Construction and Discussion of Auditing Curriculum System under the Background of Digital Intelligence

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Abstract. It is an important mission of Chinese universities to train innovative, applied and compound talents who meet the development requirements of the new era. Under the background of the age of digital intelligence, new requirements are put forward for the knowledge structure, innovation ability and comprehensive quality of audit professionals, and the traditional audit curriculum system has been unable to achieve the goal of talent training. It is urgent to restructure the professional curriculum system and improve the quality of auditing personnel training. This paper analyzes the problems existing in the design of the traditional auditing major curriculum system, and based on the digital intelligence technology, deeply discusses and puts forward suggestions to optimize the auditing major curriculum system.

1. Introduction

"In the new journey of building a strong country and national rejuvenation, audit has an important mission. We should base on the positioning of economic supervision, focus on the main responsibility and main business, and better play the unique role of audit in promoting the Party's self-revolution." In the face of the new requirements of the 14th Five-Year audit work and the national digital development plan, how to seize the opportunity to empower the digital transformation of enterprise internal audit work and achieve full coverage of audit from horizontal to edge and vertical to the end is the opportunity and challenge we face. Realize the digital intelligence vision and become the leading audit firm for digital transformation by promoting audit intelligence, replacing repetitive human work, avoiding human error and adding supervisory controls to help auditors focus more on areas of greater risk and need human judgment. The construction and development concept of digital intelligent audit, focusing on the improvement of audit quality and efficiency, carries out various digital audit work, and continues to make efforts from many aspects to promote the implementation of "science and technology audit, data intelligence empowerment". As one of the main positions of training high-level technical audit talents, undergraduate colleges must reform their teaching to adapt to the changes of the new era, especially the reconstruction of auditing curriculum system based on digital intelligence technology.

2. New requirements for audit talents under the background of data intelligence

2.1. More refined for professional knowledge requirements

In the digital audit era, audit talents are required to be familiar with the use of audit software and tools, such as data acquisition software and audit automation tools. Understand emerging technologies such as cloud computing, artificial intelligence, blockchain and be able to apply them in audit work. Have network security awareness and prevention capabilities to protect the security and integrity of audit data [1]. In the era of data-intelligent audit, the processing and analysis of massive data has become an important part of audit work. As an auditor, you need to have certain data analysis ability and must master data analysis techniques and tools, such as big data analysis, statistical analysis, data mining, etc. And be able to use data analysis methods to identify potential risks and opportunities and provide data-supported audit opinions. At the same time, with the ability of data visualization, audit analysis results in charts, reports and other forms clearly presented.

2.2. Higher requirements for comprehensive quality

In the era of digital intelligent audit, the rapid development of science and technology and the constant change of economic environment require auditors to have innovative awareness and ability, constantly learn...
and update knowledge, and keep pace with technological development and economic changes. Provide innovative audit methods and tools, adapt to changing audit requirements, identify and promote opportunities to improve audit process and efficiency, and improve audit quality and effectiveness. Due to the rapid development of digital technologies and tools, auditors need to have the ability to continuously learn and understand new technologies and tools, and constantly update the knowledge base and upgrade the skill level. At the same time, they need to constantly monitor industry trends and best practices to provide better audit services.

2.3. Stronger decision support ability

With the digital transformation of enterprise audit, decision management is one of the necessary functions of auditors. Auditors should not only plan and organize audit projects reasonably, including resource allocation, time management and schedule control [2]. Leadership skills are also required to lead and direct the audit team and encourage the development and growth of team members. In the era of intelligent auditing, the risks faced by enterprises have become more complex and diversified. Auditors must have a keen risk identification ability, not only to identify and evaluate potential risk factors, but also to put forward effective risk management suggestions to help enterprises develop risk response strategies and control measures.

3. Main problems existing in audit curriculum system under the background of digital intelligence

3.1. Insufficient planning of intelligent auditing courses

In terms of professional knowledge, auditors are not only required to have good professional knowledge and skills, but also need to have the use of digital audit technology skills. However, the existing curriculum system of audit major in colleges and universities has not been greatly reformed, and it cannot match the development of social demand, and there is a problem that the construction of curriculum system lags behind the industry demand. The proportion of theoretical courses is large, and the planning of audit courses related to data intellectualization is small. Although relevant financial accounting classes and audit courses are still the foundation, in the era of digital intelligence, the supervision of audit work process has been basically replaced by digital intelligence technology, and the role of humans has declined. Therefore, in terms of the optimization and construction of the curriculum system, the basic knowledge of audit course still needs to be fully covered, but the proportion of class hours must be reduced, and the class hours must be allocated to other courses of digital audit technology.

3.2. lagging behind of intelligent auditing teaching materials construction

Compared with the construction and planning of the curriculum system, the construction of digital audit teaching materials that adapt to the era of digital intelligence is more important. Course teaching requires the support of teaching materials. The content construction of teaching materials required by the new curriculum system should integrate digital technology into professional courses. In terms of disciplines, it involves the construction and integration of cross-disciplines, which is more difficult than a single auditing course. At present, the selection range of digital intelligent audit teaching materials in the market is still relatively limited, so the content of the teaching materials can not meet the requirements of the society for the training of audit talents in the background of digital intelligent era.

3.3. Weakness of the teaching staff of intelligent auditing

The shortage of teachers is also an important factor affecting the training of talents. The development of digital intelligent audit technology has essentially changed the original audit work objectives, contents, analysis techniques and thinking modes, so it brings great challenges to teaching. Teachers need to constantly update knowledge, enhance new skills, change teaching methods, and integrate digital intelligent technology into the classroom with The Times [3] . However, as front-line teachers, the teaching work is often heavy, and the enthusiasm for learning new technologies is not high, so it is difficult to introduce new technologies into the classroom. Therefore, there is a shortage of composite teachers who master the digital intelligence technology and are familiar with auditing.

3.4. Insufficient investment in the construction of digital intelligent practice training platform

At present, big data audit technology has gradually penetrated into all aspects of enterprise work, giving full play to the advantages of pre-research, pre-judgment and overall evaluation of big data, carrying out comprehensive comparison and correlation analysis of business data and financial data, and improving the systematic, dynamic and accurate level of audit analysis [4]. Enterprises running big data application platforms can improve their own operation and management capabilities and efficiency. For colleges and universities, the big data audit platform system is too expensive to operate, and they are reluctant to invest huge amounts of money in system construction to cultivate students' digital audit literacy and skills. Therefore, the practice teaching system of auditing major in colleges and universities still has some problems, such as insufficient investment and lagging practice content.
4. Reconstructing the curriculum system of auditing under the background of numerical intelligence

4.1. Reasonable positioning of talent training objectives

We will continue to put the people at the center of education development and accelerate the modernization of education to provide strong support for comprehensively promoting the great rejuvenation of the Chinese nation. In the era of digital intelligence, the auditing major in colleges and universities should be closely connected with the needs of digital talents of employers. In addition to having "good ideological and moral character and moral cultivation, consciously practicing socialist core values" as required by the National Standards for the Teaching Quality of Undergraduate Majors in Ordinary Colleges and Universities (2018 edition), in addition to training goals such as "high-quality audit professionals with international vision, innovation and entrepreneurship ability", they should have solid basic knowledge and basic theories of auditing, and more importantly, they should be able to proficiently use modern tools such as computers and big data, and use "big data audit" technology and methods to collect, screen, analyze and compare audit data and information. Versatile talents to solve audit problems.

4.2. Scientific reconstruction of curriculum system

The curriculum system of auditing should be reconstructed according to the 《National Standards of Auditing》, supported by digital intelligence technology, and organically integrated with management, economics, taxation and other disciplines. Reasonably increase the course credits and credit hours of other disciplines such as digital intelligence technology, pay attention to the development of social industries and technological changes, eliminate backward and repetitive courses, and effectively integrate the credits and credit hours of modular courses. The course system of auditing should first set up basic courses of micro- and macro-economics, accounting, principles of auditing, etc., to ensure that students acquire basic professional knowledge and cultivate students' ability to discover, analyze and solve basic auditing problems. Secondly, set up "intelligent data technology" featured courses represented by emerging technologies such as big data, cloud audit, and blockchain, such as Python language, intelligent financial sharing, big data financial audit, PBI audit modeling and visualization, etc., to cultivate students' ability to apply digital intelligence technology to analyze and solve complex audit problems to meet the needs of the new era. Finally, it is necessary to reduce the credit hours of compulsory courses, increase the proportion of elective courses, strengthen the integration of different disciplines[5], and promote the personalized development of students. The auditing curriculum system under the background of numerical intelligence is shown in figure 1.

4.3. Building a multi-level practical teaching system

First of all, strengthen the construction of professional practice courses, encourage more comprehensive audit experiments, such as ERP sand table operation comprehensive training, big data audit comprehensive training; Secondly, we should strengthen the construction of practical courses on innovation and entrepreneurship, and guide students to actively participate in academic salons, "Internet +" innovation and entrepreneurship competitions, audit discipline competitions, and auditor qualification examinations, so as to comprehensively improve students' comprehensive
quality and ability. Finally, strengthen the construction of practical courses for school-enterprise cooperation, deepen the integration of industry and education, strengthen the construction of off-campus practice and training bases, jointly develop practice and training courses, jointly guide practice work, and achieve win-win cooperation.

4.4. Integration of the ideological and political elements of diversified courses

In the era of digital intelligence, auditors not only need to have solid professional knowledge and skills and rigorous work attitude, but also need to have high professional ethics and good values to be competent for this work. Therefore, the teaching content of audit courses should also be systematically planned, updated and integrated, and the ideological and political elements should be integrated into the professional courses. To find the combination point of ideological and political elements and the setting of digital-intelligent audit curriculum system, integrate the contents of family and country feelings, socialist core values, legal awareness, social responsibility and so on into the curriculum teaching design, and realize the effective combination of “knowledge teaching”, “ability improvement” and “value leading”. To sum up, the framework diagram of integrating ideological and political elements is given in figure 2 as follows.

<table>
<thead>
<tr>
<th>Course Category</th>
<th>Course name</th>
<th>Ideological and political elements (goals)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>patriotism</td>
</tr>
<tr>
<td>Professional basic course</td>
<td>Basic courses (Principles of Finance, Microeconomics, Macroeconomics, Management, Statistics, Accounting, Economic Law, Auditing)</td>
<td>✔✔✔✔✔</td>
</tr>
<tr>
<td></td>
<td>Data intelligence technology (SQL database technology and application, Python programming)</td>
<td>✔✔✔✔✔</td>
</tr>
<tr>
<td>Major Required Courses</td>
<td>Intermediate financial accounting, Cost management accounting, Tax law, Financial management, financial statement analysis, big data financial audit, Internal audit, Economic benefit audit, audit data collection and analysis, RPA audit robot application and development.</td>
<td>✔✔✔✔✔</td>
</tr>
<tr>
<td></td>
<td>Audit (Economic Responsibility audit, information System Control and Audit, audit regulations and professional Ethics, information System audit, etc.)</td>
<td>✔✔✔✔✔</td>
</tr>
<tr>
<td></td>
<td>Other electives (Corporate Strategy and Risk Management (CPA), Tax Planning)</td>
<td>✔✔✔✔✔</td>
</tr>
<tr>
<td>Professional practice course</td>
<td>Research papers (graduation thesis, audit case analysis, second class, etc.)</td>
<td>✔✔✔✔✔</td>
</tr>
<tr>
<td></td>
<td>Single and comprehensive practice (accounting management information system, intelligent financial and tax simulation training, ERP standable operation comprehensive training, PHI audit modeling and visualization training, big data audit comprehensive training, etc.)</td>
<td>✔✔✔✔✔</td>
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Figure. 2. Frame diagram incorporating ideological and political elements

5. Guarantee measures of auditing professional curriculum system under the background of intellectualization

5.1. Strengthen the construction of digitally intelligent audit teachers

Under the background of digital intelligence, audit teachers need to have strong teaching awareness and ability of big data and intelligent technology to ensure teaching effectiveness. On the one hand, colleges and universities should pay attention to the re-education and training of in-service teachers. In-service teachers are encouraged to “go out”, participate in professional training and academic lectures and conferences related to “big data audit” application technology, carry out interdisciplinary and cross-institution learning and exchange, absorb cutting-edge knowledge, strengthen teaching ability and broaden professional horizons. On the other hand, we should strengthen the in-depth cooperation between universities and enterprises, and employ employees with rich audit practice experience, such as chief financial officers of listed companies, middle and senior auditors of enterprises, and certified public accountants of accounting firms, who can be employed as part-time teachers for a long time, or serve as practical tutors, graduation thesis design tutors and special lectures in schools. Therefore, in-service teachers have the opportunity to conduct field exercise in the position of digital audit in enterprises to make up for the lack of classroom teaching practice. Finally, we can introduce interdisciplinary talents with information technology, artificial intelligence, big data, finance and other professional backgrounds.Captions should be typed in 9-point Times. They should be centred above the tables and flush left beneath the figures.

5.2. Updating and integrating the teaching resources of digital-intelligent audit major

In order to cultivate compound audit talents adapted to the background of the era of digital intelligence, it is very important to update teaching materials, improve the practice platform and other teaching resources. Enterprises have rich experience and resources in the application of big data audit. Colleges and universities
should carry out a multi-dimensional collaborative education mode and the integration of industry and education. The industrial chain, education chain, talent chain and innovation chain will be closely connected to form a closed-loop system of school-enterprise cycle and talent supply and demand. Increase the investment in the construction of comprehensive audit training and practice base with subject integration background in the university, and build a diversified digital audit practice platform, so as to cultivate students' diversified and compound comprehensive practice ability.

5.3. Innovation teaching methods and cultivation students' big data thinking

Big data audit system adopts a huge amount of economic and social data, dispersed sources and diverse formats to carry out in-depth mining and analysis across departments, businesses, levels, systems and regions, and improve the ability to find problems, evaluate and judge, and macro analysis in the process of audit work. Compared with traditional audit, data analysis ability requires higher and more complex. In the daily teaching process, teachers should play the role of learning organizers, focusing on cultivating students' ability to collect, sort out, analyze and display data, so as to enhance their insight and sensitivity to data. In order to mobilize students' thinking and guide students to learn independently, a variety of modern information teaching methods such as situational teaching, heuristic teaching, online and offline hybrid teaching, flipped classroom and so on can be adopted in teaching, and big data audit technology can be integrated into classroom teaching[6].

6. Conclusion

To sum up, with the vigorous development of the national digital economy, the society has higher and higher requirements for multi-disciplinary talents with digital skills, and it is imperative for auditors to transform. The construction of audit professional curriculum system based on the era of digital intelligence lies in solving the problem of the mismatch between the current teaching objectives and curriculum content and the needs of enterprises, and improving the employment competitiveness and employment rate of audit graduates. However, there are still some difficulties in the reconstruction and implementation process of the audit curriculum system. We need to strengthen the strength of teachers, improve teaching resources, increase capital investment and other aspects, so as to make the reconstruction of the digital intelligence audit professional curriculum system smooth implementation. To ensure the advanced nature of university education, reflect the practicality and high level of undergraduate education, so that our students really get the recognition of the society.

References