# Research on the Reform of Accounting Major in Higher Vocational Education under the Background of Artificial Intelligence

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#### **Abstract**

Artificial intelligence in the accounting industry creates new opportunities and challenges for the accounting profession and raises the bar for higher vocational accounting talent. Nowadays, there are several issues with the education of higher vocational accounting talents, including less updated artificial intelligence courses, the training objectives of accounting talents do not meet the actual needs of enterprises, the overall quality of the teaching staff needs to be improved, and the training practice base is backward. As a result, higher vocational colleges must adjust their talent development objectives and curriculum design to keep up with changing times.

### **Keywords**

Artificial Intelligence; Higher Vocational Education; Accounting.

#### 1. Introduction

With the advent of big data, artificial intelligence, the Internet, and cloud computing, the accounting industry has undergone tremendous changes. Since May 2017, the Big Four accounting firms have successively listed financial robots and their solutions. On October 15, 2017, Kingdee released a cloud-based financial robot, which applies cloud computing, big data, image speech recognition, LBS and other artificial intelligence technologies to provide enterprises with multi-scenario and all-around intelligent financial services. The artificial intelligence system represented by financial robots has been able to replace the time-consuming, standardized and highly repetitive manual operations in the financial processing process, complete the collection, processing and summary statistical analysis of a large amount of data, and identify problems in the financial process. Furthermore, rule loopholes, automatic optimization of processes, shared accounting has also evolved from a concept to reality. Artificial intelligence frees financial personnel from repetitive and low-complexity work, bringing unprecedented development opportunities to the country's accounting industry.

In November 2021, the Ministry of Finance's 14th Five-Year Plan for Accounting Reform and Development proposed that: relying on digital information technology to promote the digital transformation of accounting and auditing work as the starting point, to realize the expansion and upgrading of accounting functions, and from The accounting, intelligence issues are planned from the aspects of the environment, technology and system. The direction of accounting intelligence emphasizes the cultivation of cross-border compound talents with big data thinking, artificial intelligence thinking and computer programming thinking ability. The trained accountants can provide basic financial information and use computers and other data processing tools to participate in business management directly. In the Catalogue of Vocational Education Majors (2021), released by the state in March 2021, the accounting major was officially renamed Data and Accounting. The traditional accounting industry was fully integrated with the development of science and technology. Therefore, in the era of the artificial intelligence, it is necessary to reform and innovate the training mode of accounting talents in higher vocational colleges to cultivate accounting talents suitable for social needs.

#### 2. Literature Review

With the rapid development of artificial intelligence, its impact on the accounting industry has become more significant. There have been many studies on the impact of artificial intelligence on the accounting field. The first is to focus on the impact of artificial intelligence on the accounting industry. Li Xianghong (2017) analyzed the impact of the artificial intelligence on the accounting industry and the necessity of innovating the accounting practice teaching system under the background of artificial intelligence. Pan Shangyong (2018) analyzed that new technologies such as the Internet, artificial intelligence, and blockchain have changed accounting work, leading to accounting reforms. The accounting industry has shown new trends such as rapid business aggregation, intelligent accounting operations, and the rapid development of emerging accounting businesses. Tang Dapeng et al. (2020) strengthened the efficiency of accounting information processing. Through the processing of digital information systems, a large number of tedious tasks in accounting positions have become simpler and more efficient, such as the system automatically generating financial statements, statistical sales data, identifying the authenticity of invoices and completing reimbursement.

The second is to focus on the research of artificial intelligence on the cultivation of accounting professionals. Wang Xiaohong and Xu Huanzhang (2021) proposed that in the era of big data, accountants are required to master fundamental accounting theories and skills and master data mining and analysis and processing capabilities. Shang Sizheng (2018) starts with the characteristics of accounting education in the era of accounting robots, discusses the importance of the status of financial accounting courses for accounting majors in applied universities in the era of accounting robots, and proposes that in the era of accounting robots, the teaching of financial accounting courses should be strengthened. Chen Shuyang et al. (2021) pointed out that in the era of artificial intelligence, the training of accounting professionals puts more emphasis on cultivating cross-border compound talents with big data thinking, artificial intelligence thinking and computer programming thinking ability. The trained accountants can provide basic financial information and use computers and other data processing tools to participate in the operation and management of enterprises directly.

# 3. Problems Existing in the Training of Accounting Talents in the Era of Big Data

## 3.1. The Traditional Teaching Model is the Mainstream, and the Big Data Courses are Less Updated

The traditional practice teaching model is not integrated with the Internet and cannot stimulate students' innovative consciousness effectively. The conventional teaching mode cannot effectively use advanced teaching methods such as computers and the Internet. In practice teaching, teachers still teach theoretical knowledge in the classroom and assign paper-based written practice assignments after class. The application of computers in practical education only stays in the initial stage of putting PPT in the classroom. The traditional teaching model emphasizes the teaching of functional theory, ignoring the cultivation of students' self-learning ability under the information environment; it emphasizes the training of accounting ability and neglects the cultivation of comprehensive professional quality. Under the traditional teaching model, students' interest in learning is not high, and they lack innovation consciousness, which is not conducive to improving comprehensive professional ability. In the era of big data, future accounting talents demand the complete ability to mining, classification, processing, analysis, and decision-making of big data. However, the current accounting professional curriculum system in most colleges and universities cannot fully meet the actual needs of society.

### 3.2. The Training Objectives of Accounting Talents do Not Meet the Actual Needs of Enterprises

The training objectives of accounting talents in most universities have not been entirely in line with the requirements of the era of big data. The traditional accounting personnel training pays attention to knowledge learning, which weakens the organic unity of knowledge, ability and quality. At present, the training objectives in most universities accounting training programs are based on the *National Standards for Undergraduate Professional Teaching Quality in Higher Education (2018)*, combined with each school's reality.

With the advent of the Internet era, enterprises have put forward new requirements for the professional knowledge level and practical ability structure of accounting talents. However, there is a gap between the teaching objectives of accounting practice in higher vocational colleges and the actual needs of enterprises. The practical teaching objectives are not precise, and there are no detailed practical teaching objectives implemented in stages. The goal of accounting practice lacks informatization elements, and there is a lack of specific design for the application of the Internet and modern information technology in accounting practice teaching.

#### 3.3. The Overall Quality of the Teaching Staff Needs to be Improved

Professional accounting teachers in higher vocational colleges come from graduate students (masters and doctorates) from universities and financial enterprises. These teachers either have no practical work experience in enterprises, have not undergone systematic training in education and teaching theory, do not understand the actual operation of enterprises, or do not understand teaching and do not understand student management. Higher vocational education advocates teachers' enterprise practice, usually arranged during the holidays. The particularity of the industry determines that the way teachers use vacation time to carry out enterprise practice cannot achieve the expected results: first, the time is short, and they cannot touch the substantive content; The time to release stress and prepare lessons is not in line with the original intention of setting holidays. Although the government and colleges and universities are organizing further education and training for teachers, the number of teachers who understand both education and majors is minimal due to innate deficiencies. The more important responsibility of teachers is to educate people, but at present, the phenomenon of teachers attaching more importance to teaching than educating people and attaching more importance to scientific research than teaching and research is more serious. Due to the insufficient integration of professional skills and educational theory, teachers' responsibilities and personal development, the teaching reform of accounting majors in higher vocational schools have not been implemented.

#### 3.4. The Training Practice Base is Backward

Accounting is a practical subject. At present, the practical training practice in many colleges and universities mainly includes the following four types: First, off-campus internship, which is a practical form of practical training that can best use theoretical accounting knowledge. However, due to the importance of accounting information, this kind of real post-internship cannot be fully realized in practice. The second focuses on off-campus practice, which colleges and universities generally organize with accounting training qualifications or contracted practice bases for centralized accounting practice. However, this method still focuses on the operation of financial software and lacks the learning and practice of big data technology. The third is the school simulation experiment, a form of training practice still retained by most colleges and universities, that is, organizing students to conduct manual or computerized accounting in the school, but it is still a training practice mode that is not integrated into big data. The fourth is decentralized practice. The method adopted by most colleges and universities is decentralized practice, allowing students to contact units for practical training

and practice independently. Nevertheless, this is a mere formality. Most students do not participate in accounting enterprises, let alone big data application of technology.

# 4. Accounting Talent Training Mode and Implementation Suggestions in the Era of Big Data

### 4.1. Adjustment of Curriculum and Teaching Content of Accounting Major in Higher Vocational Colleges

Vocational colleges should actively pay attention to employers and industry needs changes under artificial intelligence. In terms of curriculum setting, universities should adjust and optimize the curriculum system, delete some traditional and backward courses, and add new courses related to AI. Secondly, the teaching of accounting majors in higher vocational colleges should pay close attention to improving students' comprehensive quality and professional quality. In addition to learning and mastering professional skills, professional quality is also the content that must be paid attention to in higher vocational accounting education. Although artificial intelligence technology provides good technical support for accounting vocational education, and some basic repetitive labor can be replaced by artificial intelligence, human beings still have incomparable advantages in innovation, management, decision-making, ethics. For ethical and policy issues, robots cannot solve them, and human ethical concepts are also not possessed by robots. Therefore, accounting education in higher vocational colleges should improve integrity and ethics and integrate integrity and integrity into the whole process of teaching.

In terms of curriculum setting, the core courses of accounting majors, such as financial accounting courses (such as elementary, intermediate, advanced financial accounting.), financial management courses (such as elementary, intermediate and advanced financial management, financial statement analysis), management accounting courses (such as management accounting, comprehensive budgeting.), auditing courses (such as auditing), regulatory courses (economic law, tax law.), fully reflect the technical and professional characteristics of the accounting profession.

### 4.2. Talent Training Objectives should be Closely Combined with the Reality

In the integration of production and education, the guidance of the industry is also crucial. The accountants of the production-education integration enterprise pass on the upgrade of talent training objectives to the universities by giving lectures and special reports. Teachers go to the production-education integration enterprise to guide students in internship work, temporary training, part-time study and understanding of corporate accounting. Changes in the work content of the post group, transfer the transformation and upgrading information received from the Institute of Certified Public Accountants, accounting continuing education and other training. Industry experts put forward the professional quality, knowledge, and skill requirements for talent training in the accounting industry by forecasting and analyzing talent needs in the accounting industry: accurate positioning to cultivate high-level and high-level compound talents who meet the needs of accounting positions.

#### 4.3. Work Together to Build a Training Base

The government guides industries and enterprises to deeply participate in higher vocational colleges' education and teaching reform through policy and financial support. The government encourages enterprises and higher vocational colleges to jointly build school-enterprise cooperation platforms, such as financial sharing and big data centers, to promote actual production for enterprises. Colleges and universities can provide internship and training platforms for accounting students, helping universities meet enterprise talent training needs.

Integrating the enterprise side into the talent training process of universities can avoid the situation that the talents cannot be recruited or the talents recruited are not suitable.

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