A Study on the Cultivation of Big Data Analysis Skills of Auditing Students

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Abstract: In order to carry out auditing work more efficiently, auditors need to have not only professional knowledge but also big data knowledge. In order to carry out auditing work more efficiently, auditors need to have big data technology capabilities to improve the efficiency of auditing work in addition to professional knowledge, which puts forward new requirements for the training of university auditing talents.

Keywords: Auditing profession; Big data analytical skills; Talent development

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Under the wave of globalization and the information age, the rapid development of Artificial Intelligence(AI) and big data technologies are profoundly reshaping every industries, and so is the auditing industry. Auditing, as an indispensable part of economic activities, has gained importance along with the economy. As an indispensable part of economic activities, the importance of auditing has become more and more prominent with the development and complexity of the economy. and complexity. The traditional methods and contents of teaching auditing. In such a background of rapid technological progress, they are facing unprecedented challenges and the need for change. The need for educators to rethink and redesign their programs to adapt to this changing technological era to ensure that audit students are able to successfully integrate into new work environments upon graduation.

Auditing involves a large amount of data, including information processing, measurement, analysis, and reporting activities and reporting activities. Advances in information technology have enabled organizations to have large amounts of structured, semi-structured and unstructured data structured, semi-structured and unstructured data. The use of big data techniques in data analysis can overcome the limited human reasoning in some cases.

The use of big data techniques in data analysis can overcome limited human reasoning in some cases. The use of data analytics tools can quickly extract information from customer data in order to prepare for detailed and complex investigations. Auditors can evaluate, interpret and draw conclusions from big data.

Technologies such as big data and data analytics have changed the way transactions are evidenced and measured.Understanding and use of these technologies require professiona auditor's big data thinking skills ^[3]. Big data technologies have great advantages in unstructured data data processing, which can significantly improve audit efficiency and audit. Big Data technology has great advantages in unstructured data processing, which can significantly improve audit efficiency and effectiveness. Big data decision-making, blockchain technology, and RPA can automatically process unstructured data.

Big data decision-making, blockchain technology, and RPA can automatically process documents in a standardized format, greatly improving the efficiency and accuracy of auditing work. Big data technologies can be

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used to identify violations of securities laws, financial statement irregularities, and other issues. The role of big data analytics in auditing is becoming increasingly important. Auditors are increasing their training in database and data analytics skills, gradually becoming data analysts. Big data is changing auditing practice and providing many opportunities for faculty to research and update their curriculum. Auditing students need to be able to organize data analysis, frame queries to structure data, and use statistical and analytical tools. Experts are calling for call for the integration of data analytics into accounting and auditing curricula so that students can be exposed to information technology training as early as possible.

Early exposure to information technology development . Survey data from a study by foreign scholars shows that 90.7% of the scholars participating in the survey believe that big data analytics should be part of the accounting and auditing curriculum.

1. The Current Audit Talent Training Problems

At this stage, there are still many deficiencies in the training of audit talents in colleges and universities, and these deficiencies are the fundamental reasons that lead to the lack of big data auditing talents. This paper mainly focuses on the talent training orientation, talent training and social demand mismatch, big data practice training.

(1) Unclear positioning of auditing professional talent cultivation

Auditing talent training programs in colleges and universities are similar to accounting talent training programs. It is impossible to reflect the characteristics of audit professional talent training.

The curriculum of the auditing talent training program is too much in favor of conventional auditing business and lacks the arrangement of big data direction courses. It is difficult to differentiate the program from the traditional auditing talent training, and cannot meet the needs of big data audit talents in the context of informationization. It is difficult to distinguish it from traditional auditing talents training and cannot meet the training requirements of big data auditing talents in the context of informationization.

(2) Mismatch between the training of audit personnel in schools and the needs of society

School audit personnel training does not fully cover the industry application and students' career development needs. The school audit personnel training does not fully cover the needs of industry application and students' career development, lacks the visit and research of employers, and does not pay attention to the change of the actual ability demand of the auditing post.

The lack of research visits to employers and the lack of focus on the actual demand for auditing positions have led to a disconnect between the demand for auditing talents and the demand of employers. There is a structural imbalance between the demand and supply of auditing talents.

(3) Insufficient big data auditing practice and practical training

Audit talent training program lacks big data practice courses, resulting in graduates entering management positions very slowly. Private colleges and universities are subject to financial constraints, and the configuration of school laboratories and practical training is often insufficient.

Private institutions are limited by funding, school laboratories, practical training configuration is often insufficient. The lack of audit operations, especially the lack of some big data courses, and the lack of case teaching, practical training, and practical training. There is a lack of multi-level teaching design such as case teaching, practical training, hands-on training, and simulation of the application of big data technology in auditing operations.

The students are not able to experience the real audit operation, especially the lack of practical practice in

some big data courses. Students use their professional knowledge of auditing to explore the intrinsic connection and value of data. The ability of students to use their professional knowledge of auditing to explore the intrinsic connection and value of data is insufficient. They are not able to visualize the changes in auditing technology and auditing functions under the new situation, and therefore do not have the ability to think about auditing with big data.

(4) Lack of Big Data Auditing Teachers' Capacity

The development of auditing big data courses is not perfect enough, and there is a lack of corresponding faculty. Teachers' comprehensive teaching ability is weak. Teachers have been in theoretical teaching positions for a long time.

At the same time, audit teachers with traditional liberal arts background do not have computer-related knowledge background, which makes it difficult for them to be qualified for the course. It is difficult for them to be competent in teaching courses on big data analysis. The lack of faculty makes it difficult to offer big data analytics courses for college auditing majors. The training mode of big data audit talents cannot be detached from the influence of traditional auditing.

2. Research on the Cultivation Path of Auditing Students' Big Data Analysis Ability

(1) Integrate AI and Big Data related courses

Add basic knowledge about AI and big data analysis techniques to the auditing curriculum. For example, a course on "Data-Driven Audit Decision Making" can be established. Topics such as "data-driven audit decision-making" and "application of AI in financial auditing" can be set up.

With the development and application of AI, big data, blockchain and other technologies, the auditing field is experiencing unprecedented changes. The auditing field is experiencing unprecedented changes. Science program must address how to teach students to understand the principles, functions and limitations of these new technologies, as well as how to teach students to understand how to use these new technologies. The course content needs to cover topics such as data analytics, machine learning fundamentals, smart contracts, and other topics, while emphasizing technology ethics and data privacy protection.

(2) Increased updates on case studies and practical applications

By analyzing the latest industry cases, students can understand how AI and big data can be applied in practical auditing. Case studies can be derived from real-world audit projects, especially those that have successfully utilized new technologies to improve audit efficiency and quality.

(3) Focus on auditing ethics and related legal frameworks

Teaching content topics such as data privacy, transparency and interpretability of machine learning algorithms, and their impact on auditing and interpretability of machine learning algorithms. With the integration of technology, the level of transparency and public expectation of auditing practice are increasing. The Auditing program needs to address how to strengthen students' sense of professional ethics and social responsibility and ensure that they are able to adhere to ethical standards when utilizing new technologies in auditing.

Auditing program needs to address how to strengthen students' sense of professional ethics and social responsibility to ensure that they are able to uphold ethical standards when using new technologies. This includes educating students to recognize and respond to potential problems. This includes educating students to recognize and respond to potential problems. This includes educating students to recognize and respond to adta abuse, privacy violations, and other issues.

3. Innovation in Teaching Methods

(1) Practice-oriented learning

Students are encouraged to work through hands-on projects, simulated audits and internship opportunities. This kind of practice-oriented learning helps students better understand the theory.

This practice-oriented learning helps students better understand the connection between theoretical knowledge and practical operation.

(2) Interdisciplinary learning

Given that AI and Big Data involve multiple disciplinary fields, the teaching program of auditing will be more effective. The teaching program of auditing should encourage interdisciplinary learning, such as computer science, data science and business ethics, to help students build a more comprehensive knowledge system. In the digital age, auditing increasingly involves interdisciplinary knowledge and teamwork.

The Auditing program needs to address how students can adapt and work effectively in multidisciplinary teams. This requires not only specialized knowledge of finance and auditing, but also an understanding of basic concepts in areas such as computer science, data science, and other areas.

(3) Utilize online resources and tools

Make full use of online open courses, virtual labs and various auditing software. Virtual labs and various auditing software tools can provide students with opportunities for self-study and experimentation. These resources and tools can help students to flexibly arrange their study time and master new technologies.

(4) The focus of competency development should also be changed

Emphasize the importance of data analysis in the auditing courses, and train students to use statistical analysis. Encourage students to develop critical thinking skills and to be able to respond to the use of AI and machine learning tools, and to recognize potential biases and errors. In a fast-changing technological environment, audit professionals need to be able to think critically and be able to evaluate and analyze the results of audits. Critical thinking skills can be able to evaluate and select appropriate technology tools to solving complex audit problems. The Auditing course should focus on problem solving skills, innovative thinking and adaptability to enable them to make sound judgments and decisions in the face of unknowns and uncertainties.

4. Summary

Audit education needs to stay on top of developments in information technology and adapt the curricula to accommodate professional development. The future of auditing will shift from the use of random sample sampling to the use of full data modeling; from exploring exact data forensics to modeling mixed data; from pursuing causal decision-making to pursuing correlation logic modeling; and from relying on audit experience for prediction to leveraging technology tools for modeling.

Combined with the development trend of audit practice, audit teachers should pay more attention to the Audit Commission's strategy of strengthening audit through technology. Audit Office's strategy of strengthening audit with science and technology, guiding students to use science and technology to lead the development of the audit process.

The university should give more financial support, and provide support through building a big data audit platform, strengthening school-enterprise cooperation and other ways and means.

Meanwhile, universities need to pay attention to the changes in the demand for auditing talents, keep abreast of

the times, and adjust the talent cultivation program in time. How to seize the opportunity of the development of big data? How to seize the opportunity of big data development and cultivate the audit talents required in the era of big data has also become a major challenge for colleges and universities.

The development of the university audit program has also become an important issue to be solved.

References

- [1] Analytics in Financial Statement Audits[J]. Accounting Horizons, 2015, 29(2):423-429.
- [2] APOSTOLOU, BARBARA, DORMINEY, et al. Accounting education literature review (2015)[J]. Journal of Accounting Education, 2016, 35:20-55.
- [3] SAGGI M K, JAIN S. A survey towards an integration of big data analytics to big insights for value-creation[J].Information Processing and Management, 2018,54(5):758-790.
- [4] ROOHANI S J , MARKELEVICH A J .On Application of Accounting Data Analytics in the Accounting Curriculum[J].Social Science Electronic Publishing, 2016.