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Exploration on the Teaching Reform of Finance Major in Higher Vocational Colleges from the Perspective of Digital Economy

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Abstract: The transformation of the social development situation urges vocational colleges to strengthen teaching reform to cultivate professional talents in line with the development of the times. At present, the course content of the finance major in some higher vocational colleges lacks novelty, and some even remain at the outdated level of several years ago. This is seriously out of step with the pace of social development and will also affect students' future employment. After entering the new century, the digital economy era has arrived. Finance, as a major directly related to economic development, needs to keep pace with the times and cultivate more financial talents. Based on the background of the digital economy, this paper explores the teaching of the finance major in higher vocational colleges for reference.

Keywords: Digital economy; Higher vocational colleges; Finance major; Teaching reform

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1. Introduction

Under the rapid development of the digital economy, financial transformation is also proceeding simultaneously. Traditional finance not only has to accept the new challenges brought by the times but also needs to innovate on traditional ills and gradually develop towards digitalization and intelligence. It is precisely in this context that financial institutions have accelerated the pace of digital operation, continuously carried out product and service innovations, and combined online and offline, enabling users to obtain more personalized services and meet the diverse needs of different customers [1]. At present, the financial field is no longer in the traditional mode. The arrival of digital finance requires vocational colleges to reform the finance major to cope with the demand for talent in the industry transformation. However, judging from the actual situation of finance majors teaching in vocational colleges, much of the finance major teaching tends to be at the theoretical level and lacks integration with the cutting-edge content in the financial field, resulting in a discrepancy between teaching effectiveness and expectations.

2. The necessity of teaching reform of finance majors in higher vocational colleges from the perspective of the digital economy

2.1. The need for the integration of finance and technology

Currency, as one of the main constituent elements in the financial field, the emergence of encrypted digital currencies has attracted widespread attention worldwide, with Bitcoin being the most typical. The centralized distributed ledger system built using blockchain technology can maximize transaction security and trace transaction history [2]. Under such a development trend, the RMB is making steady progress and attempting to expand the scope of pilot projects. Digital RMB, supported by encryption technology and smart contract functions, not only makes contactless payment a reality but also can meet targeted distribution and supervision in different scenarios, which is highly beneficial for the implementation of monetary policy. By applying big data analysis technology, intelligent investment advisors can mine financial market data and precisely depict investors' personal risk preferences, investment goals, etc. Since intelligent investment advisors are not affected by emotions or biases, this further helps small and medium-sized enterprises overcome the problem of difficult financing. Utilizing advanced technology to link enterprise supply chain transaction data enhances information transparency and credit rating, enabling the continuous upgrading of the financial industry.

2.2. The need for the transformation of the financial model

The Internet, artificial intelligence, and big data technologies are increasingly integrated with people's lives. Many financial institutions have developed their own mobile apps and online banks to improve service quality. Users do not need to go out. As long as they have access to the Internet and a mobile phone, they can operate, such as transferring funds, making financial investments, or applying for loans. These are all breakthroughs from the original model [3]. When opening an account, by using advanced technologies such as current face recognition and live body detection, remote account opening is possible. The account opening process has been shortened from several hours in the past to just a few minutes now. In the process of personalized services, financial institutions combine the needs of customers to formulate financial product and service plans for them. For example, for users' wealth management, big data methods can be used to analyze customers' consumption habits, risk tolerance, etc., to provide customers with diversified management services [4]. Such scenario-based services allow financial services to permeate different links of life and better meet the needs of users.

3. "Obstructions" in the teaching of finance majors in higher vocational colleges from the perspective of the digital economy

3.1. The teaching content lags behind

Under the vigorous development of the digital economy, the teaching content of the finance major in higher vocational colleges has not kept pace and has shown obvious lag. The update speed of teaching content is significantly slower than the actual development, which is its characteristic. Traditional financial teaching knowledge still dominates, such as Money and Banking or Fundamentals of Securities Investment. Although it can enable students to form a basic cognition, the coverage of blockchain finance, digital currency, or intelligent investment consulting in the teaching content is limited [5]. The development of the digital economy has promoted financial transaction models and service methods. Students only learn outdated teaching content, and naturally, it is difficult for them to grasp the cutting-edge trends in the industry [6]. For example, in the finance teaching of some higher vocational colleges, there is no detailed explanation on how to apply blockchain

technology for cross-border payment, resulting in students' cognition not keeping up with the development of the times. When they are engaged in related jobs upon employment, they cannot adapt to the work at the fastest speed, thus causing employment anxiety.

3.2. The teaching methods are monotonous

In the reform of higher vocational specialties, the innovation of teaching methods is one of the main components. In recent years, vocational colleges have successively joined the tide of reform. The most common problem in the teaching of finance majors is the simplification of the teaching mode, that is, the main way is for teachers to lecture and students to listen passively, and the interaction between teachers and students is insufficient [7]. Looking at the current new era, the characteristics of the digital economy determine that if financial talents are to meet market demands, the current situation of lacking innovative thinking and practical ability needs to be innovated as soon as possible. Many current teachers are unidirectionally outputting knowledge, and students' initiative is insufficient. For example, when teachers analyze financial cases for students, most of the time it is the teachers who explain, and students answer questions according to the inherent process. Students have limited thinking time and do not have sufficient time to conduct an in-depth analysis of typical cases in the digital economy era [8]. In addition, although online teaching is also applied in practice, some teachers simply move the offline content online, and the teaching methods do not fully match the characteristics of the digital economy, all of which make it difficult to mobilize students' initiative.

3.3. The teaching staff is limited

Teaching reform of finance majors in higher vocational colleges in the era of digital economy, the teaching staff is also an important component. Under the alternation of eras, it is difficult for teachers' inherent teaching methods to completely change, and most of their teaching concepts are still restricted by traditions, all of which have an impact on the reform of the teaching staff [9]. Most teachers have been on the front line of education for a long time, and the students are the ones they have the most contact with, and their daily main job is to teach and educate. However, they rarely have time to replenish the "ammunition depot" for educating people and lack sufficient time to go to the front line of enterprises to learn and understand cutting-edge knowledge, all of which results in less practical experience of digital finance for teachers. During the specific teaching period, the knowledge that teachers impart to students mostly remains at the theoretical level and lacks deep integration with digital finance [10]. In addition, the schools themselves have many aspects to be improved in the era of the digital economy, and the systematic training system for teachers in the digital economy is not perfect either. The imperfect training mechanism also makes teachers' professional knowledge not updated simultaneously and unable to meet the actual needs.

4. Measures for teaching reform of finance majors in higher vocational colleges from the perspective of the digital economy

4.1. Optimize the curriculum system and integrate digital elements

In the education of finance majors in higher vocational colleges, not only do new digital finance courses need to be added, but also the curriculum system needs to be further adjusted and integrated. The knowledge related to the digital economy should be integrated into it to make it an organic part of the finance major courses, to achieve the complementarity of the existing curriculum system and the digital curriculum system, enabling

students to master traditional financial knowledge and have a deeper and more comprehensive understanding of financial development trends and practical application issues.

For example, when teachers adjust the teaching content of "Basic Knowledge of Financial Markets", they should incorporate knowledge related to new fields such as digital currency market research and digital currency market management, based on maintaining the core concepts and analysis methods of the original professional basic content [11]. When elaborating on the basic structure and operating mechanism of financial markets, in addition to traditional financial elements such as stocks, bonds, and futures, teachers can also elaborate in detail on the relevant situations of the digital currency market, explain in detail the specific natures of digital currencies such as Bitcoin and Ether, including their trading procedures, price fluctuation patterns, and composition of market entities. Compared with traditional financial products, the trading rules of the digital currency market are completely different. It is a trading strategy without a central point formed based on the underlying framework of blockchain technology. All transaction information is recorded in a distributed accounting system, which is highly transparent and immutable [12]. Additionally, the degree of its price fluctuation is generally greater than that of traditional financial products, being influenced by a variety of complex factors such as market supply and demand, scientific research, legislative policies, and investor mentality. For instance, when teachers explain the content of "financial supervision" to students, they can incorporate the issue of "digital financial supervision" [13]. Because digital development is both an opportunity and a challenge for financial supervision in the new era, supervisors need to combine digital financial development and upgrade supervision methods and tools at any time. Teachers can guide students to discuss the composition and role of supervision methods. Regulatory technical means include big data, AI, blockchain, etc., to achieve real-time observation, early warning, compliance, and other management of financial institutions, improving supervision efficiency and accuracy. Besides, discussions can also be held on the differences in supervision strategies and laws and regulations in the fields of digital currencies and online finance among various countries' regulatory authorities. For example, China's strict control measures are aimed at digital currency transactions to prevent the outbreak of major financial risks, maintain financial security and social stability, and protect the interests of investors [14]. Through the learning of this information, students can form the awareness of abiding by regulations and laws and the awareness of risk prevention, so that they can better resolve various risks brought by digital finance in the future.

4.2. Innovate teaching methods and utilize digital technology

Based on the background of the digital economy era, applying financial simulation tools and systems to the cultivation of practical experience for students majoring in finance in colleges and universities can enable students to improve their skills and ability to solve practical problems in a simulated environment during the practical link.

At present, there is a large number of powerful financial simulation training software in the market, enriching teaching resources and expanding teaching methods. Take Tonghuashun Futures Connect as an example. Tonghuashun Futures Connect is a very good simulation software for learning and practical operation of futures trading. It can analyze the real-time price and trend of futures, and then give prescriptions to realize the simulation training of futures trading. In the absence of danger in futures trading, it simulates the operation of the market and familiarizes users with the market and trading methods [15]. Teachers can explain the relevant systems and contents of futures trading to students through the simulation teaching of Tonghuashun Futures

Connect, and guide students to simulate the purchase or sale operations of futures trading. For futures hedging strategies, teachers can also help students choose different types of futures and contracts through the simulation trading function of this software, simulate making hedging transactions according to the market situation, observe the improvement degree of hedging in reducing market risks, so that students can have a deeper understanding of the principle and purpose of hedging, learn how to use futures tools to control risks, and improve the operational ability in the futures market. Guotai Junan Futures is also a widely popular, functionally diverse, and practically effective financial simulation software, covering crude oil, precious metals, non-ferrous metals, energy and chemical industry, agricultural products, options, stock index futures, gold, silver, live pig futures, etc. During the teaching process, teachers use this software to guide students to conduct investment analysis and trading simulation in the related fields of research and bulk commodity trading through Guotai Junan Futures.

4.3. Strengthen the teaching staff and enhance digital literacy

The abovementioned text states that the strength of the teaching staff has a significant impact on the teaching reform of the finance major in the digital economy. Given the limited teaching staff, vocational colleges still need to strengthen the teaching team and focus on improving teachers' digital literacy to act as a bridge for students' employment and learning. To build a strong teaching team, vocational colleges can start from two aspects: external recruitment and internal training. Specifically, on the one hand, external recruitment can start from campus recruitment and social recruitment. Campus recruitment mainly involves cooperation with well-known domestic financial universities. Regularly visit the cooperative universities to select talents, choosing fresh graduates with solid theories and certain experience to reduce the difficulty of later internal training. Outstanding fresh graduates often have cutting-edge professional theories and are more sensitive to dynamic analysis. On the other hand, internal training is also an approach that schools can consider. Internal training should focus on the training content and training methods. In terms of training content, the most advanced financial technologies and methods should be imparted to teachers, such as big data, artificial intelligence, and even the commonly used DeepSeek nowadays, allowing teachers to learn to use application software to analyze financial data. In terms of training methods, the current MOOC platform should be combined. Live lectures or online discussions can be conducted according to actual needs to enhance communication among teachers and improve the training effect.

5. Conclusion

To sum up, the advent of the digital age is bound to affect the development of the financial field, and the development of the financial field will in turn affect talent cultivation and education, and teaching. This article, against the background of the digital age, conducts an analysis of the teaching of finance majors in higher vocational colleges. The teaching reform of the finance major is not only the need for the integration of financial technology but also the inevitable transformation of the talent cultivation model in finance. However, the problems in teaching content, teaching methods, and teaching staff cannot be ignored at present. It still requires the joint efforts of the school to start from different aspects and solve the inherent problems, to promote the process of the teaching reform of the finance major.

Disclosure statement

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