

An Exploration on Theories and Pathway for Consortium of Universities and Local Organizations for Innovation and Entrepreneurship by College Students—An Exploration and Thought based on Case Study of Chongqing

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Abstract: *Innovation and entrepreneurship are not only an important pathway to obtain jobs for college students, but also their “dream factory”. How to make college students free of follow-like-sheep and fear. It is necessary that the universities and local organizations shall jointly work for facilitating the innovation and entrepreneurship by college students, during which the consortium, in one respect, includes a 4-D partnership among universities, companies, local government, and institutes, especially the partnership between university and local government as well as partnership between university and governmental authorities (associations and organizations). In another respect, the capacity of curating innovation, the participation ratio of college students, the success ratio of entrepreneurship incubation to be improved, the more powerful support capacity of organization as well as the sustainable optimal capacity for innovation and entrepreneurship etc. are defined as the standards and criteria for measuring such consortium. In this paper, we, based on exploration and thought in case study of Chongqing and through a high-level cooperation pathway to explore the consortium between university and local organizations, offer positive recommendations for deeply, wholly facilitating the innovation and entrepreneurship in the university town between university and university, between universities and companies, between universities and local government, between universities and institutes.*

Keywords: Innovation and Entrepreneurship by College Students, Consortium of University and Local Organizations, Cooperation Pathway.

1. Introduction

Driven-type innovation is our national strategy. In view of this, entrepreneurship brings us a multiplier effect to drive employment, is one of the methods to solve problems on employment. Innovation and entrepreneurship by college students is a long-term and systemic engineering, during which we must stick to the systemic awareness of both significance on cooperation between universities and local organizations from a view of development and strategic altitude and the pathway to energize university and local organizations for two-way services as well as win-win solution. Nevertheless, its essential is that the education is to be merged together with local economy in a synergistic manner. The “college students” mentioned in this paper refer to the rules of China International College Students’ “Internet+” Innovation and Entrepreneurship Competition, including internal students (college students/undergraduates, postgraduates, except for those of in-service education) from all kinds of full-time general colleges and universities (students from adult education excluded) and college students who have graduated within 5 years. The target is to facilitate the 4-D consortium among universities, companies, local government and institutes for innovation and entrepreneurship by college students. The partnership between university and local organizations refers to a consortium among universities, local government, governmental authorities (associations and organizations).

2. Values: The Necessity of Partnership between University and Local Organizations

is to Facilitate the Innovation and Entrepreneurship by College Students

(1) About relationship between innovation and entrepreneurship. From view of individuals, innovation is a pathway to achieve self-transcendence and entrepreneurship is pathway to achieve the ideal values [1]; in view of society, innovation is a pathway to achieve a breakthrough of science and technology, but entrepreneurship is a pathway to gain successful business. In previous researches and practices, the key factors proposed for innovation resolution include demands, talents, information, funds, policies and regulations as well as fundamental conditions etc. From view of innovation chains, the innovation can be divided into different types such as original innovation, applied innovation and commercial innovation etc. [2].

(2) The partnership between universities and local organizations is a strategic support for the innovation and entrepreneurship by college students. College students play a key role of multitude innovation in the public entrepreneurship. In 2021, China’s gross enrollment rate in higher education hit 57.80% (up to 60% in Chongqing) and a total of students in universities and colleges up to 44.3-million, ranking the 1st in the world. In 2020, young people who engage in the tertiary industry account for 47.70%, 13.1% increased than that of 10 years ago. A total of 541,000 college students participated in the entrepreneurship during 2015-2020, among them 444,000 were graduates and 97,000 were internal students. Rapidly arisen new industries and commercial activities offer more opportunities and options to

young people. Among the new market entities registered, a total of entrepreneurs over 5 million were graduates. The “local organizations” on behalf of local government and authorities (associations and organizations) play an irreplaceable role or even a decisive effect to facilitate the partnership among universities and companies and institutes, the “local organizations” are not only the “enabler” “barrier breaker” and “liability supporter” to facilitate entrepreneurship of college students in a one-stop manner via deployment, coordination, resource distribution and policy issuance, but also the “decision-maker” for facilitating a deeply combined innovation chains, industry chains, talent chains, funds chains and policy chains.

3. Awareness: Innovation and Entrepreneurship by College Students is a Systemic Engineering

Major compositions of this system include as follows,

1) to determine the awareness of innovation and entrepreneurship by college students, which is to solve problems such as they, dare or not, or are willing to creating their innovative business, as well as why or for whom they start their innovation and entrepreneurship.

2) to train the motivation for innovation and entrepreneurship, which is to solve problems on how to discover and engage with market demands.

3) to train knowledges related to innovation and entrepreneurship, which is to improve the education accomplishment of their innovation and entrepreneurship.

4) to cultivate their spirits of innovation and entrepreneurship, highlighted in their psychokinesis, for example, “behind every flower and cheers of your success are full of sweat under your painstaking effort. Young people should gain motivity from the spirits of Zhejiang merchants during their innovation and entrepreneurship, from which we young people should be enduring for hard life, for suffering, for loneliness, to create a new world under your sustainable efforts”.

5) to accumulate the practice experiences of innovation and entrepreneurship, from which we can accumulate experiences for our innovation and entrepreneurship and gain “advices from others” from our advisors and case studies.

6) to support innovation and entrepreneurship by policies, by which the implementations of innovation and entrepreneurship are supported under accurate governmental policies and cooperation with relevant authorities as well as partnership between universities and local organizations.

7) to set up a platform for innovation and entrepreneurship, including innovation and entrepreneurship education college, entrepreneurship incubation base, competition and other special agencies.

8) to create brands for innovation and entrepreneurship, such as China International College Students’ “Internet” Innovation and Entrepreneurship Competition, Run to Future from Hangzhou • Three-year Program for College Students

Innovation and Entrepreneurship, Chongqing-based Entrepreneurship and Innovation---Chongqing’s College Students Entrepreneurship Navigation Program etc.

9) to create an atmosphere for innovation and entrepreneurship, for example, to create a sustainable innovation and entrepreneurship atmosphere, Suzhou has created a “fairlyland for entrepreneurs and a paradise for innovators”; and West-China (Chongqing) Science Town has proposed a slogan “the home of scientist and the town of entrepreneurs”.

10) innovation and entrepreneurship are widely accepted by the society. In addition, the innovation and entrepreneurship by college students require supports and understanding from their families, however, the idea on “A good scholar will make an official” is still popularly accepted.

4. Status Quo and Problems

The earlier foundation nowadays in universities and colleges are quite suitable for innovation and entrepreneurship, especially the excellent achievement in innovation and entrepreneurship competition. The major characteristics and achievements include that the Shizhu County Paradigm in Chongqing, based on long-term cooperation between universities and local organizations and deeply combined stage target under supports to local economic development by strength of technology and think bank from universities as well as the precise and effective interface between production and academic theories in a manner of step by step, long-term for achievement and mutual success, has been formed; the “Siphonic Effect” for talents by facilitating an interaction among “Universities, government, scientific research institutions, and high-tech companies” and by playing a role of offering policies and resources for innovation and entrepreneurship has been created, by which the innovative social ecosystems around Chongqing University Town through stimulating their passion of entrepreneurship and gathering their innovation and creations; and an on-line systemic integration “Chongqing-based Entrepreneurship and Innovation” has been set up via loan guarantee for entrepreneurship, college students entrepreneurship navigation program, entrepreneurship incubation base and Chongqing-based Entrepreneurship and Innovation Competition etc.

In addition to above strengths, problems are also significant, such as lack of excellent teachers who specialize in innovation and entrepreneurship (practice) in universities; mismatch between entrepreneurial practice programs and market transformation and upgrading demands; the contradiction between the closed characteristics of innovation and entrepreneurship in universities and the openness of the market.

5. Pathway: to Set Up “Consortium” for College Students’ Innovation and Entrepreneurship Via Multi-cooperation between Universities and Local Organizations

1) Concept to be changed for highlighting the systemic cooperation.

Since the theory of “Symbiosis” was presented by Anton de Bray, a German mycologist. This theory has been widely accepted and used for references by other disciplines. Some researchers pointed out that the independent innovation has failed to make companies kept sustainable competitive strength under a background of cross-pollination of technologies in globalization, blurred industrial and corporate boundaries, and rapid development of information technology. Companies are necessary to change their innovation paradigm for a purpose of joint development via co-creation, sharing and interested parties, to integrate the internal and external innovative resources based on a symbiosis innovation [3].

We highlight the systemic cooperation, during which the college students’ innovation and entrepreneurship, as an important part for construction of Chongqing Innovation City, has been incorporated into the city’s development plan, to facilitate the college students’ innovation and entrepreneurship, talent team innovation and entrepreneurship, innovation in companies, technology innovation, new commercial activities in counties and districts as well as regional innovation system construction in a manner of overall planning and system deployment. Highlights in services for local organizations This is to guide and facilitate the college students’ innovation and entrepreneurship to be combined with major industries in counties and districts for solving technical difficulties in small and medium-sized companies, for cultivating new commercial activities, cultural creations and rural revitalization, and to cultivate the aspiration and ability of college students providing services for local construction (or hometown) in Chongqing. We highlight the open innovations, during which team members are required to enhance their linkage so that facilitates the college students’ innovation and entrepreneurship to be combined with the national strategy such as construction of Chengdu-Chongqing twin-city economic circle and new sea-land channel etc.; to create excellent entrepreneurship ecosystem and business and commercial environment so that may attract more excellent college students from China and foreign countries to start their innovation and entrepreneurship in Chongqing, under supports of well-known and popular brands.

2) Setting up permanent bodies for innovation and entrepreneurship We recommend that this permanent body is nominated by a municipal authority and other authorities as well as county or district government work together to facilitate the permanent body in charge of innovation and entrepreneurship in a manner of “cross-entity, cross-domain, cross-discipline and cross-system” for college students’ innovation and entrepreneurship.

3) setting up a complete administration mechanism for providing one-stop service to college students’ innovation and entrepreneurship. This mechanism includes as follows,

(a) setting up a guarantee fund for innovation and entrepreneurship in the whole city.

(b) setting up a mechanism for tolerable failure of

entrepreneurship.

The guarantee fund for entrepreneurship offers a guarantee for the loan less than CNY 100,000.00, waiver of personal guarantee; if the loan less than CNY 100,000.00 is affirmed as non-performing load (NPL), the load will be compensated in full amount by the guarantee fund, which means the failure of entrepreneurship is tolerable, providing a solution free of worries to entrepreneurs.

(c) Setting up a mechanism of “Business Partnership”.

Business Partnership Mechanism, based on the thinking on Internet and industrial ecosystem, by which the suppliers to create value by capital, technologies and governance are integrated, is not only a mechanism for division of labor synergies that makes all partners in win-win cooperation, responsibilities to be jointly undertaken, co-creation and sharing, but also an internal strategic motivation improvement mechanism for a novel company governance and promotion of business growth.

This mechanism has changed its single line cooperation in the past, from “project provided by university-project contracted by companies-bonus offered by government” to cooperation based on Internet and Interactive, and upgraded from general cooperation only limited to technological achievement to deeper cooperation involving to industrial park’s development, operation and management as well as investment promotion, by which the resources from diversified fields such as universities, institutes, companies and industrial parks etc. are combined as a development entity as per market rules and set up as a partnership similar to the Business Partnership [4].

(d) Setting up a coordination and communication mechanism on supervisor’s policies. Relying on the “Consortium” set up by college students for their innovation and entrepreneurship, the joint meeting on innovation and entrepreneurship set up by college students will be held regularly, during which the consortium set up by universities and district and county government are accurately empowered on the basis of centralized research and judgment, policy superposition, and resource gathering, so as to create an administration pattern of united efforts to promote the innovation and entrepreneurship for college students.

(e) Setting up an all-round innovative and original mechanism.

This mechanism aims at the layout of regional pillar industries and emerging industries, we will set up a platform for government-industry-academia-research collaboration and an innovation carrier for combination by industry-education and science-education, and further promote cooperation between university-company, university-university, university - institute, adhering to a principle of “local organizations make the questions and the teachers and students answer questions”, and continuing to break down the barriers between local organizations, industries, colleges, disciplines and specialties, and strengthening the integration of disciplines, specialties, teachers and students, and universities-local organizations; cultivating more innovative and entrepreneurial projects with

significant subject, technological breakthroughs, innovation and modes, and promising business prospects; extending innovation and entrepreneurial projects to districts and counties for setting up a new era for companies and industries, research institutes and universities to collaborate on innovation.

(f) Setting up a multi-variant safeguard mechanism.

Relying on the joint conference on innovation and entrepreneurship by college students, we have prepared work plans to promote their innovation and entrepreneurship, including providing powerful supports to entrepreneurs and one-stop services, effectively playing the role of Chongqing Municipal Transformation of Scientific and Technological Achievements of Colleges and Universities Service Center; preparing special preferential policies for consortium set up by universities and local organizations, as well as their patent application, project incubation, property right ownership, interest and risk-sharing, project financing and social insurance, etc.; supporting open sharing methods for colleges, universities and institutes to improve their major scientific research infrastructure and large-sized research instruments, opening laboratories and scientific research instruments, facilities and other scientific and technological innovation resources for college students, and providing targeted technological innovation services; supporting large and medium-sized state-owned companies to set up college students' innovation and entrepreneurship projects in the light of specific practical problems, and playing a role of "accepter as a commander-in-chief" for the consortium set up by universities and local organizations; encouraging public employment service organizations and business incubation bases to provide low-cost, all-factor business incubation services for college students; exploring business supporting industries, pairing to help entrepreneurs, teamwork business and other modes to solve the practical problems faced by college students during the initial period of their entrepreneurship; introducing the proportion of college student teams and entrepreneurial teams to the assessment and evaluation of technological business incubators, by which it is beneficial to facilitate college students' entrepreneurship and employment in light of diversified incubators.

(g) Setting up an advanced incubation mechanism for innovation and entrepreneurship

This mechanism aims to set up a joint training instructor panel for innovation and entrepreneurship among college students from universities, local companies and other parties, creating science and technology entrepreneurship apprenticeship bases for college students, comprehensively improving the innovation and entrepreneurship literacy of college students, creating an excellent entrepreneurship ecosystem, and attracting college students to open businesses and employment in Chongqing and back to Chongqing; implementing a special talent program for innovation and entrepreneurship off-campus mentors of colleges and universities; highlighting in supporting the construction of a batch of "University-Local Organization Joint Innovation and Entrepreneurship Masters' Studio" to promote the whole chain of innovation and entrepreneurship project incubation and cultivation system such as cutting-edge research and

practical application on innovation and entrepreneurship; gradually setting up "College Creator Studio - University-based Creator Studio - Industrial Technology Research Institute - National University Science and Technology Park" and "College Innovation and Entrepreneurship Program -National University Science and Technology Park", "College students' innovation and entrepreneurship projects to university-based incubator to district and county-based incubator to settlement in industrial parks", "pre-incubation + incubator + accelerator + stabilizer" and so forth.

(h) Setting up a linkage propaganda mechanism for cities, districts (counties)

This mechanism aims to announce typical figures, cases and data of consortium set up by universities and local organizations in different places, hand by hand to expand publicity, telling more and better stories on college students' innovation and entrepreneurship in Chongqing that serves the local community, and creating an attractive atmosphere, in which the whole society affirms the innovation and entrepreneurship by college students.

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