tons of gunpowder, 1.6 million shells, 8.7 million bullets, 1.5 thousand land and water mines, and 15 ships (Xu Tailai, 1986). The increasing use of modern firearms brought the Qing Dynasty's military forces from the era of premodern combat weapons to the era of modern firearms.

Meanwhile, the Westernization Group used the gunships purchased from foreign countries to establish four major navies, i.e. Southern, Northern, Fujian, and Canton, which became the foundation of modern Chines navy forces. Additionally, China also manufactured its own gunships. For instance, from 1875 to 1884, Fuzhou Ship Factory produced 2 cruisers, 12 gunboats, and 14 warships. After 1885, it continued production and contributed 2 warships, 7 cruisers, 6 defense ships, 3 practice boats, and a transportation ship. Not only weaponries, the new arsenals founded by the Westernization Group also manufactured the then so-called "mother machine", i.e. lathe (Wan Shuyi, 1991). From 1867 to 1904, the Jiangnan Arsenal manufactured 138 lathes, 84 cranes, 117 drilling presses, and 77 pumps (Xia Dongyuan, 1992: 82). Fuzhou

Ship Factory produced 66 machine tools, and Sichuan Machine Factory, just in 1885, produced 58 different kinds of machineries, totaling 206 machines in production (Luo Ergang, 1999). Thus, the Self-Strengthening Movement opened an era of mass production of military equipment by machine tools. The production and deployment of modern firearms and ships greatly enhanced the military might of Qing Dynasty forces.

First, during the late Qing Dynasty period, industrialization suffered from the lack of previous foundations in craftsmanship. Moreover, because of the lack of modern education, qualified talents were in grave short of supply. Therefore, the establishment of new modern factories suffered from such disadvantages in terms of human resources.

Second, the number of factories were far from sufficient. Most of factories were concentrated in eastern China where ports were open to foreign trade. The Qing Dynasty government did not officially acknowledge the constructions of factories as a key policy of the time and therefore did not create a major impact.

6.1.2 The development of military industries during the Meiji Restoration

Similar to what the government of Qing Dynasty did, the Meiji government also prioritized the modernization of military industries in order to upgrade equipment and weaponry of its forces. For such purpose, Japan took a series of solutions, such as purchasing directly weaponries from western countries, paying high salaries in order to attract technical talents from the West, as well as implementing advanced technologies and applying modern

management methodologies to overhaul and expand the old military factories and mines owned by previous feudal lords of the Shogunate era.

The new government of Meiji period started a handful of modern arsenals (Sakurai Tadayoshi, 1933). For instance, in 1868, the new government took over the Sekiguchi Arsenal and Yokosuka Arsenal passed from the Shogunate period, and transformed them into Tokyo Arsenal and Yokosuka Naval Factory. In 1870, the government took over Nagasaki Arsenal and converted it into Naval Arsenal. These modern arsenals produced massive number of firearms and naval ships. Moreover, with increasing demand of modern equipment by the armies and navies, these military factories started a campaign to make Japan independent from the West for weaponries, and therefore not only bringing latest technologies from the West, but also invested in original research and development to foster local innovations and technical advancement. A good example can be the Japanese. The Japanese army at the time was mostly using imported guns of different models and diverse origins, which compromised the quality of equipment as well as the ability to widely distribute and manage weapons. To tackle such issue, Tokyo Arsenal started in 1880 to manufacture a rifle that had a range of 2.5 kilometers (Xie Zhaohui, 1974), which was also widely used during the the First Sino-Japanese War. Similarly, staring in 1883, the Naval Arsenal was able to use self-made steel in production of cannons. Thus, with the advancement on military industries, Japanese military forces received large-scale upgrade in terms of equipment.

Following the development, fostered by the state, in military industries, civil industries subsequently began their rapid rise as well. According to the statistics of the time, between 1868 and 1893, the number of civil industrial enterprises in Japan grew from only 430 to 3344, which was a powerful

illustration of the initial success in Japan's industrialization (Yi Chengwen, 1987).

6.2 Development of infrastructure: Construction of railways

In both China and Japan, horses and carriages dominated the pre-modern roads as the go-to transportation method. However, the advent of industrialization rendered the traditional means of transport insufficient, as slow transportation fell short to rising demands for commercial goods. Thus, railway became one of the most important developments in infrastructure. Modern railways move resources and goods with high efficiency, greatly benefiting industries and trades. Thus, I am going to use the construction of railways as lens to look into the infrastructure development and therefore measure the extent of modernization.

Japanese railways resulted from and signified the modernization of Japan. Their impact on Japanese modern society was multifaceted. The advent and extensions of railways in Japan greatly boosted the excavation of natural resources and the exchanges of goods between cities and the countryside. Moreover, railways fostered the commercialization of agriculture, speeding up the disintegration of the traditional agriculture-based economic structure and its replacement by modern industries. Finally, railways also contributed to the development of education and changes in lifestyle and values of the society. From 1872 when Japan built its first railway line, railways were extending quickly across the country. In 1906, constructed railways in Japan surpassed 5000 miles, forming a transportation network centered on a South-North line.

Like many western countries, the core of modernization in Japan was industrialization fueled by capitalism. Railways played a critical role in Japan's

industrialization. During the Meiji Restoration, the Japanese railways mainly transported four major categories of goods, i.e. energy sources such as coal, charcoal, and crude, minerals such as ores and lime, food such as rice, tea, and salt, and industrial goods such as steel, paper and cement. Among these goods, coal was arguably the most influential one, as Japan was highly dependent upon coal as energy source until 1930s.

In 1870, the Meiji government began pushing for a policy that heavily encouraged the constructions of mines and railways. Mines were one of the most strategic industry for the Meiji government, with 30 percentage of the investment made by the Ministry of Industries going into mines.

At the beginning of the Meiji Restoration, the government limited the planning and operation of railways only to the state, leaving private sector out of this area. As a result, the development of railway network was relatively slow during this beginning period, with only 100.38 miles of rails constructed. However, with the rising production level and demand for coal, transportation was an increasingly pressing issue. If railways could not keep up, the production of coal would have reached a bottle neck, thus thwarting the industrialization. The Meiji government therefore changed the original policy of "funded, constructed and ran by the state", and instead allowed for construction and operation of railways by private parties. Under such circumstances, the first private Japanese railways company, Japan Railway Corporation, was founded in 1881 and the first private railway line, the Tokyo-Aomori Line, began construction. Almost simultaneously, Shibusawa Eiichi and partners raised 280 thousand Japanese Yen to start the Osaka Textile Corporation which signified the beginning of Japan's industrialization. Thus, the railways and industries began rapid growth at the same time. From 1886 to

1890, Japan witnessed the first "gold-rush" in railways. 45 private companies applied to enter the railway business, 12 out of which was granted the permission to operate.

In general, Japan built a railways network with extensive coverage during the Meiji Restoration, representing a success in infrastructure development.

The construction of railway in also very important in the late Qing Dynasty. By the end of Sino-French War in 1884, the environment of railway construction in China became mature. Lougouqiao-Hankou Railway was initiated by Minister Zhang Zhidong, which was the first north-south railway under the instruction of the Qing government. But the conservative plan of Mr. Zhang Zhidong, this railway construction did not make any progress until the end of the Self-Strengthening Movement.

Since 1860, China had faced pressure to build railway and open up to the western countries. There were two reasons. On the one hand, the west wanted the Qing government to open up the inland area; on the other hand, railway would help the power expansion of the west countries. It was difficult for the Qing governments to accept new things. Most officials thought railway would disturb residents, destroy geomantic omen and stimulate people to rise up against the government (Xu Biwei, 2004). The westernization group were the fore-runners to accept and promote railway construction. In 1877, Minister Li Hongzhang submitted a report to the Emperor. He insisted that it was quite necessary to construct railway, which would also facilitate the development of iron mining. Due to objection of the Qing government, railway construction was not carried out as a national policy. The railway construction was put on the agenda of the government until the end of Sino-Japanese war in 1895.

As an important national economy vital, railway is related to national economy and people's livelihood, which is expensive, time consuming and cannot make immediate profit. To construct railway, it will cost huge amount of money, such as guying land and materials, management, reparation and maintaining. Though railway can make big profit, it will take at least 1 year, or even 3-5 years to start to earn money. Most importantly, railway construction is a complicated engineering, which requires large number of qualified technicians, professionals and operating personnel. Modern China was poor, backward and lack of talented people. Railway construction was beyond the capacity of ordinary business people, which was proved by the limitations and drawbacks of private railways.

Secondly, the private railway companies were lack of qualified professionals and operating personnel, which usually caused construction delay. As to the Qing government, which had to focused on internal and external troubles, it had not equipped with enough qualified talented people and it was impossible for the government to provide good service to the private railway companies.

In short, the Qing government was suffering severe national crisis at the turn of 19th century. In order to accelerate the development of railway industry, to resist the western powers to take the privilege of railway and to enhance national strength, the government adopted a series of policies to support private railway companies. But due to limitation of national conditions, the own characteristics of railway and drawbacks of private railway companies, the movement of private railway failed eventually.

6.3 The advancement in education

Education is one of the major indicators of modernization. It is dependent on the economic, social and political facades of the society, forming an indispensable part of social institutions. The changing educational institutions is a key point to touch upon when one looks at modernization. During the Meiji Restoration and the Self-Strengthening Movement, the modernization represented by changes in education was most manifested through learning science and technologies from the West and renovating educational institutions. Thus, my discussions here will focus on educational reforms during the Meiji Restoration and the Self-Strengthening Movement. In general, the Meiji government was actively pushing for educational reforms, striving for modernization of education in Japan. In the contrast, modernization of education in China suffered a bumpy start, followed by a gradual and slow development (Huang Delin, 1988).

The government of Qing Dynasty encouraged learning science and technologies from the West. Educational reform was ordered directly by the emperor, forming a crucial part of the Self-Strengthening Movement. Its implementation was supported by the nobles of Qing Dynasty. Not only endorsed centrally by the emperor, educational reforms were also advocated by local authoritative figures in the Westernization Group, such as Zeng Guofan. Such reforms in education included the following key aspects:

6.3.1 Modern institutions established during the Self-Strengthening Movement

Modern institutions formed during the Self-Strengthening Movement could be categorized into three kinds, i.e. foreign language schools, industrial schools and military academies. Historic data shows that from 1862, following

the founding of Peking School of Combined Learning, to 1895, the end of the First Sino-Japanese War, around 30 modern educational institutions were established across China. Different literatures indicate varying numbers and methods of categorizing such new institutions founded during this period. However, here I take the data and categorization from Yang Yimao (1996). These modern educational institutions contributed to the popularization of western thoughts and know-hows. Before the Opium War, education of Qing Dynasty remained the same for a long period of time, maintaining the characteristics of the feudal traditions and lacking communications with the outside world. The traditional institutions of education enjoyed a complete system, with both central and local presence. Central government ran the National School and established special schools for children of nobles. Locally, private schools were widely spread and provided solid elementary education, while different levels of academies offering more advanced education. Therefore, one is able to readily see that before the modernization of education, the Qing Dynasty society already experienced an inequality between central and local educational systems. Moreover, the modern institutions were highly concentrated on the eastern coast of China, in the big cities, and therefore it was difficult to propagate deep inland such trend of learning from the West. The number of new institutions established was also far from enough to completely overhaul the educational reality of China at the time.

6.3.2 Sending delegates abroad

The second key proposal made by the Westernization Group at the time was to dispatch groups of students and government officially abroad to be trained in western know-hows, so that they could come back to China and

educate more talents. Thus, sending delegations to western countries played a critical role in the educational reform during the Self-Strengthening Movement.

Most of delegates were sent to United States and Europe. Between 1872 and 1875, the delegation to the United States included 120 students and government officials. And between 1876 and 1885, 75 delegates headed to Europe. (Fei Zhengqing, 1985). Compared to the delegates sent to United States, those who went to Europe studied a more diverse range of subjects including mining, railway, telegraph, military technologies, political science and foreign affairs, and contributed greatly to their respective areas after returning to China. The delegations to the United States had very different profiles from those to Europe. Most of them were young of age, and therefore largely received the liberal arts education in the United States without targeted professions. Despite the practice of sending delegates abroad to learn from the West, the relatively small number of students involved and the relatively short duration of such activities prevented it from creating a large enough impact on the reform of the overall educational system in China then. Thus, this policy of sending delegates abroad is widely considered an unsuccessful experiment during the educational reform of the Self-Strengthening Movement.

6.3.3 Learning "western texts" and "western expertise"

Above was in fact a slogan designed by the Westernization Group after the Second Opium War (Huang Delin, 1988). The slogan dictated the main content of educational reforms in that "western texts" meant learning foreign languages and "western expertise" referred to foreign expertise in military trainings, equipment and machines. In order to facilitate learning foreign languages, the Westernization Group started the first modern language

academies, such as Peking School of Combined Learning, Shanghai Foreign Language School, and Canton School of Combined Learning. Likewise, the Westernization Group also established the modern technical schools and military academies, such as School of Mechanics affliated with Jiangnan Arsenal in Shanghai, Fuzhou Naval College, College of the Northern Fleet, etc. Besides the newly founded modern schools and academies, the Westernization Group also pushed for translations of foreign books in order to help with the dissemination of western know-hows. For instance, Jiangnan Arsenal opened a specific institute for the purpose of translating books and the Peking School of Combined Learning started a training program for translators. Many trained by these new schools became important diplomats and officials at government institutions controlled by the Westernization Group, for example, both Dong Xun, the Finance Minister, and Tan Tingxiang, the Justice Miniser, were graduates from such schools. Moreover, students from the training program organized by Peking School of Combined Learning translated in 30 years' foreign books of more than 20 categories. Overall, however, the process of "learning from western texts" was long yet slow. For instance, the translation institute affiliated with Jiangnan Arsenal only sold 13000 copies of the books they translated during three decades, averaging about 400 copies a year. At that time, on average, every 5 counties in China only had one copy of any kind of translated western books. A stark contrast was Japan during the Meiji Restoration, when just the book Western Matters translated by Fukuzawa Yukichi sold 250 thousand copies on the first print.

Nevertheless, educational reforms during the Self-Strengthening Movement suffered from several limitations. First, funding for education mainly came from the revenue generated by customs. Therefore, the Ministry of Customs at the time had certain control over the recommendation and selections of Presidents and Professors at the new schools. The quality of teaching and research under such institutional process was highly compromised. According to Liang Qichao, a pioneer in the Self-Strengthening Movement, the new schools hired many professors and teachers from abroad, many of who, however, were opportunists with poor background and little know-hows, thus unable to train students with the real thoughts and knowledge of the West. Liang believed that the country wasted a great fortune on these "fake" foreign professors who did not possess the real core of western knowledge, and suggested such as one of the reasons why educational reforms in China stagnated for over a decade despite the motivation and efforts.

Second, the new schools established during the educational reforms by the Westernization Group were essentially serving the political purpose of the Self-Strengthening Movement. Focusing on only foreign language and foreign expertise in military and machinery, such educational reforms had a rather narrow scope and did not allow for a broader inquisition into political thoughts and social institutions. Learning foreign languages were to serve the pragmatic requirement in diplomacy of the Qing Dynasty. For instance, Peking School of Combined Learning, one of the largest modern schools founded directly by the Ministry of Foreign Affairs, only offered courses in foreign languages such as English, French, Russian. After 1866, Peking School of Combined Learning started rolling out basic courses in sciences such as astronomy and mathematics, but the enrollment was poor. Moreover, the so-called learning foreign military expertise only aimed to strengthen the empire's military forces and its hold on power. Thus, modern schools established during the Self-Strengthening Movement, despite its claim on reforming the education of China, were only

limited to serving practical purposes without covering any subjects in social sciences or humanities.

Third, the results of the reforms were in doubt. One of the most vocal critic of the educational reforms during the Self-Strengthening Movement was Liang Qichao, who wrote in his essay *On Suggestions to Overhaul the School of Combined Learning* that: "An example shall be Peking School of Combined Learning. Three decades after its establishment, it has yielded very few talents who have real and deep understanding of western science and technologies. Moreover, only a few professors hired by the school were actually from western countries and equipped with the qualification and knowledge to teach. Therefore, it is not surprising of the poor quality of students from such teachers. Finally, most students at the school have a noble or royal background, thus having little motivation to study, not to mention something completely new from their upbringing. Thus, the new schools such as Peking School of Combined Learning generated a minor impact on the educational system of China."

Besides the problems with the teachers and students, if one looks into the overall duration of the Self-Strengthening Movement, China failed to formulate its own methodology and theoretical approach to education. This was first manifested through the translations of western works on educational theories. In general, both the government officials and intellectuals at the time of the Self-Strengthening Movement had very superficial views on the West, with limited knowledge on western educational systems and theories, which was worsened by the fact that there was limited amount of literature regarding the West. Plus, the modern western-styled schools opened in China during that period scattered all around the country and were managed independently from each other, thus lacking central coordination and a consistent theoretical

approach towards teaching in such schools. To sum up, the educational reform during the Self-Strengthening Movement was not conducted under any theoretical guidance from the West and the Ministry of Education of the Qing Dynasty showed little interest in truly learning the fundamentals of modern education either.

When it comes to the Meiji Restoration, in contrast, education stood out among all other subjects of reforms in terms of the extent of changes and efforts invested into the endeavors. Moreover, on the scope of funding, the then ministry of education had the highest spending among all other ministries in the Japanese government. The educational reforms during the Meiji Restoration included the following major initiatives:

Starting from elementary schools, the reform aimed at popularizing basic education for the general public. In 1870, the Meiji government put into action the new law *Regulations on Elementary, Secondary Schools and Universities*, following which the Ministry of Education was established in 1871. A more radical law, *Institutions of Schools*, was published into power in 1872, which abandoned the existing privately-owned and traditional-styled schools across Japan and banned the opening of more of such kind, only allowing for modern, western-styled schools in the country. Moreover, starting in 1880s, Japan began implementing the policy of obligatory education of 3 years, 4 years and 5 years subsequently, while pushing finally for a 6-year mandatory education for all citizens. In late period of Meiji Restoration, the government already achieved a nation-wide mandatory basic education, and refocused on reforming higher education and developing modern science and technologies.

Developing technical education and cultivating technical talents. During Meiji Restoration, the government helped elementary and secondary schools to open technical programs, and incorporated technical subjects into the higher education system. By founding a complete system on technical education, the Meiji government succeeded in disseminating the western science and technologies into the general public and the next generation of labor force, resulting in a large group of high-quality professionals in technologies who had made great contributions to Japan's economic and industrial success.

In summary, comparing the educational reform during China's Self-Strengthening Movement with that during Japan's Meiji Restoration, one can conclude that the former was a partial push with reservations on certain fronts, while the latter was a comprehensive all-in revolution of the nation's educational system. Although the educational reforms in both China and Japan aimed to enhance military powers and ultimately to revive the respective country from the pressure of the West, the educational reform in China's Self-Strengthening Movement was limited to the purpose of supplying talents, mainly in areas of foreign languages and military technologies, for the contemporary westernization and modernization process (Yang Yong, 2011). In contrast, the reforms in Japan during Meiji Restoration changed the fundamentals of the country's education system, from elementary to higher levels.

6.4 From feudal system to modern political system

The change of political system is a symbol of modernization. In this part, I will analyze the adjustment and innovation of the Self-Strengthening Movement and the Meiji Restoration. In this perspective, the Meiji Restoration was quite different from the Self-Strengthening Movement. The Meiji

Restoration created a new history, in which the reformers established new system by ending the Shogunate system.

Before the Self-Strengthening Movement, the Qing government suppressed the Taiping Rebellion. The Qing government was absolute feudal autocracy, on which the Self-Strengthening Movement was based. Additionally, the Qing government experienced two opium wars, after which a series of unfair agreements were signed. During the suppression of the Taiping Rebellion, the government won the war with the help of the western countries. Though the Taiping Rebellion started before the Self-Strengthening Movement, the help of the western countries showed that the Qing government and the western countries was not in a complete hostile status. Therefore, the Self-Strengthening Movement was carried forward in the gap between the imperialism and feudalism, lack of foundation of independence and democracy. From the perspective of political system, the Self-Strengthening Movement did not touch the feudal absolute monarchy and the feudal land ownership. On the contrary, the objective of the Self-Strengthening Movement was just to maintain the feudal absolute monarchy, which ran in the opposite direction of the aim to establish capitalist democracy and realize political modernization.

The Meiji Restoration did not lead to the birth of capitalist Japan, but the lower-class Samurais, who made a great contribution to the united centralized feudal state, grew to be a core force to support westernization which made preconditions for the development of capitalism and building up a modern state. The Meiji government was mainly composed of the feudal reformists, who supported the new ideas such as capitalism and democracy.

The Qing government suppressed the great peasants force of the Taiping Rebellion but the Meiji government made full of progressive Samurais, who were also the lower class as peasants in the countryside. Under this condition, an influential movement of freedom and civil rights happened in Japan in the 1870s, from which the bourgeoisie class enjoyed the freedom of conducting economic activities. Feeling the pressure from the lower class, the Meiji government chose to support the development of the capitalism actively, which undermined the down-up force to develop capitalism. Instead, the development of capitalism in Japan adopted an up-down approach. In 1868, the Meiji government issued "Charter Oath" in the name of the Emperor. The main contents include emphasis the importance of the parliament, important being decided by public opinion, turning everyone's statesmanship into account, motivating everyone's diligence to build the country, and getting rid of the old habits and learning from the outside world. This document showed the Meiji government's strong desire to make a fundamental reform against the old feudal system and build the capitalism political system. After that, the government adopted a series of reform of political system. In the same year, the Order of Political System was issued, which decided to learn from the western countries and to establish a government with division of power among the legislative, executive and judicial branches, build up standing army and police system, reform military and the security system, abolish the Han system and establish county system, build a united centralized government, etc. In Japan established cabinet system, issued new constitution, started the parliament system in 1885, 1889 and 1890 respectively. Japan established a capitalist system with constitutional monarchy, basically realized political modernization.

The Self-Strengthening Movement did not make any change on political system. From this perspective, the Self-Strengthening Movement was a failure and the Meiji Restoration was a success.

7 Concluding Remarks

There are many classic questions raised in the book Why Nations Fail, such as why some countries or regions are affluent, and other countries or regions are in poverty. In this paper, the doubt about development can be summed up as two questions. Why could Japan have achieved rapid economic development and basically completed the development of modernization in a short period of time? Why did China fail in taking a similar approach in the same period of time? In the nineteenth century, the extent of economic development between China and Japan was not obvious. Reforms resulted in huge gap. The initiatives of both China's Self-Strengthening Movement and Japan's Meiji Restoration were to learn Western technology and build their countries more powerful. Modernization is a valuable academic topic. The paper tries to compare the two events from the perspective of modernization, or more specifically, modernization of economic development.

The analysis of economic development is combined with the definition of modernization, which focuses on the four variables including industrialization, infrastructure, education and institution. In order to examine the four variables, specific elements in the relevant variables are selected, such as military industry in the industrialization, railway in the infrastructure, education system in the education and central political system in the institution respectively.

Although the relevant data of the two countries in pre-modern history is basically in the state of absence, through the comparison of the four variables, qualitative approach is used in analyzing the performance of the military industry, railway, education system and the central political system in the two countries. Unfortunately, China failed in all the four fields comparing with Japan. In other words, the Self-Strengthening Movement is a failure in the realization of modernization while Meiji Restoration is a success.

The research also tells that the political system is critical, which has the greatest impact among all the elements. Both the Self-Strengthening Movement and the Meiji Restoration, were government-oriented and directly affected by the respective political system. The political and economic system adopted by a country determines the economic development of the country and thus the different manifestations of economic performance shows in different countries. The research confirms Acemoglu and Robinson's point of view that institution plays a vital role in socio-economic development and economic growth, especially long-term economic growth, and inclusive political and economic system is crucial to long-term economic growth.

The relevant political system and the economic system of Self-Strengthening Movement and the Meiji Restoration were different. The Self-Strengthening Movement adopted both extractive political system and extractive economic system, while the Meiji Restoration adopted extractive political system but inclusive economic system. Though both China and Japan adopted the same political system, their respective economic systems were fundamentally different, which is the most essential difference between the two countries.

Finally, unlike the Meiji Restoration, the Self-Strengthening Movement does not have the same great impact on the development of pre-modern Chinese history, but it is still of great historical and economic significance.

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Appendix

1860	The signing of the Peking Conventions follows the Allied seizure of
	Peking. The Cooperative Policy inaugurated. The Allied forces in
	Shanghai repulse Taiping advances on the city.
1861	Empresses Dowager Tz'u-an and Tz'u-his become co-regents and
	Prince Kung becomes Price Counselor to the young T'ung-chih
	emperor. A sino-foreign joint defense bureau created in Shanghai for
	the defense of the city from the Taipings.
1862	The Peking T'ung-wen Kuan (Interpreters College) established to train
	diplomatic personnel. The Peking Field Force (Shen-Chi ying) created
	with arms supplied earlier by the Russians.
	A foreign training program by the British begins in Tientsin. Li Hung-
	chang arrives in Shanghai with his newly organized Anhwei Army. Li
	establishes three small arsenals in the Shanghai area. The throne
	orders provincial authorities to send junior Chinese officers to
	Shanghai and Ningpo for training in Western military methods.
	Ward's rifle corps is given official recognition and redesignated the
	Ever-Victorious Army by the throne.
	A Sino-French contingent and a Sino-British contingent formed in
	Chekiang for campaigns against the Taipings.
1863	The Shanghai T'ung-wen Kuan (later renamed Kuang fang-yen Kuan)
	established by Li Hung-chang. Li moves one of the Shanghai arsenals
	to Soochow. Tseng Kuo-fan sends Yung Wing to the United States to
	purchase modern machinery. Robert Hart appointed Inspector
	General of the Maritime Customs.

1864	The Taiping Rebellion suppressed with Western aid. The Canton
	T'ung-wen Kuan established. The Tsungli Yamen publishes a partial
	translation by W.A.P Martin of Henry Wheaton's Elements of
	International Law.
	Li Hung-chang proposes a new category of technology in the
	government examination.
1865	Prime Kung demoted, marking the beginning of the gradual decline of
	his political influence. Tseng Kuo-fan and Li Huang-chang jointly
	establish the Kiang-nan Arsenal in Shanghai. The Inspectorate of the
	Imperial Maritime Customs formally established in Peking under
	Robert Hart. Hart urges the development if mines, railroads, and
	telegraph and diplomatic representation abroad in his "Observations
	by an Outsider."
1866	Tso Ysung-t'ang establishes the Foochow Navy Yard with a naval
	school attached. Shen Pao- chen appointed its director. Thomas Wade
	makes recommendations similar to those made earlier by Hart in his
	"A Brief Exposition of New Ideas." An unofficial mission headed by
	Pin-Ch'un leaves for Europe.
1867	A department of astronomy and mathematics created at the Peking
	T'ung-wen Kuan, but plans for training higher degree holders in
	sciences frustrated by conservative opposition. Li Hung-chang
	establishes the Nanking Arsenal by moving the one at Soochow. Tso
	Tsung-t'ang begins campaigns against the Moslen rebels in the
	Northwest. Ch'ung-hou establishes the Tientsin Arsenal.
1868	The Burlingame mission leaves for American and Europe. Tseng Kuo-
	fan appointed governor-general of Chihli. The Nien Rebellion
	suppressed with the use of Western aid. The Kiangnan Arsenal creates
	a translation department.

1892	Chang Chih-tung opens a mining and engineering college in Wuchang
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	ane also the Han-yang Arsenal. The Taipei-Keelung railway completed
	in Taiwan.
1893	Chang Chih-tung establishes the Self-Strengthening College in Hupeh.
	Li Hung-chang opens the Peiyang Medical Collage in Tientsin.
	Li Hung-chang creats the General Bureau for Machine Textile
	Manufacturing in Shanghai.
	Chang Chih-tung builds a new textile mill in Wuchang.
	Cheng Kuan-ying publishes his reform proposals in Warnings to a
	Prosperous Age (Sheng-shih Wei-yen).
1894	Chang Chih-tung plans an industrial complex in Hupeh, including
	steel mills.
	The Peking-Shanhaikuan railway completed.
	Lu Ch'uan-lin establishes the Shensi Arsenal in Sian.
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1895	The Sino-Japanese War ends in China's defeat, producing a new burst
	of reform sentiment.

Table 1: Events during the Self-Strengthening Movement

Source: summarized from the literature, Pong, David. Shen Pao-Chen. (1994). China's Modernization in the Nineteenth Century. Cambridge and New York: Cambridge University Press. Levy, M. J. (1954). Contrasting factors in the modernization of China and Japan. Economic Development and Cultural Change, 161–197.