Research on the Adaptive Transformation of Financial Professional Talent Training in Universities under the Background of Artificial Intelligence

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Abstract: The emergence of artificial intelligence has had a profound impact on the financial industry, and the demand for financial professionals in society has also undergone significant changes. Universities are important bases for cultivating highquality skilled applied talents. How to combine the development of artificial intelligence to cultivate composite financial talents with data analysis and intelligent investment capabilities under the background of artificial intelligence, and explore new models for cultivating financial professionals in universities, is an urgent problem that needs to be solved. In response to the problems existing in the current process of cultivating financial professionals in universities, combined with the demand characteristics for financial professionals background under the of artificial intelligence, this article proposes optimizing training objectives, reconstructing the curriculum system, and achieving knowledge integration and interdisciplinary crossing; Update teaching modes and strengthen students' comprehensive abilities; Suggestions for deepening school enterprise cooperation, constructing a collaborative platform for industry education integration, and improving the professional competence of the teaching staff.

Keywords: Artificial Intelligence; Financial Profession; Talent Cultivation; Integration of Industry and Education

1. Introduction

In recent years, the rapid development of new generation artificial intelligence technology has greatly changed people's production and lifestyle. Artificial Intelligence+"refers to the deep integration of artificial intelligence as a fundamental and driving technological force with multiple fields such as manufacturing, healthcare, education, transportation, and agriculture, creating new products, services, business models to promote and the transformation and upgrading of traditional industries and the transformation of the socioeconomic structure. With the rapid development of artificial intelligence, both domestically and internationally, active efforts have been made to integrate artificial intelligence with the financial field. Artificial intelligence is gradually fully integrated with financial resource operation, market analysis, customer marketing, financial supervision, and other work. Some traditional financial positions are gradually being replaced by intelligent robots, and the new employment pattern has changed the talent demand structure of the traditional financial industry, posing new challenges to the training of financial professionals. Universities are important bases for cultivating high-quality skilled applied talents. How to combine the development of artificial intelligence to cultivate composite financial talents with data analysis and intelligent investment capabilities under the background of artificial intelligence, and explore new models for cultivating financial professionals in universities, is an urgent problem that needs to be solved.

2. The Impact of Artificial Intelligence on Financial Jobs

The emergence of artificial intelligence has had a profound impact on the financial industry. Under the trend of technological literation and innovative technological updates, artificial intelligence has gradually integrated with multiple levels such as financial markets, risk management, investment and wealth management, and financial regulation. This not

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only strengthens the efficiency and profitability of financial institutions, but also improves customer experience and service quality, accelerating financial innovation and the emergence of new business models. The specific impacts are as follows:

2.1 Enhancing Financial Services Efficiency

Artificial intelligence plays an important role in predicting and making trading decisions in financial markets. Through technologies such as big data analysis, machine learning, and deep learning, artificial intelligence can assist financial institutions and investors in market analysis, stock price prediction, trend quantitative trading, and improve trading efficiency and profitability. In addition, artificial intelligence can provide personalized investment and financial advice based on customers' risk preferences, investment goals, and market conditions. By analyzing and optimizing clients' investment portfolios, artificial intelligence can help clients achieve better investment returns.

2.2 Reduced Operating Costs

In the traditional financial industry, a large amount of manpower and material resources are invested in customer service, risk control, and other aspects. The introduction of artificial intelligence has enabled these processes to be automated and intelligent, greatly reducing operating costs. Meanwhile, artificial intelligence can also analyze large amounts of data, identify potential risk factors, and conduct risk assessment and management. For example, by analyzing customers' personal and financial data, artificial intelligence can predict their default risk and assist banks and financial institutions in credit assessment and risk control.

2.3 Innovative Financial Products and Services

The development of artificial intelligence enables continuous innovation in financial products and services. New financial products and services such as smart credit and smart insurance have emerged to meet the diverse needs of customers. These new products and services not only enhance the competitiveness of the financial industry, but also bring consumers a more convenient and efficient financial service experience [1]. For example,



through intelligent customer service and virtual assistants, customers can access financial information and services anvtime and anywhere, solve problems, and provide consulting advice; Through blockchain technology and smart contracts, more secure and efficient cross-border payments and settlements can be achieved; Through cloud computing and big data analysis, more accurate financial products and services can be provided.

In summary, the application of AI in the financial profession will bring about great changes and opportunities. It can increase the efficiency and profitability of financial institutions, improve customer experience and service quality, and facilitate the emergence of financial innovation and new business models. However, the application of AI also faces some challenges, such as data security and privacy protection, transparency and interpretability [2].

The application of artificial intelligence technology will directly affect the talent demand in the financial industry and also change the talent structure of the financial industry. In the future, financial institutions will pay more attention to data analysis and the application of artificial intelligence technology, so the demand for talent in these areas will increase. Positions such as data analysts and artificial intelligence technology researchers will receive more attention. In contrast, the demand for traditional positions such as bank tellers and credit specialists will decrease. Therefore, financial professionals need to constantly learn and adapt to new technologies, improve their skills and abilities, in order to better cope with future challenges. As the main base for cultivating financial professionals, universities should keep up with the trend of the times and innovate the training mode of financial professionals to cope with the changes and challenges in the future financial industry.

3. Characteristics of Financial Talent Demand under the Background of Artificial Intelligence Development

With the deep integration of artificial intelligence and the financial industry, the demand standards for professional talents are constantly increasing. Financial professionals in the era of artificial intelligence should be



composite talents with abilities such as compound knowledge structure, technological application, and innovative thinking, as follows:

3.1 Possessing A Complex Knowledge Structure

Financial technology talents need to possess knowledge and skills across different fields, and understand the integration relationship between finance and technology. Therefore, in order to become a financial technology talent, one should not only have a comprehensive understanding of the knowledge content of their major, but also have knowledge of the background of other industries. That is to say, on the basis of mastering finance related courses, one should also have knowledge in various fields such as computer science, statistical analysis, and data processing, and be able to fully integrate theoretical knowledge with practical operations, making the financial industry more intelligent and digital.

3.2 Ability to Apply Technology

With the continuous deepening of the application of artificial intelligence technology, a large number of tedious and repetitive tasks in the financial industry will be replaced by automation and intelligence, which means that some positions that originally required human labor will be reduced. For example, traditional counter services, loan approvals, and other processes that require manual participation will replaced artificial intelligence be by technology. In terms of risk management and investment decision-making, the application of artificial intelligence technology will become a powerful tool for financial institutions, improving their predictive and decisionmaking abilities. Therefore, in the future, there will be a demand for talent in the financial industry. Financial professionals should possess skills such as data analysis, model building, and programming (such as Python, Spark, Flink, etc.) to handle large amounts of data in the financial market, and be able to use AI technology for financial decision support.

3.3 Awareness and Ability to Innovate

With the rapid development of financial technology, financial talents need to possess innovative thinking and be able to use new technologies to innovate financial products and

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services. New financial talents should have keen market insight and quickly catch the demand change trend of consumer groups, which requires their own strong Internet thinking and innovation ability [3]; In addition, it is necessary to have a strong grasp and application ability of artificial intelligence technology and advanced technology, which can innovate financial products and business models from new dimensions. With the help and advantages of emerging technologies, traditional thinking constraints in financial services can be broken, providing new concepts and ideas for the rapid development of the financial industry.

4. The Current Situation and Existing Problems of Talent Cultivation Mode for Finance Majors in Universities

The characteristics of talent demand in the financial industry under the background of intelligence reflect artificial the new requirements for talent in the financial industry driven by artificial intelligence technology. Universities need to adjust the curriculum and teaching methods of financial majors according to these needs, in order to cultivate financial professionals that meet market demand. However, there are gaps and deficiencies in the education and training of financial professionals in most universities, as follows:

4.1 The Curriculum System Does not Match the Market Demand

With the advancement of artificial intelligence and action, the demand for financial professionals in society has changed, and the requirements for comprehensive abilities have gradually increased. Financial professionals are required to possess a compound knowledge structure and innovative thinking ability, that is, new financial talents need to have financial knowledge background, as well as relevant technological skills and data analysis abilities. Although universities are aware of the importance of interdisciplinary settings in talent cultivation, they still place more emphasis on imparting theoretical knowledge traditional finance courses of when formulating training plans. However, the practical application and innovation awareness training of big data, blockchain, artificial intelligence, and other content are relatively

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weak, resulting in difficulty in adapting to the needs of the fintech industry upon graduation [4].

4.2 Lack of Innovative Teaching Models

At present, university teaching still largely adheres to the traditional concept of "teacher centered, textbook centered, and classroom centered". In the context of the era of artificial intelligence, overly rigid and theoretical teaching models cannot meet students' allround learning needs and constrain the development of their independent personalities. The teaching mode of financial courses in universities mainly adopts offline teaching mode, supplemented by online teaching. On the surface, it appears that online and offline teaching has been implemented, but in reality, online teaching is mostly a formality, mainly used to check students' attendance, assign homework, etc. Although teachers release videos and require students to watch them to earn corresponding points, students often lack initiative and mostly just deal with it. In this teaching mode, students are unable to truly 'move' and actively participate in pre class preparation and classroom interaction [5].

At the same time, the evaluation of the teaching effectiveness of finance majors mostly depends on students' final exam scores or passing certifications. The evaluation and assessment plan for students' learning is mainly based on final exams, supplemented by classroom performance, mid-term exams, attendance, etc., neglecting the evaluation of students' comprehensive abilities such as practical ability, innovative thinking, and selflearning ability. Under the impact of big data and financial technology, it is not possible to flexibly and dynamically reflect students' academic progress and personal innovation ability progress, nor can it meet the training requirements for transitioning from "experts" to "generalists".

4.3 Weakness in Practical Teaching

Under the background of artificial intelligence, financial institutions have high professional requirements for talents. Higher education institutions rely solely on imparting theoretical knowledge, which is far from meeting the quality standards for financial talent cultivation. It is still necessary to strengthen the training of practical skills for financial talents.



At present, the teaching of finance courses in universities is still mainly based on the traditional teacher centered model, with more theoretical teaching hours and fewer practical teaching hours. Although most financial courses include practical experiments, they are mostly in class experiments. Occasionally, on campus practical projects mainly involve simulated stock trading training, Python software application, and other courses, which have limited impact on improving practical abilities. Although there are school enterprise cooperation enterprises in the school, due to the fact that the main part of students' off campus practice is graduation internship, the internship time is limited, and students' practical skills are relatively lacking, with few opportunities for practical operation, and the practical effect is not ideal.

With the rapid development of artificial intelligence, the demand for talent in the financial industry is bound to change. From the current situation of school enterprise cooperation, most universities and enterprises have not engaged in deep level cooperation. Firstly, in the process of participating in the integration of industry and education, although enterprises have cooperated with schools in talent cultivation, curriculum construction, internship and training, faculty construction, and even some universities have established industrial colleges, there is a lack of long-term planning for school enterprise cooperation. Cooperative enterprises explore talent directions from cultivation their own development perspectives, which are closely related to short-term market demand and lack long-term goals for industry development [6]; Secondly, in the process of participating in the integration of industry and education, schools are constrained by their educational conditions. and their teaching arrangements and industrial development are not closely linked. They have not adjusted their curriculum development in a timely manner to keep up with the development of the times, and their curriculum system construction is not perfect. The professional settings have not been adjusted and optimized in a timely manner according to the employment situation of students, and there is a lack of warning mechanisms; Thirdly, the rights and interests of students have not been effectively protected, and there is a certain utilitarian tendency in school enterprise



cooperation. From the current internship situation, universities generally send interns to school enterprise cooperation enterprises every year. However, there is a lack of assessment and evaluation for on-the-job internships, and the interns rarely have the opportunity to practice and exercise in key positions and fields of the cooperation enterprises, which deviates from the original intention of the policy design of integrating industry and education [7].

4.4 The Overall Quality of the Teaching Staff Needs to Be Improved

At present, the teaching staff of finance majors in universities is relatively lacking. Firstly, due to the high average salary level of financial industry enterprises, most graduates with high education in finance tend to flow into financial enterprises after graduation, and there are relatively few high-level talents entering universities; Secondly, there are relatively few talents from the financial industry who have transitioned into the education industry, resulting in a shortage of finance professionals with financial industry experience in universities. The finance profession has strong comprehensiveness, so the comprehensive quality requirements for teachers are also high. It not only requires a multidisciplinary education background, but also a strong comprehensive knowledge system, and preferably a certain amount of practical experience in enterprises, so as to be proficient in teaching and practice and better educate students. Thirdly, in the context of the development of artificial intelligence, teachers need to have additional proficiency in practical theoretical and knowledge corresponding to artificial intelligence in order to better integrate artificial intelligence with financial professional theoretical knowledge and impart knowledge to students. However, in reality, although the development of artificial intelligence has been relatively short, it has been very rapid, and the knowledge structure of teachers in this area is relatively lacking, further increasing the gap in high-quality financial professional teaching staff.

5. The Transformation Path of Financial Professional Talent Cultivation in the Era of Artificial Intelligence

The application of artificial intelligence in the

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financial industry requires interdisciplinary and cross domain knowledge and skills. However, the current shortage of talents with relevant skills in the market has constrained the development of artificial intelligence in the financial industry. In order to address this challenge, as a training base for financial professionals, universities should closely follow the demand for financial talents in the context of the artificial intelligence era, innovate traditional teaching objectives, and guide students to grow into modern technology financial talents with core knowledge of modern economy and finance, data mining and processing, urban design, network information technology and other related knowledge, understanding and mastering the development trend of financial technology at home and abroad, and possessing innovative thinking and abilities, in order to adapt to the trend of the country's vigorous development of artificial intelligence+action. Specific measures can be taken from the following aspects:

5.1 Optimising Talent Training Objectives and Reconstructing Curriculum System Construction

The ultimate goal of talent cultivation in universities is to meet the needs of the industry. Therefore, universities should fully understand the employment direction and goals of finance majors, closely communicate with the finance industry, timely grasp the characteristics of talent demand in financial enterprises, invite enterprise experts to participate in formulating talent training goals, ensure that the training goals match the actual talent needs of society, and keep up with the current rapid development of artificial intelligence [8].

New financial professionals need to master financial knowledge, as well as knowledge in multiple fields such as computer technology and data science. Colleges and universities should actively carry out the integration of professional courses, create integrated courses related to Internet finance, financial technology new technologies, data analysis, programming, etc., so as to expand the width of professional courses, add interdisciplinary courses in accounting, Internet, big data, etc., make the curriculum system more scientific and complete, and create skilled financial talents needed in the era of artificial intelligence. Through course learning, students

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will learn how to apply artificial intelligence to the financial field, such as how to apply artificial intelligence to financial risk control, credit evaluation, etc; At the same time, through continuous learning in the course, students can also learn about the latest research progress and trends in artificial intelligence, which is conducive to improving their innovative thinking and problem-solving abilities, and thus better cope with various problems and challenges in practice. In addition, a financial simulation training base should be established to provide convenience for students to flexibly apply multiple professional knowledge and skills to handle financial events [9].

5.2 Updating the Teaching Model to Strengthen Students' Overall Competence

In the context of the era of artificial intelligence, financial education should actively innovate existing teaching models and use electronic and information technology to carry out high-quality and modern teaching work. In the actual teaching process, the innovative teaching mode of finance should be achieved through the integration of online and offline teaching methods. Before class, online platform recorded videos should be sent for students to learn independently and self test; In the classroom, teachers answer questions and provide skills, while students internalize and absorb knowledge; Guide students to reflect on themselves after class, identify and solve problems, and strengthen their ability to analyze and make decisions on financial hot topics.

At the same time, the proportion of theoretical teaching courses should be flexibly adjusted, outdated experimental courses should be abandoned, and interdisciplinary experimental courses that meet social needs, career orientation, and student interests should be introduced. Technical and practical content should be integrated, and the setting of discussion, practice, competition, and other links should be strengthened to enable students to develop self innovative thinking in diverse teaching modes. In addition, it is necessary to innovate a single assessment method, improve and optimize the assessment form with the help of information technology, encourage students to actively participate in scenario simulation and case analysis activities in

virtual markets, and focus on conducting comprehensive ability assessments for students [10].

5.3 Deepening School-Enterprise Co-Operation and Constructing A Collaborative Education Platform for Industry-Teaching Integration

Based on the development background of the times and the actual demands of talents, we will deepen the integration of industry and education, provide practical opportunities and training resources through the integration of industry and education, and enable students to better understand the actual needs and solutions of the industry [11].Therefore, universities can engage in deep integration from the following perspectives:

Firstly, the school focuses on its own strengths and abilities, undertakes horizontal projects, and allows students to delve into enterprise projects under the guidance of mentors, thereby assisting the development of students' practical and research abilities.

Secondly, collaborate with partner companies to carry out dual teacher teaching activities. Enterprise mentors assist students in completing internship activities, allowing them to strengthen their comprehensive practical abilities under the guidance of real positions and atmosphere, and laying a solid foundation for their subsequent progress and development. Thirdly, school enterprise cooperation should be established to jointly build training and experimental bases, providing a platform support for students to conduct scientific research and practical activities.

5.4 Strengthening Teacher Team Building and Enhancing Teachers' Professionalism

Schools should encourage existing teachers to explore interdisciplinary fields, strengthen training for finance professionals, and encourage teachers to participate in top academic and teaching exchange conferences at home and abroad, in order to expand their professional knowledge and literacy [12]. In addition, school enterprise cooperation should be strengthened to construct a comprehensive practical teaching environment through joint efforts. Teachers should be encouraged to use their holidays to practice in financial enterprises, such as banks, and key personnel from enterprises should be introduced to





schools for professional teacher training to ensure that the teaching staff is up-to-date with the latest developments in the industry and closely follows the practical development of artificial intelligence in the financial industry.

6. Conclusion

With the vigorous development of artificial intelligence and action, the demand for financial professionals in society is also article constantly changing. This first summarizes the characteristics of the demand financial professionals in financial for institutions under the background of artificial intelligence, analyzes the problems currently existing in the training process of financial professionals in universities, and puts forward relevant suggestions. As the main force in cultivating financial professionals, universities need to keep up with the requirements of the times, innovate talent training models, and cultivate more new financial talents that meet the needs of enterprises.

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