

Research on the Reconstruction of Accounting Major Curriculums in the Age of Big Data

Ke Xiaoxia

school of Economics and Management in Ningxia Institute of Science and Technology, Shizuishan, Ningxia, China

1097346535@qq.com

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Abstract. The advent of the age of big data has made a huge impact on the accounting industry. It has put forward higher requirements for accounting personnel's management ability, business processing ability, data processing capability and ability to apply accounting standards. Traditional accounting education can no longer meet the demand for accounting talents in the age of big data, so the transformation of accounting education and teaching is extremely urgent, and the accounting major must adjust the curriculum system and training mode. This paper puts forward the idea of accounting major curriculums reconstruction in the age of big data through seven aspects, and proposes to revise the course syllabus, strengthen the construction of teaching materials, strengthen the curriculum construction, reform the curriculum assessment program, and reinforce the construction of "Ideological and Political Theories teaching in Courses", which is desired to be beneficial to the training of accounting talents in the age of big data.

1. Introduction

Since 2014, "Big Data" has become one of the hot words of the "Two Sessions". The period from 2014 to 2017 is the initial stage of China's implementation of big data strategy, among which the chapter of "Implementation of National Big Data Strategy" is listed in the "13th Five-Year Plan" and the "Outline for Promoting Big Data Development" is promulgated. In the Outline, the policy mechanism in seven aspects has been defined, of which Article 6 emphasizes "to strengthen the cultivation of professional talents, and to establish a multi-level and multi-type training system for big-data talent". The advent of the age of big data has had a huge impact on the accounting industry, bringing accounting a new and thorough "industrial revolution". First of all, its massive data, lengthy data structure, and seemingly irregular correlation of internal data, have brought certain difficulties to business decision-making. At the same time, due to the combination of unstructured data and structural data, the depth and breadth of business decisions have risen to a certain level. Secondly, while providing conditions for the improvement of accounting theory and technology innovation, it also puts forward more and higher requirements on research methods. Thirdly, the large-scale and high-speed transmission of big data and the high-priced information carried by the big data make higher demand on accounting personnel's management ability, business processing capability, data processing capability and ability to apply accounting standards.

Colleges and universities shoulder the main responsibility of cultivating accounting talents. However, most schools currently aim at cultivating traditional accounting talents. The knowledge that the school teaches students may not be applicable in actual work, and the students trained are not the professional talents required by employers. The accounting education circle should be fully aware of the impact of big data on traditional accounting education, realize the long-term effect of the Internet on accounting education, and understand the urgent transformation of major in accounting. The major of accounting must adjust the curriculum system and training methods, and integrate into courses of other subjects and modern information technology, achieving "cross-border" training. It adapts China's accounting education to the needs of the age of big data, and cultivates accounting talents with data mining, analysis, processing and innovation abilities.

2. Reconstruction of accounting major curriculums in the age of big data

With the aim of cultivating accounting talents adapted to the development of the big data, through market research, on the basis of in-depth understanding of the current demand for accounting talents and professional ability of analysis positions, the accounting system is studied and the curriculums of accounting major is reconstructed.

2.1 Principles of reconstructing accounting major curriculum system

The reconstruction of the accounting major curriculum system aims to build an innovative, crossing and blending talent training mode. The curriculum system should lay emphasis on the logical framework rather than the simple superposition. The principle of “four reduces and four increases” should be followed in the reconstruction. First, it should focus on the cultivation of wide-scope ability training, that is, in the course setting, the accounting curriculums should be reduced, and other courses should be increased. Second, it should pay attention to the cultivation of the ability to integrate industry and finance, that is, the business accounting knowledge should be reduced and the business knowledge should be increased in accounting courses; Third, it should focus on experiential teaching, that is, reduce theoretical class hours and increase experimental training hours.; Fourth, it should lay emphasis on cultivating students' self-learning ability, that is, reducing the proportion of teaching by teachers in the classroom and increase the content of self-learning for students in and outside of class.

2.2 Reconstruction ideas of accounting major curriculum system

On the basis of studying the teaching content system of major of accounting, according to the "national standard" and the revised guidance of the school's talent training program, the accounting talent training program is revised to meet the requirement on the training of accounting professionals in the age of big data. The specific ideas are as follows:

2.2.1 Reduce the public basic course hours, and decrease the difficulty and depth of some certain courses

When setting up public basic courses, on the basis of following the national standard, aiming at cultivating applied talents, with the principle of enough to use, the course hours of public basic courses should be reduced, and the difficulty and depth of mathematics and English should be decreased.

2.2.2 Open basic courses of management subjects

In order to deepen the reform of the innovative, crossing and blending training mode for applied technical talents, the construction of professional groups should be strengthened, realizing the opening of the common courses of majors and subjects. It should not engage in "Professional barriers" but open basic courses of management disciplines and subjects. The basic courses of management subjects mainly include "Management", "Principles of Economics", "Statistics", "Basic Accounting", "Finance", "Economic Law", "Marketing", "Introduction to E-Commerce", etc.

2.2.3 Adjust core courses of the major, and reduce the course hours of business accounting

The core courses of the major include: “Financial Accounting”, “Cost Accounting”, “Financial Management”, “Management Accounting”, “Auditing”, “Tax Law”, “Accounting Informationization” and other courses. It should reduce the teaching hours of the courses of “Financial Accounting”, “Cost Accounting” and “Tax Law”, change the fixed thought that all standards and regulations must be taught, and develop students' ability to self-study and apply accounting standards and regulations, on the basis of teaching the core accounting standards and regulations. In addition, the "Accounting Informatization" course should be upgraded to accounting intelligence and integrated into financial sharing, big data, artificial intelligence, cloud computing, blockchain and other content.

2.2.4 Set different directions of major elective course

The purpose of setting different directions of major elective course is to cultivate accounting talents of different directions that the society needs, and students can choose one of them to learn according to their own situation. In the age of big data, business accounting work will be replaced

by software and intelligent accounting, so employers need more talents in management accounting, tax accounting, and intelligent accounting. For this purpose, different directions of majors need to be determined for students to choose. The courses of each direction are set as the following: "Management Accounting" includes curriculums of "Decision and Planning Accounting", "Operational Control and Evaluation", "Management Accounting System and Report", and "Big Data Analysis Technology and Tools"; "Tax Accounting" includes curriculums of "Taxation Practice", "Tax Accounting and Tax Planning", "Tax Inspection", "Tax Big Data Analysis", etc.; "Intelligent Accounting" includes curriculums of "Big Data Analysis Technology and Tools", "Financial Sharing Service", "Big data-Based Business Intelligence Analysis" and "Big Data Financial Decision-making".

2.2.5 Embed micro majors to achieve wide-caliber ability training

When formulating a talent training program, other micro majors are embedded for students to choose. Each micro major can set up fourteen credits and six or so courses. The accounting talent training program can set up majors of international economy and trade, e-commerce, computer science and technology, and Internet of Things. Students could choose two micro majors of them to learn, so as to meet the needs of crossing and blending accounting talents in the age of big data.

2.2.6 Increase general elective courses to cultivate students' critical thinking ability

Students are guided to select general elective courses such as "Excel Application in Finance", "Accounting Occupational Risk Theory and Experiment", "Enterprise Strategic Management", "Production Operations Management", "Human Resources Management", etc., to cultivate students' critical thinking ability .

2.2.7 Reconstruct the practical curriculum and establish an accounting professional practice curriculum system aiming at ability training and knowledge application

The practical curriculum system is reconstructed into five parts: "In-Class Experiment and Practice Training", "Comprehensive Experiment and Practice Training Course", "Special Comprehensive Training Project", "Double-Creative Skill Training Project" and "Graduation Comprehensive Training Project". Practice courses account for at least 30% of the total class hours. Some accounting practice courses should be eliminated, and experimental and practice training courses adapted to the development of big data should be added. In addition, it is necessary to increase the integration of production and education between schools and enterprises, and rely on the integration of production and education to actively carry out the work of introducing enterprises into schools to build an education platform.

3. The safeguard measures for the reconstruction of accounting major curriculums in the age of big data

According to the reconstructed accounting major curriculum system, through the revision of the curriculum syllabus of accounting, strengthening the curriculums and teaching materials construction, and the reform of teaching and assessment programs, the idea of reconstructing accounting major curriculum in the age of big data is put into practice.

3.1 Revise curriculum syllabus

According to the revised talent training program, the curriculum syllabus will be revised on the basis of professional teaching standards to meet the needs of accounting talent training in the age of big data.

3.2 Strengthen the curriculum construction

It is to comprehensively strengthen the construction of professional courses in accounting, eliminate the "water class", create "golden subjects", and build up several high-quality curriculums in accounting. First of all, it is necessary to define the objectives of each course, that is, through the courses, what knowledge and abilities can be mastered by the students; Secondly, the problem of "what to teach" is solved , that is, based on the teaching objectives, the specific teaching content studied and determined. Finally, it is to solve the problem of "how to teach". The reform of teaching

modes can yield twice the result of teaching with half the effort. Based on the "Internet Plus" and the wisdom classroom as the platform, the accounting major curriculums are carried out by a "blended" teaching mode combining online and offline. The traditional teaching mode and the online teaching mode are integrated to meet the requirement for multi-level teaching and improve the quality of teaching.

3.3 Strengthen the construction of teaching materials

The age of big data puts forward higher requirements for the construction of accounting teaching materials. The construction of teaching materials of major accounting can be divided in two stages. In the first stage, high-quality materials suitable for students are selected. For example, teaching materials such as "Basic Accounting" and "Financial Accounting" that integrate industry and finance and have been published publicly. However, even for high-quality teaching materials, there are incomplete content systems, and some new courses have no publicly-published teaching materials. Therefore, it is necessary to integrate existing available course materials and use the accounting professional teaching video resource database on the Internet to integrate the teaching resources, screen the teaching resources suitable for the students, and form the teaching content suitable for students' characteristics.

In the second stage, according to the accumulated information, the teaching materials of some accounting curriculums are self-developed to meet the teaching and learning requirements of teachers and students. At the same time, the traditional teaching materials and exercise resources are improved to make it more in line with the requirements of the "Internet Plus" era. Accounting course materials should not be only paper materials, but should be diversified. Micro-courses, MOOCs, videos, animations can be the objects of teaching materials construction, so as to form a situation where online and offline courses complement each other.

3.4 Reform the course assessment program

In order to improve students' learning ability, practical ability and innovative ability, the quality of education and teaching and the realization of talent training goals are promoted. The accounting major courses adopt a combination of process assessment and final assessment.

3.4.1 Process Assessment

It mainly assesses students' daily learning performance, self-learning ability, knowledge application ability, and task completion results, which accounts for at least 50%. Through in-depth study of the content and methods of the process evaluation on each course of accounting major, diverse process examination and evaluation systems are formed, such as in-class and extra-curricular, online and offline, personal and team, logical and divergent, uniform and individual, written test and non-written test and other systems.

3.4.2 Final assessment

Through in-depth study, we gradually increase the proportion of non-standardized assessments of accounting courses, and realize the transformations from paying attention to students' scores to focusing on students' learning, and from laying emphasis on assessing students' intellectual memory to focusing on assessing students' knowledge application.

3.5 Strengthen the construction of "Ideological and Political Theories teaching in Courses" of accounting major

Accounting personnel have dual responsibilities in practical work. On the one hand, they are responsible for the development of enterprise units, and must consider the interests of small units; on the other hand, they must be responsible for society and for all information users, and strictly abide by the national economic laws and regulations. They have the obligation and responsibility to maintain the healthy development of the social economy. This kind of dual responsibility often drive the accountants to a dilemma when there are sharp contradictions in the interests of the two parties. To this end, we should strengthen the construction of "Ideological and Political Theories teaching in Courses" of accounting major. The ideological and political education elements and the ideological and political education functions contained in the accounting professional courses, are

combed through and integrated into each link of classroom teaching, to realize the organic unity of ideological and political education and knowledge system education.

4. Conclusions

The advent of the age of big data has made a huge impact on the accounting industry. It is a new and thorough "industrial revolution" and brings great challenges. In the meantime, the age of big data has put forward higher requirements for accounting personnel's management ability, business processing ability, data processing capability and ability to apply accounting standards. The colleges and universities should be fully aware of the impact of big data on traditional accounting education and realize the urgent transformation of major in accounting. The accounting major must adjust the curriculum system and training mode, reconstruct accounting major curriculums in the age of big data, and take safeguard measures, such as revising the course syllabus, strengthening the construction of teaching materials, reinforcing the curriculum construction, reforming the curriculum assessment program, and reinforcing the construction of "Ideological and Political Theories teaching in Courses", so as to meet the requirement for the accounting talents in the age of big data.

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