

## Thailand Policies for the Age of Rapid Technology Change

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### I. Introduction

Thailand is confronted with a crisis. Thai nationals have been frequently hearing the word ‘Middle-Income Trap (MIT)’ in our daily life. We started being caught in this trap before the “Tom Yum Kung crisis” about 20 years ago, as said by Thailand Development Research Institute (TDRI). According to the records regarding the period to overcome this trap in the developed countries, the average period is six years and the longest period belongs to Argentina (41 years) followed by Greece (28 years). However, considering our growth rate of labor productivity, which is around 2% per annum, we are estimated to disengage from this trap in the next 17 years or so. The new record might belong to Thailand.

MIT situation will not be considered as crisis if we are not facing the rapid technology change which may cause the country collapses due to lack of competitiveness. To free from this trap and avoid being in trouble, several economists said that we must invest in developing innovation as well as skills and labor productivity in order to support using such innovation. Nevertheless, it is not easy for Thailand to follow said recommendation.

According to the World Bank’s research result regarding Thailand Investment Climate Assessment, two main reasons why the private sector does not invest in innovation are specified, i.e., 1) high cost for investment (43.6%) and 2) lack of skilled workers to use the innovation (42.7%). Even though the research was conducted in 2008, the result is still adaptable for nowadays. This is because of inconsistency between the educational system and the demand of labor market.

Mismatches can be found both horizontal and vertical. To solve this problem, the stakeholders, namely related government organizations and the private and public sectors, must coordinate. Unfortunately, the current situation can be called a coordination failure.

From the above information, it can be said that we are in the trap because we lack important propellants, which are technology innovation and skilled workers. Our country must be shifted to be “Innovative-Driven Economy” instead of “Heavy-Industry.” It is desirable that the Thai government does not ignore the crisis and, at least, try to find solutions by setting the national policies under the concept of “Thailand 4.0.”

### II. Government policies

“Thailand 4.0” is set as the most important keyword appears in all government policies. Although large number of Thai nationals do not yet have a clear understanding about this word, at least, this is symbolical and we continue to try to keep up to date.

Firstly, we shall start with considering *the Constitution of the Kingdom of Thailand*, enacted on April 6, 2017 (B.E.2560). It states new important principles in Chapter 16 “National Reform” of which the focused part is “f. Economy” (1) and (2) as follows:

- (1) Eliminating obstacles and promoting competitiveness of the country in order that the nation and the people benefit from participation in various economic groups in a sustainable and resilient manner.

(2) Establishing a mechanism to promote and support the application of creative ideas and modern technology in economic development of the country.

Secondly, let us consider *Thailand's 20-Year National Strategy (2017-2036)* which will be a concrete guideline driving the country towards Stability, Prosperity and Sustainability (These three words are set as "Vision"). The strategic framework covers increase of competitiveness as stated in the second strategy that the infrastructure, logistic system, science, technology and innovation, human resources, and administration both in private and public sectors must be improved.

Thirdly, we should see *the Twelfth National Economic and Social Development Plan (2017-2021)*. There are ten strategies under the plan. The strategies related with this research will be the first, the third and the eighth strategies, namely (1) Strengthening and developing the potential of human capital, (3) Strengthening sustainable economic development and competitiveness, and (8) Science, technology, research, and innovation development.

The first strategy aims to prepare Thai nationals of all ages to acquire skills needed for quality of life in the upcoming 21st Century world. The government plans to support the lifelong learning by lifting the quality of the "Institute for Skill Development." There are three responsible organizations, i.e., Thailand Professional Qualification Institute (a public organization), the Department of Skill Development, and the Institute for Skill Development.

The aim of the third strategy is to increase the growth rate of total factor productivity not less than 2.5% per annum by:

- Strengthening competitiveness in the production and service sectors, focusing on:
  - Developing and strengthening existing competitive industries towards more high-technology-based industries.
  - Upgrading the capacity of the important income-generating industries existing in Thailand to be able to shift towards more advanced production technology, which meets the diverse needs for consumers.
  - Establishing efficient and strong mechanisms, systems, and networks for collaboration linkages among business firms along a supply chain.
  - Promoting the creation and development of markets for high-quality products.
- Laying the foundation for future industries, focusing on formulating a workforce development plan to prepare human resources for the targeted future industries as well as developing infrastructure and technology capabilities to support the development of future industries.

The eighth strategy aims to strengthen and enhance the capability of advanced science and technology to support higher value-added activities in target production and service industries, as well as to integrate the management systems of science, technology, research, and innovation to move in the same direction. This strategy drives the development of technology and innovation by:

- Promoting R&D investment, social adoption, and commercialization.
- Developing Technopreneurs.
- Developing a proper environment for promotion of science, technology, research, and innovation.

Fourthly, the important policy we could not skip is "*Thailand 20-Year Strategic Framework for Human Resource Development (2017-2036)*." It separated the framework into four steps, i.e.:

*The 1st Step: Productive Manpower (2017-2021)*

To improve the workforce skills to meet the international standards by eliminating any obstacles, proceeding labor zoning, training to be multi-skilled workers, re-training the existing labors of important new skills, and adding STEM (Science, Technology, Engineering, and Mathematics) skills in order to prepare the workforce to face Thailand 4.0 era.

*The 2nd Step: Innovative Workforce (2022-2026)*

Under the concept of "global citizen", the government will fully drive Thailand 4.0 by amending several regulations for supporting employment in the digital age, creating employment system for sending

workforce to the world.

*The 3rd Step: Creative Workforce (2027-2031)*

The age of full employment, productivity, and decent work.

*The 4th Step: Brain Power (2032-2036)*

Thailand disengages from Middle-Income Trap and is filled with STEM human resources.

To accomplish the *1st Step* of the framework, Ministry of Labour have defined “8 Agendas for Labor Reform” as follows:

1. Zero corruption
2. Reform of the role of Ministry of Labour
3. Eliminate the illegal workforce including human trafficking
4. Enhance the life quality of informal workers
5. Employment promotion
6. Safety Thailand (to promote the safety standards)
7. Increase productivity
8. Information technology (provide services by using technology)

Lastly, we have to talk about *the Twelfth Education Plan (2017-2021)* which enacted on October 1, 2016.

This plan consists of six strategies as follows:

1. Strategy of developing the educational program, learning process as well as educational measurement and evaluation in order to respond to the rapid change of the world.
2. Strategy of enhancing the quality and quantity of educational personnel.
3. Strategy of promoting research in order to support the country’s development.
4. Strategy of expanding the opportunity for reaching the education services.
5. Strategy of developing digital technology for education to support the lifelong learning.
6. Strategy of improving the education management.

We now acknowledge our country crisis and note the government policies for dealing with such situation. The next question to be answered is about the implementation and the possibilities for us to accomplish our goals. If any weakness is found, we are able to strengthen it and move on.

### III. Possibility for making dream come true

Reference is made to the recommended policies from the report, *the OECD Jobs Strategy: Technology, Productivity and Job Creation-Best Policy Practices*, concerning the reforms for responding to the technology age stating that “*Factors for success include the extent to which coordination can be achieved between different ministries and the involvement of various stakeholders. Checks must be put in place against government failure, such as institutions furthering their own special interests, or adopting a partial rather than an economy-wide perspective. Measures to promote upskilling and lifelong learning can raise the mobility and employability of workers, mitigate the costs of job displacement resulting from rapid technological change and reduce resistance to reform. At the same time, policies must be designed so as to avoid undermining incentives for work, upskilling, organizational change and restructuring.*”

Starting with the first factor recommended that different ministries must coordinate, it is said that this cannot be happened at this time for Thailand. Each ministry has its own policy, budget, and measurement. Coordination can be made with different organizations which are under the same ministry. This is the first obstacle.

Not only between different ministries, but also between different sectors, namely government organizations, business firms, and public sector, cannot connect and coordinate with one another. Return to the point of the mismatch between demand and supply for skills, in order to solve this problem, the main stakeholders which are Ministry of Labour, Ministry of Education, and the industrial sectors or the entrepreneurs requiring the workforce must find solutions together and play the role of each part. The best sample when talking about a

successful case of having overcome this problem is Germany.

“Dual Vocational Training (DVT)” is educational system used in Germany. This is the mechanism which connects business firms to the government as well as trade unions. All stakeholders play its role. Business firms arrange important technical skills training for workers conducted by certified lecturers. Meanwhile, vocational colleges provide training of basic skills namely required theories and other skills which are necessary for working life. By this practice, mismatch of demand and supply for skills is reduced.

Considering the Thai government policies, we found that the government planned to improve the quality of workers by training provided by the Institute for Skill Development. While the officers of this organization have been arranging several training programs for Thai workers for a long time, no significant effect has been seen. This is because the government officers do not thoroughly understand the business needs, especially the business driven by new technology. The government should not play this role. Instead, playing the role as a support party to promote the business sectors’ investment in human resources would be better.

Apart from the inconsistency among the stakeholders, lack of technology transfer is an important obstacle as well. The above policies always point out the importance of improving human resources especially education of personnel, but how? How can we improve human resources relying on the workforce who are on the same level? Without any technology transfer from the developed countries, how can we keep up with the rapid technological change and improve ourselves?

The developed countries used to be the developing countries. One important factor enables a developing country shifts to a developed country is “technology transfer and policy to attract professional or skilled workers to work for them.”

South Korea is the best sample when talking about this point. Within three decades, having shifted from the agricultural country to the newly industrialized country, the government leads the country to be a developed nation by using five factors as follows:

1. To force the public to improve themselves, Korean nationals had only two choices “survive or give up and dead.”
2. To promote “Chaebol” which are the group of industrial sectors. When the Chaebol grows, the employment and the national income per capita also grow.
3. To improve education.
4. To promote export policy.
5. To promote technology transfer policy by reducing the restrictions regarding FDI (Foreign Direct Investment) and foreign licenses in order to increase the absorptive capacity.

Apart from South Korea, Singapore is another good sample. Being a small country with poor in natural resources and workforce, Singapore is now the top ranking of ASEAN for per capita income by the government policies promoting attractiveness for skilled workers to come and work in Singapore and good management for controlling demand and supply of those workers.

Considering the above-mentioned samples, technology transfer plan should be put in the government policies as well.

#### **IV. Overview of the main findings**

One of the important reasons why Thailand is caught in the Middle-Income Trap is due to lack of technology innovation and skilled labor. Recommended policies to overcome such crisis specified that we have to develop our technological level, especially technologies used in industrial sectors, and improve skills of workers as well. The government policies are set in accordance with said principles under the main concept of what “Thailand 4.0” focuses on development of technology innovation and human resources. In addition, further important factors should be added to the policies, i.e., policy to promote technology transfer and coordination of stakeholders including enhancing co-operation between different ministries.

**References**

- Jitsuchon, S. 2017. *The Study on Thai Labor Market to Upgrade Labor Quality and Push Thai Economy out of the Middle-Income Trap*. TRF Research Report No. SRI5851204. Bangkok: The Thailand Research Fund.
- Piboonrunroj, P. 2017. *The Study of Goal for Sustainable Development for Thailand and the Measurement regarding Economics, Society and Law, the 8th Goal*. Bangkok: Research Coordination for SDGs.
- Worakamin, D. 2017. *The Study of Goal for Sustainable Development for Thailand and the Measurement regarding Economics, Society and Law, the 9th Goal*. Bangkok: Research Coordination for SDGs.
- Pholpirun, P. 2014. *Human Capital and Labor Productivity in the Manufacturing Sector of Thailand*. Bangkok: The Thailand Research Fund.
- Organisation for Economic Co-operation and Development. 1998. *The OECD Jobs Strategy: Technology, Productivity and Job Creation - Best Policy Practices*. OECD, Paris.



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