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ฉบับที่ 2 (กรกฎาคม - ธันวาคม 2563)

CHANGES IN PUBLIC ADMINISTRATION IN RESPONSE TO THAILAND 4.0 POLICY
การเปลี่ยนแปลงการบริหารของภาครัฐเพื่อรองรับประเทศไทยนโยบาย 4.0

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Abstract

Thai government has adopted a policy called Thailand 4.0 as a model that aims for economic development to enable the country to escape from a middle-income trap and unbalanced development. The purpose is to strengthen capabilities of the country to become a developed country by building inner strength, especially for the state sector. This sector is considered as a major actor in driving operations including policy-making, implementing and building collaboration in order to push products and services into industry and society for better quality of life. Therefore, the adjusted role of the state sector needs to improve itself and the structure of work system related to 4.0 Policy. This can be carried out through examining readiness of the state sector, recommendations through building public participation, constructing a smart work system to prepare personnel as a joint integration into a full-fledged high value-based economy to step into a developed country.

Keywords: Public administration / 4.0 policy / Changes

บทคัดย่อ

ประเทศไทย ได้มีนโยบาย 4.0 เพื่อเป็นโมเดลในการพัฒนาเศรษฐกิจ ให้สามารถหลุดพ้นจากกับดักประเทศรายได้ปานกลาง (Middle income trap) ความไม่สมดุลในการพัฒนา

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เพื่อเสริมสร้างขีดความสามารถของประเทศในการพัฒนาไปสู่ประเทศที่พัฒนาแล้ว ด้วยการสร้างความเข้มแข็งจากภายใน โดยเฉพาะภาครัฐ เป็นหนึ่งในเสาหลักที่ขับเคลื่อนการดำเนินงานทั้งการสร้างนโยบาย การนำไปปฏิบัติ การสร้างความร่วมมือ เพื่อผลักดันสินค้าและบริการเข้าสู่อุตสาหกรรมและสังคม เพื่อพัฒนาคุณภาพชีวิตให้ดีขึ้น ดังนั้นการปรับตัวบทบาทของภาครัฐจำเป็นต้องพัฒนาภาครัฐและพัฒนาโครงสร้างระบบการทำงาน ที่เกี่ยวข้องกับนโยบาย 4.0 โดยผ่านการตรวจสอบความพร้อมของภาครัฐ การเสนอแนะผ่าน การสร้างการมีส่วนร่วมของภาครัฐ สร้างระบบการทำงานแบบอัจฉริยะ เพื่อเตรียมความพร้อมของบุคลากร การบูรณาการร่วมกัน ไปสู่ระบบเศรษฐกิจมูลค่าสูงอย่างเต็มรูปแบบเพื่อก้าวสู่ประเทศที่พัฒนาแล้ว

คำสำคัญ : การบริหารภาครัฐ / นโยบาย 4.0 **/** การเปลี่ยนแปลง

Introduction

Thailand's middle-income trap means that Thailand has been disrupted in a group of the middle-income countries for a long time. It reflects the constraints on economic development such as lack of production efficiency and sufficient innovation to accelerate the growth rate of high-income as appeared in the past. The question then arises: how long Thailand will be in that trap and how to escape from the trap? This article will present a brief overview of the situation of the middle-income trap that Thailand is now facing through the studies of using state mechanisms driven along with proposing solutions to enable Thailand to escape from the trap within 20 years according to the goals of the National Strategy (2017-2036) (Suwit Mesinsee, 2016).

In the past, Thailand had seen multiple changes in the economic model, starting from “Thailand 1.0” that emphasized agriculture, then “Thailand 2.0” that focused on light industry, exploiting cheap labor and abundant natural resources in order to decrease dependency on import, then the current “Thailand 3.0” which more complex industry and foreign investment were attracted to use Thailand as a base for export. However, although “Thailand 3.0” resulted in growing economy, the “Middle income trap”, “wealth inequity” and “unbalanced development” were also noticeable consequences and represented current major challenges in moving to “Thailand 4.0”

In the early phase of “Thailand 3.0”, Thailand saw soaring economic growth rate of 7-8% which led to high hopes that Thailand would become a new industrial country like South Korea, Taiwan, Hong Kong and Singapore. Although everything seemed well at the time, Thailand 3.0 was not sustainable due to lack

of wealth accumulation and technology transfer, especially human development, and thus Thailand was viewed as “looked advanced but no development”, and entered into Thai Financial Crisis of 1997. After the crisis, economic growth has been 3-4% to the present day. This is a noticeable sign of the middle-income trap, called “competitive nutcracker” as Thailand became too advanced to rely on cheap abundant labor as it used to, yet not advanced enough to compete with advanced, highly-creative, innovation-driven competitors. Thailand was stuck in the middle, and has stuck since 1996 (Sarel, 1996 : 3)

Therefore, changes in the state sector are necessary. It was found that there are three types of strategies in the state sector of the countries in Asia to help cross over the middle-income trap (Wichan Chaiorn, 2016 : 2). The first strategy is to establish appropriate educational systems and organizations. The second strategy is to change the export structure based on comparative advantage. The third strategy is in relation to the state policies that promote an upgrade of industrial production. The difference among the three strategies is at the role of the state sector in industrial upgrading. Regarding the first strategy, the state only supports education and innovation. As for the third strategy, the state plays an active role in creating innovation. According to the second strategy, industrial upgrading relies on the role of the private sector. As for Thailand, when the government announced Thailand 4.0 Policy, its strategy was shifted to be the third strategy. Thus, this article will present the role of the state sector needed in response to Thailand 4.0.

The government of Thailand-- Readiness Check

According to Thailand’s readiness towards changes and in response to Thailand 4.0 Policy, the government needs to be developed in various aspects in order to facilitate the policy implementation most efficiently. The structure of infrastructure development must be checked so that the government will be able to fill these development gaps. The different fields of readiness will be discussed as follows:

Institutional, Infrastructure and ICT readiness

Due to turbulent political situation of Thailand in the last few years, elected governments were collectively unable to stay for the entire term, and lack of policy continuity with every cabinet change was noticeable. In addition, the economy at all levels (national, regional and global) was constantly fluctuating. As

a result, the public was more interested in survival rather than improvement, or when the public became genuinely interested in the latter, frequent government changes eventually dampened their determination due to discontinuous support.

Table 1 Ranking of institutional, infrastructure and ICT adoption factors in Thailand

	World ranking (from 140 countries)
Institutions	60
Infrastructure	60
ICT adoption	64

Source: World Economic Forum: The Global Competitiveness Report 2017-2018

Institutional readiness had significant impact on confidence in implementation of Thailand 4.0 especially in the current digital world, because if the state, management and overall process remained rigid and "old-school", escaping the three traps would be difficult if not impossible for Thailand. World Economic Forum's ranking revealed many critical obstacles in Thailand 4.0's readiness, such as poor institutional readiness (ranked 60th). Infrastructure problems as seen on the news, for example railway, were so visible Thai people were relatively familiar with. Thailand was ranked by World Bank (2017) in Ease of Doing Business (EoDB), which covered establishment to dissolution of business. This report was made for the first time in 2003 (EoDB, 2004), and used by entrepreneurs in comparing and choosing countries for investment, while the government used this index for service improvement. The latest report (EoDB ,2017) showed that Thailand ranked 46th from 190 countries, 9th in Asia and 3rd in ASEAN, only behind Singapore and Malaysia. The best ranking of Thailand was in insolvency solution (23rd).

State readiness

Thailand needs manpower development both in quality and quantity, notably development of skill groups needed for 4.0 industries and integration of personnel with other relevant agencies. This includes development of national economic and social structures into innovation-driven that can create new professions related to future industries, along with skill building (Namely IT, English language, creativity). Shortage of skilled worker can be remediated by restructuring

of Thailand's education system. According to World Economic Forum, Thailand's education quality is rather low compared to ASEAN neighbors, ranking only 6th, above Myanmar, Cambodia and Vietnam, while ranking 5th in Internet accessibility in education premises. It is thus unsurprising that Thailand's personnel lack virtually all skills needed for 4.0 developments.

Table 2 Ranking of Thailand's personnel quality compared to the world

	World ranking
Health	42
Skills	66

Source: World Economic Forum: The Global Competitiveness Report 2017-2018

Lack of scientific, technological, and effective resource management knowledge as visible in both public private sectors was a significant problem and thus digital literacy becomes a necessity in order to exploit new technology. Currently Thailand is severely lacking in digital personnel compared to neighboring countries: out of 50,934 software personnel (most are programmers), only 1,536 were specialized in embedded software. Furthermore, business analysts and software engineers were also in short supply, especially in government sector. To improve digital competency in state personnel for the 4.0 strategy, human resource development is highly critical (Digital Economy Promotion Office, 2017). In developed countries like the United States, STEM (Science, Technology, Engineering and Mathematics) has been highly promoted and supported in education, in addition to availability of a direct budget for scientific research (Whitehouse, 2011 as cited in Peerasit & Pinto, 2014 : 102), resulting in continuous development of technological skills.

Research and development readiness

According to World Economic Forum, Thai entrepreneurs had relatively low spending on research and development, ranking 6th in ASEAN, in concurrence with capacity for innovation which Thailand ranked 5th in ASEAN. However, Thailand was unable to connect demand of the industrial sector with academic research. In the view of entrepreneurs, many research works were not applicable in businesses. Many public institute researchers also conducted research only for their own advancements. Thus, the government needs to narrow this significant gap between the entrepreneurs and researchers. In some developed countries like

the Netherlands, Japan or the United States, research and development have been continually supported. With establishment of Global Innovation Index in 2018, the Netherlands ranked second, while the US ranked sixth, and Japan ranked 13th. On the other hand in the 25 most innovative countries, Singapore ranked sixth, South Korea ranked 12th and China ranked 17th, while Thailand ranked 44th (Dutta, Lanvin, & Wunsch-Vincent, 2018). Additionally, brain drain was a significant problem in Thailand's state organizations due to ability of private sector to draw highly-competent workforce, availability of private-sponsored scholarship, and relatively low income of civil personnel, which affected national development and creation of workforce for advanced industries (Woralak Sriyai, 2013).

According to readiness check on the government of Thailand, it found that Thailand needs to be developed to be in accordance with Thailand 4.0 Policy, which is in line with the studies of Thailand Development Research Institute (2013). The studies showed that the type of economic expansion of Thailand in the past or so called, "old model of development", may not be able to efficiently push forward the economy of Thailand both present and future. The reason is that Thailand's readiness lacks its holistic development such as productivity improvement in terms of workers' skills. Thailand has been trapped as the country that has encountered a shortage of cheap labour for many years and this will increase rapidly according to the country's population structure. In the meantime, the development of high-skilled workers is not enough. Thai education is still unable to produce skilled workers to meet market demands. Particularly, the competency level of Thai workers in language and information technology skills is low (Jiraprapha Akkarabavorn, Anuchart Charoenwongmit and Jaruwan Yonrakang, 2009). Consequently, businesses are reluctant to expand their investments and uncertain to use higher advanced technology, plus almost all-natural resources have been used and cannot be reused as a free input for economic growth. Maintaining macroeconomic stability is much more difficult than before since an exchange rate and the world economy are constantly fluctuating at a high level according to rapidly changing capital flows all the time. In addition, the constraints of the country's fiscal policy lead to lower ability in collecting taxes. As a result, the government sector more likely to encounter limitations on spending to increase the country's growth potential, especially a new round of investing in building infrastructure that will help Thailand become a truly knowledge-based economy. Meanwhile, there are the demands of society asking

businesses to take the cost of maintaining environment in various ways such as an ecotax, the cost of EIA and HIA, etc. Thus, business expansion would not be convenient as in the past.

For that reason, Thailand's public sector should adjust its operating model to be in line with 4.0 Policy, a new policy concept that reflects a new concept or way of management, to bring Thailand out of the middle-income trap and elevate the country to become a developed country. This is to say that the structural factors in pushing the country out of the middle-income trap include the development of innovation systems to acquire higher efficient production and the ability of sustainable competitiveness. Other factors include the development in education and labor market in response to labor demand in the economy and the development of institutional factors to support national competitiveness to be operated smoothly.

Recommendations for changing role of the government of Thailand towards the 4.0 Policy

Currently, the world has transitioned to digital economy or DE which sees the merge of technology with everyday life. Such economy is driven by innovative and technologically advanced industry, thus changing all economic activities from production, trade, service, education, healthcare and other social activities per concept by Bowornwathana,B. & Jones,L.R (2009). This is a challenge for the government, down to individual human interaction. As the government is the main contributor in transitioning the country to 4.0 era and a developed country where data management would be standardized and stored in integrated database and data was able to flow freely to facilitate activities, reform of government structures to handle Thailand 4.0, the state bureaucracy must adhere to the principle of good governance to the benefit of the citizens by preparing state personnel, integrating state organizations with other sectors to build public confidence in 4.0 policies. Infrastructure and regulation must be developed as the aforementioned growth requires government oversight and thus a clear administration guideline, a collective effort from all sectors, a stable information system, and a networked mechanism at all levels from the law, education and state policy.

Develop work structure related to 4.0 policies

The traditional structure that emphasized the role of government in national administration must be reformed to allow more participation from the private and civil sectors to handle increasingly complex problems that any individual sector could no longer fix, or to manage the country in cooperative manner. This requires ordering of structural relationship to accommodate horizontal relationship as a network rather than top-down chain of command. Internally, the government must be synchronized and connected at central, regional and local levels.

Table 3 Comparison of traditional and 4.0 public administration concepts

Traditional bureaucracy	4.0 Bureaucracy
Paradigm	
Vertical Approach	Horizontal Approach
Public Administrator	Public Entrepreneur
Passive	Pro-active
Rule-Based	Innovation
Intuition	Data-Driven, Demand-Driven, Actionable Policy Solutions
Hierarchy, Silo	Cross-Boundary Management
Administration	
Autonomy, Separation	Collaboration
Fragmentation	End-to-End Process Flow Program/Project Management Office
Government-Driven	Citizen-Centric
Office-Hours Only	On-Demand Services
Close System Upon Request Only	Open System
Routine Work	Non-Routine Problem Solving , Real-Time Capability
Expert/Specialist	Knowledge Worker & Beyond
Technology	
Analog	Digitization
Data Collection	Information, Knowledge & Resource Sharing
Outcomes	
Procedure-Oriented	Results-Oriented
Standardization	Customization, Personalization

Table 3 (Cont.)

Traditional bureaucracy	4.0 Bureaucracy
Paradigm	
Redtape, Costly	Creating Value for the Public , Doing More & Better with Less

Source: The information in table 3 was synthesized by the writer (2020)

The government must prepare supply and stimulate demand to foster competitive abilities in social, economic and public quality of life facets, reform basic infrastructure such as Internet accessibility or optimize the existing network, and reduce digital gap between rural and urban people through cooperation with Internet Service Providers, expansion of free Wi-Fi network, promotion of technological use and reduction of capital expense.

The government may also promote expansion of domestic market by optimizing the government system and stimulating ICT use. In case of developed countries, the basic infrastructure is reformed to accommodate national development and better user experience, service, public interaction, public and interagency service, and supervision in accordance with the principle developed by the ODPC (2017), which specified public-centric vision building, implementation of technology, cooperation with the private sector, streamlining of process, and clear definition of communication and responsibility. State development is described as follows:

Table 4 Examples of the State development in Public services in foreign countries

Project	Country	Project description
NYC 311	United States	Comprehensive, multi-channel, multilingual (over 180 languages) accessibility to government services
La révision générale des politiques publiques	France	Customer-centric national government administration reform
Altinn	Norway	Comprehensive business paper handling that facilitate the private sector and improve national competitiveness.

Table 4 (Cont.)

Project	Country	Project description
E-Gov Singapore	Singapore	Comprehensive E-government for all service sectors

Source: The Office of the Public Sector Development Commission (2019)

Promote government participation

The open and connected government must have high transparency and be accessible by the public, or is able to share data with other organizations, in concurrence with the study of Thipsarin Pakthanakul and Totsapol Chiaochanpradit (2016 : 99-123) found that the government has expanding its transparency and government data disclosure scope, including disclosing of important government data and politician asset, and outsourcing of some activities to the private sector and the civil society. Moreover, working relationship between the government and other sectors must be improved beyond simple coordination or co-working into genuine cooperation. This could be done by joint planning to collectively achieve the goal, pooling of resources, and risk and success sharing by drawing more participation from other sectors. In case of 4.0 industrial development, relevant associations may be called to work with relevant ministries and agencies, and exchange ideas with the private sector to keep the state operators constantly updated.

New laws must be enacted to accommodate open data policy for the state and private sector. This policy would create standardized data for general use and opportunities for digital society businesses, transparency, service and image-building in Thailand. The state may disclose its own, research and development, public enterprise and other information. The government must be citizen-centric and proactive, constantly asking “What would the public get from this?”, and focusing on reaching out to the public and addressing their needs. Big government data and personalized service must be used to the biggest extent, along with establishment of one-stop services with full connection between agencies. Also, the public must be able to use government service at any time and through any means, from personal contact to website, social media and mobile application.

Form a smart government

The government must be prepared in advance with risk analysis, innovation, intuition and application of multidisciplinary knowledge in order to build value, flexibility and ability to react to disrupting situations and be the highly-capable and digitized agency. As government supporter, the organization should provide practical, cost-effective advice based on correct, in-depth information. As supervisor, the organization must be honest and impartial, while able to formulate regulation and abolish redundant, useless regulations to reduce burden on the public or business per the principle of smart regulation by Schedler, K. & Proeller, I. (2007). According the principle, the entire working process is planned so that everything in the strategy chain is connected from the start to the finish with tight cooperation at all levels. This principle would save resources by virtue of efficient resource and service sharing.

In this case, the process, procedure and vision must have improved response to changes as the globalization as known is highly fluctuating, complex, unpredictable and unclear or VUCA (Volatility, Uncertainty, Complexity, Ambiguity). The current state mechanism may be unsuitable or unable to handle such changes as visible in current problems such as Illegal, Unreported and Unregulated fishing – IUU or climate change which the government is still unable to effectively tackle. Thus, planning of the new system should answer following challenges:

If Thailand is able to adjust public management to handle future changes, the country would enjoy the wealthy, stable and sustainable future in face of increasingly volatile, uncertain, complex and ambiguous world.

New challenges for the government under the 4.0 Policy

To push forward 4.0 Bureaucracy, it requires attitude change along with structural and regulatory reforms in order to respond quickly to citizens' needs and problems and also to serve as a main party in actively driving the country and encountering the world changes in the future. This also includes digital technologies being used in the government sector to aid in the development according to the concept synthesized by the writer as follows:

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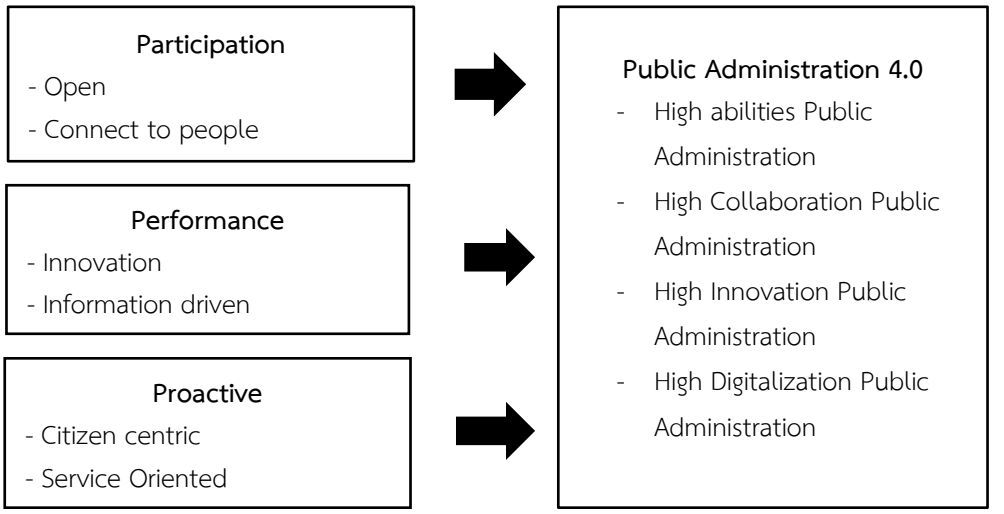

Source: The 3P-4H Concept was synthesized by the writer (2020)

Setting up new systems and new work methods adhered to public participation approach should be undertaken so that the government will be able to become a trustworthy institution and as a refuge for its people. The government must work properly, openly and transparently and the information related to their work should be accessible and checked by the public. The government sector also can act as an intermediary mechanism that engages other sectors of society such as the private sector and civil society to be part of their work and decentralizes their power by transferring missions that unnecessary being operated by the government to other sectors like in Malaysia (Schedler, K. & Proeller, I., 2007). The former Malaysian prime minister Najib Razak announced the new policy called, “New Economic Model (NEM)”, which entailed 7 strategies and one of them was changing in driving the economy by the state sector to be private sector and from centralization to decentralization. This is in accordance with the concept stated by Deunden Nikomborirak and team (2014), saying that the government should play a role as “steering”, not “rowing”. It means that the government should not compete with the private sector in conducting commercial businesses. Besides, if it is necessary that the government has to carry out services for the public interest, the private sector should be allowed to get involved in the provision of such services. Thus, in the future, the government should limit its role of investing specifically in infrastructure which will help upgrade the investment capabilities of the Thai economy and industries. In

addition, the government's investment efficiency in the future should be improved to be higher than in the past and investment power should be delegated to localities and more public private partnership should be carried out. Furthermore, the Thai government must be able to determine the directions of Thai economy in order to get out of the middle-income trap, and to make that happen, the work systems and concepts adopted in Thailand must be entirely overhauled.

To develop the government sector to be with high capability and performance as well as being modern (Smart Performance Government), the government itself needs to be well prepared in advance. An analysis, innovation or initiative creation and the concept of interdisciplinary fields integrated in problem solving should be made to respond to changes in various aspects in a timely manner and to become a productive organization to facilitate the implementation of its policies such as setting out new standards and indicators. This needs to begin with creating digital standards, determining performance indicators for self-evaluation and setting new standards for digital industries. As for partnership building, it must be established among industry sectors, business sectors, and especially between the private and public sectors. Such partnership will bring in new things, information and knowledge being passed on and transferred so that Thailand can be featured as an 'Open Economy', with liberal economic policies or no control over international trade. In addition, in terms of developing digital people, it means building personnel with good skills in using internet, equipped with digital literacy or expertise ranging from coding, management, and future workforce or skills for the future. This can be achieved by adding Reskill, Upskill, Newskill, which need to be driven and placed with a clear goal. As for developing digital economy and innovation, all industries and companies must carry out digital transformation, changing their organization to become a 'Digital Organization' by using Cloud, Data, etc. to move Thailand forward as a hub of innovation and push Thailand to grow and capable of becoming a regional or global hub of innovation. This is in line with the research conducted by The Asian Development Bank (ADB) (Thailand Productivity Institute and the Federation of Thai Industries, 2016). It stated that China faces various problems and risks such as the problems of productivity when compared to developed countries, a rapid rise in wages, growth relying heavily on the government investments and exports, widen income inequality, foreign countries'

resistance to China, rapid growth of China in the world economy and weaknesses of various institutions in supporting long-term growth. The report focused that China should increase productivity through innovation and upgrade industries in both public and private sectors. On the other hand, the government of China also has a policy to improve the level of industrial production by using technology to help elevate the country level and give support to personnel in the country. This policy is called, “Made in China 2025” in order to increase the efficiency of both the public and private sectors within the country to achieve higher capabilities.

The government sector standing firm with a proactive work approach by taking people as the center of services and accessibility to services, or in other words “being proactive at work and looking forward”, focusing on solving people’s problems by providing proactive services to meet people’s needs with the use of technology, employing modern digital systems in managing public services to meet people’s needs, is in conformity with the concept of using technology for the 4.0 Policy (Kasetsat University, 2016). In any case, the government must increase collaboration and coordination with stakeholders until it leads to innovation to produce a huge impact in response to people’s needs efficiently. The government needs to be able to entering digitalization in which data storage and processing will be performed through the system using shared tools to work together in order to facilitate the services provided by the government at any time, any place, on every device and every channel.

Conclusion

Economic development policy in Thailand 4.0 requires government and economic reform into “value-based economy” using technology and creativity, with more emphasis on service over production. The state is an important actor in promoting others to invest and research to improve national economy and industry and maintain competitiveness. In addition, digital system must be improved to world standard as 4.0 economy has digital technology as the main communication channel. Change or improvement of innovation, in conjunction with entrepreneur spirit building in the society, would be conducive to smart enterprise and new business model in the enabling ecosystem that allows even more innovation and creativity. The “Strength from within” concept is building robustness at the root or the community and, when combined with entrepreneur spirit, formulate social with opportunity mobility and competence. If the social

and economic structure is adequately strong, then they can be connected to the outside world. Domestic economy, if connected with the "Strength from Within" concept, would drive local empowerment through local trade and investment, local employment and then local ownership, which would release the country from the notorious two-decade-old middle-income trap. Such trap was defined by low innovation and development, and inability to increase product value by using technology, and was an important obstacle. If the government is able to accommodate the aforementioned policies, the state would have a major contribution to future economic drive through creativity, research and technology in line with the new economic model "Thailand 4.0".

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