

Comparative Study on Development Policies of Startup Business in Indonesia and Singapore

Anang Setiyawan*

Law Faculty
Universitas Sebelas Maret
Surakarta, Indonesia

*anang.setiyawan.sh@gmail.com

Ilham Aji Pangestu

Management & Business Faculty
Universitas Islam Syekh Yusuf
Tangerang, Indonesia
i_ilham16@yahoo.com

Abstract—Industrial Age 4.0 has driven the growth of start-up companies rapidly and the existence of start-up companies in the world has become a new economic basis for countries. The start-up industry is able to encourage new innovations, research, create new jobs and absorb more labour and increase national economic growth. In Southeast Asia, the value of the digital economy currently reaches \$ 72 billion and is predicted to increase to \$ 240 billion by 2025. The government has a role to regulate, create, develop and accelerate start-up companies to become a new economic foundation and absorb the maximum potential of digital economic value. This study would like to see how Indonesia & Singapore formulate policies and regulations to develop start-up companies as their economic potential sector. The results of the study can be an input to policymakers to regulate and accelerate their economic sector by using right policy.

Keywords—*startup; policy; economic; backbone; industrial age 4.0*

I. INTRODUCTION

Industrial Age 4.0 has driven the growth of start-up companies rapidly and the existence of start-up companies in the world has become a new economic basis for countries. The majority of developed countries encourage knowledge-based entrepreneurship for long-term purpose. There are several reasons why a country must encourage this new economic base, as follows; first, in the innovation creation, start-up companies can be the main driver and increasing the productivity of the community with knowledge-based, besides that start-up companies are able to contribute to developing technology and the environment. Secondly, in the long run, start-up companies are able to create broad employment opportunities and increase a country's economic growth.

Thirdly, start-up companies are regarded as the most dynamic economic organizations on the market because they are able to create a dynamic and competitive economic system. fourth, Start-up companies promote innovation-research systems - technology-based companies because they are closely related to knowledge institutions that enable the creation of ecosystems that can encourage research, innovation, development, and realize new ideas in society. In addition, this field has an impact on wealth creation, better standard of living and of course increasing a country's GDP [1,2].

According to Google and Temasek study, the value of the digital economy in Southeast Asia currently reaches \$ 72 billion and is predicted to increase to \$ 240 billion by 2025. The Study note that this growth has been driven by 350 million internet users in Indonesia, Singapore, Vietnam, Thailand and the Philippines. This growth is also driven by e-commerce companies such as Lazada, tokopedia, shopee and other types of technology-based companies engaged in online advertising, gaming and subscription music and video on demand. The growth of Indonesia's digital economy in 2025 is expected to reach \$ 100 Billion, this growth is higher than other Asian countries such as Thailand which only reached \$ 43 Billion, Vietnam which only reached \$ 33 Billion and even Singapore for only \$ 22 Billion.

The large potential of the digital economy makes a knowledge-based economy as a new national economic field for all countries to increase their national income. The government has a role to regulate, create, develop and accelerate their start-up companies to become a new economic backbone and absorb the maximum potential of digital economic value. This study would like to see how Indonesia & Singapore formulate policies and regulations to develop start-up companies as their economic potential sector. The results of the study can be an input to policymakers to regulate and accelerate their economic sector by using right policy.

II. STARTUP BUSINESS IN INDONESIA

Internet users in Indonesia are close to 150 million and more than 60% are online transactions. That factor makes start-up companies, especially technology-based, well developed and be able to produce multiplier effects on many other businesses, especially in small and medium enterprises. In 2018 Indonesia had 992 start-ups that had grown from 35 start-ups in 2007 spread across 10 provinces and had absorbed 55,903 workers, even according to the start-up ranking site, Indonesia is currently ranked fifth in the world and already has 2110 start-ups [3].

According to Mikti and Teknopreneur's study, the start-up business in Indonesia is dominated by e-commerce (35%), fintech (5.34%) and games (5.54%). The majority of the start-up business sector is owned by the Micro business scale (52.97%), small scale (32.01%), medium (11.90%) and large scale (3.12%) [3].

In addition, Mikti and Technopreneur also mapped the problems faced by start-up businesses in Indonesia. The main problems faced by businesses in this field were capital (38.82%), HR problems (29.41%), facilities (15%), regulations (8.82%) and market problems (7.94%). However, according to data on expectations for the government, it is known that the entire scale of the business even on a big scale of 100% hopes that government regulations will support and encourage the development of their business fields [3].

In 2015, the Government established the Indonesian Creative Economy Agency. This agency helps the president to formulate, establish, coordinate and synchronize policies in the creative economy. Through this agency, the government hopes that the Indonesian economy will no longer rely on natural resources exploitation but will rely on human resources through creative ideas.

Bekraf has the vision to build Indonesia as one of the world's economic powers in the creative economy in 2030. To achieve this vision, Bekraf designed six major missions, namely; first, merging all assets and creative potential of Indonesia to achieve an independent creative economy. Second, creating a conducive climate for the development of creative industries. Third, encouraging innovation in the creative field that has added value and competitiveness in the international world. Fourth, opening people's insight and appreciation of all aspects related to the creative economy. Fifth, build awareness and appreciation of intellectual property rights, including legal protection against copyright and Sixth, design and implement a specific strategy to place Indonesia on the map of the world's creative economy [4].

To realize this, the government collaborated with various parties to develop various programs aimed at developing, improving everything related to the development of start-up businesses such as BEKRAF for pre-Start-up, 1000 Start-ups, BEKRAF Developer days, UKM Go Online [4]. 1000 Start-up is a movement initiated by KIBAR with the support of the Ministry of Communication and Information to realize Indonesia's potential to become The Digital Energy of Asia in 2020. Bekraf Developer Day (BDD) is a program held to bridge developers with the latest technology platforms to develop digital products, especially in the application, game, web and internet of things subsectors [5]. While UKM go online is an effort to encourage SMEs to switch to and use digital platforms with the aim of reaching a wider market [6].

In 2017, the Government made a policy on an electronic-based national trade system roadmap through Presidential Regulation No. 74 of 2017. Through this policy the government aims to provide strategic guidance in order to accelerate the implementation of the e-commerce roadmap for the period 2017-2019. The national electronic-based road map system trade program has 7 pillars, namely:

- Funding,
- Taxation,
- Consumer protection,
- Education and human resources,

- Communication infrastructure,
- Logistics
- Cyber security.

Regulations to support this policy are still not finished, until now the government can only complete 10 regulations from around 64 targeted regulations. Regulations that have been completed include;

A. *Funding*

- The Minister of Communication and Information Regulation that supports the utilization of Universal Service Obligation funds (USO) I Perkominfo No. 10 2018
- Tiered opening of Negative Investment List Perka BPS No. 19 2017 (KBLI)

B. *Taxes*

- An incentive scheme for venture capital companies that invest in business partner companies that meet certain criteria, including e-commerce companies PMK No 48 /PMK.010/2018
- Tax rules Implementation for business actors with the amount of business circulation up to Rp. 4.8 billion per year, PP No. 23 Tahun 2018

C. *Consumer Protection*

- Provisions on the Arrangement of Facilities for Processing PBI Payment Transactions No.18/40/PBI/2016 and PBI No. 19/8/2017 (PBI NPG)
- Conceptual design of the National Payment Gateway development including to support electronic-based trading services (e-commerce) I PBI No. 19/8/2017 (PBI NPG)

D. *Education and Human Resources*

E-commerce material that is integrated into capacity building material for policy makers

E. *Telecommunication Infrastructure*

Free domain and speed of internet access to support the e-commerce growth.

F. *Cybersecurity*

- Decree of the Coordinating Minister for Economic Affairs regarding the establishment of Road Map Management SPNBE 2017-2019 Kepmenko No. 213 Year 2018
- Individual experts and / or business entities of the Executive Management

Considering that the regulatory progress needed to implement an electronic-based national trade system is still far from the planned target and the time period already at the deadline, the national electronic-based trade system policy in

the 2017-2019 period will not be effective because the existing regulatory system is not yet optimal in helping, encouraging, regulating and resolving problems faced by these business people.

III. STARTUP BUSINESS IN SINGAPORE

Although in Singapore the population is smaller and in quantity the number of Singapore start-ups is below Indonesia, Singapore still grows as a technology-based start-up magnet in Southeast Asia. Singapore has a business and financial structure that supports and makes Singapore considered the right place to start a business and make a global impact [7]. There are several achievements that make Singapore considered the right place to start a business, namely this country has the top rank for global start-up talent, Singapore is considered as a place to start a business according to world bank criteria and as a start-up business ecosystem connected worldwide [8].

In 2007, the Ministry of State for Trade and Industry Singapore established SG Start-up (SGS) which was intended as an umbrella in order to unite supporting schemes for the start-up business sector in Singapore [9]. In the same year, Singapore introduced the Global Innovation Alliance (GIA) which allows more information exchange and encourages the joint creation of various innovations and ideas as well as strengthen Singapore's connections to major innovation centres around the world, making it possible to connect Singapore-based start-ups with various ecosystems to find partners, new businesses and more [10].

SG Start-up has three program categories, namely;

A. For Startup and Founder

1) *Startup SG talent*: This program makes the Environment more conducive for global talents to start innovative businesses and for startups to attract talent to be part of their team.

2) *Startup SG founder*: This program provides guidance and capital grant for first time entrepreneurs with innovative business ideas.

3) *Startup SG tech*: The program provides a fast track for developing proprietary technology solutions, and catalyzes the appropriate growth of startups on proprietary technologies and scalable business models. Through this program, companies can receive initial funding for the commercialization of exclusive technology.

4) *Startup SG accelerator*: The program supports incubators and accelerators in the strategic growth sector as a catalyst for growth opportunities for startups that drive high through programs, guidance, and the provision of their resources. This program provides funding and non-financial support for these partners to further improve their programs and expertise in maintaining successful startups.

5) *Startup SG equity*: This program provide funding support for investor as co-investment opportunities.

6) *Startup SG infrastructure*: This program provides a new space for startups to grow experiment and develop.

7) *Startup SG loan*: This program is government-backed loans for working capital, equipment / factory financing and trade financing needs, which are offered through Participating Financial Institutions.

B. For Investor

1) *Startup SG investor*: This program is an incentives tax for individuals or fund management companies that are actively investing in startups and/or other Singapore companies.

2) *Startup SG equity*: This program provide funding support for investor as co-investment opportunities.

3) *Startup SG infrastructure*: This program provides a new space for startups to grow experiment and develop.

C. For Incubators and Accelerator

1) *Startup SG accelerators*: Program supports incubators and accelerators in the strategic growth sector as a catalyst for growth opportunities for startups that drive high through programs, guidance, and the provision of their resources.

2) *Startup SG infrastructure*: This program provides a new space for startups to grow experiment and develop.

In addition, the Singapore government has several other programs to attract start-up entrepreneurs [11], including:

a) *Enterprise development grant*: This program is managed by SPRING and starts running in 2018, this grant program will provide financing of up to 70 percent of the company's costs.

b) *Entrepreneur first*: This program makes it possible to make business through well-known partners, this program allows start-up companies to connect business ideas with other partners. This program helps start-up companies to guide start-up businesses from the beginning with 3 stages, namely pairing with professional founding partners, then lifting the initial start-up to the first seeding / nursery round, then accelerating the journey as a complete company.

c) *Muru-D*: This program uses globalization to scale up start-up companies with the support of Australian telecommunications companies, Telstra, muru-D enabling start-ups to scale up with local and international guidelines. The company offers a six-month accelerator program equipped with initial capital of around US \$ 57,000, mentorship, networking, office space, and master classes. The Singapore program is assisted by many mentors from various industries, offering the best guidance for comprehensive growth. This is also open for start-ups from the region.

In order to develop the economy and society driven by knowledge-based innovation, Singapore developed a Research, Innovation and Company (RIE) Plan policy developed since 2005. Through this policy the government has committed \$ 19 billion to research, innovation and enterprise, to take Singapore to the next stage of development. With this plan, Singapore seeks to support and translate research, build up the innovation capacity of companies to drive economic growth, and leverage science and technology to address national challenges [12].

Under the RIE2020 Plan, Singapore is implementing four major strategic thrusts to create greater value in Singapore from our investment in research, innovation and enterprise:

D. Closer Integration of Research Thrusts

Encourage stronger multi-disciplinary, multi-stakeholder collaboration to allow greater coordination of efforts nationally towards achieving research goals, and to invest strategically in foundational and mission-oriented research.

E. Stronger Dynamic towards the Best Teams and Ideas

a) Continued shift towards more competitive funding to support the best teams and ideas, and more White Space funding to allow greater flexibility in reprioritizing funding towards areas of new economic opportunities and national needs.

F. Sharper Focus on Value Creation

Strengthen flow-through from research to its eventual impact in society and economy, through additional budget allocation towards public-private research collaborations and increased efforts in helping companies expand their absorptive capacities for new technologies, to support Future Economy and Smart Nation efforts.

G. Better Optimized RIE Manpower

Sustain a strong research and innovation workforce in the private and public sectors, where national needs are highest, by building a strong Singaporean core supplemented with international researchers of high repute.

In RIE 2020, in order to maximize its impact, funding will be prioritized for four strategic technology domains owned by Singapore, including;

a) Advanced Manufacturing and Engineering (AME): Manufacturing has become a key pillar of Singapore's economy. Therefore, the program aims to develop technological capabilities that support the growth and competitiveness of the manufacturing and engineering sectors. this program has three strategic objectives:

- Support economic growth, create good jobs for Singapore and prepare the economy for the future
- Strengthening the linkages between public research actors and large and small companies to sharpen the value creation of public R & D investments
- Build capabilities where Singapore can offer different value propositions, including making strategic bets in front of the industry to put Singapore in the opportunities that arise

In the Advanced Manufacturing and Engineering (AME) domain, eight major industry verticals have been identified for RIE2020, based on the potential to achieve global leadership, the presence of new opportunities for growth, and the ability to produce good work. Including:

- Aerospace;

- Electronic;
- Chemical material;
- Machines & Systems;
- Ocean & Offshore;
- Precision Modules & Components;
- Biology & Pharmacy Manufacturing;
- Medical Technology Manufacturing.

Government has identified four cross-sectoral technology fields that will undergird and support. As follows:

- Robotics and Automation
- Digital Manufacturer
- Additive Manufacturing
- Advanced Materials

To maximize value creation, integrated strategies will be developed throughout the innovation value chain, utilizing the capabilities of stakeholders in the ecosystem, including government institutions, public research actors, universities, and industry. This program has key schemes to public research performer, as follows;

- Individual Research Grants
- Programmatic Grants
- Industry Alignment Fund

b) Health and Biomedical Sciences (HBMS): To become a leading centre that promotes human health and well-being, and creates economic value through the pursuit of excellence in research and its application. In RIE2020, public research institutions plan to develop ecosystems that further enable translation of research to improve health outcomes, including a greater emphasis on Health Service Research and transform and improve the health service delivery efficiency. The Ministry of Health (MOH) has identified five areas of therapy based on factors such as the impact of disease, scientific excellence in Singapore and national needs. These are infectious diseases, cancer, diabetes mellitus and other metabolic / endocrine conditions, cardiovascular disease, neurological and sensory disorders.

This program has key schemes to public research performer, as follows;

- Health and Biomedical Sciences Open Fund Large Collaborative Grant
- Health and Biomedical Sciences Open Fund Individual Research Grant
- National Innovation Challenge (NIC) on Active and Confident Ageing
- Clinician Scientist Individual Research Grant
- Clinician Scientist Individual Research Grant: New Investigator Grant

- Health Services Research
- Singapore Translational Research (STaR) Investigator Award
- Clinician Scientist Award (CSA)
- Transition Award (TA)
- Clinician Investigator / Clinician Scientists Salary Support Programme
- Masters in Clinical Investigation (MCI) Programme
- NMRC Research Training Fellowship
- Industry Alignment Fund Pre-Positioning (IAF-PP)

c) Urban Solutions and Sustainability (USS): This program aims to develop cities that are sustainable, liveable and integrated. The strategic objective of this program is to focus energy collectively to improve the environment and overcome resource constraints through an interdisciplinary approach. This includes creating and optimizing habitable spaces, designing new urban mobility solutions, building the next generation of smart grids, and reducing energy consumption. This program has key schemes to public research performer, as follows:

- Capability Building Programmes
- Industry Alignment Fund
- USS Competitive Research Programmes for Energy, Water, Land and Liveability, and Urban Mobility
- USS Living Lab Initiatives for Energy, Water and Urban Mobility

d) Services and Digital Economy (SDE): The program aims to develop, integrate and utilize the capabilities of digital innovation to meet national priorities, increase productivity and support key services, create sustainable economic opportunities and high-quality work. In this program, digital innovation is used as a multiplier of strength to meet national priorities and increase productivity in the service sector. Under the Smart Country banner, three important focus areas for national needs that can have a decisive impact are:

- Urban Mobility. The combination of traditional transportation techniques with autonomous technology, real-time analytics, modeling and simulation will change the way we plan routes, and dynamically manage real-time traffic events.
- Health ICT. Predictive analytics and machine learning, based on real-time data collected from the Internet of Things (IoT) health device.
- Service Productivity. Automation of knowledge work, discovery of insights through data mining and the creation of innovative digital applications can be utilized to improve the delivery of government services and the private sector.

This program has key schemes to public research performer, as follows;

- Smart Systems SRP Emergent Areas Research Projects
- Industry Alignment Fund
- Smart Systems SRP Strategic Capabilities Research Centres
- Smart Systems SRP Public Sector-Led Translational R&D Centres / Projects
- Smart Systems SRP Private Sector-led Translational R&D Centres / Projects

To ensure that superior science, strong skilled labour channels, and value creation, these activities will be supported by three cross-sectoral programs, including Academic Research, Manpower and Innovation & Enterprise (I&E). Singapore's policies and programs are an attraction to investment for various scales, government efforts to provide a conducive business ecosystem make Singapore considered the right place to grow and develop a business.

REFERENCES

- [1] S. Shabangu, The Importance Of Startup Companies For Economic Development [Online]. Retrieved from: 18 April 2019, Accessed on: <https://www.linkedin.com/pulse/20141122084428-77551011-the-importance-of-startup-companies-for-economic-development>, 2014.
- [2] Digadaminz, Why Startups are important for economic growth of a nation [Online]. Retrieved from: 18 April 2019, Accessed on: <https://digitaledenz.com/why-startups-are-important-for-economic-growth-of-a-nation/>, 2018.
- [3] Mikti and Teknopreneur, Mapping dan Database Startup Indonesia 2018 [Online]. Retrieved from: 18 April 2018, Accessed on: http://www.bekraf.go.id/downloadable/pdf_file/1812634-mapping-database-startup-indonesia-2018.pdf, 2018.
- [4] Bekraf, Dukung Pendiri Startup Digital, BEKRAF Mulai Jalankan Program Pra-Akselerasi Startup Digital Batch 2017 di 15 Kota [Online], Retrieved from: 18 April 2019, Accessed on: <http://www.bekraf.go.id/kegiatan/detail/dukung-pendiri-startup-digital-bekraf-mulai-jalankan-program-pra-akselerasi-startup-digital-batch-2017-di-15-kota>, 2017.
- [5] Cahyadi, Bekraf Developer Day di Yogyakarta Disambut Antusias [Online]. Retrieved fro.: 18 April 2019, Accessed on: <https://www.beritasatu.com/digital/521669/bekraf-developer-day-di-yogyakarta-disambut-antusias>, 2018.
- [6] V. Segu, Pacu Kapasitas Bisnis UMKM, Bekraf Fasilitasi WiFi dan HKI Gratis [Online], Retrieved from: 18 April 2019, Accessed on: m.umkmnetwork.co.id/read/aktifitasumkm/505/pacu-kapasitas-bisnis-umkm-bekraf-fasilitasi-wifi-dan-hki-gratis.html+%&cd=3&hl=en&ct=clnk&gl=id&client=firefox-b-d, 2018.
- [7] Bonzom, Singapore startup ecosystem [list-tips] [Online] Retrieved from: 18 April 2019, Accessed on: <https://aseanup.com/singapore-startup-ecosystem/>, 2018.
- [8] Enterprisesg, Join Singapore's Startup Hub [Online]. Retrieved 18 April 2019, Accessed on: <https://www.enterprisesg.gov.sg/industries/hub/startup/join-singapores-startup-hub>, 2018.
- [9] L. Chia, Government to unify start-up support schemes under Startup SG branding [Online], Retrieved from: 18 April 2019, Accessed on: <https://www.channelnewsasia.com/news/singapore/government-to-unify-start-up-support-schemes-under-startup-sg-br-8774876>, 2017.
- [10] P. Singh, Why Singapore is a Startup Paradise [Online]. Retrieved from: 18 April 2019, Accessed on: <https://www.entrepreneur.com/article/324589>, 2018.

- [11] L. Leonardo, A tech startup's guide to Singapore [Online], Retrieved 18 April 2019, Accessed on: <https://www.techinasia.com/tech-startups-guide-singapore>, 2018.
- [12] Singapore, National Research Foundation. Research Innovation Enterprise 2020 Plan. Singapore: NRF, 2006.