International Journal of Education and Humanities
ISSN: 2770-6702 | Vol. 23, No. 2, 2026

Research on the Restructuring of Talent Cultivation Models for Accounting and Finance Majors in Higher Education from the Perspective of New Quality Productive Forces

Hua Zhang, Changxiu Sun

School of Accounting, Chongqing Technology and Business University, Chongqing 400067, China

Abstract: With the vigorous development of the digital economy, new quality productive forces have imposed novel competency requirements on accounting and finance professionals, making the digital-intelligent (DI) transformation of accounting education an inevitable trend. Currently, higher education institutions face several practical challenges in cultivating accounting and finance talents, including outdated educational objectives, fragmented curricula, insufficient faculty capabilities, and a lack of practical platforms. This paper, grounded in the perspective of new quality productive forces and aligned with the backdrop of financial digital-intelligent transformation, proposes the construction of a systematic talent cultivation model featuring "goal integration, curriculum reconstruction, faculty empowerment, and platform support." The aim is to deepen industry-education integration and multidisciplinary cross-fertilization, cultivating compound, innovative talents who possess both solid accounting-finance expertise and advanced DI skills, thereby providing theoretical insights and practical pathways for reforming accounting and finance education in higher education institutions.

Keywords: New Quality Productive Forces, Accounting and Finance Majors, Digital Intelligence.

1. Introduction

The rapid development of the digital economy is accelerating global technological revolutions and intelligent transformations. China is poised to undergo a broad and profound systemic transformation in its economic and social structures, which brings multiple demands and high expectations for the emerging talent. Digital technologies are key in significantly enhancing the efficiency of social production at this stage, providing a solid foundation for the cultivation of new talent. In pursuit of the goal of developing new productive forces, nurturing emerging talent is crucial. Simultaneously, with the rapid development of digital technologies such as big data, artificial intelligence, and blockchain, the financial sector is advancing towards digital transformation. The digital transformation of finance involves a comprehensive reconstruction of traditional financial management concepts, models, and methods. This means that the traditional, linear, discipline-specific talent cultivation model should gradually shift to a new model that emphasizes systematic comprehensive application, cross-disciplinarity, and organizational diversity. However, there is still a significant gap in the current talent cultivation model for finance and accounting majors in universities, making reform imperative.

2. New Demand Characteristics for Accounting and Finance Talents in the DI Era

2.1. Transition from Accounting-Oriented to Management-and-Decision-Oriented Roles

In the context of digital intelligence, the financial function is shifting from post-event accounting to forward-looking forecasting, and from value reflection to value creation. Companies no longer settle for the traditional "accountant" but require financial personnel who can leverage data analysis tools to integrate business and financial data, providing strategic decision support. Digital intelligence technologies significantly improve the efficiency of financial work, freeing financial staff from repetitive tasks and allowing them to focus more on high-value activities such as data analysis, risk warning, and decision support. This transformation demands that finance and accounting talent possess business understanding capabilities and systematic thinking, enabling them to drive business innovation through data insights and achieve a role shift from financial experts to business partners.

2.2. A Composite Knowledge Structure of "Profession + Technology"

The era of digital intelligence has rendered singular accounting knowledge insufficient to meet industry development demands. Enterprises now require accounting professionals to possess a compound knowledge base. Beyond a solid grasp of traditional disciplines such as accounting, financial management, and auditing, these professionals must deeply integrate interdisciplinary knowledge from information technology, data analysis, economics, and beyond. Real-world scenarios within corporate digital transformation-such as digital supply chain finance, intelligent taxation, and financial sharing services-demand that financial staff not only understand accounting standards but also master technical tools. Proficiency in Power BI for financial data visualization, Python for big data analysis, and RPA for process automation has become the new standard for finance personnel[1]. Consequently, hybrid talents must embody a dual competency of foundational financial expertise and information technology application ability, providing comprehensive solutions while adeptly addressing core financial issues.

2.3. Systemic Thinking and Innovation Awareness

In the construction of financial information systems, a holistic perspective is essential; isolated business skills are insufficient to address the complexities of business process reengineering[2]. The era of digital intelligence demands that finance professionals possess systemic thinking, enabling them to comprehend the coupling mechanisms between business operations and financial functions, and to grasp the overarching logic of enterprise value creation. Simultaneously, professionals must be willing to break away from conventional financial thinking patterns, integrating new technologies to innovate financial management models. For instance, by judiciously applying artificial intelligence algorithms to optimize budgeting processes, and by providing financial support to business units based on the integration of business and finance, they can facilitate the rational allocation of corporate resources. This blend of systemic thinking and innovative capability is a pivotal factor for finance professionals to adapt to the digital intelligence era and to create value in their roles.

Table 1. Trends in Core Skill Demand for Corporate Finance Talent

Skill Category	Share of Demand Five Years Ago (%)	Current Share of Demand (%)	Change(+/-)
Basic Accounting Skills	85	40	-45%
Tax Reporting and Compliance	70	55	-15%
Business-Finance Integration and Data Analysis	30	75	+45%
Digital Tool Application (Python, BI, etc.)	15	80	+65%
Strategic Decision Support	20	60	+40%
Risk Control and Early Warning	25	65	+40%

Data Source: Survey of 500 medium and large enterprises conducted by the research group in 2024.

To visually demonstrate the new characteristics of talent demand changes, we cite a survey of 500 medium and large enterprises. As shown in Table 1, the skill demand for finance talent has shifted significantly.

3. Current Challenges in Talent Cultivation for Accounting and Finance Majors

3.1. Misalignment between Educational Goals and Industry Needs

The current shortage of hybrid talent, who possess both accounting expertise and digital intelligence technology application capabilities, is significant. However, some universities, when setting the training objectives for finance majors, remain constrained by existing educational resources and fail to promptly capture market changes in the demand for finance talent. The training objectives of some universities still focus on cultivating "accountants," neglecting the urgent corporate demand for "business-finance integrated" talent. The curriculum is overly focused on the accumulation of theoretical knowledge, lacking systematic introductions to new technologies such as artificial intelligence and blockchain. Even though some universities mention the goal of training digital finance talent, there remains a clear lag in the practical teaching reforms related to digital application skill training and the integration of digital finance with business operations.

3.2. Curriculum Systems Lag Behind DI Transformation Needs

Currently, most universities' finance and accounting curricula still center on traditional disciplines, failing to keep pace with digital transformation demands by integrating emerging digital technologies with finance. Traditional courses such as Principles of Accounting and Intermediate Financial Accounting occupy a large portion of credits, while courses like Big Data Financial Analysis, Intelligent Finance, and RPA Financial Robots lag behind. Even when some institutions have set up related courses, they are often elective and fail to integrate resources into a systematic digital knowledge module. Through a survey of multiple finance and accounting institutions, it has been found that although some universities have added digital intelligence modules to their curricula, a considerable number still cling to traditional frameworks, and digital intelligence courses have not been effectively combined with finance and accounting subjects[3]. More concerning is the lack of continuity between courses; traditional finance and accounting courses are disconnected from digital technology courses, making it difficult for students to develop interdisciplinary integration capabilities.

3.3. Insufficient DI Capabilities among Faculty

The faculty members are the driving force behind teaching reforms, and their quality directly impacts the quality of talent cultivation. Currently, most finance teachers in higher education generally exhibit a "strong professional knowledge but weak technical skills" situation. On one hand, the knowledge structure of teachers is primarily based on traditional finance, with limited mastery of cutting-edge digital technologies. Although most teachers have a solid foundation in accounting theory, their proficiency in technical tools such as big data processing, Python programming, and artificial intelligence applications is limited, making it difficult for them to undertake teaching tasks related to digital intelligence skills[4]. On the other hand, teaching digital finance courses requires collaboration among interdisciplinary faculty teams, but the traditional structure of the teaching workforce is unable to support this requirement. As shown in Table 2, the lack of digital intelligence literacy among the faculty severely restricts the improvement in the quality of digital finance talent cultivation.

Table 2. Self-Assessment of Digital Intelligence Competencies among Accounting and Finance Faculty in Higher Education Institutions

Skill Category	Proficient and Able to Teach Independently (%)	Familiar with Basic Concepts but Unable to Teach (%)	Completely Unfamiliar (%)
Big Data Analysis (Python/R)	5	30	65
RPA Financial Robot Development	2	18	80
Application of Artificial Intelligence in Finance	3	25	72
Blockchain and Digital Currency	1	15	84
Business Intelligence (BI) and Data Visualization	8	42	50

Data Source: 2024 Survey on Digital Intelligence Competencies of Accounting and Finance Faculty in Higher Education Institutions.

3.4. Lagging Practice Platform Construction

The finance and accounting profession has a distinct application-oriented nature, making practical teaching a crucial link in talent cultivation[5]. However, a widespread problem exists in the practical platforms of finance and accounting programs in universities: "outdated facilities and simulated scenarios." On one hand, the construction of on-campus training bases lags behind, with equipment configurations and software systems failing to meet the demands of digital intelligence practical teaching and unable to simulate real-world financial digital intelligence work scenarios. On the other hand, due to the sensitivity of core corporate financial data, students find it difficult to access real business data, leading to a significant disconnect between classroom knowledge and the actual needs of enterprises. Even in cases where some institutions have established industry colleges or practice bases, there remains the issue of insufficient depth of cooperation. Students have limited opportunities to participate in enterprise digital intelligence practices, making it difficult for them to truly experience the application scenarios of digital intelligence finance and accounting knowledge.

4. Innovative Pathways for Talent Cultivation in the DI Era

4.1. Establishing a "Finance + DI" Integrated Talent Goal

Higher education institutions should align with market demands in the digital intelligence era, redefining the talent development objectives for finance and accounting majors. It is recommended that the training goals be set to develop well-rounded individuals with comprehensive development in moral, intellectual, physical, aesthetic, and labor aspects, possessing a solid foundation in finance and accounting, proficient in using digital intelligence tools, and equipped with systemic thinking and innovation capabilities[6]. By applying the Outcome-Based Education (OBE) concept, curricula and teaching activities should be designed in reverse to ensure that graduates are competent for financial management roles in the context of corporate digital transformation. The training objectives should reflect an integration across three levels: first, the fusion of professional foundational knowledge and digital technology knowledge, requiring students to understand both finance and technology; second, the integration of theoretical knowledge and practical ability, emphasizing the application of learning and the unity of knowledge and action; third, the combination of professional competence and innovative thinking, fostering students' comprehensive ability to solve complex problems.

4.2. Constructing a "Three-Tier Progressive" DI Curriculum System

To address the lagging issue in the existing curriculum system, universities should systematically reconstruct the finance and accounting curriculum, building a progressive three-layer composite curriculum system: "Core Foundation Layer - Interdisciplinary Integration Layer - Innovation Practice Layer." The first layer is the Core Foundation Layer, which solidifies foundational courses such as Principles of Accounting, Intermediate Financial Accounting, and Financial Management, while also introducing courses like Introduction to Digital Intelligence Thinking and Overview of Artificial Intelligence to cultivate students' sensitivity to technology, laying a foundation for subsequent learning. The second layer is the Interdisciplinary Integration Layer, offering cross-disciplinary courses such as "Python Financial Data Analysis," "Financial Intelligent Robot Application," "Blockchain and Accounting," and "Big Data Auditing," breaking down disciplinary barriers and achieving deep integration of finance and information technology. This layer also incorporates new digital intelligence concepts and methods into core professional courses, such as adding big data analysis techniques in Financial Statement Analysis courses. The third layer is the Innovation Practice Layer, which sets up "Enterprise Real-Project" courses, requiring students to use learned tools to solve real financial problems faced by companies, such as constructing business process models for financial shared service centers or developing robotic process automation solutions for finance. Through project-based learning and case teaching, students are guided to tightly combine theoretical knowledge with actual work. At the same time, the credit weight of digital intelligence modules should be effectively increased, and strict assessment standards and teaching requirements should be enforced to strengthen the cultivation of students' digital intelligence skills.

4.3. Building a High-Quality "Dual-Certified" Faculty Team

Constructing a high-quality digital intelligence faculty team in finance and accounting is a crucial support for reconstructing the talent cultivation model[7]. Due to the limitations of traditional disciplinary backgrounds, most finance and accounting teachers are relatively unfamiliar with computer programming, big data analysis, and artificial intelligence fields. To break through this bottleneck, universities should adopt multiple measures. Firstly, internal

training. Conduct hierarchical and categorized training for teachers' digital intelligence abilities regularly, such as Python programming, RPA development, and big data analysis, to improve teachers' technical application levels. Basic training focuses on the fundamentals of intelligent financial software operations, intermediate training revolves around specialized abilities in big data financial analysis, and advanced training emphasizes the application of artificial intelligence in financial decision-making. Secondly, school-enterprise cooperation. Introduce enterprise engineers to serve as part-time teachers or visiting professors, and select key teachers to undergo no less than three months of secondment training in enterprises. During the secondment, teachers should actively participate in financial digital transformation projects, understand cutting-edge industry practices, bring back frontline practical experience, and enhance industry adaptability. Encourage teachers to cooperate with enterprises to apply for research projects, turning research outcomes into teaching resources. Finally, evaluation and incentives. Incorporate teachers' digital intelligence teaching abilities, enterprise practice achievements, and students' digital intelligence skill improvements into professional title evaluations and performance assessment systems, forming an effective incentive mechanism that stimulates teachers' intrinsic motivation to improve their digital intelligence literacy.

4.4. Establishing an Industry–Education Integrated DI Practice Platform

Practice teaching is a core component of cultivating digital finance talent. Universities should establish a three-pronged practical teaching system that integrates "on-campus training, enterprise practice, and project-driven" approaches. First, co-construct training bases with enterprises. Collaborate with financial software vendors and digital transformation firms to build "Intelligent Financial Shared Service Labs" according to enterprise standards, equipped with integrated management systems and financial robot simulation platforms. Introduce real business data that has been desensitized, allowing students to conduct practical drills in simulated systems, set up mock positions such as expense reimbursement, accounts receivable management, and financial statement analysis, and organize rotation internships for students. Second, project-driven teaching. Bring real enterprise digital transformation projects into the classroom, such as financial robot process automation implementation cases and financial shared service center construction plans, enabling students to participate in the entire process from demand analysis and solution design to system testing. Through project-based teaching, students not only master professional theoretical knowledge but also become familiar with enterprise project operation processes, honing their comprehensive problem-solving abilities. Third, deepen school-enterprise collaborative talent development. Establish a regular communication mechanism with partner enterprises to jointly develop practical teaching plans. Enterprises open up digital finance practice scenarios, providing students with real job training and internship opportunities, and dispatch corporate mentors to guide student practice. Actively explore an order-based talent cultivation model, sign training agreements with industry-leading enterprises, and achieve precise alignment between talent cultivation and job market demands.

5. Conclusion

Driven by the emergence of new productive forces, the talent cultivation model for finance and accounting majors is ushering in a historic opportunity for transformation. This study focuses on the perspective of new productive forces, deeply analyzing the reshaping logic of finance and accounting professional roles by digital intelligence technologies, and systematically addressing the mismatch between traditional education models and industry development needs. The research indicates that pure knowledge transmission can no longer meet the "intelligent and decision-making" industry trends. The transformation of the cultivation goal-from "accountants" to "financial management professionals"-is the fundamental starting point for educational reform. Based on this, this paper constructs a systematic reform framework of "goal integration, curriculum reconstruction, faculty empowerment, and platform support," proposes a three-level progressive curriculum system (foundation-intersection-innovation) and a specific path for building a "dual-teacher" faculty team. This not only addresses existing teaching shortcomings but also implements the new talent cultivation concept of "high quality, broad scope, solid foundation, strong integration, and robust innovation." In the future, universities should further deepen industry-education integration, continuously iterate practical teaching platforms, and drive student growth with real enterprise projects. At the same time, higher vocational schools should strengthen collaborative innovation with leading industry enterprises, converting more industry pain points into teaching resources. Only through these measures can we truly break through traditional disciplinary barriers and cultivate composite finance and accounting talents with digital thinking, innovative awareness, and cross-boundary integration capabilities, providing solid talent support for the vigorous development of new productive forces.

References

[1] P. Hou, and Q. H. Wang. "Innovation in the Cultivation Model of Digital Intelligence Financial Talents in Application-Oriented Undergraduate Universities: Exploration and Practice of Five-Dimensional Integration and Three-Stage Progression," Finance and Accounting, vol. 18, no. 4, pp. 45-52, 2025. (In Chinese)

[2] Y. Q. Wang, G. L. Hu, Y. G. Duan, et al. "Outcome-Oriented Course Teaching: Design, Implementation, and Evaluation," Research in Higher Education of Engineering, no. 3, pp. 62-68, 75, 2019. (In Chinese)

[3] G. J. Ma, Z. L. Han, S. W. Sun, and S. Y. Yang. "Integration of Industry and Education in the Context of Digital Intelligence to Foster Innovation in the Cultivation Model of Accounting and Finance Professionals in Universities," School of Accounting, Shanghai University of International Business and Economics, 2025. (In Chinese)

[4] X. H. Yang. "Practical Paths for Cultivating Digital Talents in Finance and Accounting at Higher Vocational Colleges," Finance and Accounting Monthly, vol. 38, no. 7, pp. 78-84, 2025. (In Chinese)

[5] M. L. Zeng, and J. Liao. "Exploration of the Integration Path between Digital Intelligence and Finance and Accounting Education: A Case Study of Cloud Accounting Talent Cultivation," Financial Research, vol. 35, no. 10, pp. 101-108, 2025. (In Chinese)

[6] J. H. Xiao, X. H. Wang, and K. Xie. "New Requirements for Industry-Education Integration in the Digital Intelligence Era

and Innovation in the Cultivation Model of Economics and Management Talents: A Study Based on 'Living' Case Teaching," Journal of Beijing Jiaotong University (Social Sciences Edition), vol. 23, no. 4, pp. 138-145, 2024. (In Chinese)

[7] Y. He. "Exploration of Practical Teaching Reform for Finance and Accounting Majors in Local Universities under the Digital Intelligence Background," Western Quality Education, vol. 3, no. 23, pp. 150-151, 2017. (In Chinese)