

The Status of Start-up Policy and Tasks

1. Introduction

As start-ups play an important role in revitalizing the economy and creating jobs, many countries are concentrating their policy efforts on stimulating entrepreneurship. In 1986, the Small and Medium Enterprise Establishment Support Act was enacted in Korea.

After the foreign exchange crisis, policymakers reached a consensus that small and venture businesses could serve as a new growth engine of the Korean economy, and have gradually expanded start-up support programs since then. In 2017, eight central government ministries, including the Ministry of SMEs and Start-ups, along with 17 local governments, were found to have carried out 180 start-up support projects.

The Moon Jae-in government announced its five-year plan of state administration operation in July 2017, and proposed start-up and innovation growth led by small and medium-sized venture businesses as a core strategy for national administration.

In addition, in its New Government Economic

Policy Direction, the Korean government emphasized innovation growth along with income-driven growth, a job-centered economy and fair growth, and announced its Plan for Creating Innovative Entrepreneurship Ecosystem last November as part of a broader strategy for promoting innovation growth. Here, the key driving force behind innovation growth is the revitalization of innovative start-ups and innovative start-up-focused job-related measures, which are led by venture firms and start-ups.

In the meantime, central and local governments have been concentrating their policy efforts in promoting start-ups. As a result, since the mid-2000s, there has been a notable uptick in start-up activity. The number of start-ups has been steadily increased, from 50,855 in 2008 to 74,162 in 2012, up to 98,330 by 2017 and 102,042 in 2018.

This paper examines the economic functions and roles of start-up, examines the status and problems of start-up support projects conducted by the central and local governments in 2017, and proposes ways in which effective start-up policies might contribute to job creation and economic growth.

2. The Economic Function and Role of Start-ups¹⁾

(1) The Economic Function of Start-ups

Start-ups are new market entrants. Through this, they affect ① economic growth, ② job creation, ③ market competition, ④ promotion of innovation, increase consumer utility. From an economic point of view, studies have been conducted focusing on the dynamics of markets such as economic growth, market competition, and innovation promotion, and social stability such as employment creation.

First of all, in terms of market dynamics, start-ups ① introduce new technologies to improve productivity, ② encourage existing companies to strengthen their competitiveness, ③ build a competitive system to induce innovation, and through this, ④ help the economy provide a foundation for sustainable growth.

In terms of social stability, the size of the employment of start-up companies is smaller than that of existing ones, but it contributes to social stability by creating new jobs more than existing ones.

On the other hand, in addition to market dynamics and social stability, start-ups have the potential to increase the welfare of consumers. Start-ups based on high-level technology not only enhance consumer welfare by supplying new products and services at a cheaper price, but also the competitive market environment created with the entry of the start-up can have a positive effect on consumer

welfare as well.

In addition, the importance of start-ups is emphasized as a key driver of national development. The Global Entrepreneurship Monitor (GEM), an OECD entrepreneurship research institute, classifies each country's economic growth stages into the following: the factor-driven stage, the efficiency-driven stage, and the innovation-driven stage.

The factor-driven economy refers to an economy in which the factors of production for goods or services are the driving forces being economic growth. The efficiency-driven economy is one in which economies of scale and efficiency improvements grow the economy. This means that the growth of innovation-driven countries depends on creative and innovative entrepreneurial activities.

(2) The National Economic Role of Start-ups

As noted above, entrepreneurship plays diverse roles in terms of market dynamics, social stability, and consumer welfare, and plays an important role in job creation and economic growth, especially in the national economy.

First, in terms of job creation, start-ups contribute much more to job creation than existing firms. In the United States, the employment creation effect of start-up firms is higher than that of incumbent firms, which shows how start-ups have a great impact on job creation (Kauffman Foundation, 2009; Kane, 2010, and others).

In Korea, start-ups have been found to contribute

1) Hyun-bong, Yang & Chang-yong, Han et al., "Improvement of the Efficiency of the Start-up Policy", 2018, pp.24-34.

to job creation. As shown in a study by Cho Duck-hee (2014), the employment creation effect of start-ups is better than that of the existing firms in Korea, and the employment rate of Korean start-ups is relatively higher than that of the major European countries. In the end, it can be seen that start-ups in Korea contribute to job creation.

In terms of start-ups and economic growth, GEM conducted a research program in the late 1990s to determine whether the impact of start-ups on national economic growth varies from country to country. The study found that start-ups in each country are related to economic growth.

(3) The Necessity of Financial Support for Start-ups

As we have seen, start-ups have a positive relationship with economic growth and job creation, and in the Korean economy, start-ups are seen as contributing to economic growth and job creation. In the future, in order to promote sustainable growth and job creation in the Korean economy, it is necessary to expand financial support for promoting start-ups.

Korea is classified as an innovation-driven country, and in an innovation-driven economy, start-ups and venture companies based on creative and innovative activities play a crucial role. However, as a large portion of Korea's economic structure is based on the existing efficiency-driven national paradigm, it is necessary to shift an innovation-driven model. There is a continuing need to shift to a new economic growth paradigm given the limitations of the existing model,

such as the pursuit of growth and the development of a large corporation-centered system.

In order to transform the Korean economy into a new growth paradigm in the future, it is necessary to expand financial support so that innovative entrepreneurship based on innovation can be activated.

3. Status and Problems of Financial Support for Start-ups

(1) Status of Financial Support

The government earmarked a total of 2.826 trillion won (excluding supplementary budget, credit guarantee, and local SME funds) in 2017 to revitalize entrepreneurship and support start-ups. This support included 2.757 trillion won from the central government and 68.8 billion won from 17 local governments.²⁾ As of March 2017, government funding by type of business was as follows.

Policy loans accounted for the largest portion of funding at 2.77 trillion won (73.6 percent of the total), followed by a commercialization fund of 300 billion won (10.6 percent), R&D funding totaling 215.7 billion won (7.6 percent), facilities and space provisions of 76 billion won (2.7 percent) and entrepreneurship education funding of 64.6 billion won (2.3 percent). See Table 1 below.

Looking at start-up support projects by type, policy loans accounted for the largest portion (63.3 percent of all projects) with funding totaling 1.79 trillion won, followed by subsidies of 747 billion won (26.5

²⁾ It is difficult to obtain statistical data on the start-up funds of the 17 local governments. Therefore, only the subsidy business (excluding financing and investment funds) for start-ups has been identified.

Table 1. Start-up Fund Size by Business Type (as of March 2017)

Unit: 100 million won

	Education	facility · space	Mentoring · consulting	Commer- cialization	R&D	Marketing · Entering Overseas	event · network	Policy loans	Others	Sum
central government	631.0	484.0	373.0	2,959.0	2,157.0	147.0	31.0	20,790.0	–	27,572.0
provincial government	15.3	276.2	3.0	41.0	–	15.3	6.8	–	330.9	688.5
Sum	646.3	760.2	376.0	3,000.0	2,157.0	162.3	27.8	20,790.0	330.9	28,260.5

Source: Ministry of SMEs and Startups website (K-Startup), 2017 start-up Support Business, 2017.3.³⁾**Table 2. Start-up Support Funding by Type (2017)**

Unit: 100 million won

	Subsidy	loan	investment	Sum
central government	6,782.0	17,900.0	2,890.0	27,572.0
local government	688.5	–	–	688.5
Total	7,470.5	17,900.0	2,890.0	28,260.5

Source: Ministry of SMEs and Startups website (K-Startup), 2017 start-up Support Business, 2017.3.

percent) and investments of 289 billion won (10.2 percent). See Table 2.

(2) Problems of Financial Support

First, as we have seen, the government has invested a considerable amount in the form of policy funding and subsidies in order to promote start-ups. However, the actual state of financial support for start-ups is not well understood. The project is being carried out without preliminary feasibility studies on business financing projects beyond a certain scale.

Second, in developed countries such as the United

States, policy capacity is concentrated on the expansion of start-up infrastructure (tech shops, maker-space, and so forth) in order to facilitate start-ups. However, Korea has dedicated most of its financial resources to policy funding, R&D and the commercialization of (individual) start-ups (see Table 1).

Third, in the case of developed countries, start-ups have a high risk of failure and so governments have focused on creating a start-up ecosystem that allows for more painless re-starts. However, in Korea, it is estimated that the amount of re-start and re-start-up funds among the financial resources for start-up support in 2017 is only 17.5 billion won, just 4.2 percent of total financial resources.

3) Among ancillary projects supporting the central government's startup efforts, the fund for re-start-up support is 117.5 billion won, including an R&D fund of five billion won for re-creation, along with a 12.5 billion won commercialization fund and 100 billion won for policy loans.

4. Status and Problems of Start-up Support Project

(1) Start-up Support Projects of Central Government

The number of support businesses for start-ups supported by eight ministries of the central government was 89 as of 2017. The Ministry of SMEs and Startups carried out 39 projects, including: Youth Biz-cool, Start-up Leap Package, Start-up Leading University, support for venture-linked start-ups, a support fund for start-up firms, support for start-up technology development and a re-start-up fund.

The Ministry of Science and Technology, Information and Communication has 25 projects ongoing, including K-Global start-up mentoring. At the Ministry of Culture, Sports and Tourism, there are four projects, including a sports industry start-up support business and start-up power plant start-up training. The Ministry of Education is promoting three projects, including the establishment of a university start-up education system. Finally, the Ministry of Agriculture, Forestry and Livestock is promoting a farm field crowdfunding project.

Looking at the types of start-up support projects promoted by the central government in 2017, 11 projects (such as start-up academy) were conducted at four departments and agencies. In the start-up education sector, eight projects (such as business incubators) were conducted at three departments.

The Mentoring and Consulting sector consists of 11 divisions. In the commercialization sector, there are 26 projects including start-up leap packages. In the commercialization sector, seven of the projects revolve around technological development, includ-

ing creative innovation type re-development. There are six projects being pursued in the marketing and overseas business network sector.

In the events and networks sector, eight projects (including venture start-up competitions) were held in three departments and agencies, and 13 projects (including funding for start-ups) were carried out by five departments in the policy funds sector.

(2) Start-up Support Projects of Local Governments

A total of 91 start-up support projects conducted by 17 local government in 2017 were surveyed. Seoul has six projects, including the Global Business Center. Busan has six projects, including the Incubation and Growth Support Center. Daegu has 15 projects at the youth ICT Business Growth Center. There are two projects being carried out by the government of Gwangju, and Ulsan promoted five projects, including a knowledge technology start-up support project.

The provincial government of Gyeonggi pursued 12 projects, including a university student convergence technology start-up support project. Gangwon province carried out 10 projects. Ten projects were carried out by the government of Chungcheongbuk province, and Chungcheongnam province worked on four projects.

(3) Problems with Start-up Support Projects

First, various start-up support programs are being implemented across ministries and cities. However, in terms of consumers, it is complicated, and there

is no organic cooperation system between the central and local governments. Therefore, it can be said that wholesale promotion of start-up support projects can lead to inefficiencies.

Second, in order to enhance the effectiveness of the start-up support projects, it is necessary to organically link them, between the business promotion processes in particular. The connections between start-up education and business incubation, the mentoring and consulting business post-start-up and policy funding are not strong. In particular, most start-up companies need mentoring and consulting support due to a lack of experience in operating the company, but support corresponding to the growth stage of start-up companies is not properly linked.

Third, in order to improve the effectiveness of start-up support projects, it is necessary to promote demand-oriented businesses, but a considerable number of projects tend to be driven by suppliers. In the case of entrepreneurial education, Learning by Making is popular in developed countries, whereas in Korea entrepreneurship education remains centered on injection training and successful entrepreneurial lectures. In the case of policy funds to support start-ups, demand for combined investment and financing and investment-linked guarantees is increasing, but only loans and guarantee-based support are being made.

In order to activate technology start-ups, it is necessary to expand business incubators (BI) to promote spin-off start-ups and to nurture them, but most business incubators still in operation are centered on universities.

5. Efficiency Improvements in Start-up Policy

The government has been strengthening start-up policies to boost economic vitality and create jobs. As a result, it has been found that the beneficiaries of government start-up support businesses create more jobs, survive longer and grow faster (gazelle) than other start-ups. This is because the government has promoted support projects mainly with promising start-up firms whose technology and knowledge intensities are relatively high.

However, it has been pointed out that there is a lack of retry and re-start-up support, and that current policy focuses on direct support for start-ups, such as loans via policy funds rather than the expansion of start-up infrastructure. It has also been pointed out that complex and multifaceted start-up support projects are centered on suppliers, that interlinkage between support projects is insufficient, and that evaluation and monitoring functions are not done properly.

The following are the basic directions and major policy tasks for the government to focus on in order to minimize problems caused by the promotion of business start-up support and to enhance the effectiveness of start-up policy.

(1) Basic Direction

As job creation has become an important task of national policy management, local governments as well as the central government have been providing various support projects for start-ups. In the short term, the policy direction for promoting the

start-up policy is to contribute to bottom-up expansion of the start-up and activation of the firm. In the medium to long term, it should be set in a direction that can respond to the creation of high quality employment through high-growth enterprises and the restructuring of the domestic industrial structure centered on technology and knowledge-based industries.

For this purpose, the direction of start-up policy should be promoted in several directions, while creating a virtuous circle maintained by a start-up ecosystem.

First, it is necessary to increase the self-survival rate and survival rate of start-up enterprises through the expansion of start-up infrastructure and the creation of an ecological environment for entrepreneurs through the introduction of private vitality. It will be necessary to switch to a policy that meets the demand of start-ups and the creation of an entrepreneurial (good starting) environment.

Second, it should be emphasized to build an institutional device that can enhance the efficiency and effectiveness of supporting start-ups. It is necessary to implement systematic planning and promotion of start-up policy and to establish an evaluation system, as well as improving the performance of the start-up policy by strengthening the linkage between government departments and start-up support projects between the central and local governments.

Third, it will be necessary to gradually shift focus from not only high-cost, high-risk start-ups to low-cost and low-risk start-ups. And spin-off entrepreneurship should also be promoted in order to stimulate knowledge and technology start-ups.

(2) Major Policy Tasks

1) Policymaking Phase

In order for the start-up policy to be carried out properly and to achieve better performance in job creation metrics (among others), it is necessary to establish the right policy before any start-up support project is promoted in earnest. In order to do this, it is necessary to prepare a mid- to long-term plan for activating the start-up. In the case of establishing a start-up policy, it is necessary to review preliminary feasibility and adjust the budget appropriately.

Since the mid-2000s, start-up policies have been concentrated on college students and young people, but results have not met expectations. They have not achieved successes such as increasing the number of enterprises with knowledge and technology start-ups. Taking this into account, it is necessary to seek ways to revitalize skilled young entrepreneurs (meaning those who have more than five years' experience in the relevant field), which will encourage technology and knowledge start-ups with entrepreneurs. To this end, it is necessary to establish measures to induce start-ups by those who wish to work in industries, research parks, SMEs and research institutes to start-up by the spin-off method.

In developed countries such as the United States, the focus is on creating a good environment for expanding start-up-related infrastructure and so that startup firms aren't overwhelmed by initial high costs. However, Korea is concentrating on policy funding and subsidy support projects for start-ups. It is necessary to expand the startup infrastructure, such as mak-

erspace, tech shops and fab labs in order for future prospective investors to initiate startups at low costs. It is also necessary to reorganize the policy fund management method in order to expand investment in venture capital from the loan-oriented support method in supporting policy funds to start-up.

2) Phase of Policy Implementation

In order to promote start-up policy efficiently, it is necessary to improve the promotion system of start-up support projects. To this end, the control tower (general coordination) function related to the promotion of start-up policy should be given to the Ministry of SMEs and Startups so that start-up support projects can be efficiently promoted.

In order to improve the efficiency of start-up support projects, which are competitively promoted by local governments at the local level, it is necessary to improve the start-up support system operated by suppliers in terms of demand (start-up companies). The functions and roles of the Creative Economic Innovation Center, the Economic Promotion Agency, and the Techno Park (IP) should be rationalized, and the start-up-oriented support should be made possible through the integration of support agencies.

The efficiency of start-up support projects promoted by central and local governments should be improved. To this end, it is necessary to simplify start-up support projects through coordination between the Ministry of SMEs and Startups and other ministries and local government (tentatively called the Coordination Committee for start-up Support

Projects), and to seek a rational role in sharing mutual cooperation measures.

In order for start-up support projects to be effective, it is necessary to support the link-up support project by each start-up during the promotion stage and strengthen the linkages between the start-up support processes. In other words, priority is given to opportunities for mentoring and start-up lease package businesses for senior technology start-up support projects, start-up academy graduates, and so forth.

In order to improve the efficiency of promoting major start-up projects, it is necessary to find ways to change from the education based on capital injection and successful entrepreneurs to the method of learning by making. Mentoring and consulting support projects for start-ups should be encouraged to provide mentors with expertise and professional managers in specific technical fields such as molds. It is necessary to change the policy fund management method in order to expand investment-linked loans, and investment-linked credit guarantees from the support of loans and credit guarantees.

In order to revitalize technology and knowledge based start-up, it is necessary to establish additional business incubation in industrial complexes. It is also necessary for the government to find ways to encourage industrial complexes and the private sector to perform business incubation functions.

In order to create a re-start-up ecosystem, it is necessary to introduce an institutional devices that facilitate the liquidation of the enterprise before the start-up company faces bankruptcy, and to introduce a re-start mentoring and consulting business.

3) Policy Evaluation Phase

In addition to establishing and implementing proper start-up policy, it is important to establish and operate a post-management and evaluation system based on policy promotion. In the meantime, it cannot be denied that the feedback process was not smooth and the performance management was insufficient because the after-management of the start-up support project was not done properly.

It is necessary to establish a systematic evaluation system for start-up support projects in order to promote the efficiency of start-up policy and future policy promotion. In particular, the development and management of performance indicators are necessary to improve the effectiveness of start-up projects, but the development and management of performance indicators that merely reflect start-up projects' characteristics would be insufficient.

In the future, it is necessary to develop a performance indicator that meets the characteristics of the project, and to make sure that those indicators

are actively utilized in performance management (evaluation).

In addition, it is necessary to provide a plan to give a substantial performance force to the evaluation results of the start-up support project. In the meantime, there have been suggestions for improvement of the system through a self-evaluation committee (among other suggestions) for each of the ministries conducting start-up support projects. However, the reliance on the voluntary improvement system failed to achieve desired results.

In order to enhance the effectiveness of future start-up projects, it is necessary that objective evaluations are performed by independent external institutions (for example, national research institutes). And the system should be constructed so that the evaluation results are reflected in the operation of the start-up support project the following year.

Hyun-bong Yang

Senior Research Fellow
Center for SMEs and Venture Business Research
hbyang@kiet.re.kr