

Research on the Construction of a Financial Big Data Analysis Training Base Based on School-enterprise Cooperation

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Received: 4 August 2025; **Accepted:** 6 September 2025; **Published:** 30 September 2025

Abstract:

This article takes Hubei University of Automotive Technology and Zhonglian Group Education Technology Co., Ltd. to build a financial big data analysis practice base as an example, analyses the importance of the establishment of practical training bases for the transformation of the way of cultivating accounting talents in colleges and universities under the impetus of new technology applications. It describes the specific paths and practical experiences in optimizing talent cultivation objectives, practical course resource construction, financial big data analysis ability development platform construction and teacher team construction in the university-enterprise cooperation in building practical training bases. It analyzes the important role of the construction of training bases in improving students' professional practical ability, promoting the transformation of professional digital intelligence, and further promoting the integration of industry and education.

Keywords:

Financial Big Data Analysis, Practice Base, University-enterprise Cooperation, Talent Cultivation

1. Introduction

With the widespread application of technologies such as big data and artificial intelligence, traditional industries are accelerating their intelligent transformation and upgrading, and the accounting industry is also facing changes [1]. The ability to analyze and process financial big data has gradually become an essential skill for accounting practitioners. As a talent cultivation base, universities should adjust their talent cultivation goals and plans promptly according to the changing demand for talent in society. In this context, establishing a financial big data analysis practice base through university-enterprise cooperation is significant for cultivating accounting talents that meet social needs and promoting the deep integration of university professional construction and enterprise development. From the perspective of universities, they can provide practical teaching platforms for students and enhance their practical abilities and employment competitiveness. From the perspective of the

enterprise, it can provide professional talents that meet the needs of the enterprise and promote its development. From a social perspective, it also provides support for the transformation of financial work from recording data to analyzing data based on big data.

2. Background and Significance of the Construction of Financial Big Data Training Base

2.1. Technological development drives changes in the accounting industry

The development of new technologies and the new economy have further profoundly affected the accounting industry, giving rise to a change in the demand for talent in the accounting industry. The ability requirements of enterprises for accounting talents have also undergone significant changes. They are no longer satisfied with traditional accounting recording and report preparation abilities but pay more attention to their financial big data analysis and processing capabilities. It is expected that accounting personnel can use big data analysis tools to extract valuable information from a large amount of financial data, providing data support for enterprise strategic planning, investment decision-making, cost control, and other aspects [2]. The shortage of intelligent financial and accounting talents has become a key factor in the digital transformation of modern service industries, and the ability to analyze and process financial big data has become an essential professional skill for financial and accounting talents in the digital economy era. Therefore, guided by demand, the training objectives of traditional financial and accounting talents in universities should also be adjusted accordingly. The cultivation of financial big data analysis ability has become an important direction for the professional competence training of financial and accounting talents.

2.2. Opportunity for university-enterprise cooperation to establish training bases

The traditional training of financial and accounting talents in universities focuses more on the teaching of theoretical knowledge in basic courses such as financial accounting, financial management, and auditing. The practical aspects are relatively weak, and the updating of practical courses and training equipment and software lags, which is disconnected from actual work and cannot meet the needs of students to be exposed to cutting-edge technology and practical work projects in enterprises [3]. Therefore, to address these issues, our faculty actively seeks opportunities to cooperate with enterprises, leveraging the Ministry of Education's industry-university cooperation and collaborative education platform, and collaborating with Zhonglian Group Education Technology Co., Ltd. to jointly build an on-campus financial big data analysis training base. The university-enterprise cooperation model has also brought many advantages and opportunities to the construction of the base. Our university have rich educational resources, profound professional foundations, and excellent teaching staff and students, while enterprises have advanced technology platforms, comprehensive and real financial data, and rich practical experience. Through close cooperation between both parties, resource sharing and complementary advantages can be achieved, working together to create a financial big data analysis training platform that meets social needs and focuses on practical ability development.

3. Path and Practice of Training Base Construction

3.1. Clearly define talent development goals

Guided by the demand for financial and accounting talents in the era of digitalization, we aim to meet the needs of the industry. Our faculty has deepened its cooperation with Zhonglian Group to optimize the training objectives of traditional financial management professionals. Based on the traditional talent training objectives for financial management majors, relying on the financial big data analysis practice platform jointly built by schools and enterprises, the cultivation of financial big data analysis ability is integrated into the talent training process, achieving the new professional ability requirements of financial management talents in the digital age. From the design of the curriculum system and the updating of teaching content to the arrangement of practical teaching activities, we fully integrate big data analysis and technology to ensure that students can master key skills such as financial analysis and risk prediction using big data tools while mastering financial professional knowledge. This enables the trained students to accurately meet the diverse needs of enterprises for financial management talents in the digital age.

3.2. Optimize the construction of practical course resources

Our faculty collaborates with Zhonglian Group to jointly develop practical teaching curriculum resources. In the process of developing the course outline, both parties communicated fully, based on the actual needs of the industry and students' cognitive abilities, to clarify the teaching objectives, key and difficult content, and practical teaching requirements of each course, ensuring that the course system has both rich theoretical teaching and practical training links that can closely fit the actual business processes of the enterprise [4]. Write detailed and targeted course lesson plans, introduce real enterprise cases, integrate theoretical knowledge into practical case scenarios, and cultivate students' ability to solve practical problems. Jointly develop a teaching exercise library covering multiple aspects, including financial statement analysis, cost management, budget preparation, performance evaluation, etc. Case data is sourced from actual enterprise operation processes, allowing students to gain a deeper understanding of financial big data analysis methods and application scenarios during case analysis and processing. At the same time, a detailed internship guidebook should be written to provide clear operational guidelines and precautions for students in the practical teaching process, ensuring that practical teaching activities are carried out in an orderly and efficient manner.

3.3. Building a platform for cultivating financial big data analysis capabilities

Relying on the rich industrial resources and advanced technological advantages of Zhonglian Group, in conjunction with our faculty's information center, we closely focus on the construction of a first-class financial management major and the need for digital transformation. Both the school and the enterprise jointly invest in the construction of financial big data analysis practice platform resources. Firstly, build a fully functional teaching system, such as online course videos, electronic textbooks, academic literature, etc., to achieve a deep integration of online and offline teaching modes. At the same time, the teaching system also has teaching management functions, including course scheduling, teaching progress tracking, student performance management, etc. It provides personalized learning space for students and supports independent learning, interactive communication, and online testing.

Secondly, we will create a big data analysis training system equipped with various big data analysis tools and software, such as Hadoop, Spark, and other big data processing frameworks, as well as programming languages such as Python and R. Based on real enterprise data, we will simulate the real working environment of the enterprise, allowing students to conduct practical operations such as data analysis and visualization in the simulation environment, gradually improving their practical hands-on ability and ability to solve complex problems. Establish a reasonable evaluation system by setting multiple evaluation indicators and methods to comprehensively and objectively evaluate students' knowledge mastery and practical skills in the learning process.

The evaluation results not only provide students with learning feedback and help them discover their shortcomings but also provide a basis for teachers to adjust teaching strategies and optimize teaching content [5]. At the same time, emphasis is placed on the development of digital course resources for financial big data analysis and case studies for financial big data analysis training projects. Based on actual enterprise projects, challenging and training projects are designed to cultivate students' abilities to face different conditions and factors, handle problems, and collaborate as a team.

3.4. Strengthening the cultivation of students' innovative ability

Based on enterprise data, establish an on-campus innovation practice project and actively encourage student participation. The project theme revolves around the application of financial big data analysis in enterprise management. At the same time, provide necessary funding and venue support for practical projects, equip specialized guidance teachers, guide students to conduct in-depth research on practical problems, propose innovative solutions, and cultivate students' innovative practical abilities. Actively organize students to participate in various financial big data analysis-related subject competitions, with a coaching team composed of on-campus teachers and enterprise experts to provide systematic training for students. Establishing a competition simulation platform through university-enterprise cooperation can simulate a real competition environment, enhance students' competition experience, and in the process, promote students' in-depth understanding of the financial analysis workflow of enterprises. In terms of case setting, to reflect the characteristics of our faculty, case design, project setting, etc. are mostly based on the automotive industry, restoring the real financial processes of automotive enterprises and cultivating students' flexible problem-solving abilities when facing various types of financial problems in enterprises.

3.5. Strengthen the construction of teaching staff team

University-enterprise cooperation to jointly build a teaching staff team is a key link in the construction of practical training bases. On the one hand, the faculty has hired experts and financial personnel from Zhonglian Group as part-time teachers to directly participate in the practical teaching of financial big data analysis in the school. Part-time teachers, with their rich practical experience and technical knowledge in enterprises, bring students real project cases and the latest industry trends. They impart practical business processes, technological applications, and problem-solving ideas and methods to students, enhancing their learning of the actual needs of the industry. On the other hand, relying on the training resources of cooperative enterprises, targeted training is carried out for professional teachers on campus, so

that teachers can have a deep understanding of industry development trends and enterprise technology needs, and enhance their practical operation abilities. Through the joint efforts of both faculties and enterprises, we aim to build a teaching team that possesses solid professional theoretical knowledge and rich practical experience, providing strong teacher support for the practical teaching of financial big data analysis.

4. Effectiveness of Training Base Construction

4.1. Enhance students' professional abilities and employment competitiveness

Through systematic learning and practical training at the financial big data analysis practice base, students' professional abilities have been greatly improved. Students can master financial big data analysis methods and tools and can use data analysis and visualization technologies to process and analyze enterprise financial data, achieving the alignment between the training goals and talent needs of financial management professionals in the digital age. Through systematic learning at the practical base, significant achievements have also been made in related subject competitions. From 2023 to 2024, more than 40 national-level A-class awards have been won in subject competitions. Both students' mastery of theoretical knowledge and their proficiency in practical operations have been significantly improved.

4.2. Promote the integration and coordinated development of industry and education

The university-enterprise cooperation to jointly build a financial big data analysis practice base has achieved a win-win situation for schools, enterprises, and students, effectively promoting the deep integration of industry and education. For schools, through cooperation with enterprises, they have obtained financial support, technical resources, and practical experience from enterprises, optimized talent training models, and improved the quality of talent training. By participating in the construction of training bases and the process of talent cultivation, enterprises have intervened in the talent cultivation process of universities in advance, integrating the needs of enterprises into teaching content, achieving a high degree of integration between talent cultivation and enterprise needs, and reserving a large number of financial and accounting talents for enterprises. At the same time, the school and enterprise jointly carry out scientific research project cooperation on the training base platform, conducting research on key issues and industry development trends in the actual business of the enterprise, and promoting the development of the enterprise. In addition, the training base also provides students with opportunities to have close contact with enterprises, enabling them to understand the needs of enterprises during the learning process, helping them make career plans in advance, and achieving a smooth transition from campus to the workplace.

4.3. Optimize teaching resources

By integrating resources from both schools and enterprises, optimize the allocation of teaching resources. On the one hand, introducing advanced technology platforms, real project cases, and practical experience from Zhonglian Group enriches the school's teaching resource library, making teaching content more relevant to practical work needs, and improving the practicality and effectiveness of teaching resources. On the other hand, promoting the sharing and exchange of teaching resources, the

construction of a financial big data analysis capability development platform will achieve the digitization and networking of teaching resources, facilitating the sharing and exchange between teachers and students, and between schools and enterprises. At the same time, it also facilitates cooperation and communication with other universities and enterprises, further expanding the two-way channels for obtaining teaching resources between schools and enterprises, and promoting the continuous updating and optimization of teaching resources.

4.4. Promote regional economic development

In the construction process of the training base, it is currently necessary to have a large number of software and hardware facilities as well as network infrastructure to promote the development of related economies in the surrounding areas. In the long run, the successful construction of the practice base has cultivated accounting talents that meet the needs of enterprises, continuously delivering talent to enterprises and promoting their development. At the same time, with the help of advanced technology platforms of enterprises, the practice base will also have more innovative practices and research results. In turn, these results will also provide reference and inspiration for enterprises, promote their innovative development, and form a virtuous cycle between schools and enterprises.

5. Conclusions

In summary, the financial big data analysis practice base jointly built by Hubei University of Automotive Technology and Zhonglian Group Education Technology Co., Ltd. has emerged in the context of the new technological revolution promoting the transformation of the accounting industry and the challenges faced by university talent cultivation. Through a series of practical measures such as optimizing talent training objectives, strengthening the construction of practical teaching course resources, creating financial big data analysis ability development platform resources, and jointly building teaching staff teams, it has successfully created a comprehensive training base that integrates teaching and practice.

With the continuous innovation of technology and the changing demands of the industry, the construction of financial big data training bases still needs to be continuously explored and improved. On the one hand, we should further explore the operational mechanism of university-enterprise cooperation, strengthen the deep integration between schools and enterprises in talent cultivation, curriculum construction, technology research and development, and form a closer community of interests. On the other hand, it is necessary to strengthen the integration and updating of teaching resources, and continuously introduce new data analysis tools and methods to adapt to the constantly changing needs of big data analysis.

Conflicts of Interest

The author declares that there is no conflict of interest regarding the publication of this article.

Funding

This work was supported by the 2023 Ministry of Education's Industry-Education Collaboration and Joint Talent Cultivation Project titled "Construction of a Financial Big Data Analysis Practice Base" (Project No.: 230803401312232); supported by the

2018 Ministry of Education's Industry-Education Collaboration and Joint Talent Cultivation Project titled "Teaching Reform of the Cost Accounting Course Based on the Easy Finance and Taxation Platform" (Project No.: 201802154035); also supported by the 2024 Hubei University of Automotive Technology Teaching Reform Research Project titled "Research on the Curriculum Construction of First-Class Financial Management Majors Based on the Cultivation of Students' Core Literacies" (Project No.: JY2024034).

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