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Various Understandings of 'Thailand 4.0':
Hidden Conflicts

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Abstract

This paper considers that coordination is important for economic development and coordination failures may cause an interruption in the development process. During the time that the world changes so quickly, the Thai government has publicized the term Thailand 4.0 with an expectation that the new catchword would motivate people to coordinate. However, the popularity of Thailand 4.0 does not mean that all parties understand the term in the same way. The information from in-depth interviews tells that there are various understandings of Thailand 4.0. Due to these various understandings, people react to the term differently, and, instead of alleviating a problem of coordination failures, conflicts among them are likely to heat up. However, the government does not seem to concern about solving the problem because it is not of its interests.

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1. Introduction

In May 2016, one of the widest-reached newspapers in Thailand published an article written from an interview of Suvit Maesincee, the Deputy Minister of Commerce, about Thailand 4.0. In the article, Thailand 4.0 was considered as a new economic model that would transform the Thai economy, and was expected to bring in a prosperous future. A short article introduced some keywords of Thailand 4.0, such as ‘Value-Based Economy’, ‘Innovation’, ‘Do Little, Earn Much’ and even ‘Sufficiency Economy’, and left its readers with some doubts about its practicability. After that, Thailand 4.0 has often appeared on media, and become a catchword for Thai people. The popularity of the term must have been largely attributed to the government. Suvit Maesincee, appearing regularly on television and newspaper to spread Thailand 4.0, became a leading figure of Thailand 4.0. He is even known in the country as the bearer of the term and the owner of the idea. Prayut Chan-ocha, the Prime Minister, gave several speeches about Thailand 4.0 in both public events and in his primetime Friday Night Talks. Once, he even composed a verse *Prathet Thai 4.0* (Thailand 4.0), which led to some debates about its ideas and languages for a few days. Lately, even though Suvit Maesinsee and Prayuth Chan-ocha less regularly talked about Thailand 4.0 in their speeches, Somkid Jatusripitak, the Deputy Prime Minister for Economic Affairs, almost never missed to mention Thailand 4.0 in his public speeches. “4.0” has become a favorite adjective for the government personnel a modern expression of a noun. For example, the government encouraged farmers to apply technological devices to their works, and labeled them *Chaona 4.0* (farmers 4.0). Or, the government called those who have been ready to adopt new

technologies as *Khon Thai 4.0* (Thai People 4.0). Moreover, an adjective 4.0 has been extended to a noun that does not relate to modernity nor innovation. For example, the Prime Minister in Isaan Expo, a government-sponsored exhibition in June 2017, called his own-made duck spicy salad as *Laab Ped* (Duck Spicy Salad) 4.0. Not only does the government apply 4.0 into many nouns, but Thai people also do the same thing. My colleague at the Faculty of Economics, Thammasat University, once mockingly entitled a public seminar *New Agricultural Development Model in the era of (that everything is) 4.0*. Of course, the speakers mainly shared their experiences on innovative ways to organize their farms.

My interview with the informant from the Public Relations Department² told that it is the government's intention to popularize the term Thailand 4.0. There are two goals behind this strategy. First, the government would like people to be aware that they have entered a "storm" of technological and economic changes. Since the changes are a part of the global trend, they are definitely unavoidable and people need to get ready for them. And, if everything goes right, Thailand will be able to convert this storm of changes into a tailwind increasing the speed of economic development. Second, the government would like people to recognize that it has a contribution on these changes. Since Thailand 4.0 has become a catchword and people have realized that the term was initiated by the government, I think the second goal of the government is, to a certain extent, successful. However, this does not mean that Thailand 4.0 as a whole is successful, because the success of the first goal is still in doubt.

² Interview G6

In 1848, John Stuart Mill wrote in the chapter “A Progressive State of Wealth” of his well-known *Principles of Political Economy* that

“Works of all sorts... are daily accomplished by civilized nations, not by any greatness of faculties in the actual agents, but through the fact that each is able to rely with certainty on the others for the portion of the work which they respectively undertake. The peculiar characteristic, in short, of civilized beings, is the capacity of co-operation...”

Accordingly, there is no more certain incident of the progressive change taking place in society, than the continual growth of the principle and practice of co-operation. Associations of individuals voluntarily combining their small contributions now perform works... which no one person or small number of persons are rich enough to accomplish, or for the performance of which the few persons capable of accomplishing them were formerly enabled to exact the most inordinate remuneration. As wealth increases and business capacity improves, we may look forward to a great extension of establishments, both for industrial and other purposes, formed by the collective contributions of large numbers...” (JS Mill p.698-9)

If “the capacity of co-operation” is important to bring in “a Progressive State of Wealth,” a failure to co-operate could simply mean “a Progressive State of Wealth” is interrupted. In this sense, his idea is similar to such economists as Paul Rosentein-Rodan (1943), Ragnar Nurske (1953), Albert Hirschman (1957), and Gunnar Myrdal (1958) who view a problem of economic development as a problem of what is called ‘coordination failures’

in modern economics A review of literatures on coordination failures with a critical view on a Big Push policy can be read in Glavan (2007). The Economics of coordination failures can be illustrated simply by a very simple pay-off matrix of a coordination game. In Table 1, there are two Nash equilibriums, (Left, Left) and (Right, Right). If the economy ends up at equilibrium (Right, Right) which is a second best pay-off, it means that Mr. A and Mr. B fail coordinate in order to get to the best equilibrium (Left, Left). In an economy in which a large number of economic agents involve, there could be multiple of equilibriums which mean different levels of economic progress. If some involved parties fail to coordinate, the economy then loses an opportunity to earn the fastest economic progress.

		Mr. B	
		Left	Right
Mr. A	Left	100,100	0,0
	Right	0,0	50,50

Table 1: A Pay-Off Matrix of A Coordination Game

The government, the so-called coordinator in this context, definitely wants Thailand 4.0 to spawn coordination among Thai people and prevent the country from the possible coordination failures during the “storm” of technological and economic changes. Does Thailand 4.0 have that ability? This is where the various understandings of Thailand 4.0 matter. Creating and publicizing it, the government must have its own understanding of Thailand 4.0 and also must have an expectation on its impacts on people. This is the

first important task of this paper; that is, I would like to reveal the government's understandings of Thailand 4.0 and see the equilibrium that the government wants the country to reach. People, if understanding Thailand 4.0 differently from the government, might or might not follow the government's track and the government's goal might or might not be reached. Also, people in different roles might or might not understand Thailand 4.0 in the same way, and their responses to Thailand 4.0 might or might not create coordination among them. This paper is hence to explore how people understand Thailand 4.0, and how their understandings of Thailand can get along with those of the government. The ultimate goal of this paper is to see whether or not their various understandings could result in coordination and prevent a problem of coordination failures. In order to acquire this information, I conducted 42 in-depth interviews, each of which lasted around thirty minutes to three hours. Most of the interviews took more than one hour and all of them were in a form of an open-ended conversation between informants and I. I decide to keep names of all informants and those of companies anonymous, because I do not see any necessity of revealing their names. However, names of the government agencies are revealed, because they are necessary to narrate the paper. A full list of informants is shown in Appendix.

Following this introduction, this paper is organized as follows. The second section is on the government's understanding of Thailand 4.0. I recall that my initial curiosity leading me to write this paper was that I heard a lot about Thailand 4.0 and I knew that the government initiated it, but I had no idea what Thailand 4.0 was about and I did not know what the government was doing regarding Thailand 4.0. I talked to many friends who are not listed here as the informants, and most of them also said the same thing. I

believe that the second section could find some answers, and these answers could imply the equilibrium that the government wants the country to reach. Further, I also find that the popularization of Thailand 4.0 is the government's intention and it 'hopes' that the popular Thailand 4.0 will create coordination in the country. The third section is about how people understand Thailand 4.0 and how their reactions to the term lead to their actions. In that section, I will show that Thailand 4.0 has an impact on both firms and consumers. However, it is likely that various understandings of Thailand 4.0 tend to generate coordination failures in three aspects. First, firms seem to jam the market and compete by prices. This could generate some negative impacts on the ecosystem to innovate. Second, the supply-sided Thailand 4.0 could lack an ability to generate its demand, especially for low-technology products. Third, workers' understandings of Thailand 4.0 signal that workers might fail to coordinate. That is, they do not feel that they need to develop their skill to meet the demand in high-technology industry. The fourth section concludes the paper.

2. The Makings of Thailand 4.0 and the Government's Hopes for Coordination

In my view, Thailand 4.0 is a strange economic "blueprint". It has been mentioned a lot, but nobody knows exactly what he or she mentioned. This is simply because the idea of Thailand 4.0 has never been officially collected and published. As long as I have seen, there is one document entitled *A Blueprint of Thailand 4.0: A Model Driving Thailand towards Stability, Prosperity, and Sustainability*, which has been referred to as a main source of Thailand 4.0 from the government. One of the informants

also shared me this document and told me that he would not allow me to talk to him if I did not read this document.³ However, the document is definitely not official, as it does not contain information about the author, the publisher, nor the owner. In fact, it is clearly a of old writings of several government agencies. I saw even that a map of Thailand shown in that document still has the country divided into 76 provinces, even though Bueng Kan has been established as the 77th province since early 2011. Because of this, various understandings of Thailand 4.0 can be easily observed even in government agencies whose task are to exercise, or try to reach, Thailand 4.0. From interviewing several government agencies, I can categorize different understandings about Thailand 4.0 into three contexts. The first context is that Thailand 4.0 is “like a gimmick”⁴ explaining an “imagined”⁵ feature of the country. This understanding led one of my informants to compare Thailand 4.0 as a making of drama. He interestingly said “the drama titled Thailand 4.0 is not yet finished. The scripts, costumes, stages, and directing are not yet done.”⁶ The second context is that Thailand 4.0 is “like a gimmick”⁷ explaining a set of policies that encourage innovations and technologies. The government agencies, practicing the policies of Thailand 4.0, have a responsibility to “transform”⁸ the country. The third context of Thailand 4.0 in the view of some government agencies is related to the booms of technologies and innovations. That is, Thailand 4.0 is a set of

³ Interview G1

⁴ Interview G12

⁵ Interview G8

⁶ Interview G1

⁷ Interview G18

⁸ Interview G11

innovations used in their works. Paperless documentation, mobile applications, and electronic services are among those that are mentioned as a part of Thailand 4.0.⁹

It may be important to note here that, I am aware that when acquiring a view on Thailand 4.0 of the government agencies I interview their representatives. The information I earned might be mingled with their personal opinions. And, this might be the reason why almost all informants shifted the contexts of Thailand 4.0 from one to the others during the interviews. However, I found that this kind of confusion was not problematic, because it usually was alleviated as my conversations with the informants continued. That is, they could still inform me about how Thailand 4.0 affected their works even though they shifted around the contexts of Thailand 4.0 in the interviews. The main point that I could draw out from the interviews with the informants from the government agencies was that most of them talked about Thailand 4.0 in the first and the second context interchangeably, but they considered that Thailand 4.0 did not much affect their works. This is because they thought that the country has been unavoidably determined by a “global change.”¹⁰ The government agencies with which they work observed this change, so they actually adjusted themselves before the emergence of Thailand 4.0. They also told me that Thailand 4.0 was a kind of a top-down policy that set a direction of their works, even though they all realized that without Thailand 4.0 their works must have been in this direction anyway. The emergence of Thailand 4.0 may increase their workloads, but their tasks are still the same.¹¹ This information tells that

⁹ Interview G6

¹⁰ Interview G13

¹¹ Interview G11

Thailand 4.0 is not brand-new. In fact, it is a compilation of some existing projects in the hands of the government agencies.

Interestingly, I found that the more the informants talked about Thailand 4.0 in the third context, the less the government agencies with which they works were affected by Thailand 4.0. One of the informants said that an adoption of technologies for her workplace is not a difficult thing, but it was actually a thing that they need to do in order to not fall behind others.¹² Indeed, the government agencies have continually developed some technologies and innovations to facilitate their clients, so they feel that their works “already reflected Thailand 4.0.”¹³ More interestingly, I found that the government agencies that talked about Thailand 4.0 mostly in the second context and said that Thailand 4.0 had a significant impact on their works are industry-related. One of the informants told me that “It is different in an industrial sector... Without Thailand 4.0, we would not have heard of the term Big Data, Digital,... All of the related government agencies need to immediately set up the plan for these changes.”¹⁴

Even though the government seems to consider all kinds of innovations as a part of Thailand 4.0, the information from the interviews is important as it tells that, in practice, Thailand 4.0 in the government’s understanding is biased much more towards the industrial sector. The First S-Curve Industries and the New S-Curve Industries¹⁵ have

¹² Interview G16

¹³ Interview G6

¹⁴ Interview G10

¹⁵ Ten targeted industries are categorized into two groups. The First S-Curve Industries refer to 5 existing industries that have potentials to grow. The First S-Curve Industries include Next-Generation Automotive, Smart Electronics, Affluent, Medical and Wellness Tourism, Agriculture and Biotechnology, Food for the Future. The New S-Curve Industries are five new promoted industries which are Robotics, Aviations and Logistics, Biofuels and Biochemicals, Digital, and Medical Hub.

become widely known to public. Lately, Eastern Economic Corridor (EEC), which is a mega development project in three eastern provinces of the country attempting to attract high-technology investments from abroad, have been much involved as a part of Thailand 4.0. This is basically because the government still sees that the production process in the industrial sector has a great potential to increase volumes and values of domestic products. However, in spite of targeting some large-scale industries, the government cannot avoid the facts that most large-scale firms that have been in business for quite a while do not need its helps.¹⁶ “No rules or regulations that obstruct the business would be good enough from the government.”¹⁷ This is why the government pretty much cares about such things as “the ecosystem to innovate” or “the Ease of Doing Business Ranking”. However, even though the government stays passive for most of large-scale firms, it tries to play a relatively more active role to promote SMEs. One of the informants told me that “SMEs are about 99.4 percent of the total number of firms... Still, a fewer-than-one percent of large-scale firms could contribute to around 60 to 70 percent of total GDP. We try to push SMEs’ contribution of total GDP towards 50 percent.”¹⁸ To do this, all industry-related government agencies are to give some supply-sided supports and enhance some potential SMEs to “turnaround”¹⁹ and develop. However, being active does not mean that the government directly intervenes SMEs’ business decisions, the government, instead, considers that ideas of development and innovation must be initiated from firms, and the related government agencies would

¹⁶ Interview B15

¹⁷ Interview B6

¹⁸ Interview G12

¹⁹ “Turnaround SMEs” are defined by the government as a group of old-fashioned SMEs which need government’s supports to turnaround from old-fashioned to smart SMEs.

provide them some R&D fundings, special loans, tax and duty exemptions, other non-tax incentives, and other kind of possible supports.²⁰

I can extract from the interviews that most of the government agencies considered that the First and the New S-Curve industries are the ultimate goal of the government under the Thailand 4.0 campaign, and their actions are expected to create coordination from their clients to reach this goal. The informants from the government agencies under the Ministry of Agriculture might barely talk about S-Curve industries and industrial products, but they still realized the importance of agricultural products in the supply chain of some industries²¹ and concerned about the coordination between the Ministry of Agriculture and the Ministry of Industry.²²At this point, I learned that the ‘storm’ of economic and technological changes that the government wants people to be aware of is the long supply chain that leads to the ultimate goal of industrial development. The government as a coordinator expects that all their related actions including popularization of Thailand 4.0 would be able to create coordination of all parties in the economy to reach this goal.

According to my knowledge, the government hopes that three aspects of coordination would occur from popularizing Thailand 4.0. The first aspect of coordination is regarding the supply-sided characteristic of Thailand 4.0. To explain, Thailand 4.0 encourages entrepreneurs in all sectors to adopt new technologies to improve their production processes and qualities of products; that is, it is a supply-sided

²⁰ G1

²¹ Interview G15

²² Interview G16

policy. However, it pays very little attention on who is going to purchase these products. In this context, the government is a clear supporter of the famous Say's law – “supply creates its own demand” by hoping a coordination from those who ‘Do Little, Earn Much’ from Thailand 4.0 to spend much as well.

The second aspect is coordination from firms and entrepreneurs. The informant from the Department of Industrial Promotion told me that the task of the Department is to “provide entrepreneurs a platform to transform... For example,... new startups do not need to learn how to make a car, but they need to transform and learn how to make a car run by itself.”²³ When I asked him about price competition that might happen in business, he gave me an example of footwear production that entrepreneurs “then produce shoes that others can not produce in mass: niche shoes, patient shoes, etc.” From this view, even though the government wants to increase a number of firms relating to the supply chains of the First and the New S-Curve, it does not expect to enhance competition in the market. Instead, the government assumes that there are market fragmentations in the supply chains of the First and the New S-Curve, and entrepreneurs would enter rightly into each segment of the supply chains. That is, the government expects that its supports would not only encourage SMEs to employ more advanced technologies in their businesses, but it also hopes that these supported SMEs would coordinate by being a part of supply chains building the strong growth of the First and the New S-Curve Industries.

The third aspect is coordination from future and existing workers. It is forecasted that the nature of work is going to be different (Baxter 2017). The informant from the

²³ Interview G12

Office of Vocational Education told that “We have recently opened a new field of study such as rail maintenance, robotics, petrochemicals... Right now the petrochemical industry is growing quickly in Rayong... We then let local kids learn it.”²⁴ From this quote, the Office of Vocational Education might have a potential to provide knowledge and skill to a new generation of workers, but what they hope for is that the “local kids” coordinate by joining the program. In a bigger picture, the government hopes that Thai people understand their tasks and they are willing to coordinate by learning some necessary skills supporting the growth of the First and the New S-Curve Industries.

3. Various Understandings of Thailand 4.0: How People perceive and React to it

I had an opportunity to talk to a Farmer who is currently over 70 years old and has been a farmer throughout his life. He is respected quite widely as an experienced scholar in rice farming. He, of course, knows rice production and rice market very well. However, during the interview, he told me that he did not know exactly what Thailand 4.0 was, but later in our conversation he told me that knowledge and technologies used in his farm were already beyond other farmers and Thailand 4.0.²⁵ This statement appears to be self-contradictory, but, according to my interviews with entrepreneurs and their representatives in several businesses, it can well express how representatives from firms understand Thailand 4.0. That is, they do not know in details about the government’s Thailand 4.0, but they heard of the term Thailand 4.0. If they have to express how they understand Thailand 4.0, their explanation will be mostly about uses of technologies and innovations in their businesses. This farmer was not the only one who expressed that his

²⁴ Interview G14

²⁵ Interview B8

knowledge is beyond Thailand 4.0, the other informant from the large auto-parts company also did the same.²⁶ Of course, these two, when claiming that they were beyond Thailand 4.0, was not thinking about the same types of technologies. In the farmer's view, Thailand 4.0 was about water-saving and fertilizer-saving techniques in a rice field, while, in the carmaker's view, it was about massive uses of robotics and automations in a factory. According to my knowledge, in term of complications of technologies, machineries in a large-scale factory are more advanced than those in a farm. But, the interesting point for me is that why could the very different complications of technologies be categorized together as Thailand 4.0? The answer would be because the informants understood that Thailand 4.0 was about a comparison of knowledge and technologies in their own fields of business. If this is the case, they might think that it was not difficult to stay on a path of Thailand 4.0; that is, they do not need to compare their technologies with those of others in different fields of business, they needed to just consider their business and employed more advanced technologies. From this point, even though most of them told that market expansion and demand for their products were the main reason for technological adoption, the spread of Thailand 4.0 more or less played a role in their recognition to innovate and adopted a new technology.

The informant who has been an integrator of a robotic system for over 20 years told me that after the emergence of Thailand 4.0, "people have been more excited to use robots... A number of companies supplying robots have increased... a lot."²⁷ Similarly, the informant in startup business also told me that there have been an increasing number

²⁶ Interview B14

²⁷ Interview B9

of those who want to invest in startups and those who invent new startups. And, this is an opportunity that allows his company to “grow faster.”²⁸ These statements confirm that Thailand 4.0 plays a role in market expansion. This is probably the government’s goal of popularizing the term. However, this is not necessarily positive to the business, as the informant told me further that “there were a lot of people who bought robots but could not use them... I had not heard of this that much in the past... Many people bought them without understanding and they left them unused.” In his opinion, this problem was caused by both suppliers and demanders. That is, the demanders were not sufficiently familiar with the new technologies, so their decisions to buy robots are affected by prices instead of by qualities. Meanwhile, the suppliers, seeing a rising demand and jumping into the market, “were not qualified suppliers”, so their products were not in good qualities. This information told that even though the popularity of Thailand 4.0 could lead to market expansion in high-technology products as the government expected, the expectation that firms would enter the supply chain at different segmentations was not realized. Not only confirming the situation of the market for robotics, the other informant told that price competition during the market boom could even slow down abilities to do research and development of many potential firms.²⁹ In this situation, not only does the popularization of Thailand 4.0 failed to bring in the second aspect of coordination on market fragmentation, it might backfire on the government and ruin the ecosystem to innovate.

²⁸ Interview B2

²⁹ Interview B13

The government's popularization of Thailand 4.0 might be able to enlarge the market of higher-technology products, but it should not be the case for lower-technology ones. Let me use agricultural products as an example of lower-technology products. As already mentioned, according to my interview, some farmers heard of the term Thailand 4.0 and they felt that they should think about using some innovations and technologies to cut some costs and to increase values of their products, so Thailand 4.0 might have some impacts on the supply side of the products. However, even though Thailand 4.0 is a popular term, I do not think that Thailand 4.0 would encourage anyone to buy more products from smart farms. Thailand 4.0 may have an indirect impact on these products; that is, it increases income of people so people spend more. However, it is well known that these products usually have lower income elasticity of demand, so the indirect impact is still constrained. In this case of lower-technology products, Thailand 4.0 is biased towards the supply. Because supply does not necessarily create its demand, the expectation for the first aspect of coordination the government has on Thailand 4.0 is likely to fail.

In my opinion, interviews with a group of workers were more difficult but more interesting, as the opinions of each interviewee were so various. One of the informants told that they did not know anything at all about Thailand 4.0, and his work has not been affected from any technological change in the past 5 years.³⁰ Another informant, when talking about Thailand 4.0, could explain in length about how Line, a mobile application, affected him and people around him, how online game could attract people to internet, how prompt-pay service made his life more convenient, how his work has changed due to

³⁰ Interview W3

the impact of some technological changes in the past 10 years.³¹ Meanwhile, some informants seem to understand Thailand 4.0 in a certain extent, and they could point out that Thailand 4.0 was biased towards the industrial sector and their trainings as social scientist might not be benefited from the emergence of Thailand 4.0.³² Despite these various understandings of Thailand 4.0, none of the informant ever said that they were willing to look for new knowledge and skills that serve the development of the First and the New S-Curve industries. Indeed, most of them never expresses that they were aware of some probabilities to lose their jobs due to emergences of new technologies. I think this is a normal psychological process of contemporary people who have encountered so much technological changes throughout their lives. They do not think that they can exactly predict what to come in a future, so they will not be able to develop their skills at present to meet the demand in the uncertain future. In addition, in the course of their lives, they learn that they could adapt themselves to the changes, so they are not in very much need to have their skills in advance. Due to these reasons, I think it is not strange to see that people, though hearing Thailand 4.0 everyday, would not be willing to coordinate and learn the skills that the government think necessary.

4. Conclusion

This paper considers that coordination is important for economic development and coordination failures may cause an interruption in the development process. During the time that the world changes so quickly, the Thai government has publicized the term Thailand 4.0 with an expectation that the new catchword would motivate people to

³¹ Interview W4

³² Interview W1

coordinate. However, the popularity of Thailand 4.0 does not mean that all parties understand the term in the same way. The information from in-depth interviews tells that there are various understandings of Thailand 4.0; even the government agencies whose tasks are to implement Thailand 4.0 do not understand it in the same way. Despite these various understandings of Thailand 4.0, the ultimate goal of the government is at the First and the New S-Curve industries. The various understandings of Thailand 4.0 seem to cause some problems when the information from the interviews of workers and representatives from firms are considered. I found that people and firms seem to interpret Thailand 4.0 in their own ways, and, in responses to the popularity of the term, they do not seem to coordinate.

I am not sure whether or not the government recognizes a problem of coordination failures. However, what I am certain about is that the problem will not be solved. Lately, even though the term Thailand 4.0 is still very popular among Thai people, the government obviously promotes it much less often. While the critics of the government would say that the government has diverted its tasks away from Thailand 4.0 and focused on something that could yield them some votes for the next election, the informant from the Department of Public Relations told me that the government tends to do so, because it has already been successful to implant the term to people's recognition.³³ Regardless of the reasons, I do feel that the first goal of the government's intention to popularize Thailand 4.0 is much less important than the second one. The

³³ Interview G5

government seems to be satisfied with the popularity of the term. And, the imagined Thailand 4.0 seems to be hung in the air.

References

- Baxter, W. 2017. Thailand 4.0 and the Future of Work in the Kingdom. Meeting Document for the *Thailand National Dialogue on the Future of Work*. Downloaded from http://www.ilo.org/asia/events/WCMS_549062/lang--en/index.htm on March 10th, 2018.
- Hirschman, A. O. 1957. *The Strategy of Economic Development*. New Haven: Yale University Press.
- Glavan, B. 2007. Coordination Failures, Poverty Traps, “Big Push” Policy and Entrepreneurship: A Critical View. MPRA No. 5757.
- Myrdal, G. 1957. *Economic Theory and Under-Developed Regions*. London: Duckworth.
- Nurske, R. 1953. *Problems of Capital Formation in Underdeveloped Countries*. New York: Oxford University Press.
- Rosenstein-Rodan, P. N. 1943. Problems of Industrialization of Eastern and South-Eastern Europe. *Economic Journal* 53 (June-September). 202-211.

Appendix

Lists of informants by categories

Government Agencies

Code	Government Agencies
G1	National Science and Technology Development, Ministry of Science and Technology
G2	Department of International Trade Promotion, Ministry of Commerce
G3	Department of Agriculture, Ministry of Agriculture and Cooperatives
G5	Department of Government Public Relation, Office of the Prime Minister
G6	Department of Business Development, Ministry of Commerce
G7	Department of Skill Development, Ministry of Labour
G8	Office of the National Economic and Social Development Board, Office of the Prime Minister
G9	Office of the National Digital Economy and Society Commission, Ministry of Digital Economy and Society
G10	Office of Industrial Economics, Ministry of Industry
G11	National Innovation Agency, Ministry of Science and Technology
G12	Department of Industrial Promotion, Ministry of Industry
G13	Office of SMEs Promotion, Office of the prime Minister
G14	Office of Vocational Education, Ministry of Education
G15	Office of Agricultural Economics, Ministry of Agriculture and Cooperatives
G16	Department of Agricultural Extension, Ministry of Agriculture and Cooperatives
G17	Office of the Basic Education Commission, Ministry of Education
G18	Board of Investments, Office of Prime Minister Office

Firms and Companies

Code	Sector	Business	Size
B1	Service	Bakery and Restaurant	SME
B2	Industry	Crowd-Funding and Startup	SME
B3	Industry	Medical Device Trades	SME
B4	Agriculture	Mushroom and Organic Rice	SME
B5	Agriculture	Organic Vegetables	SME
B6	Industry	Footwear	Large
B7	Service	Restaurant	SME
B8	Agriculture	Rice	SME
B9	Industry	Robotics and Automation	SME
B10	Industry	Robotics and Automation	SME
B11	Industry	Auto Parts	SME
B12	Industry	Auto Parts	SME
B13	Industry	Robotics and Automation	SME
B14	Industry	Auto Parts	Large
B15	Service	Chamber of Commerce	Large

Workers

Code	Status	Field of Employment
W1	Employed	Academic
W2	Unemployed	University Student
W3	Employed	Gas Pipe Construction
W4	Employed	Agricultural Business
W5	Unemployed	Student
W6	Employed	Leader of Trade Union