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The Meiji Restoration: Lesson for the Third World

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Executive Summary

- ❖ The Meiji Restoration was not a coincidence but a reposition to restore dignity and renegotiate the unequal treaty, leading to rapid industrialisation and modernisation through three key factors: Man, Machine, and Money. The Meiji administration emphasised the importance of education, made primary school attendance mandatory and invested in infrastructure, new technology, and technical abilities necessary for industrialisation. Also, the government established state enterprises and international professionals for tech transfer and provided subsidies to help companies become successful.
- ❖ The Meiji period in Japan saw the government and citizens come together to address foreign threats and modernise the country. This modernisation was achieved through an awareness of external concerns, motivation, tenacity, education, and technology transfer. Not far from the Meiji period's industrialisation, Cambodia aims to achieve middle-income status by 2030 and high-income status by 2050. By learning from Japan's experience, Cambodia must prioritise building human capital in Science, Technology, and Innovation (STI), among other prerequisites.
- ❖ As part of the modernisation process, Cambodia should consider the following policy options: 1) National solidarity must be upheld for the nation's betterment and to support for nation building; 2) Advancement of STEM education is a must, especially in manufacturing electrical and electronic equipment & tool, machinery, automobiles, ships, optics and precision engineering equipment, and chemicals to support the modernisation of industry; 3) Public and private investment in research capacity and high-quality research in the key industries to enter the international market; 4) Massive investment in public work: railways, shipping, communication, and ports to foster an enabling ecosystem for trade and investment.

សេចក្តីសង្ខេបអង្គបទ

- ❖ ការស្ថាបនាឡើងវិញនៅក្នុងសម័យមេជី មិនមែនជារឿងចៃដន្យនោះទេ ប៉ុន្តែជាការជំនួសមក

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វិញនូវកិត្យានុភាពនិងការចរចាឡើងវិញនូវសន្តិសញ្ញាមិនស្មើភាព ដែលទាំងនេះបាននាំទៅដល់ ឧស្សាហូបនីយកម្ម និងទំនើបកម្មយ៉ាងឆាប់រហ័សតាមរយៈកត្តាគន្លឹះចំនួនបីរួមមាន៖ មនុស្ស ម៉ាស៊ីន និងថវិកា។ រាជការនៃសម័យមេជីបានសង្កត់ធ្ងន់លើសារៈសំខាន់នៃការអប់រំ តម្រូវឱ្យ ការចូលរៀនបឋមសិក្សាជាកាតព្វកិច្ច និងបានវិនិយោគលើហេដ្ឋារចនាសម្ព័ន្ធ បច្ចេកវិទ្យាថ្មី និង សមត្ថភាពបច្ចេកទេសដែលចាំបាច់សម្រាប់ឧស្សាហូបនីយកម្ម។ ដូចគ្នានេះផងដែរ រាជរដ្ឋាភិបាល បានបង្កើតសហគ្រាសរដ្ឋ ជាមួយនិងអ្នកជំនាញអន្តរជាតិសម្រាប់ការផ្ទេរបច្ចេកវិទ្យា និងឧបត្ថម្ភ ទុនដើម្បីជួយក្រុមហ៊ុនឱ្យទទួលបានជោគជ័យ។

- ❖ សម័យកាលមេជីនៅប្រទេសជប៉ុន បានបង្ហាញឱ្យឃើញការរួមគ្នាដោះស្រាយរវាងរាជរដ្ឋាភិបាល និងប្រជាពលរដ្ឋ ឆ្លើយតបនឹងការគំរាមកំហែងពីបរទេស និងដើម្បីការធ្វើទំនើបកម្មប្រទេស។ ទំនើបករូបនីយកម្មនេះត្រូវបានសម្រេចតាមរយៈ ការស្វែងយល់អំពីកង្វល់អំពីកត្តាខាងក្រៅ ការលើកទឹកចិត្ត ភាពអត់ធ្មត់ ការអប់រំ និងការផ្ទេរបច្ចេកវិទ្យា។ នៅមិនឆ្ងាយពីឧស្សាហូបនីយកម្ម នៃសម័យកាលមេជី កម្ពុជាក៏មានបំណងសម្រេចបាននូវឋានៈជាប្រទេសចំណូលមធ្យមនៅឆ្នាំ ២០៣០ និងចំណូលខ្ពស់នៅឆ្នាំ២០៥០។ តាមរយៈការសិក្សាពីបទពិសោធន៍របស់ប្រទេស ជប៉ុន កម្ពុជាត្រូវតែផ្តល់អាទិភាពដល់ការកសាងធនធានមនុស្សផ្នែកវិទ្យាសាស្ត្រ បច្ចេកវិទ្យា និង នវានុវត្តន៍ ក្នុងចំណោមកត្តាចាំបាច់ជាមុនផ្សេងៗទៀត។
- ❖ ជាផ្នែកមួយនៃដំណើរការទំនើបករូបនីយកម្ម កម្ពុជាគួរពិចារណាលើជម្រើសគោលនយោបាយ នានាដូចខាងក្រោម៖ ១) ត្រូវតែប្រកាន់ខ្ជាប់ ការសាមគ្គីភាពជាតិ ដើម្បីការអភិវឌ្ឍ និងដំណើរការ កសាងប្រទេសជាតិ ២) ការជំរុញភាពជឿនលឿននៃការអប់រំស្នែម គឺជាកត្តាចាំបាច់ដាច់ខាត ជាពិសេសក្នុងការផលិតឧបករណ៍និងសម្ភារ អគ្គិសនីនិងអេឡិចត្រូនិច គ្រឿងម៉ាស៊ីន របយន្ត នាវា ឧបករណ៍ អុបទិកនិងវិស្វកម្មជាក់លាក់ និងសារធាតុគីមី ដើម្បីគាំទ្រដល់ទំនើបកម្មនៃ ឧស្សាហកម្ម។ ៣) ការវិនិយោគសាធារណៈនិងឯកជន ក្នុងការកសាងសមត្ថភាពស្រាវជ្រាវ និង ការស្រាវជ្រាវប្រកបដោយគុណភាពខ្ពស់ នៅក្នុងឧស្សាហកម្មសំខាន់ៗ ដើម្បីផ្គត់ផ្គង់ទៅក្នុង ទីផ្សារអន្តរជាតិ។ ៤) ការវិនិយោគដ៏ធំលើការងារសាធារណការរួមមាន : ផ្លូវដែក ការដឹកជញ្ជូន តាមផ្លូវទឹក ប្រព័ន្ធទំនាក់ទំនង និងកំពង់ផែ ដើម្បីជំរុញប្រព័ន្ធអេកូឡូស៊ីសម្រាប់ពាណិជ្ជកម្ម និងការវិនិយោគ។

Introduction

The Japanese industrialisation process demonstrates that achieving success requires persistence, hard work, and effective long-term planning rather than occurring suddenly or without effort. Japan has a rich history with respect to its industrialisation process, spanning both the pre-World War II and post-World War II eras. It should be noted that while Japan's model may not necessarily be the definitive solution for Cambodia, it can still serve as a valuable source of insight and experience from which Cambodians can benefit. Specifically,

Japan's unwavering determination and persistence in achieving industrialisation could serve as an inspiration for Cambodia.

This article will primarily concentrate on the Meiji period as it served as the cornerstone for Japan's modernisation efforts. Although Japan achieved remarkable success in modernising the country after World War II, the Meiji era laid the foundation for knowledge and innovation across all levels of Japanese society. This article also aims to provide insights into the methods and strategies employed by Japan's industrialisation sector rather than simply recommending that Cambodia follow in Japan's footsteps. The article focuses on the significance of establishing a strong foundation by observing the Japanese experience, as the knowledge gained can be effectively implemented across various sectors without discrimination. Additionally, it could serve as a source of inspiration for the Cambodians, highlighting the importance of human resource development and utilising science, technology, and innovation to promote further progress.

The Meiji Restoration: A Coincidence?

The Meiji period in Japan lasted from 1868 to 1912. The period promoted monarchy and the role of the emperor as head of state. In contrast to the previous era, the Edo period, which was ruled by the Bakufu (shogunate), the Meiji restoration may be comparable to a revolution to reinstate the monarchy (Hatano 2018). There are several reasons why such a requirement exists. First, it was said that the Edo era was an isolated epoch. In other words, Japan has not completely embraced the industrial revolution of Europe, which occurred in another area of the globe (Cullen 2003). This has caused Japan to be uninformed and consider the rest of the world as not significant (Takano 2010). It does not imply that Japan fully cuts itself off from the rest of the world, but there has been little interaction with outsiders, except for Dutch traders and, to a lesser degree, the Chinese (Hatano 2018). Then, the second external justification came in when the dread of colonialism and the danger posed by Western nations were approaching. In the 1850s, the United States, commanded by General Perry, used advanced cannon technology against Japan and pushed Japan to open its port, exactly as the Europeans and their allies had done in China (Ohno 2018).

At that moment, Japan was aware of the approaching force and understood that they could not stop it. They watched China's defeat at the hands of the West, which generated greater terror (Paine 2017). This unequal treaty is the third external reason for Japan's restoration. One is to note that the unequal treaty is a phenomenon in which the strong coerced the weak state into an unfair and uneven distribution of benefits, rights, or duties in which the weak carries the majority of the consequences and liabilities, for instance, the experiences of Japan and China (Takano 2010). This unfair treatment resulted in humiliation and shock, necessitating action from Japan. As previously said, Japan was lacking in technology, notably military equipment. Therefore, it cannot respond with physical force (Ohno 2018). The only option for Japan is the reform through the transformation process of adopting Westernisation and industrialisation. The goal is not to become a Western state's puppet; rather, it is to take what is required, such as technology and knowledge, so that Japan may be acknowledged as an equal while also hiding the aspiration to surpass the Western Wall as well (Kenneth Hens 2012). To restore Japan's dignity and renegotiate the unequal treaty, Japan desires equality, if not superiority. In this manner, the political system must be restored and altered.

The Meiji's Way of Modernisation

The Meiji administration stated that technology and industry were necessary for Japan to catch up and attain European levels of dominance (Kim 2007). This unwavering dedication has turned Japan from a feudal culture to a civilised one in about 50 years. Numerous variables, including economy, politics, and social progress, have contributed to the Meiji period's notoriety. The Meiji Age has allowed Japan to achieve its goal of being viewed as contemporary and comparable to the West. Japan has become one of the first non-Western nations to be a democratic nation, the first non-Western country to have a legitimate and enforceable constitution, and the first non-Western country to adopt the voting and election system of the West as a result of its Westernisation (Kenneth Hens 2012). The modernisation of Japanese society and economy is even more impressive, which has contributed to the country's prestigious position.. "How did the industry take off?" is the overarching question. What is the special procedure one could perhaps learn from?

Three interconnected Ms will be used to uncover the Meiji era industrialisation of Japan. Man (human resource), Machine (technology, equipment, and infrastructure), and Money are the three methods (financial support and investment) (Yoshida 2010). In order to create a home, the know-how and knowledge must be used and utilised in a complementary manner. Unifying people behind a cause, especially economic and industrial progress, is daunting. To start off, Japan is lucky to have a majority of literate people. Even though education during the Edo period was not as broad and wide as it was during the Meiji period, a vast number of the population was literate (Brown 2005). Even before being exposed to the Western world, they established a research facility for Western studies (Paine 2017). The Meiji administration, therefore, emphasised this endeavour even more.

One of the five basic pledges and aims made public by the administration in 1886-87 was to collect and use foreign knowledge to improve Japan (Kenneth Hens 2012). With this pledge, there was an extra two-pronged strategy: pay the foreign technicians to Japan and send the Japanese to the West in order to extend their expertise and gather experience (Meade 2015). Investing in the education sector has become crucial, and as such, the government has made primary school attendance obligatory and constructed schools around the nation (Diebolt 2013). Even so, Japan is conscious of the necessity to replace foreign specialists with its own nationals in the future. It is to conserve money and to reduce Western democracy and civilisation's impact on the citizenry; therefore, this import substitution strategy has prompted Japan to depend heavily on its own experts (Yoshida 2010). In fact, even before the Meiji era, reading and writing were deeply ingrained in Japanese society (Brown 2005). However, from the beginning of the Meiji period, translations of Western intellectual works, such as books and other reading materials, have increased greatly (Meade 2015). Japanese intellectuals who travelled overseas returned and shared their knowledge with the public (Meade 2015). Publishing became popular (Honjo 1941), and social theory and Western philosophy were accessible to the public, for example, Darwinism and the "survival of the fittest" theory (Kenneth Hens 2012).

The second Ms is Machine. Industrialisation requires infrastructure, new technologies, and foundational technical abilities. This may be seen as an additional factor that contributes to Japan's success. International specialists were employed, and new technology was introduced in Japan, mostly via joint ventures with foreign corporations (Ohno 2018). Japan was wary of foreign direct investment, especially in natural resources or raw materials; hence, many foreigners were not allowed to invest in these sectors (Ohno 2018). Due to the paucity and unwillingness of Japanese merchant investment, the government at the beginning of the Meiji era primarily established state enterprises (Yoshida 2010). The Japanese acquired imported

technology and expertise through joint ventures and the participation of international professionals. It is noteworthy that during this period, the Japanese remained the decision-maker while foreigners provided only professional opinions (Kenneth Hens 2012). At this early stage, the state enterprises were not resoundingly successful, but the acquired technology was later sold cheaply to private actors. With some assistance from the government, the utilisation of modern technology, skills, and government subsidies helped companies such as Mitsubishi, Toshiba, and others become successful (Ohno 2018).

The Japanese government has been instrumental in establishing vocational training schools. As such, Japan constantly develops its technological exports and buys the necessary technology to modernise and train specialists (Ohno 2018). As the supporting infrastructure, in the early period, the Meiji administration initiated Japan's first railroad project (J. P. Tang 2014) and invested in telephone poles and communication equipment (Takao 2007). In fact, the Meiji economy is based on agricultural and traditional industries, like silk yarn and cotton (Naofumi 2000). Only later did conventional industrialisation begin to decline, and the light industry began to emerge. At the end of the Meiji era, light industries began to play a role, and the industrialisation process was maturing as momentum gathered in the highly industrialised community, such as ship and military-related equipment, as Japan prepared to expand its influence and power in the region and around the globe (Ohno 2018).

Another strategic support of the Japanese government to industry, i.e., the last Ms is Money. The Meiji government used a strategy of elite redeployment to garner support and deter future rebellion from the prior administration, notably the samurai, and to rally the populace in its defence (Yamada 2021). As a result, some of the past administration's elite, armed with cash and expertise, have invested in firms backed by government guarantees (Yamada 2021). In addition, land tax has been modified and was then one of the most important sources of revenue (Takao 2007). In addition, as previously said, Japanese agricultural products were vital for exporting goods to the West (Naofumi 2000). Moreover, by adopting the Western banking system and establishing a central bank (Takao 2007), Japan was able to create a favourable ecosystem for Japanese investors to flourish inside the state's directed economy.

Lessons Learnt from Japan's Transformation through the Meiji Era

Motivation and tenacity of the government and the people are crucial to provide a clear perspective on where the nation should lead or what it should do next with prudence. In the Meiji period, Japanese statesmen and citizens were quick to see the foreign threats that would prove to be Japan's undoing. Their prompt action in developing the guidelines for the country proved to be instrumental for Japan (Ohno 2018). The West's victory against China has given a loud and obvious message, at least to the Japanese government. The Japanese are passionate about eradicating uneven treatment imposed by the strong. Such impulses stem in part from the historical confrontation (Ikegami 1995). It is the drive to bring the nation to an acknowledged degree of modernisation.

Moreover, the culture of reading and writing should not be taken lightly. To have a strong population and harness prosperity for the nation, education cannot be ignored. It is clearly shown that in conjunction with technology transfer and subsidies, knowledge and know-how are crucial factors for the foundation of industrialisation (Yamamura, Ikari, and Kenmochi 2013).

Japan has consistently pursued a resolute and unwavering approach with a clear and focused strategy and plan to achieve industrialisation. The Meiji era's industrialisation process

encompasses more than just the industrialisation itself. The transformation of Japan from a traditional, agrarian-based economy to an industrial, export-oriented one was achieved through the prioritisation of education and innovation. As Cambodia aims to achieve middle-income status by 2030 and high-income status by 2050, this trajectory towards development necessitates consistent growth coupled with stability. It is noteworthy that the Cambodia Industrial Development Policy 2015-2025 emphasises that by the year 2025, the country's economy will be predominantly led by the service sector, accounting for 40% of the total economy, followed by the industry sector at 30%, agriculture sector at 23%, and taxes on products without subsidies at 7%. Based on the presented data, it is evident that the industrial sector holds a significant position in the government and plays a pivotal role in the economy. However, it is imperative to note that this does not imply that other sectors, such as tourism and agriculture, should be disregarded.

Cambodia is not far off from the industrialisation of the Meiji period and aims to achieve middle-income status by 2030 and high-income status by 2050. Twenty-four years of uninterrupted civil and total peace proves to be a foundation for the nation's self-sufficiency amid the rapid global evolution, the fourth wave of industrialisation, and the ongoing geopolitical competition (Helleiner 2021). The Covid-19 pandemic emphasises the importance of global effort, collaboration, and advancement of technology and therefore, a country should always strive to become well-connected and capable of manufacturing flexibility, e.g., the production of PPE and vaccine. Note that under the Rectangular Strategy - Phase IV, the Royal Government of Cambodia focuses on the People, Roads, Electricity, and Water. Comparatively, the People, Roads, Electricity, and Water areas of prioritisation for Cambodia are comparable to the Japanese 3 Ms industrialisation model. It is essential that the lesson learnt from Japan's Meiji era, during which the literacy rate of the total population was almost doubled by the end of the Meiji era (Sumikawa, 1999), signifies that Cambodia must achieve the vision of building human capital in Science, Technology and Innovation (STI): by 2030, 50 per cent of university students are in STEM, of which 40 per cent are women (MISTI, 2021).

Cambodia has embraced electronic payment systems, electronic systems, and artificial intelligence (AI) while maintaining an open relationship with the technology industry. The swift embrace of new technologies in Cambodia can be largely attributed to Millennials, Gen Z, and Gen Alpha. These demographics, comprising a substantial part of the population, are avid users of social media, internet services, smart devices, and digital payment platforms. economic and social spheres. Recognising the importance of technological advancement, the Cambodian government established the Ministry of Industry, Science, Technology, and Innovation (MISTI) in 2020. This move, along with other initiatives, demonstrates the government's growing focus on technology and machinery. Additionally, there is a substantial emphasis on workforce development and retraining. Cambodia has also established the Cambodia Science, Technology, and Innovation Roadmap 2030 to oversee and evaluate advancements in these domains. This initiative will receive financial support from the government, which will also facilitate collaboration with external partners. Having said that, the Cambodian government has demonstrated actions and evidence that align with the 3M approach of the Meiji period.

Policy Recommendations

From 1998 to 2024 (now), Cambodia has consistently progressed towards achieving high-income nation status by 2050, despite experiencing multiple wars and conflicts before 1998. Japan, like other nations mentioned in this text, has experienced war and unrest and has had to

recover. Therefore, by examining the Japanese experience, Cambodia could consider adopting the Japanese modernisation process or drawing lessons from Japan's past experiences, as follows:

1) National Solidarity – "Khmer can do", is vital for mobilising support for a uniting cause, but it should not be utilised to isolate oneself, as seen by the Edo period before the Meiji period. Isolation is fatal to industrialisation, especially when advanced technology stays in the hands of the few and the creation and diffusion of knowledge cannot be achieved. A prominent sign or slogan in Sihanouk Ville reads "Khmer can do" on one of the hills. During a speech on June 1, 2020, while assessing the progress of the construction of 37 roads, the former Prime Minister of Cambodia clarified that "Khmer Can Do" signifies the capability of the Khmer population to successfully complete tasks from beginning to end. This phrase specifically refers to the complete construction of the roads in Sihanouk Ville by the Khmer people. This significance extends beyond the tangible aspect, as it demonstrates that Cambodia is gradually transitioning from being a nation dependent on donors to becoming a well-established nation, both intellectually and spiritually. Hence, it is crucial to treat this concept with the utmost importance and significantly amplify its scope to achieve the 2050 objective.

2) STEM education must be enhanced and fostered. Investment in STEM education with college graduates who loved manufacturing to support the modernisation of industry is indispensable. To develop human capital in the fields of manufacturing electrical and electronic equipment, machinery, automobiles, ships, optics, precision engineering equipment, and chemicals, both the citizens and the government must work together as a unified entity. Given the aforementioned considerations, human capital is indispensable. The school's curriculum, from K1–K12 to the graduate degree level, should prioritise further streamlining the STEM-oriented curriculum. Thus, the Ministry of Education, Youth, and Sports (MOEYS) will play a crucial role in modifying the curriculum for K–12 education, while the respective university rectors will take on the task of revising the curriculum for graduate-level education.

3) Cambodia needs and should continue to value its internal unity for collaboration and innovative ideas, with an appropriate combination of indigenous and modern technology for the creative industry. This could be achieved through both public and private investment in research capacity and high-quality research in the key industries to enter the international market. For example, private companies that invest in agriculture for export purposes may receive incentives or support from relevant ministries such as the Ministry of Agriculture, Forestry, and Fishery (MAFF) and the Ministry of Industry, Science, Technology, and Innovation (MISTI) to assist with technology related to the specific product, and if the company is foreign, the Council of Development for Cambodia (CDC) is encouraged to expedite the registration process.

4) Massive and strategic investment in public work: railways, shipping, communication, and ports, as observed during the early Meiji period, is strategically important to foster an enabling ecosystem for trade and investment. For example, the recently initiated construction of the Funan Techno Canal, as well as similar strategic and massive investments, will improve external connectivity while creating opportunities for growth.

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