

Research on the training mode of Chinese financial and economic compound top-notch innovative talents based on master's degree and master's degree: A theoretical framework

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Abstract

With the rapid development of information technology, the new generation of information technologies such as mobile Internet, big data, cloud computing, artificial intelligence and block chain are accelerating the economic and social changes, and the digital economy is booming. In recent years, China's digital economy has developed by leaps and bounds, and it is becoming a powerful kinetic energy to innovate the mode of economic development, and constantly accumulating experience for global economic recovery and social progress. In this context, the society needs more compound financial talents. Based on the practice of running schools in Chinese universities, this paper aims at solving the urgent demand of the development of digital economy for the top-notch innovative talents of finance and economics, takes the reform of the master's degree and master's degree integration training mode as the main line, carries out theoretical exploration and practice of the construction of related majors and curriculum systems, and puts forward a theoretical framework for establishing a new mode of master's degree integration training for top-notch innovative talents of finance and economics.

Keywords: Finance; Compound top-notch innovative talents; Master and master through training; Theoretical framework

1. Introduction

With the rapid development of information technology, new generation information technologies such as mobile Internet, big data, cloud computing, artificial intelligence and block chain are accelerating the economic and social changes, and the digital economy is booming. In recent years, China's digital economy has developed by leaps and bounds, and it is becoming a powerful kinetic energy to innovate the mode of economic development, and constantly accumulating experience for global economic recovery and social progress.

Under the wave of digital economy, the importance of talents and skills that cannot be replaced by technology has become increasingly prominent, especially the strong demand for top-notch innovative talents in finance and economics. Under this new situation, how can colleges and universities actively integrate into the digital economy era, actively adapt to the new requirements of the complexity of modern economic problems, the integration of knowledge application and the normalization of knowledge innovation, explore the reform of the training mode of top-notch innovative talents, consciously integrate all disciplines in the financial field, realize the combination of professional knowledge, ability aggregation and thinking integration, and organically combine social science, humanities, natural science and engineering technology, Dealing with the relationship among professional education, general education and

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innovation and entrepreneurship education effectively, and cultivating high-quality compound financial talents with innovative spirit, entrepreneurial consciousness and creative ability in order to meet the new trends and needs of economic and social development have become common problems in the process of talent training in financial and economic universities.

Based on the practice of running a school, this paper will focus on solving the urgent demand of the development of digital economy for the top-notch financial and economic innovative talents. Take the reform of the training mode of master's degree as the main line, focusing on the key issues such as training scheme, curriculum system, teaching staff, teaching mode, teaching materials and lesson plans, practice platform, quality evaluation, etc., the theoretical exploration and practice of related majors and curriculum system construction are carried out, so as to study a new mode of comprehensive cultivation of top-notch innovative talents of finance type in digital economy.

2. Significance and value

Theoretically, by combing the relevant theories and practices of training top-notch innovative talents in finance and economics, this paper studies the training objectives, orientation and ability structure of top-notch innovative talents in finance and economics in the digital economy era, and carries out theoretical research on the training mode of top-notch innovative talents in finance and economics, and theorizes and systematizes some practical explorations on the implementation of master and master through training, constructs the basic framework of the talent training mode of master's degree in colleges and universities, solidly promotes the exploration of top-notch innovative talents training in financial and economic colleges and broadens the research ideas of compound talents training in financial and economic fields..

Practically, facing the needs of society, by solving the key problems of "who to train", "how to train people", "what to train people", "who to train people" and "how to ensure the quality of training" in the training process of Time Finance-type compound top-notch innovative talents with master's degree and master's degree, we will explore a new training mode of top-notch innovative talents with master's degree and master's degree, build a multidisciplinary cross-integration curriculum system with finance as the core, and improve the collaborative education of production, teaching and research integration. We will promote the exploration and practice of the training mechanism of Time Finance-type compound innovative talents in digital economy, and form a demonstration effect through school-school combination and school-enterprise linkage, so as to promote the training process of financial and economic compound innovative talents in digital economy in colleges and universities.

3. Definition of core concepts

3.1. Digital economy

At present, the industry's definition of digital economy is based on the relevant expression of the G20 Hangzhou Summit, that is, "digital economy refers to a series of economic activities with the use of digital knowledge and information as key production factors, modern information network as an important carrier and the effective use of information and communication technology as an important driving force for efficiency improvement and economic structure optimization" [1].

3.2. Compound talents

Compound talents refer to talents who have complete and systematic interdisciplinary or professional knowledge and ability, can achieve knowledge integration, and can adapt to and be competent in many fields of work. Specifically, they include the following basic characteristics: First, the knowledge structure is diversified, that is, their own professional knowledge is regarded as a "central point" and interconnected with other similar and significant knowledge to form a knowledge network with strong adaptability and function in a large range; Second, knowledge blending is high, and knowledge in different disciplines can be organically combined, crossed, integrated and infiltrated; Third, thinking radiation is wide, being good at considering and solving problems from various aspects, angles and levels, and quickly knowing and grasping the relations and laws of things; Fourth, it has strong social adaptability and adaptability.

3.3. Top-notch innovative talents

Top-notch innovative talents refer to outstanding talents who have perfect and unique personality, strong sense of dedication and social responsibility, rich scientific literacy and professional knowledge, extraordinary innovative spirit and innovative ability, can lead and drive the creative development of a professional field, and can make significant

contributions to the development of the country and society [2]. Top-notch innovative talents should possess cross-border integration ability, critical thinking ability, creativity ability and problem-solving ability, among which cross-border integration ability is the core quality that top-notch innovative talents should possess.

3.4. Master's degree and master's degree through training

Master-doctoral integration training mode refers to an integrated training mode which aims at cultivating top-notch innovative talents, integrates the training process of undergraduates, masters and doctoral students, integrates high-quality educational resources, optimizes the talent training system, and explores the effective connection between undergraduate education and postgraduate education. This training mode can adapt to the law of output of high-level scientific research achievements and the law of training top-notch innovative talents with its consistency and long-term characteristics [3].

3.5. Integration of production, teaching and research

The definition of this concept can be understood by combining two "integrations": first, the integration of production and education, that is, the integrated and interactive relationship between education and industrial economic development. By exploring the common demands and internal relations and logical balance points between production and education, designing the long-term mechanism of integration of production and education, fully activating the internal potential of the two main bodies of production and education, is an effective measure for systematic reform of higher education [4] Second, the integration of science and education, that is, emphasizing that university is a place of inquiry, should focus on students' development, establish the view that scientific research itself is a highly efficient and favorable teaching form, and establish the connection of "scientific research-teaching-learning" to give full play to the educational function of scientific research [5]. Combining with the two "integrations", this paper holds that the integration of production, teaching and research is the integration and interaction among industry, education and scientific research based on interdisciplinary, curriculum system optimization, theory and practice integration, etc., in order to improve the quality of personnel training and serve the high-quality development of industries.

4. Review of research

4.1. Theoretical research

Research on the influence of digital economy on talent cultivation in colleges and universities and its countermeasures. For example, Wu Huabin and others put forward three driving modes of innovative talent cultivation under the background of digital economy, namely "endogenous external introduction" by the government, "1+1+N" by enterprises and "Industry-University-Research Rongtong" by colleges and universities [6]. Liu Jin and Lu Wenjing believe that in the era of artificial intelligence, the reform of higher education will change in three aspects, namely, the concept, mode and process of personnel training, and on this basis, put forward relevant policy suggestions [7].

Research on the Training Mode of Top-notch Innovative Talents Such as Lu Yi's research, summed up three two-dimensional classification systems for the selection and training of top-notch innovative talents in China, namely, strong selection-closed special zone training, strong selection-semi-open dual training and weak selection-open breakthrough training, as well as the corresponding three different responsible subjects, namely, elite colleges, specialized departments and school-level education platforms. Ma Tingqi believes that the cultivation of top-notch innovative talents is structurally related to the construction of first-class disciplines mainly through specialty construction, platform construction, team construction, system construction, but there is also an internal institutional conflict between the construction of first-class disciplines and the practical elements of cultivating top-notch innovative talents. The key to the reform lies in building a collaborative mechanism between the construction of first-class disciplines and the cultivation of top-notch innovative talents through the reform of governance structure, the integration of discipline resources, the expansion of discipline education functions and the reduction of discipline construction focus [9].

On the optimization path and countermeasures of the Master and master through training. Zhang Li analyzed the advantages and disadvantages of the current through-mode of undergraduate-postgraduate-doctoral training, and put forward some countermeasures and suggestions from the perspectives of resource integration, participation in disciplines, selection and diversion, training process, and the management of the connection between undergraduate and postgraduate. Lan Yong believes that academic teaching based on the concept of integration of science and education is an ideal way for the smooth and effective connection between university, master and doctoral programs [10]; Based on the research on the curriculum system of colleges and universities at home and abroad, Wu Jingyi and others think that it is very important to plan the framework of this master's and doctoral courses and build this master's and doctoral courses system to cultivate top-notch innovative talents. The construction idea of this master's and

doctoral courses is to reflect the knowledge structure that echoes this field and related cross fields from the beginning to the end [11].

4.2. Practical exploration

Practical Exploration on the Training Mode of Top-notch Innovative Talents at Home and Abroad. Shandong University, based on the "foundation", set up experimental classes such as Taishan School and Nishan School to train top-notch innovative talents in basic disciplines, and implemented a series of training plans for outstanding talents in applied disciplines, interdisciplinary talents training, integration of science and education, integration of production and education and other training modes [12]. Beijing Institute of Technology, relying on the "2011 Plan", "Beijing High-tech Center" and other high-level platforms, and taking the research of new energy vehicles, drones, robots and other interdisciplinary "big systems" as the guidance, has built a vertical and horizontal interdisciplinary knowledge system of Master and Master. A win-win mechanism of in-depth cooperation between schools and enterprises to cultivate compound top-notch innovative talents has been established through the new education model of "five integrations", such as discipline collaboration, integration of teaching and research, integration between schools, integration between schools and enterprises, and integration at home and abroad [13]. Shanghai University of Finance and Economics, relying on the experimental classes of secondary colleges as the carrier, with the help of first-class teachers and scientific management, has formed a unique and effective new mode of cultivating top-notch academic innovative talents [14]. British research universities uphold the firm belief of academic freedom, design courses based on characteristic disciplines and interdisciplinary courses, innovate talent training mode with Industry-University-Research integration as the path, and cultivate a large number of outstanding innovative talents with college system and tutorial system as the leading innovative talent training mechanism [15]. Japanese research universities have taken the following measures to cultivate top-notch innovative talents: cultivating autonomous learning ability and implementing open teaching methods; Promote international linkage and create an open academic atmosphere; actively promote the combination of Industry-University-Research and form an open research background [16].

Practical Exploration on the Mode of Master-Master-Master-Master-Master-Master Training. Purdue University in the United States has established a master's degree and master's degree integrated training curriculum system for mechanical engineering majors. The undergraduate course system includes general basic knowledge and discipline basic knowledge, and the master's degree course includes professional courses, characteristic courses and cross courses. This curriculum system provides students with a good choice space, with a wide range of horizontal modules, which reflects the discipline distribution of this major and related majors. There are more in-depth vertical modules, which reflect the serialization and depth of the course study of this major and related majors in a certain direction. Duke University School of Law has established the curriculum system of master's degree and master's degree integration training. In the undergraduate stage, students are not specifically restricted in their major. When they enter the postgraduate stage, they first learn the traditional core courses of law to lay a solid foundation and establish a legal framework. In the second year, the courses begin to pay attention to the training of legal practice skills. Students can take legal courses in different directions according to their different knowledge backgrounds and development intentions, which reflects the characteristics of master's degree integration and interdisciplinary. Through a new round of reform in tokyo institute of technology, the wedge-shaped curriculum system with master's degree and master's degree is reconstructed, that is, at the vertical level, the integration of master's degree and master's degree education for engineering talents is realized by breaking the boundary between colleges and departments, replacing the academic year system with the credit system, and constructing a quarter academic system. At the horizontal level, professional education, education, scientific research and social practice are brought into the curriculum system to realize seamless connection of different educational contents [17]. The School of Mechanical and Power Engineering of Shanghai Jiao Tong University has combed the undergraduate and postgraduate courses by learning from the teaching ideas of foreign first-class universities, and formed a clear series of undergraduate and postgraduate courses. Promote the cross-integration of mechanical engineering specialty and energy and power engineering specialty, and form 28 horizontal modules and vertical modules of master's degree and master's degree, and realize the cross-learning with life science, industrial engineering, power system, management, software engineering and other majors, which reflects the systematicness, depth and cross-cutting of master's degree and master's degree. In addition, in recent years, other universities in China have also started to implement the master's degree and master's degree talents training mode, and promulgated the implementation measures, such as Northeast Normal University (2019), Nanjing University of Posts and Telecommunications (2018), Hohai University (2018), Xi 'an Jiao tong University (2017), etc. Its training goal is mainly to train top-notch innovative talents, and the training mode is set up according to different situations of each school.

On the whole, the existing research and practice have made corresponding research and exploration on the opportunities and challenges faced by higher education in the digital economy era and the reform of higher education

personnel training mode. However, the existing researches are mostly from the macro perspective, and the proposed reform and optimization strategies have certain universality, less consideration of the types and characteristics of colleges and universities, weak pertinence, and even less research on the characteristics of financial colleges and universities and the optimization path of the training mode of top-notch innovative talents in financial colleges and universities. Therefore, in order to meet the new requirements of higher financial education in the digital economy era and promote its own connotative and high-quality development, it is necessary to explore the reform and exploration of the comprehensive training mode of top-notch innovative talents in financial colleges and universities, so as to provide talent and intellectual support for social and economic development in the digital economy era.

5. The direction of comprehensive training of top-notch innovative talents in Chinese finance and economics

5.1. Develop the training goal of top-notch innovative talents in finance and economics, and solve the problem of "who to train"

Facing the theoretical frontier of finance and economics, facing the great changes in the digital economy era, facing the great needs of the country, according to the objective laws and theoretical research results of finance and economics education, and referring to the school-running practice of universities at home and abroad, the training objectives, positioning and ability structure of top-notch innovative talents in finance and economics are formulated.

5.2. Build a training mode of "one integration and two integration" for top-notch innovative talents in finance and economics, and solve the problem of "how to train people"

Taking the master-doctoral integration training mode as the main body, the key elements of interdisciplinary integration and integration of production, teaching and research are integrated into the training of top-notch innovative talents in finance and economics. Through the close combination of theoretical research and teaching practice, the reform of teaching mode is promoted, and an effective training mode of "one integration and two integration" for top-notch innovative talents in finance and economics is summarized.

5.3. Develop a multi-disciplinary curriculum and teaching material system that is suitable for the digital economy era, with the integration of master's degree and master's degree, and solve the problem of "what to use to cultivate people"

According to the new requirements of the development of digital economy for top-notch innovative talents, based on the knowledge of finance and economics, we deeply integrate the knowledge of computer science and technology, artificial intelligence, data science, cyberspace security, software engineering and other disciplines highly related to the development of digital economy, and build a curriculum and teaching material system with integration of master's degree and master's degree.

5.4. Build a team of financial education teachers with high teaching and research level and interdisciplinary, and solve the problem of "who will train people"

According to the needs of training top-notch innovative talents, we should strengthen the construction of first-class financial education teachers with high academic attainments, strong teaching skills and diverse disciplines, and constantly improve the construction mechanism of teachers and teaching teams.

5.5. Solve the problem of "how to guarantee the training quality" by improving the selection, training, diversion and quality supervision mechanism of top-notch innovative talents in finance and economics

Establish the selection mechanism of top-notch innovative talents in finance and economics for freshmen, formulate the diversion and training mechanism of top-notch innovative talents training, and ensure the quality of talents training by improving the process quality supervision and evaluation system of education and teaching.

6. Conclusion

The main purpose of introducing the master's degree and master's degree through training mode in finance and economics in colleges and universities is to increase the selection of top-notch innovative talents, improve the source structure of graduate students and improve the quality of personnel training. Through training mode can achieve stronger continuous and systematic training requirements, avoid duplication of training links, reduce training costs and improve training efficiency and quality. This paper mainly discusses the theoretical framework of the the master's

degree and master's degree through training mode. The purpose is to help and inspire the design of training mode in some financial colleges and universities that are carrying out the through-type talent training of master's degree.

Compliance with ethical standards

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Disclosure of conflict of interest

All authors declare that No conflict of interest in this work.

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