

‘Simple Accelerator’: Ideas, Serving Characteristics and Constructing Strategies

LI Li¹, LI Tian-zhu²

¹Business School, Sichuan Agricultural University, Sichuan, China

²School of Business Administration, University of Science and Technology Liaoning, Liaoning, China
lilisicau@163.com, ltzuestc@163.com

Abstract - Aiming at the practical difficulty in the entrepreneurship accelerate services, this paper proposes an idea of ‘Simple Accelerator’. It starts with the concept of ‘Simple Accelerator’ and analyzes its feasibility. Then it follows with the research of ‘Simple Accelerator’s five serving characteristics: the physical space, infrastructure, integration policies and social resources, providing of flexible services and ‘high performance-price ratio’. In the end, this paper concludes that building ‘Simple Accelerator’ should adopt the following measures: incubator leading, government involving, ‘center-periphery’ constructing, distributed sites locating and intensive managing and extending the function of incubator.

Index Terms - ‘incubation - acceleration’, Simple Accelerator; technological entrepreneurship

1. Problem Proposal

According to the theory of ‘incubation - acceleration’, new ventures need business incubator (abb. as incubator) such as University Science Park when they are in their seed-stage or start-up stage. They need high-tech park and industry base and so on when in their mature-stage. However, Business Accelerator is needed when new ventures are in their rapid development [1]. Currently, the situation in China is that the accelerator construction obviously lags behind various kinds of incubators, high-tech parks and industry bases. According to the survey of Chengdu Science and Technology Bureau, there is almost no accelerator in Chengdu in the strict sense. Although the accelerators in Beijing and Wuhan are relatively earlier developed, they can’t match the demand of technological entrepreneurship incubation system.

The idealistic design of ‘incubation-acceleration’ theory is that incubator assists new ventures passing through the dangerous ‘infancy’, then accelerator takes over the sticks and continue assisting businesses to overcome the difficult ‘puberty’ till they are sent to science and technology parks or industry bases[2]. The current situation of extremely lack of accelerator causes a serious dilemma: Technological growing entrepreneurs are kept incubated by incubators. However, there are not enough accelerators to bear incubated businesses. Therefore, incubated businesses are caged in between the valley of incubators and high-tech parks (industry bases). The survey of Incubation Association of America shows that if incubated businesses can’t get support from accelerators, only 20% of them will still keep active within five years. According to the survey of 1009 businesses in *Blue Book of Development of Zhongguancun*, the death ratio of business in rapid development is higher than that in incubating stage.

Theoretically, we can solve the relating problems by putting great effort in developing business incubators. However, it is not easy to implement. Firstly, the constructing of accelerators is more difficulty than constructing of incubators. Secondly, it is too hard to satisfy the urgent demand by constructing enough accelerators. We propose an idea of ‘Simple Accelerator’ for the above circumstance. We try to crack China’s ‘incubation – acceleration’ difficulty by using this practical method. This paper will analyze Simple Accelerator and its serving characteristics and constructing strategies in the following.

2. Simple Accelerators

A. The concept of Simple Accelerator

Our scholars think that Business Accelerator is an institute or organization that is independent from business itself, operating under the market mechanisms and providing special service to technological SMEs of certain scale and developing speed. The basic characteristics of it are diversified participating subjects, intensive physical space, intensive cooperation networks, professional services team and diverse service model [2]. The accelerator mainly provides infrastructure services, investment and financing services, management consulting services, technical innovation service, sponsorship services and do reward to business shoulder social responsibility [3]. The differences between the accelerator and the incubator are: Firstly, the service target of the incubator is mainly at businesses in seed-staged and the purpose is to assist them survive and grow up successfully. The service target of the accelerator is mainly at business in rapid development and the purpose is to assist them growing strong. Secondly, the accelerator emphasizes on performance price ratio and marketization. It provides base type service, development service of high-level and high value-added and extending service based on cost. Thirdly, the accelerator pursues co-value-added with settled businesses. The service of it is of specialized features and providing customized services which are close to the business’ demand.

In this paper, Simple Accelerator is a function-incomplete Business Accelerator. It has the necessary base type service and some of the high-level value-added service of Accelerator while can be built up in a short period. Even so, Simple Accelerator should have all the characteristics of accelerators and take part in the related preferential policy of them. It is important that Simple

Accelerator can better satisfy some of the technological SMEs' demand in accelerating development with easier and shorter construction and with lower price in service provided to businesses. The building up of Simple Accelerator can share pressure of accelerator and shoulder the incubated business' accelerating development task together with Accelerator.

B. The theoretical principle of Simple Accelerator

According to the traditional understanding, technological businesses in rapid development are facing high uncertainty and risk during innovation undertaking. Therefore, the requirement of Business Accelerator should be comparatively high. Since it is so, why does Simple Accelerator still have meaning of existence? We think that it is mainly because of the diversification of incubated business.

'Incubation-acceleration' theory is a high abstract of entrepreneurship incubation system. In fact, there are diversified types of business incubating from business incubators. Not all of them have to be in Business Accelerator. According to the existing literature and research combined with the author's interviews, incubated business will mainly go to three directions: First, small part of the businesses will grow up rapidly during the incubation and become qualified to enter science and technology parks or industry bases. Second, because of their representative and typical characteristics, some of the businesses will stay in incubators after incubation and play a role as 'model project'. They keep the preferential policies and conditions to the incubator. Most of biopharmaceutical R&D companies are of such a nature. For the rest of the businesses, they range between the above two and have to enter into accelerator for further development. Businesses that enter into accelerator can be further subdivided. One kind is the R&D and technology-intensive business with relatively small component of manufacturing that can be even ignored. We call it 'high-tech content growing enterprise'. It is very hard for this kind of businesses to undertake innovation. Business Accelerator is especially needed by this kind to provide comprehensive service and support. Otherwise they will face huge variables during their accelerating period. For the other kind, they are of relatively less R&D and technology activities and larger component of manufacturing. We call them 'low-tech content growing enterprise' (compared with high-tech content growing enterprise).

When low-tech content growing enterprises incubate from incubation, they are comparatively mature, having relatively stable cash flow and capital base, obtaining relatively perfect marketing network and self-development capability and so on, even though they can't enter high-tech parks and industry bases considering their scale. Furthermore, these businesses have relatively low innovation uncertainty and risk because of comparatively less R&D activities. Low-tech content growing enterprises still need support from Business Accelerator, even their requirement of service from accelerator is not high. Lots of external service that should be provided by accelerators can be done by businesses themselves. They may not need a general sense of Business

Accelerators. Simple Accelerators can satisfy their demand already. Objectively speaking, low-tech content growing enterprises occupy a large proportion of technological enterprises in China at present, so there is a large demand for Simple Accelerators.

Meanwhile, because Business Accelerators emphasize on providing high-level and high value-added developing services, extended services, having features of specialization and customization, there is higher requirement to the construction of accelerators. Besides essential elements such as space, hardware and software infrastructure and so on, high-level professional operating team and strong professional networks are needed. Otherwise, it can't provide quality service to businesses in the accelerator. Therefore, building high-quality business accelerator is harder than building business incubator. Take the literature [1] for example. It is a thorny problem to equip various 'gazelle enterprises' with growth tutor respectively. Since a considerable number of incubated businesses do not need such high-quality and professional acceleration services, 'simple' service with good price and quality will be enough.

3. The Service Characteristics of Simple Accelerator

According to the author's understanding and combined with an analysis of existing literature, the contrast of the Simple Accelerator with the general Business Accelerator are summarized in Table 1. Like general Business Accelerator, the basic task of Simple Accelerator is to promote the enterprises' accelerating growth and harvest value of innovation. However, the Simple Accelerator has its own characteristics in providing service. They should be paid attention to during the process of construction and we conclude them in six aspects.

TABLE 1 contrast of Simple Accelerator and general accelerator

	Simple Accelerator	Accelerator
Service target	Graduated incubated SMEs with low-technology	Graduated incubated SMEs with rapid development
Functional target	Accelerate growth and harvest value of innovation	Accelerate growth and harvest value of innovation
Policy target	Provide stable environment of growth and breakthrough bottleneck in growth	Breakthrough bottleneck in growth and stabilize the growth of volatility and risk
Space features	Expanded area and perfect infrastructure	Expanded area and flexible space
Service focus	Scaled production capacity and policy integration	Scaled production improvement and market expansion
Service model	Stable provision of physical space and policy support; flexible service content; multi-link with Universities	Market services under the policy guidance; customized strategic guidance, potentiality mining, develop channel and link networks.

A. Pilot of physical space

Most low-tech growing enterprises are involved in manufacture. They have urgent demand of expanded

production space during their accelerating growing process. Although their demand of sites may not be very large (usually the processing and manufacturing is of precision manufacturing and high value-added and so on), incubators can no longer meet their requirements any more. Therefore, Simple Accelerator must first provide adequate, stable physical space to low-tech growing enterprises, otherwise rapid growth of enterprises will be limited. The authors had visited a number of such enterprises which are close to graduation. These enterprises generally faced troubles such as production space. There is an enterprise which researched into oil production of precision mechanical parts that can replace imported ones. Its supply of production space has had a significant impact to the enterprise. For example, small production space constraints production capacity, no good surrounding environment affects the precision of equipment (such as vibration, etc.), frequent change of production sites requires frequent adjustment of equipment, high cost and waste of time.

B. Sophisticated infrastructure

High-tech growing enterprises often carry out pilot, production and other activities during accelerating development. As low-tech growing enterprises have formed a certain production capacity, they have to go on R&D, pilot and pilot production and so on to keep innovative during accelerating process besides production. Therefore, Simple Accelerator must ensure the completeness of infrastructure while ensure adequate and stable production sites. In particular, it should provide standard plant, power and energy, logistics, laboratory, testing platform, testing centers and so on, in order to provide enterprises scaled production, field testing, product prototyping, product testing and so on.

C. Integration of policies and social resources

When low-tech growing enterprises enter the Simple Accelerator, they are initially with their own hematopoietic function. They have low requirement of financing and they are not very urgent in demand of management consulting, marketing, human resources and so on. This is a huge difference between Simple Accelerator and general Business Accelerator. However, Simple Accelerators also need integration of policies and social resources to promote rapid development of enterprises. Because even for the low-tech growing enterprises, rich policy and social resource is crucial to the development. Simple Accelerator need to integrate national and regional preferential policies to support growing technological enterprises, research into government procurement, contract management, procurement regulations and so on. They should also forecast procurement demand and purchasing trends, assist enterprises obtain in-depth communications opportunities with government authorities and obtain potential government clients.

D. Provide flexible services

Business Accelerators mainly provide personalized customized services. However, Simple Accelerator mainly provides flexible service. Specifically speaking, they provide

personalized service based on standardized service and with some personalized services. This is an important difference between Simple Accelerator and general Business Accelerator. Specifically, Simple Accelerator provides standardized service such as production sites, factory buildings, laboratories, testing centers, even government policies. They are not designed to support certain enterprise or certain kind of enterprise. To some extent, maintaining contact with universities and assisting communication between enterprises and government departments need tailored service to various enterprises. Thus, this leads Simple Accelerator to provide personalized service. A key point of building Simple Accelerator is to handle well flexible service approach. It would reduce the difficulty of accelerator construction and service costs while meet the business demands.

E. Provide 'high performance price' services

Generally, Simple Accelerator does not take provision of high-end customization service as their main job. It requires lower service price compared with general Business Accelerator. Under the requirement of meeting the accelerating development of enterprises, constantly reduction of service costs and improvement of performance price is the direction that Simple Accelerator puts efforts into. This helps reducing operating costs during accelerating process. It is a direct support to accelerating development of enterprises.

In addition, Simple Accelerator has the same content as general Business Accelerator in a range of service such as providing enterprises incentives, shouldering social responsibility, providing internet and sports facilities and so on.

4 Constructing Idea of Simple Accelerators

As a special kind of Business Accelerators, the construction of Simple Accelerators should also follow the laws of general Business Accelerator in general. Meanwhile, according to the characteristics of Simple Accelerators, the following ideas should be seriously considered:

A. Incubator leading and government participation

Business Accelerator mainly has three developing models such as government-led model, enterprise endogenous model, multi-input model (He Kefang & Zhong Shuhua, 2009). However, Simple Accelerator should be led by incubator. Due to regulatory agencies are more familiar with which enterprises should belong to low-tech growing enterprises during incubating period and what specific demand these enterprises have. Meanwhile, if Simple Accelerator is led by incubator, it will be easier to extend incubator's function, realize the connection of incubation and acceleration and provide effective allocation of technological resources. Moreover, due to the limited resources such as land and policies, it is too hard to overcome so many obstacles only by incubators themselves. Therefore, it requires government participating in Simple Accelerator's construction, providing relating support, so as to integrate as much policies and social resources as possible.

B. Building 'center-surrounding' framework

According to the construction of Simple Accelerator by incubator, the idealistic situation is that accelerator and incubation melt into one another or accelerator is constructed surrounding incubator. This is easily to form a cluster. However, the situation at present in China is that the land resource is very intensive and it is not easy to satisfy the space expanding demand by accelerator. In fact, most of the incubators are one or two buildings. Therefore, we should emphasize on the construction of Simple Accelerator surrounding incubators and form a physical framework of 'center-surrounding', so as to obtain precious land resource. The surrounding area of accelerators can even have some geographic distance with incubators.

C. Distributed sites and intensive management

Under the 'center-surrounding' framework, the surrounding area of Simple Accelerator can allocate in various geographic spaces and form the star-shape distributed sites surrounding incubators. The construction method of making use of every bit can most likely to find the appropriately physical space and it is easier to break through the neck bottle of land resource. However, the intensive way should be implemented in management, which is to unite manage by incubators. This can obviously reduce management cost, promote the integration of accelerator, ensure uniformity and consistence and make standard service provision convenient as well. Intensive management contributes to overcome the adverse effects of distributed sites, internally unite Simple Accelerator and incubator together tightly and form virtual Clusters that have loose appearance and intensive inner part.

D. Emphasis on the extension of incubation function

There is huge difference between accelerators and incubators. However, the service and management of accelerator's can be realized by the incubator team (Li Zhiyuan, 2007). This is idea of important guiding significance to Simple Accelerator as well. The construction of Simple Accelerator doesn't mean to throw over the incubating function of incubators. On the contrary, it should extend the incubating function as large as possible. Incubator team manages Simple Accelerator by service extending, adjusting, fulfilling and comparative differentiating. Since incubators follow-up service for technology enterprises in the long-term, especially the incubated enterprises, they fully understand the law of relevant low-tech growth enterprises and their own characteristics and can provide more targeted services. Meanwhile, extending the incubating function of incubators can maximize the use of resources technology enterprises that are in incubating and prevent duplication and waste.

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