The Framework for the Construction of Management Science and Engineering Discipline in Local Universities of Finance and Economics under the “Double Top-Class” Background

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Abstract. In this paper, we established theoretical frame for the construction of specific disciplines in local financial and economic universities under the “Double Top-Class” background. We took Jilin University of Finance and Economic as an example, introduced the construction status for Management Science and Engineering discipline and analyzed the current problems. We built the overall framework from six aspects, such as discipline orientation, talent cultivation, team building, scientific research, platform building and international exchange. We expect to construct a reasonable mode which is suitable for specific disciplines of local financial and economic universities.

Introduction

The Chinese State Council released a statement in 2015 (“Coordinate Development of World-class Universities and First-class Disciplines Construction Overall Plan”) designed to lift the status and standing and international competitiveness of China’s higher education system. The statement provided further details of so called the “Double Top-Class”, which is an upgraded version of the former “985” and “211” projects [1]. In September 2017, the Ministry of Education announced the list of first-class universities and first-class discipline construction universities. There are only five financial and economic universities in the list of first-class discipline construction universities [2]. It is an urgent problem for other dozens of local financial and economic universities to construct disciplines and to develop the connotation under the background of “Double Top-Class”. In this paper, we took the discipline of Management Science and Engineering in Jilin University of Finance and Economics as an example [3]. We analyzed key problems in discipline construction under the background of “Double Top-Class” [4]. And then we constructed the theoretical framework for the universities to construct advantageous and characteristic discipline. We gave a clear idea for construction and proposed the following plans and measures from six aspects, such as discipline orientation, talent cultivation, team building, scientific research, platform building and international exchange. Our aim is to construct a reasonable mode which is suitable for management science and engineering discipline of local financial and economic universities. This paper offers a reference to the same class of disciplines to improve their level.

The Situation Analysis of Discipline Construction

Discipline Direction

The management science and engineering subject in Jilin University of Finance and Economics has the master degree program. This subject is based on the reality of local financial and economic universities. We combined the innovational theory of management engineering with the practice in
local financial and economic universities in this Internet and the Big Data Era. We have obtained a series of scientific research achievements marked by the National Projects. We have four academic directions such as business intelligence and data mining, e-commerce and supply chain management, data analysis and decision-making optimization and information engineering and service management. It still needs us to strengthen and develop the key research areas with outstanding advantages.

**Team Building**

We promoted the “people-oriented” talent strategy deeply guided by the direction of disciplines. We have paid more attention on training and recruiting outstanding talents. The teachers are encouraged to pursue doctoral degrees and study abroad to well-known universities in the world. We have fostered a professor as “Changbai Mountain scholars” which is a distinguished professor project. We have introduced many outstanding talents who have done good job at data technology, artificial intelligence and financial fields. We have engaged many well-known domestic and foreign experts and enterprise practical experts as visiting professors who play exemplars and leaders in discipline. In the future, we should enhance investment in the introduction of high-level overseas talents and well-known subject leaders.

**Talent Cultivation**

We established the so called “co-cultivation of team with one tutor’s responsibility” as the postgraduate training mode. Tutor and tutor team construction both play important role in increasing the postgraduate cultivation quality. They all focus on the cultivation of promoting postgraduates’ academic level. Therefore our postgraduate students have published the most academic papers in high level journals throughout all disciplines in our university. Currently, our problem for us is the insufficient scale of graduate students. We should expand new postgraduate training points and reform the enrollment policy to improve the attraction of the discipline.

**Scientific Research**

We obtained national projects every year from 2012. In the past 7 years, we have got 11 National Natural Science or Social Science Fund project of China. The number of the national projects is No.1 both in our university and in the same discipline of Jilin Province-affiliated Universities. These 11 projects include the National Nature Science Foundation of China for surface projects and youth projects, the General and Youth Projects of the National Social Science Fund projects. We also got the key projects of education, culture and health of the State Bureau of Foreign Experts and a number of high-level academic papers such as SSCI and SCI which ranks first number in the university. So we have made leapfrog breakthroughs formerly. Up to now, we have no national research awards and need to make breakthrough in this respect.

**Platform Construction**

The construction of management science and engineering discipline relies on two provincial scientific research platforms. One is “Jilin Provincial Key Laboratory of Fintech”, the other is “Jilin Business Data Research Center”. Accordingly, we also formed two academic teams named “Fintech researching Team” and “Business Big Data researching Team”. Our laboratory and research center cooperate closely with well-known universities and research institutes in the world to form an interdisciplinary and multi-field collaborative research platform. At present, the transnational cooperation project with foreign universities is inadequate slightly. It need us to prepare for the construction of international scientific research platform [5].

**International Exchange**

We accelerate the internationalization of disciplines by the international joint cooperation projects of undergraduates and postgraduates. We signed the “3.5+2” bachelor/master and short-term exchange international cooperation project with American Delaware State University in 2013. We signed the “2+2” international cooperation project for undergraduate with Australian Macquarie
University in May 2016. There are two undergraduate major of computer science and technology and information management and information system in this project. In July 2017, we cooperated with Australian Macquarie University in the “Youth Leaders Project”. We expanded the international vision of teachers and students and promoted the internationalization of disciplines by these diversified international cooperation models.

**Development Framework of Discipline Construction**

**Constructing Characteristics Disciplines**
We will combine the unique characteristics of information discipline and demonstrate the disciplinary characteristics of multiplicity and integration in finance and economics universities with the development of “Internet +” and “Big Data” era. We will optimize the overall developing framework of management science and engineering discipline supported by information technology. We will build a discipline system of cross-penetration and coordinated development between economics, management and computer disciplines. We are focusing on the research fields of business intelligence and data mining, e-commerce and supply chain management, data analysis and decision optimization, information engineering and service management. We are going to build the first-level discipline of management science and engineering into “the Advantages and Characteristics Class” in Jilin province, and enhance its influence among financial and economic universities in China.

**Creating Excellent Discipline Echelons**
We will cultivate a new high-level talent team by improving the environment and mechanism of talent growth and recruiting academic leaders. Excellent talents will be reserved by training and introducing to enhance the discipline echelons. Jilin Provincial Government made good policies for the introduction of high-level talents. So we should give priority to the high-level talents with overseas study experience and make plan to employ foreign teachers. Researchers should be encouraged to do international exchange and cooperation so that they can promote their international researching level. Keeping up with the academic frontier and pooling the wisdom are important thing to construct “Fintech Researching” and “Business Big Data Researching” teams. Our aim is to highlight the characteristics of management science and engineering research echelon of financial and economic universities.

**Promoting Industry-University Collaborative Innovation**
In order to improve students' practical ability and expand their employment channels, we will do our best to cooperate with the well-known enterprises with high compatibility and establish school-enterprise deep cooperation with them. This is called “Order-Type Talent Training Mode”. We are going to introduce enterprise tutors into the classroom and transport professional teachers into the enterprise. We will open up a new prospect by forming a new situation of talent cultivation, processing management, sharing achievement and responsibility. Then we can boost the integration of production and learning. The orientations of talent cultivation are guided by the industry market. We can share resource with enterprise and enhance students’ practical ability. For the requirement of society, we should take advantages of the four-party resource advantages of “government, university, enterprise and industry”. So that we can coordinate research project and accelerate the transformation of scientific research achievements and the promotion of new technologies.

**Uniting the Researchers to Join Forces**
Those important research projects, enterprise projects and development projects for regional economic and social development are foundations for researchers. We will select and train leaders and young mainstays from teacher team to build a scientific research cooperation system with “leaders + mainstays + research team” as the main body, and “overseas experts + enterprise team” as the two wings just like airplane. We will build a cross-researching platform for collaborative innovation research and provide a good academic environment for staff. We should innovate the
Building a Platform for Scientific Research

We have two provincial scientific platforms such as “Jilin Provincial Key Laboratory of Fintech” and “Jilin Business Data Research Center”. On the one hand, we have focused on the frontier trends of Fintech and improve the academic echelon of “Fintech Researching” team. On the other hand, we will built “Jilin Business Data Research Center”, which is the key research base of humanities and social sciences of Jilin province serving for regional economic development. On this platform, we will not only cooperate with enterprises in project research and development, but also promote the transformation of scientific research results according to the construction principles of “openness, competition and collaboration”. It is extremely important for us to build the platform steadily and solidly.

Expanding In-depth International Cooperation

First of all, it is necessary for us to introduce overseas teachers and implement the “professor program in module “. In the next place, we ought to invite well-known foreign experts and scholars to give lectures and expand the network resources for international exchange. What's more, hosting high-level international academic conferences and broadening the depth and breadth of international cooperation are also of great importance. In addition, it is a request of us to implement the overseas study program for young and middle-aged teachers. We should encourage students to study abroad to broaden their vision and enhance their academic communication ability. Furthermore, we should guide students to participate in international projects, provide the fund and improve the system for international talent joint training. Last but not least, we must resolutely proceed with a scientific international research platform so that we can strengthen academic exchanges and resource sharing among the platforms, improve mechanism and ability of transnational scientific research collaboration. Office of Development Planning and Discipline Construction.

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References


