

# A Comparative Study the National Strategic Plan between Thailand and China of the Ministry of Industry

Yu Zhao\*, Samart Deebhijarn, Amirhossein Taghipour, Navidreza Ahadi,  
Ornicha Norkaew

King Mongkut's Institute of Technology Ladkrabang, College of Educational Innovation Research

(Bangkok, Thailand)

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## Abstract

*The goals of this paper are (1) to discuss Industry 4.0 in detail and (2) to suggest political consequences for Thailand's shift towards Industry 4.0. Enterprises should take Industry 4.0 very seriously, since traditional production company models do not match the evolving Industry 4.0 technologies, as they develop their future projects. Rapid developments in industrialization and information technology have led to enormous advancement in creating production technology in the next generation. The Fourth Industrial Revolution is now under way. At this time, the absence of strong instruments is still a significant barrier to exploiting Industry 4.0's complete potential. For the realization of Industry 4.0, which presents distinctive difficulties, formal techniques and system techniques are particularly important. In this document we examine briefly the state of the art with regard to industry 4.0. In order to effectively convert the Thailand sector into sector 4.0, (1) the strategies implemented by central government to create financial and social systems that can react in a flexible manner to the changes need to be refined and elaborated; (2) a certain kind of operational scheme must be established that maximizes the efficiency of projects and policies.*

**Keywords:** National strategic plan, Ministry of Industry, Thailand, China

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## Introduction

The research of industrial policy reform in Thailand and China: Reality and practicality, has the objectives of:

In addition, Asean, in specific, Thailand, are offering possibilities to digitize manufacturing and attract foreign plants to migrate here for a connecting supply chain through latest US-China trade war and rising labor costs and automation in China. In the wake of Singapore and Malaysia, Thailand is one of the three major Asean nations ready to embrace the Industry 4.0 as these have complicated, big and export-driven sectors with help of public policy and technology infrastructures. Industry 4.0 is supported by five new techniques used throughout the production value chain. These are, IoT (Internet of Things), 3D prints, sophisticated robotics and wearables. However, the technology implementation of Asean producers is slow, due to low labor, absence of demand, lack of expertise, uncertain company cases, and complicated ecosystems for suppliers.

The fourth industrial revolution (Industry4.0 or i4.0) needs changes to the transformation at a speed which most companies do not match, according to fresh studies carried out by KPMG International. If companies proceed along the present path, KPMG warns that rivals and fresh market participants

are likely to disturb them. In order to satisfy today's manufacturing realities, KPMG now calls for the CEOs to develop a top-down approach and execute large-scale modifications (Shenkar, 2006). Doug Gates, Head of Global Industrial Manufacture at KPMG, commented on the study: "There are several organizations which are today breaking through i4.0 technology and have created holistic and end-to-end interconnection-our definition of the i4.0 maturity point. Most of these investments are still at the start phases, because of predicted cost savings. This is about more than effectiveness, but producers who don't adopt a new company model are likely to face threats to their survival very quickly. As companies execute single-project, cost efficiencies are quoted as evidence of the i4.0 conversion from physical crop modifications to the inclusion of information. During an early 2017 sample study by the University Dhurakij Pundit on 1,033 Thais, 59.66% did not realize what the present government in Thailand claimed to be Thailand 4.0(' Most Thais did not comprehend Thailand 4.0'), it was revealed. So, what is Thailand 4.0? (Davis, 2017). The easy response is that Thailand 4.0 is a creative, innovation based financial model, fresh technology, and high-quality facilities-a model used to increase the quality of life (Bussi& Khatiwada 2017). But with Thailand 1.0 (agriculture) mechanizing the farmers and increasing agricultural yields Thailand 2.0 (light industry) used low-cost labor to make raw materials for manufacturing or making, such as textiles and clothing, Thailand 3.0 (sophisticated sector) used to assemble and produce. Thailand 4.0 (sophisticated industry). According to Prime Minister Prayut Chan-o-cha of Thailand, the method is to investigate science, technology and innovation as a means of boosting the economy of Thailand with the focus on the manufacturing and agricultural industries, medical technology and government health, and the worldwide robotics industry trend (Wipatayotin, 2017).

#### **4. An Overview of Thailand 4.0**

##### **Thailand4.0 Definition**

The Thailand 4.0 agenda is an economic model based on creativity, innovation, new technology and high-quality services (Bussi& Khatiwada, 2017), which is used to boost the quality of life. Thailand 4.0 is however the next step in the evolution of Thailand's development, with Thailand 1.0 (agriculture) having been farmer mechanization and increased yields for agriculture, Thailand 2.0 (light industry) used cheap labor to turn raw materials into finished goods for production and manufacturing such as textiles and garments, Thailand 3.0 (advanced industry) was the assembly and production of products such as computer disk drives, electrical components, compressors, and automobiles for export (Jones &Pimdee, 2017).

##### **The national strategic plan forThailand4.0**

According to the Thai Embassy web site in Washington, D.C., the four stated objectives of Thailand 4.0 are as follows:

1. Economic prosperity: to generate an innovative, technological, and creative economy based on value. The model seeks to raise spending on research and development ("R&D"), to 4% of GDP, to raise the rate of financial development in 5-6% over 5 years and to boost domestic per capita revenue by \$15,000 by 2032 from \$5,470 in 2014 (Jones &Pimdee, 2017).
2. Social well-being: the creation of a culture that advances without laying behind anyone (including society) by realizing the complete potential of all culture. The objectives are to decrease social differences between 0.465 in 2013 and 0.36 in 2032, to turn entirely into a scheme of welfare within 20 years and, within a period of 5 years, at least 20 000 families will grow into' smart farmers.'

3. Rise of human values: the transformation in the First World of Thais into "Competent people of the 21st Century" and "Thais 4.0" Thailand HDI measurements under 4.0 will increase to 0.722 or the top 50 nations by 10 years to guarantee that at least five Thai universities will be ranking among the top 100 in 20 years' time (Putri&Nugrahedi 2018). Thailand HDI will be raised by 10 years.
4. Environmental protection: a living society that has a financial structure that can adapt to climate change and low-carbon society. At least 10 towns should grow into the most lively towns in the world and the risk of terrorism should be reduced.

#### **Problems facing Thailand4.0**

##### 1.Shortages of industry-ready skilled workers

Shortages of industry-ready skilled workers present one of the biggest challenges for the five core member countries of the Association of Southeast Asian Nations, ASEAN-5, as they strive to realize their economic visions (Tan & Tang, 2016). Disruptive technologies also threaten to render jobs obsolete in many industries, including those in information and communications technology (ICT) (Tan & Tang, 2016).

##### 2.Lack of management skills is a major problem of Thai SMEs

##### 3.Traditional production company models do not match the evolving Industry 4.0 technologies

##### 4. Where do companies begin with a holistic company transformation?

- Build a strategy from an angle office, not a floor. KPMG provides four keys to i.40 conversion.
- Redesign your organization to a value network from functional siloes.

Creating a vibrant culture which embraces fresh digital technologies for the company.

- Display your existing KPIs; it is high time to reconsider how achievement can be measured. The government's ambitious 20-year plan to accelerate growth in the Kingdom to a more sophisticated stage became a formal and certified domestic policy with its announcement released in Thailand 4.0 last week in the Royal Gazette.

##### 5. An Overview of Made in China 2025

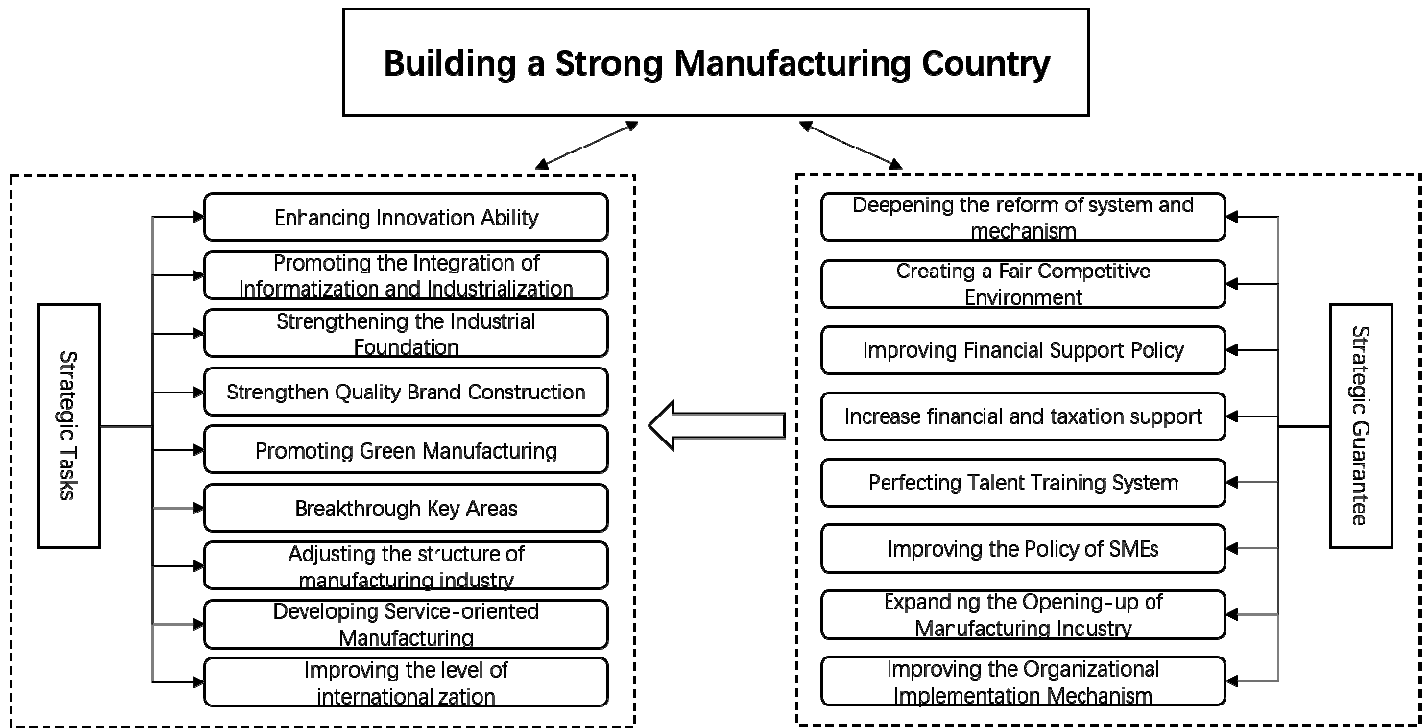
#### **Made in China 2025 Definition**

In this last decade, the industrial revolution began in the United Kingdom in the eighteenth century (Li 2018) and China has become one of the major manufacturing miracles. By the end of 2012, China became the world's second biggest producer and financial power in the world. Products produced in China range from high-tech items such as personal computers, mobile phones and consumer items such as air conditioners, have demonstrated the Made-in-China paradigm. China manufactured 286.2 million personal pcs in 2014, 109 billion air conditioners representing 80 percent of worldwide total, 4.3 billion energy-saving bulbs around 80 percent of world total and its portable telephony manufacturing accounted for just over 70 percent in 2014, according to the Chinadaily.com.cn report. China manufactured 286.2 million personal computers in 2014 (Li, 2018).

These figures show China's ability to produce much, from consumer products to technological gadgets, from children's toys to big ships. China looks forward to fresh production levels. Chinese production. In 2015 China published a ten-year "Madein-China 2025" domestic plan. This strategic plan sets out China's wish to transfer the value chain to a global industrialized force (Chinadaily.com.cn, 2015) by reinventing itself from a world-class manufacturing workshop.

The national strategic plan forMade in China 2025

##### 1. Content Framework of "Made in China 2025"



Made-in-China 2025 Strategic Framework

Source:Li, L. (2018). China's manufacturing locus in 2025: With a comparison of “Made-in-China 2025” and “Industry 4.0”. *Technological Forecasting and Social Change*, 135, 66-74.

**1. Guidelines, principles and objectives**

The guiding ideology of "Made-in-China 2025" is to adhere to the new road of industrialization, adhere to innovative development, accelerate the "integration of two modernizations", promote intelligent manufacturing, strengthen the industrial base, improve the level of comprehensive integration, and improve the multi-level talent system, so as to realize the transformation from a manufacturing power to a manufacturing power. In the process of implementing the strategy, we should take "innovation-driven, quality-oriented, green development, structural optimization and talent-oriented" as the guiding principle; adhere to the "market-oriented, government-led; based on the current, long-term; overall promotion, key breakthroughs; independent development, open cooperation" as the basic principle; and adopt the "three-step" strategy. From entering the ranks of the world manufacturing powers to reaching the middle level of the world manufacturing powers as a whole, to finally realizing the comprehensive strength to enter the front ranks of the world manufacturing powers, we should build up a global leading technology and industrial system with innovative leadership and core competitive advantages in the main fields of manufacturing industry, and comprehensively realize the strategic objectives of the manufacturing powers.

**2. Strategic Tasks**

To ensure the effective implementation of Made-in-China 2025, it is necessary to deploy specific strategic tasks in key areas and key links on the basis of overall planning, including the following nine aspects: (1) Improving national manufacturing innovation capability. Nowadays, the innovation of manufacturing industry has become the focus of competition for global market in all countries of the world; (2) Promoting the deep integration of industrialization and informatization.

It is an inevitable choice for a powerful manufacturing country to further promote the "integration of the two modernizations" and promote the transformation and upgrading of traditional industries and the innovation and development of emerging industries by using information technology; (3) to strengthen the basic capabilities of industry. Strengthen the basic industrial capacity is the key to cultivate new economic growth points, which is of great significance to safeguard economic development and national security; (4) Strengthen quality and brand building. Quality and brand is an important part of product market competition, which is related to the image and reputation of enterprises and countries; (5) To implement green manufacturing in an all-round way. Sustainable economic development should be coordinated with the natural environment, promote green manufacturing in an all-round way, and provide guarantee for the construction of "two-oriented society"; (6) vigorously promote breakthroughs in key areas. Only by strengthening core technology in key areas and strengthening independent intellectual property rights can we avoid being subjected to others; (7) Promoting the structural adjustment of manufacturing industry in depth. The unbalanced structure of manufacturing industry, excess capacity and low quality and efficiency have seriously hindered the development of manufacturing industry. Promoting the transformation and upgrading of manufacturing industry will be conducive to the sustainable development of economy. (8) Actively developing service-oriented manufacturing and productive services. Continuously expanding the industrial scale of producer services to meet the demand of manufacturing industry for intermediate input products in service industry is conducive to achieving coordinated development of services and manufacturing; (9) improving the level of internationalization of manufacturing industry. By opening up and cooperation, we can make full use of the two markets and resources to improve the status and voice of Made-in-China in the international market (Huimin, Wu, Yan, Huang, Wu, Xiong, & Zhang, 2018).

### **3. Strategic Guarantee**

To ensure the effective implementation of the "Made in China 2025" strategy, it is necessary to provide necessary support and guarantee from the aspects of institutional arrangements, resource allocation and policy matching. Thus, Made-in-China 2025 puts forward eight safeguards: (1) Deepening the reform of system and mechanism. Accelerate the transformation of government functions, give full play to the leading role of the market in resource allocation; (2) create a fair competitive market environment. We should ensure that there is a certain degree of regulation, strictly guard against "offside" and "vacancy", improve the market access system, simplify the examination and approval process, and strengthen supervision and management; (3) improve financial support policies; (4) increase financial and taxation policy support. Through fiscal and taxation policies and financial support policies, we can reduce financing costs, optimize financing structure and broaden financing channels to solve financing problems for enterprises, which is conducive to the formation of a benign interaction between virtual economy and real economy; (5) improve the multi-level personnel training system. Establish and improve a scientific and rational mechanism for selecting, educating and employing people, and achieve the goal of strengthening the country through talent leadership; (6) Improve the policies of small and medium-sized enterprises. Small and medium-sized enterprises (SMEs) have contributed a lot to the growth of the national economy. They should provide financial support for the development of SMEs, share scientific research resources and improve public services in an all-round way to release their positive role in economic development; (7) further expand the opening of manufacturing industry to the outside world. The introduction of technology, equipment, funds and talents can be achieved through institutional reform, relaxation of market access conditions, and creation of a transparent, stable, convenient and predictable market environment; (8) sound organization and implementation mechanism. Leading groups should be set up, supervision and evaluation mechanisms should be improved, and objectives and tasks should be adjusted timely according to the stage assessment of the implementation of strategic planning, so as to achieve the continuous improvement and

optimization of strategic development planning (Wübbecke, Meissner, Zenglein, Ives, & Conrad, 2016).

### **Problems facing Made in China 2025**

For China, the mission is not just the continuation of "Made-in-China" trajectory, as Germany and the US succeeded over many decades, but a continuation of the "made-in-China" journey from big to mega. "Made in China 2025" has defined goals and execution concepts including promoting advanced technology through R&D, reduce the build-up of intellectual property rights, set distinct technical standards, improve market access for foreign investors, boost Internet Plus, and encourage output and economic development. Three key factors are recognized: production capacity, research and growth and human capital. This finding offers a response to our second issue: the crucial factors in the execution and support of the 'Made-in-China 2025' strategy (Xu, 2018). At present, the "Made-in-China 2025" strategy has entered the stage of full implementation, and its development effect has also shown preliminarily. However, in the process of comprehensive promotion, there are still some problems hindering the implementation of the strategy.

#### **1. The ability of independent innovation needs to be improved**

Although China's scientific and technological innovation has achieved remarkable results in recent years, the situation that key core technologies are subject to human beings has not been fundamentally changed. A large number of core components, system software and high-end equipment are highly dependent on imports. Compared with advanced manufacturing countries, there are still some gaps in R&D investment and innovation system construction of Made in China, and the ability of independent innovation needs to be further improved. The government departments 'insufficient investment in basic research and common technology research and development leads to the weakening of the main body of industrial common technology research and development and industrialization. Lack of basic research and common technology will lead to the failure of critical, breakthrough and subversive innovations. China's manufacturing innovation system needs to be improved. Most of China's manufacturing enterprises have low autonomy and activity in technological innovation, and have not formed a manufacturing innovation system with enterprises as the main body. In addition, because scientific research institutes, universities and enterprises have different evaluation mechanisms and interest orientations, their respective innovation activities are severely divided, and the effective mechanism of cooperation innovation between industry, University and research has not yet been formed.

#### **2. The match between supply and demand of talents needs to be improved.**

In recent years, the total amount of talent cultivation in China has been expanding, but the quality and efficiency of talent cultivation still need to be improved. There are structural contradictions between the surplus supply of middle and low-end talents and the insufficient supply of high-end technical and skilled talents. At present, there are some main problems in talent cultivation in China: (1) attaching importance to theoretical education while neglecting thinking and practice; lacking of exploratory, operational and reflective active learning in the process of learning; the integration of production and teaching needs to be deepened continuously; (2) the specialty setting is narrow and distinct, and the teaching content is relative. Lagging, failing to timely update curriculum content and open new teaching subjects in accordance with the new situation of manufacturing industry development, training professionals matching key areas of manufacturing industry development; (3) schools have their own system, lack of sharing of high-quality educational resources, single content and form of cooperation between production, teaching and research parties, joint education and collaborative innovation The mechanism needs to be improved. The supply of talents in Colleges and universities does not match the demand for talents in the market under the new situation, which hinders the innovation and development of enterprises and the improvement of production

efficiency, and is not conducive to the realization of "talent leadership" and the construction of a powerful manufacturing country.

### **3. The investment structure still needs to be adjusted.**

At present, there are some imbalances in China's investment structure in state-owned investment and private investment, domestic investment and foreign investment. The rapid growth of state-owned investment and the slump of private investment have evident crowding-out effect on private investment, which will lead to the reduction of private capital's investment willingness to domestic manufacturing industry, the shift from domestic to foreign investment, and the imbalance between domestic investment and foreign investment. In addition, there are structural imbalances in China's virtual economy and real economy investment (Buysse, Essers, & Vincent, 2018).

Because Made-in-China is still in the middle and low end of the value chain in the international market competition, it is difficult to produce high return on investment. Influenced by the profit-seeking nature of capital, social capital will be "out of reality" to "out of reality". The unbalanced investment structure and a large amount of social capital will make domestic investment turn to foreign investment, which will make it more difficult for manufacturing enterprises to raise financing costs, make the transformation and upgrading of manufacturing industry unable to obtain sufficient financial support, and prevent the development of technological reform and scientific research and innovation activities. This will lead to the development of Made-in-China 2025. The implementation of the exhibition strategy and the realization of a strong manufacturing country have a serious impact.

### **4. Obstacles**

1. Building social safety through equitable revenue, chance, and richness allocation, which acts in accordance with an approach to unlocking Thai people from the trap of inequality, "moving on together without laying behind anyone."

2. Sustainability to release Thai people from a balance trap through environmentally-friendly growth (Green Growth Engine).

"Many businesses in Thailand are striving to maintain pace with the changes and make the needed technological adoptions. In particular, this is the case in Thailand's staple agricultural and food industry. According to a research by the Thai Chamber of Commerce University less than 3% of tiny companies and less than 5% of medium-sized enterprises are regarded to belong to the digital 4.0 age. The Thailand 4.0 government system is hopefully going to assist move the Thailand sector in the correct direction. What is essential is that businesses understand that they have to prepare for the future. They should develop a large-scale approach that best matches their company's requirements (Joselito, & Aimee, 2018). Thailand 4.0's key areas emphasize "safety, prosperity, and sustainability." Politicians already classified as a high-middle-income nation think the Kingdom will become the high-income country in terms of the approach to follow. Whereas the corridor industry is the focus of business media and analysts, the government is also committed to making this zone an environment for greenery with clever, ecologically-friendly cities and cities.

In the Province of Rayong, the state renovates and expands the U-Tapao airport to an international airport where more than 100 million travelers can travel every year and connect via a rail network with the other two global Bangkok airports.

Multinational companies like Airbus and Rolls Royce are partnering with THAI Airways in the growth of a state-of - the-art U-Tapao airplane maintenance, repair and refurbishment plant to guarantee the Kingdom is the largest aviation center in the area.

Aviation and aerospace are among 10 Thailand 4.0 sectors supported with unique stimulus and investor privileges by the Government and the Investment Board.

The other sectors include car, smart electronics, sophisticated and biotech agriculture, food processing and tourism, digital technology, robotics, logistic systems, biofuels and biochemicals as well as medical products.

Thailand undergoes financial change to become an economy that is valued and driven by innovation under Thailand 4.0. In transforming the nation, the government understood the significance of Internet of Thing (IoT) and supported IoT adoption and international investment in associated sectors tremendously. Thailand is aiming to be one of Asia's preferred investment destinations by initiating several projects and incentives, such as Digital Park and SMART Visa over the years.

Thailand 4.0, which has split into two wide classifications:

1. Opportunities and investment patterns in 10 targeted sectors First 5 S-Curve sectors: Automotive, smart electronics, advance farming and biotechnology, food processing and Tourism Next generation are aimed at improving the competitiveness of the country's present strengths by technological innovation.

2. Five new sectors of S-Curve: the fields of digitals, robotics and automation, aviation and logistics, bio fuels and biochemical products as well as medical storage have a desire to create five extra sectors in order to accelerate new industrial base development 2018, Focusing on 5 new sectors in the S-Curve.

IoT and Artificial Intelligence are in Thailand's digital sector, which may offer foreign investors the opportunity of creating IoT solutions for various sectors in Thailand. Thailand's IoT expenses are currently primarily concentrated on the manufacturing and logistic sectors, with comparatively small agricultural expenditure. However, agriculture represents 40% of jobs and 10% of GDP. The state is definitely paying attention to agriculture as it actively incentivizes companies to make farming 4.0 more workable. In the following 1-3 years, 50% of Thailand's producers plan to adopt automation technologies. Another promising industry for IoT and blockchain solutions suppliers is the aviation and logistics industry. Thailand intends to become an ASEAN logistics hub. With EEC, in aircraft and carrier technology integration will require quicker and more detailed paths across the nation between ports, airports and industry clubs. The three global airports, U-Tapao, Don Mueang and Suvarnabhumi, are also planned to be able to develop high-speed trains.

Thailand is a major agricultural exporter in the world and is planning to investigate the possibilities in the biofuels and biochemical sectors. A 10-year plan for the establishment of a bioeconomic center has lately been introduced. Private and personal investment is projected to achieve 11.3 billion dollars. They intend the production, with the sugar cane and cassava goods, of biofuel, biochemical and bio-pharmaceutical. In the next few years, exports of bioplastic products are projected to boost and biotechnology is required.

Thailand is also intended to be the ASEAN health hub. Service robotics have been integrated in several clinics in the nation. Today, the amount of medical facilities imported from other nations is significantly dependent-up to 87% of it being imported. This would give investors chances to develop health-related innovations and medical technology with high market demand. Thailand is experiencing a transformation of the digital economy. It has become one of ASEAN's most rapidly expanding IoT markets. The government's support for IoT implementation and its active promotion of foreign investment in associated sectors clearly predicts an increase in the demand for IoT technology, particularly in the 10 target sectors.

Thailand has been in the best place to grow IoT due to growing demand for IoT technology in multiple sectors, the rapid construction of infrastructure to include the shift to the digital economy, the accessibility of talent and the assistance of the local governments.

## **CHINA**

In 2013 Germany released a strategic "Industry 4.0" (Branger and Pang, 2015) from the leading industrialized nation. Known for many of its famous brands, Volkswagen, BMW and SAP, the worlds of major companies have underlined its innovative power, enabling it to be constantly



reinvented (Branger& Pang, 2015). This research has been based on information from the World Bank and China's National Statistics Bureau and has analyzed China's production potential in 2025. We concentrate on two issues of studies, and I what the distinction is between the "Made in China 2025" plan from China and the "Industry 4.0" plan from Germany? And (ii) which are critics of how the "Made in China 2025" plan is implemented or supported?

One of the significant contributions of this research is the identification of critical factors affecting Chinese financial growth during the digital age. The significant source of Chinese social-economic change in the previous 30 years is discovered in three key indices (production capacity, human capital and R&D). Chinese production capacity, human capital and R&D engagement will continue to affect China's 'Made-in-China 2025' execution. These indices assist us to recognize the links between socio-economic modifications in developing markets such as China and technological entrepreneurship.

In addition, China's acquired experience can be reflected in advancing its technological entrepreneurship by both emerging countries and developed countries.

4th January. Manufacturing capacity Production capacities including GDP, GDP proportion, net foreign direct capital flow and high technology exports are key skills to implement the "Made in China 2025" effectively. Manufacturing capacities in the recent three decades, China has become an industry machine that has produced and assembled approximately 90% of the products produced worldwide from an agriculture-based economy (Li, 2018).

The fourth.3. China, the human capital, is a country renowned for its educational enthusiasm. The idea of the significance of workers in "Made-in-China 2025" coincides with this mentality. The accessibility and expertise of the workforce are the main elements contributing to the competitiveness of production.

When China began its financial reform in 1978, only 18 percent of the total inhabitants were urban inhabitants (Li, 2018). In 2015, the metropolitan population in China is slightly more than 12 per cent higher than the rural population.

Hundreds and thousands of university graduates who have contributed to financial growth have been grown and educated by educational organizations. Chinese investment in education, research, technology and innovation has been demonstrated by the statistics on college graduates, graduates and revised students overseas.

The United States has successfully attracted millions of global talents to build its high-tech and manufacturing industries. Chinese sectors need professional experts from all over the globe to contribute to their knowledge and creativity in implementing the 'made-in-China 2025' plan to support their development. The dramatically increasing amount of university graduates and returnee students in foreign countries show a promising image of China's ability to attract top researchers and innovators from all over the world.

This ambitious strategic plan combined with China's difficulties (Zhang et al., 2014) China has been squeezed away by emerging low-cost manufacturers such as Vietnam, Cambodia and Laos, on the other side. China is now not the lowest-cost labor market. On the other side, in this high-tech arena, China is not the greatest player. The US, Germany, and Japan, all advanced industrial economies have implemented digital technology efficiently in order to generate new manufacturing environments, generate new products, and upgrade their well-established brands. A latest study by the New York Times shows China's high-tech skills (Markoff & Rosenberg, 2017). A well-known investigator in Artificial Intelligence softly reminded Microsoft that two years previously than its US counterparts, Baidu (Chinese version of Google) attained the same precision in the Chinese language of artificial information. Chinese businesses and public labs invest heavily in artificial intelligence. In short, the enhancement of production capacity, investment in studies and development and human resources gives China a head starts in turning into practice the "Made-in-China 2025" strategy.

## **Conclusion**

Its guiding principles are improved industrial capacity by innovation-oriented production, quality over amount, green development, Chinese industries structure optimization, and human talent promotion. Both plans recognize the manufacturing of the Internet of Things, using digital production networking to produce intelligent manufacturing systems both for the clients and the vendors within and without the plant and to establish a extremely responsive, innovative and competitive international manufacturing environment.

The globe anticipates the fourth industrial revolution driven by state-of - the-art technology. We have found several study lacunae that are worthy of additional studies in the process of comparing Industry 4.0 and Made in China in 2025. First, more research requires to be done to know the management effects and strategic benefits of cooperative science and innovation involving more than one nation.

Secondly, more study is deserving of the gap between the economic and social effect of cooperative development. Third, study into the future can distinguish global R&D outcomes from various company operations, such as outsourcing production, research and development, cooperation, licensing and joint enterprise. Lastly, more study from areas that are outside of significant emerging economies such as BRIC (Brazil, Russia, India and China) is required as regards geographical coverage. More attention is needed in latest years in the emerging economies of South Africa, Vietnam and Hungary that have contributed to the global economy.

The following political consequences have been suggested in order to effectively translate the Korean sectors to the next level of Industry 4.0 (or the Fourth Industrial Revolution as it is known by the government).

(1) In order to create financial and social systems which can react with flexibility in response to change, the policies of the Central Government of the IV Industrial Revolution or Industry 4.0 should be refined and developed. A thorough study of the government's projects demonstrates that individuals acknowledge adverse financial and social circumstances as follows: - Slow financial recovery owing to slow national demand- Risk of a family debt risk- The Diversifying Social Structures through low birthrates, earnings instability, work / family imbalances

(2) The Commission notes that there is a real difference between the rates of interest and trade security.

(3) It is essential to establish the infrastructure for all the projects – to strengthen the competitiveness of smart information-communication technology as the main driver, prioritize investment assistance and build an ecosystem through particular and comprehensive strategies which cover local governments, sectors, institutions, study institutions, universities as well as social culture and the economy.

Respond to new kinds of work, jobs, social network, formulate systems improvement plans through ongoing social change debate, for instance morality.

Economic policy should be ready to cope with in order to minimize polarization owing to work modifications and income disparities.

(4) It is necessary to set up some sort of operational scheme to make the projects and policies more effective. A cooperative platform must be set up in order to guarantee the efficiency of policies and to coordinate such measures in promoting synergistic impacts (Recently the 4th Industrial Revolution National Strategy Committee as a control tower was formed).

.. A scheme for management of results and tracking of all projects is recommended to continue promoting synergies and impacts of diffusion between the strategies.

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