

Research on the Cultivation Mode of Innovative and Enterprising Ability of Postgraduates Based on Crowdsourcing

Yue Long

Strategical Planning College, Chongqing Technology and Business University, Chongqing 400067, China

Abstract

To explore the new mode of cultivating innovation and entrepreneurship ability of postgraduates majoring in economy and management, this paper analyzes their present situation of innovation and entrepreneurship ability and training mode as well as their training value, draws the training system of innovation and entrepreneurship ability for postgraduates majoring in economy and management, combining with the theory of open innovation, this paper designs development system of innovation and entrepreneurship ability and the system's process for postgraduates majoring in economy and management which based on crowdsourcing idea , sets up the model of innovation and entrepreneurship ability training for postgraduates majoring in economics and management, of which this paper provides theoretical reference to the reformation.

Keywords

Crowdsourcing; Postgraduates of economics and management; Innovation and entrepreneurship ability; Training mode.

1. Introduction

China's economy has entered a new normal of economic development, and its growth momentum is at the critical stage of the transition from the old to the new. Therefore, new growth forces are urgently needed to be trained in order to promote sustained and orderly economic growth. Premier Li Keqiang proposed "initiative of mass entrepreneurship and innovation" to support and encourage the new generation of young people to start innovation and entrepreneurship, as well as to release the infinite vitality of China's economic growth. As an important way to implement the strategy of development driven by innovation in the field of education, innovation and entrepreneurship has got the general attention of colleges and universities, which has become an important component of quality education in domestic colleges and universities. It aims to implement Guiding opinions on the development of maker space and the promotion of mass innovation and entrepreneurship by General Office of the State Council. Therefore, it can enhance the innovative spirit, entrepreneurial awareness and innovative ability of College Students. Competitions in innovation and entrepreneurship for college students emerge like mushrooms after rain to alleviate the severe employment situation, such as "Creating Youth" and "Internet Plus".

Postgraduates of economics and management are the new force and pacesetter in the study of economic and social development, and an important source of scientific research and management team on economics and management in China. The object for their studies is the real and changing economic society, and the quality of training is directly related to the quality of research and management on economics and management. At present, China is deepening the reform and innovation development in the field of economics and management, which provides rich research topics and practice carriers for the education on postgraduates of economics and management. There is great demand for postgraduates of economics and management in society. However, as stated in Opinions on deepening the reform of innovation and entrepreneurship education in Institutions of higher learning by General Office of the State Council ^[1], in the current training process of postgraduates, there are some prominent problems that cannot be ignored in innovation and entrepreneurship education on postgraduates of economics and management as well as other majors.

For example, innovation and entrepreneurship education is separated from the practice in many colleges, it needs to improve the system of innovation and entrepreneurship education, and knowledge and ability of postgraduates are out of line with society. It is the key problem needing urgent solution to construct the ability system in innovation and entrepreneurship of postgraduates of economics and management in new period and innovate the training mode of innovation and entrepreneurship abilities of postgraduates of economics and management so as to integrate innovation and entrepreneurship education into the whole training process and supply excellent talents with innovative spirit and entrepreneurial ability to the society.

With the coming of the Internet Era, it generates a large number of new business models. As crowdsourcing model breaks through the constraints of traditional space, industry and specialty, it attracts lots of talented makers, showing the trans-organizational and trans-regional advantages of resource allocation. The model has been favored by Boeing, IKEA, L'OREAL, Apple and other multinational companies. Apple Inc. realizes the profit sharing between operators and content providers through crowdsourcing. Its successful business model not only reduces the cost of platform providers, but also provides the Internet and the public with access to wealth. Thus it can be seen that crowdsourcing, as a new business model integrating information technology and operation management, opens a new way to combine the creativity and wisdom of the public to solve various difficulties through the Internet. The new thinking also provides experience, inspiration and new opportunities to change the training mode of innovation and entrepreneurship abilities of postgraduates of economics and management.

In a word, this paper combines new characteristics of training in postgraduates of economics and management in the new period, and formulates the training system of innovation and entrepreneurship abilities of postgraduates of economics and management. And then design the training mode of innovation and entrepreneurship abilities of postgraduates of economics and management on the basis of the concept of crowdsourcing, and illustrate the platform and procedures of the training system in innovation and entrepreneurship so as to provide theoretical references for deepening the training mode of postgraduates of economics and management.

2. Values of ability training in innovation and entrepreneurship on ability promotion of postgraduates of economics and management

2.1 Status of innovation and entrepreneurship abilities and training mode of postgraduates of economics and management

As the research object and content of postgraduates of economics and management are closely related to the economic and social development, the professional, complex and practical characteristics are gradually recognized by the field of economics and management ^[2]. The training on innovation and entrepreneurship abilities of postgraduates of economics and management also attracts continuous attention of lots of scholars.

Firstly, it is about the training of innovation and entrepreneurship abilities. It needs a great many of the new generation of young people with innovative spirit and entrepreneurial abilities in current China, in order to realize the change of the connotative extended reproduction and the intensive pattern of economic growth, as well as promote the rapid development of high and new technology industry with core competitiveness in China ^[3]. Due to the huge social demand, majors in economics and management have become popular choices for students to compete against. Li Yong (2014) analyzes and studies the ability training in innovation and entrepreneurship of students of business administration, and he conducts an analysis of collaborative training in two modules, innovative abilities and entrepreneurial abilities, so as to make the intersection of innovative abilities and entrepreneurial abilities through abilities in practical innovation, theoretical analysis, leadership decision-making and opportunity identification ^[4]. Ouyang Hongjie (2014) thought the innovation and entrepreneurship abilities of college students are a complex, which realizes the subdivision of innovation and entrepreneurship abilities into abilities of practical operation, innovative thinking,

independent thinking, and independent judgment, independent research activity, academic communication and entrepreneurial potential^[5]. These studies have enriched and developed the connotation and system of innovation and entrepreneurship abilities of postgraduates of economics and management. Meanwhile, some scholars pointed out the deficiencies in training. Xu Guohu (2015) pointed out that, with the expansion of enrollment scale, the resources of colleges and universities are far from meeting the growing teams of postgraduates of economics and management, and the weakness in abilities of quality and practice leads to increasingly severe employment situation^[6]. Deng Qizhong and other scholars (2014) believed that, students of economics and management lack innovative concepts and application ability while they have weak original abilities, and he also pointed out the innovation and entrepreneurship education is out of line with professional education in lots of colleges and universities^[7]. Thus it can be seen that, on the training of innovation and entrepreneurship abilities, the current system mainly emphasizes knowledge transmission and knowledge reproduction while there is a lack of training in innovative spirit and abilities in innovative practice.

Secondly, it is about the mode of talent training. Li Yong and other scholars (2014) conducted a matching analysis about the social demand for talents in business administration and current talent training mode, and they put forward that the colleges and universities should set up second classes, form a double-tutor team, and carry out the industry-university-research training mode^[4]. Ren Zhi'an (2014) proposed a new teaching mode of "1+PIE" aimed at the deficiencies in the combination of the training of innovation and entrepreneurship abilities with industry and research for postgraduates of economics and management, but the implementation of the mode needs to be closely combined with local economy^[8]. Yan Yuping (2014) constructed the training mode of innovation and entrepreneurship abilities of business college students on the basis of VPTP (virtual practice teaching platform)^[9]. In recent years, industry-university-research cooperation becomes an important training mode in colleges and universities. A variety of technological innovation platforms become important carriers to enhance the abilities of students in innovation and entrepreneurship. However, there are some problems in the training process. For example, Colleges and universities have not yet fully realized the docking with society and the training environment is still relatively closed.

In a word, current studies lay a certain foundation for the research on innovation and entrepreneurship abilities and training mode of postgraduates under new situation. However, the existing training mode emphasizes the transfer of knowledge excessively, and has not yet blended with the new features of the current economic and social development. And it pays insufficient attention to key training links, like the training in innovation consciousness, innovation potential. There is a lack in the construction of the system of innovation and entrepreneurship abilities. There is still a gap in the construction of the training system of innovation and entrepreneurship abilities for postgraduates of economics and management.

2.2 Values of ability training in innovation and entrepreneurship on postgraduates of economics and management

Studies show that innovation and entrepreneurship is a relatively vague and broad concept. As a whole, the development of innovation and entrepreneurship abilities should pay more attention to training the students' innovative consciousness, entrepreneurial spirit and practical ability^[10]. To enhance the training in innovation and entrepreneurship abilities has positive values to improve the comprehensive abilities of postgraduates of economics and management. It is precisely shown as follows:

Innovation and entrepreneurship abilities become the characteristics of the times needed for postgraduates of economics and management. As China's economy enters the new normal, The transformation and upgrading of traditional industries and the development of strategic emerging industries are badly in need of a large number of comprehensive talents who lead the times forward with innovative spirit, innovative consciousness and innovation and entrepreneurship abilities, which also becomes the key to the education reform of postgraduates of economics and management. The

country has introduced many policies to promote innovation and entrepreneurship education. Therefore, the training in innovative spirit and entrepreneurship awareness can stimulate innovation and entrepreneurial potential, and enhance innovation vitality and creativity. It can fit the needs of economic and social development of the times, and conform to the mainstream direction of national education reform. Meanwhile, it is conducive to developing postgraduates of economics and management as a leading vanguard of economic and social development, so as to promote economic and social transformation and development.

Innovation and entrepreneurship abilities become the core competitiveness of postgraduates of economics and management. Compared to other majors, postgraduates of economics and management have a systematic command of professional management knowledge and inborn advantages in entrepreneurship quality and abilities. Through deepening the innovation and entrepreneurship education, it can realize the transfer of traditional stock of knowledge and experience, enrich and expand the system of innovation and entrepreneurship abilities for postgraduates of economics and management. It can dock with the needs of economic and social development along with necessary practice, and integrate the quality, knowledge and abilities of postgraduates. Thus it is conducive to training the abilities of postgraduates in speed learning of knowledge and innovation, and creating the characteristics of postgraduates of economics and management. Transfer the relationship between postgraduate training and economic and social development from passive adaptation to active guidance in order to form the core competitiveness.

Training in innovation and entrepreneurship abilities helps stimulate personalized development. The transformation and upgrading of economic society requires innovation and entrepreneurship. It needs to break through traditional thinking, and needs a lot of original innovation. From the cultural perspective, conventional thinking and behaviors become major obstacles to innovation. Contemporary postgraduates grow up in the new era, and they have significant personalities in the perspective of solution to problem, thinking mode and methods. It is just in line with the original intention of innovation and entrepreneurship training. Through innovation and entrepreneurship education, it can tap the innovative potential and stimulate the infinite imagination and creativity of postgraduates. And it is more conducive to shaping personality, enhancing originality, breaking through and even subverting the tradition.

3. Training system of innovation and entrepreneurship abilities of postgraduates of economics and management

On the basis of the analysis about the status of postgraduates of economics and management in innovation and entrepreneurship abilities, relevant training mode and training values above, this paper thinks postgraduates of economics and management should master the development trends of economic society and solve various problems while taking economic and social development as the research topic and practice carrier to develop the training in innovation and entrepreneurship abilities.

In a word, introduce the open innovation theory to construct the new training system of innovation and entrepreneurship abilities. In the system, it should include the stimulation and training of implicit ability. Besides, it should pay attention to four ability indicators, namely abilities in innovative thinking, independent research activities, resource integration and flexibility. Meanwhile, it should enhance the abilities of leadership decision-making, opportunity identification, risk identification and avoidance and coordination required in innovation and entrepreneurship. On this basis, this paper constructs the training system of innovation and entrepreneurship abilities of postgraduates of economics and management from training in explicit ability and implicit ability (i.e. quality and knowledge), as shown in Figure 1.



Figure 1 Training system of innovation and entrepreneurship abilities of postgraduates of economics and management

In Figure 1, highest target layer indicates the training targets of innovation and entrepreneurship abilities of postgraduates of economics and management. The middle layer is the way to realize, namely training innovation and entrepreneurship abilities from explicit ability and implicit ability. The bottom is a measure or plan that can be taken, namely the indicators included in training of innovation and entrepreneurship abilities. The indicators can be realized through specific courses, projects and training.

Compared to traditional system of innovation and entrepreneurship abilities, this system takes the characteristics of current economic and social development into full consideration, and develops the quality, knowledge and ability of the traditional training. It lays emphasis on the spirit of innovation, entrepreneurial awareness and entrepreneurial potential and other indicators to enrich and expand the traditional indicators of comprehensive qualities for postgraduates of economics and management. For example, it increases the abilities of independent research activities, innovative thinking, resource integration, flexibility and other indicators to perfect the explicit abilities of postgraduates of economics and management.

In order to achieve the above training targets, discuss the training mode in the following.

4. Crowdsourcing mode in training of innovation and entrepreneurship abilities of postgraduates of economics and management

For a long time, the modes of “Master training apprentice” and “Team training apprentice” have been the mainstream modes in training postgraduates of economics and management. Universities or research institutes mainly adopt internal resources to realize talent training. There are prominent problems in such modes, such as tremendous investment and disconnection between the training process and the society. With the acceleration of economic and social reform and development, the growth of knowledge and the flow rate, it has been quite difficult for training closed training mode to train a new generation of postgraduates, who are equipped with implicit abilities, including innovative consciousness and spirit, and explicit abilities in resource integration and flexibility. Existing training mode is urgent to draw on the successful experiences of other organizations, break through organizational boundaries, absorb external knowledge, technology and funds, and effectively integrate internal and external resources.

On the basis of the analysis about the training system of innovation and entrepreneurship abilities of postgraduates of economics and management above, it is easy to find that, it becomes the key to innovation of training mode for postgraduates of economics and management to tap the entrepreneurial potential, train the implicit abilities, including innovative consciousness and spirit, and achieve the breakthrough in the explicit ability, including resource integration and flexibility.

On the basis, the paper introduces open innovation theory to innovate training mode, which was first developed by Harvard Business School in 2003. The theory is about a kind of innovative modes that the enterprises make extensive cooperation with external organizations in technical innovation, integrate internal and external innovative resources so as to improve innovative efficiency and profits^[11]. As the mode breaks through organizational boundaries, it realizes the resource allocation in a broader range, and gets extensive attention of enterprises. Wang Zixian (2013) pointed out that HUAWEI combines “borrowlism” and independent R&D, and insists on innovative market and customer orientation, so the open innovation strategies make HUAWEI rapidly develop into a world-class high-tech multinational company^[12]. Wang Haijun (2015) proposed an open innovative business model of the whole procedure through the comparison of closed innovation and open innovation, and reviewed the cooperative relationship between enterprises, terminal users and partner resources, as well as verified the feasibility of cooperative mode between technological openness and innovation as well as the feasibility of dynamic optimization mechanism of partner resources through the case of HAIER^[13]. On the basis of above successful modes, experience and inspirations, the paper puts forward the training mode of innovation and entrepreneurship abilities of postgraduates of

economics and management on the basis of “Platform Plus Procedure”. The platform is the carrier of the mode of crowdsourcing, and the procedure is the training process of innovation and entrepreneurship.

4.1 Platform of crowdsourcing for training of innovation and entrepreneurship abilities

Crowdsourcing is a typical and effective open innovation mode, and the platform of crowdsourcing is the carrier of the crowdsourcing mode. The platform originally meant the carrier where a company or an institution outsources the tasks which were implemented by internal employees before to unspecific public network (usually large-scale). That is the enterprises or organizations adopt the Internet to operate opener and easier internal and external intelligence resources at lower costs on the platform, to motivate the creativity and intelligence of the mass and assist in innovation and entrepreneurship. The mode can also bring enterprises the core customer values that their own resources can’t generate, as well as advanced thinking of network marketing and micro marketing.

It is shown as Figure 2 about the architecture of crowdsourcing platform for training of innovation and entrepreneurship abilities of postgraduates of economics and management.

Interface layer	Employer	Service provider	Administrator
	Customization for application service Personalized customization		
Application layer	Network community	Special task	Platform management
	Innovation and entrepreneurship education Online class Personal life	Product design Brand creativity Marketing planning ...	User permission Platform monitoring Principle center Transaction management
Support layer	Task set Task allocation mechanism		
Foundation layer	Hardware platform + Hardware platform		

Figure 2 Platform of crowdsourcing for training of innovation and entrepreneurship abilities of postgraduates of economics and management

Figure 2 shows the supporting layer of training mode of innovation and entrepreneurship abilities of postgraduates of economics and management. The platform consists of four layers. From top to bottom, the layers are interface layer, application layer, support layer and foundation layer.

The interface layer is the window for interaction between different subjects. Through provisions of permissions and authentication, different objects (like service providers, employers and administrators) enter different operating interfaces for different applications. Employers can realize service customization and personalized customization according to the demand difference. And service providers (like postgraduates of economics and management) can accept various tasks through the interface layer.

The application layer is the specific area of function collection to realize the task verification and docking between employers and service providers. The application layer is divided into network community, special task zone and platform management zone. It is the main operating area of the online crowdsourcing platform. Network community comprises innovation and entrepreneurship education, online class and personal life and other plates. In the plate of innovation and entrepreneurship education, it mainly collects the typical cases of innovation and entrepreneurship at home and abroad. Online class collects a variety of training materials from famous tutors. It can adopt the network community to gather various kinds of innovation and entrepreneurship resources to help postgraduates increase their knowledge, cultivate their innovative and entrepreneurial spirit, and to

enhance their awareness of innovation and entrepreneurship. Special task zone includes product design, brand creativity and marketing planning and other functional plates. This functional plate includes a large number of tasks launched by employers. It can conduct intensive training on the thinking and abilities of postgraduates through product design and brand creativity and other creative activities. The platform management zone includes user permissions, transaction management and other functional plates. In this functional plate, it completes the system test and normal operation of controlling system.

The support layer consists of task set and task allocation mechanism. According to designed allocation mechanism, distribute the tasks of employers to each plate and offer the price, payment mode and judgment criteria of each task.

The foundation layer is comprised of software and hardware. The software includes a variety of application software and operation systems. And the hardware contains the corresponding server, network equipment and other basic physical facilities.

4.2 Operation procedure of training in innovation and entrepreneurship abilities

On the basis of crowdsourcing platform of training in innovation and entrepreneurship abilities, it can break through the constraints of space, industry and profession in traditional training of postgraduates of economics and management, realize the transformation from closed education to open education and promote the training in innovation and entrepreneurship abilities of postgraduates of economics and management through richer resources and opener forms. The operation procedure of this platform is shown as Figure 3.

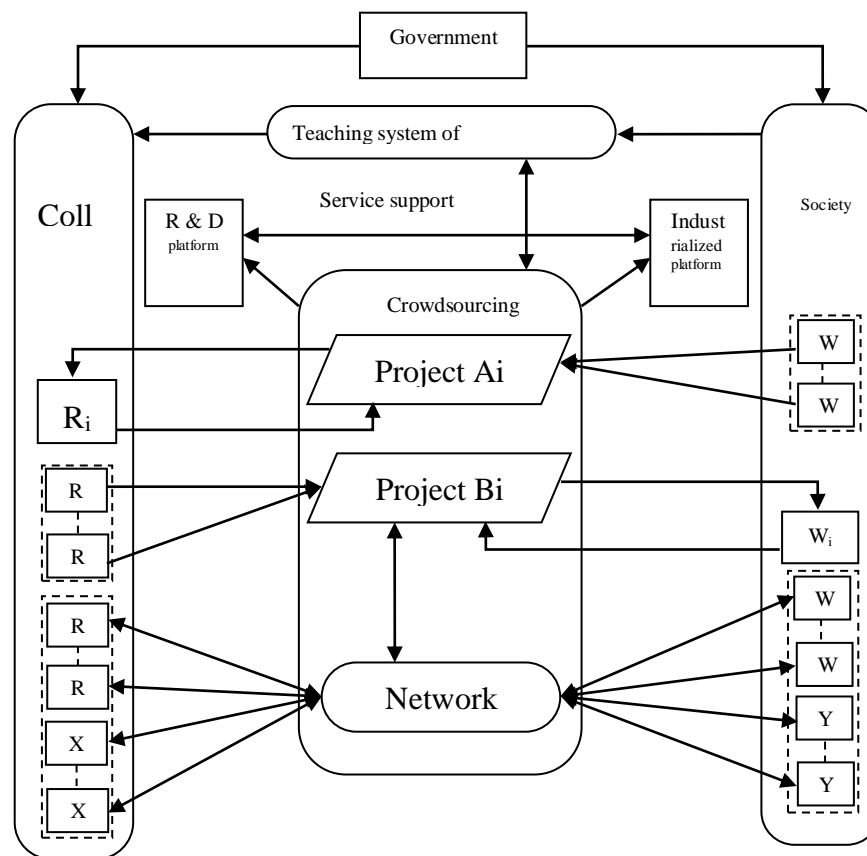


Figure 3 Operation procedure of crowdsourcing platform

In Figure 3, as there is certain publicity in innovation and entrepreneurship education of postgraduates of economics and management, the crowdsourcing platform conducts the docking with R& D platforms of enterprises and various industrialized platforms of the society through the guidance of the government to realize the integration of a variety of innovative elements and promote

collaborative innovation. In Figure 3, the symbols of A and B respectively stand for the crowdsourcing projects of colleges and that of the Internet. R stands for postgraduates of economics and management, W stands for Internet employers, X stands for college employers and Y stands for enterprisers or tutors in innovation and entrepreneurship.

On the basis of crowdsourcing platform, it can gather Internet employers, college employers, enterprisers, tutors in innovation and entrepreneurship and postgraduates of economics and management to form an integrated system in knowledge transfer, experience sharing, consciousness and spiritual training about innovation and entrepreneurship. Through the contract with Internet employers and college employers, it can form crowdsourcing projects A and B, so as to provide a variety of opportunities for the training in innovation and entrepreneurship of postgraduates of economics and management. Therefore, it can form an ecological circle of the training in innovation and entrepreneurship abilities of postgraduates of economics and management based on crowdsourcing. Compared to traditional information platforms, this platform has the following characteristics:

Construct an ecological circle of the training in innovation and entrepreneurship abilities and dock economic and social development. In Figure 3, the R & D platforms and industrialized platforms of enterprises belong to professional platforms in the industry chain, and they respectively undertake technological innovation and achievement transformation. Absorb the government, enterprises, universities, postgraduates, the Internet, public organizations and other subjects, get through all the links in training and employment of postgraduates of economics and management and construct an ecological circle of the training in innovation and entrepreneurship abilities based on crowdsourcing. In the ecological circle, it docks crowdsourcing platform, the R & D platforms and industrialized platforms of enterprises, so that it can better connect “industry, university, research and application” to realize collaborative innovation and dock the needs of economic and social development.

Transfer the training way and innovate the training mode of postgraduates of economics and management. Open innovation has advantages in faster speed, lower cost and more profits, so it is gradually becoming the leading mode for corporate innovation in the age of knowledge-based economy. Based on open innovation theory, the construction of crowdsourcing platform realizes the transformation from closed training in innovation and entrepreneurship to open training in innovation and entrepreneurship. It integrates internal and external resources in lower cost and faster speed based on open resources to realize the training in innovation and entrepreneurship abilities of postgraduates of economics and management. Meanwhile, it can expand current training mode of postgraduates of economics and management, and adapt to the demand of the economic society with rapid development.

Realize the role transformation and innovate platform design. Based on crowdsourcing theory, formulate the principles of task distribution and design the platform, adopt the Internet to aggregate public resources and transfer the original roles of college teachers, postgraduates of economics and management and enterprisers. It no longer rigidly adheres to the traditional closed teaching methods, and realizes diversified online interaction. Every subject can participate in crowdsourcing and become a free online maker to transform from “resource owner” to “resource integrator”. Acquire more choices with lower cost through crowdsourcing mode and improve the abilities of innovators and entrepreneurs of analysis, discrimination and resource integration to promote “initiative of mass entrepreneurship and innovation”.

Reduce the training cost and improve the training quality of postgraduates. The Internet-based crowdsourcing mode realizes the resource acquisition across the industries, professions and space, effectively saves the investment in training postgraduates of economics and management and reduces the cost. On the basis of crowdsourcing platform, employers decompose various tasks into many subtasks, and greatly improve the abilities of resource allocation through manpower crowdsourcing and resource crowdsourcing on the Internet, which is conducive to improving the enthusiasm of employers. Based on crowdsourcing platform, postgraduates develop the innovation

and entrepreneurship abilities through the simulation environment. Therefore, they can experience the functions of different positions in advance, and carry out the drilling of work practice, and make up for the defects of their own knowledge and abilities. It declines lots of risks of the inexperienced first entering the workplace, and improves the training quality of postgraduates.

5. Conclusion

Aimed at the deficiencies in innovation and entrepreneurship abilities of postgraduates of economics and management and training mode, the paper analyzed the value of innovation and entrepreneurship education for postgraduates of economics and management, and constructed the crowdsourcing platform based on open innovation theory. And then innovate the training mode of innovation and entrepreneurship abilities of postgraduates of economics and management, and enrich and develop diversified training mode of innovation and entrepreneurship abilities. The mode provides a new way for reference to explore the method of reducing the training cost of innovation and entrepreneurship abilities of postgraduates of economics and management, and to realize resource integration across the time and regions, dock the demand for economic and social development and further enhance the training quality of postgraduates of economics and management.

Acknowledgements

This research is supported by Project on Teaching Reform of Postgraduate Education in Chongqing (yjg153050), Youth Science and Technology Talents Project in Chongqing (cstc2014kjrc-qnrc00003), and Research Project on Teaching Reform of Chongqing Technology And Business University (2016205, 2017210).

References

- [1] General Office of the State Council. Opinions on deepening the reform of innovation and entrepreneurship education in Institutions of higher learning by General Office of the State Council [EB]. http://www.moe.gov.cn/jyb_xxgk/moe_1777/moe_1778/201505/t20150514_188069.html, 2015-05-04.
- [2] Huang Jianguo. Exploration and Practice of Training for Full-time Professional Postgraduates of Economics and Management—take Nanjing University Of Finance & Economics as an example [J]. *Academic Degrees & Graduate Education*, 2013, (3):20-22.
- [3] Zeng Zhi. Research on Training Mode of Innovation and Entrepreneurship Abilities of College Students of Economics and Management [J]. *Higher Education*, 2014(4):14-17.
- [4] Li Yong. Research on Improvement Strategy of Innovation and Entrepreneurship Abilities of College Students of Business Administration [J]. *Research on Higher Education of Finance and Economics*, 2014(2):24-27.
- [5] Ouyang Hongjie. Research on Practical Teaching System in Colleges and Universities for Training in Innovation and Entrepreneurship Abilities [D]. Hubei: Central China Normal University, 2014.
- [6] Xu Guohu. Research on Influence Factors on Training in Innovation Abilities of Postgraduates of Economics and Management Based on Coalition of College and Enterprise [J]. *Research in Teaching*, 2015(7):142-146.
- [7] Deng Qizhong, Zhou Zhiqiang. Problems and Decisions on Innovation and Entrepreneurship Education System of College Students [J]. *Journal of Innovation and Enterprise Education*, 2014(1):33-35.
- [8] Ren Zhi'an. Research on New Training Mode of Innovation Abilities of Postgraduates of Economics and Management [J]. *Journal of Graduate Education*, 2014(3):53-56.
- [9] Yan Yuping. Research on Training Mode of Innovation and Entrepreneurship Abilities of Business College Students Based on VPTP [J]. *E-education Research*, 2014(10):48-52.
- [10] Li Guangyi. Research on Safeguard Factors of Development of Innovation and Entrepreneurship Abilities in Colleges and Universities [J]. *China Business and Market*, 2010(9):66-69.

- [11]He Yubing. Research Trends and Prospects of Open Innovation at Home and abroad [J]. Science of Science and Management of S.&T,2015,36(3):3-10.
- [12]Wang Zixian. HUAWEI: Open innovate creates the world-class high-tech multinational company [J]. Globalization: Case Study,2013(3):102-112.
- [13]Wang Haijun. Research on Open Innovation Mode and Dynamic Optimization Mechanism of Partner Resources [J]. Science of Science and Management of S.&T,2015,36(12):62-69.
- [14]Chen Yan, Fan Bingquan. Research on Relationship between Open Innovation Abilities and Innovation Performance in Small and Medium-sized Enterprises [J]. R & D Management, 2013,25(1):24-35.
- [15]Zhang Zhengang. Research on Relationship between Open Innovation, Absorption Abilities and Innovation Performance [J]. Science Research Management,2015,36(3):49-56.