Original Research Article

Research on the talent cultivation model of accounting majors in application-oriented universities driven by industry-education integration in the digital intelligence era

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Abstract: In the digital intelligence era, traditional accounting majors are undergoing profound transformations. As important bases for cultivating accounting professionals, application-oriented universities are both presented with new development opportunities and face numerous challenges. This paper focuses on the current status analysis, problem identification, and innovative path exploration of the talent cultivation model for accounting majors in application-oriented universities under the background of the digital intelligence era.It delves into the new requirements for accounting professionals in the digital intelligence era, points out the existing problems in the cultivation of accounting talents in application-oriented universities, such as outdated training objectives, an imperfect curriculum system, insufficient industry-education integration, and weak faculty strength. Furthermore, it proposes innovative paths for talent cultivation from multiple dimensions, including clarifying training objectives, optimizing training content, innovating training methods, and strengthening faculty construction. This paper aims to provide new ideas and methods for the cultivation of accounting professionals in application-oriented universities, thereby promoting the sustainable development of accounting education.

Keywords: Digital intelligence era; Industry-education integration; Application-oriented universities; Accounting major; Talent cultivation model

1. Introduction

Entering the 21st century, digital intelligence technologies centered on big data, cloud computing, and artificial intelligence have swept across the globe, reshaping the development landscape of various industries. The accounting field is no exception, undergoing a profound transformation from traditional modes to digital intelligence.Traditional accounting work is gradually being replaced by intelligent systems.In this era of great change, society has placed unprecedentedly high demands on the abilities and qualities of accounting professionals.Against this backdrop, industry-education integration has emerged as an innovative educational model, becoming the core path for application-oriented universities to break through existing dilemmas and achieve the transformation and upgrading of their talent cultivation models.By deeply integrating the educational resources of universities with the industry resources of enterprises, industry-education integration aims to break down barriers between universities and enterprises, construct a collaborative education mechanism, and enable students to closely engage with cutting-edge industry knowledge and practical business scenarios during their learning process, thereby cultivating finance-intelligence integrated talents who possess both solid professional knowledge and proficient digital intelligence skills.Delving into the industry-education integration-driven talent cultivation model for accounting majors in application-oriented universities in the digital intelligence era not only holds significant practical importance for enhancing the quality of talent cultivation in universities and promoting student employment but is also an inevitable requirement for driving the sustainable development of the accounting industry in the digital intelligence era.

2. Opportunities and challenges for the cultivation of accounting talents in application-oriented universities in the digital intelligence era

2.1. Training objectives: From traditional-accounting-oriented to intelligence-accounting-integrated talents

The *Accounting Industry Talent Development Plan (2021-2025)* issued by the Ministry of Finance in China in 2021 proposed the overall objectives, important tasks, and safeguard measures for the development of accounting industry talents, involving talent cultivation policies in the context of intelligent finance and taxation, providing strong policy support for accounting talent cultivation in the new era.This development plan points out that a new round of technological revolutions represented by information technology, digital technology, and artificial intelligence have spawned new industries, new business forms, and new models, exerting a significant and far-reaching impact on the cultivation of accounting professionals.Accounting talents need to deeply apply new technologies, promote the development and utilization of data resources, complete the digital intelligence transformation, and provide strong talent support for comprehensively building a modern socialist country.Therefore, cultivating intelligence-accounting-integrated talents is crucial for application-oriented universities.Such talents not only need to possess solid accounting professional knowledge but also need to master corresponding digital technologies, such as being able to apply cutting-edge technologies like big data, cloud computing, and artificial intelligence to solve financial problems.Hence, the cultivation of intelligence-accouting-integrated talents is an important direction for the reform of accounting education in universities to meet the needs of the digital intelligence era.

2.2. Training content: From single-discipline teaching to interdisciplinary integration

When implementing policies for cultivating digital intelligence accounting talents, application-oriented universities lack unified teaching quality assessment standards.Consequently, in terms of curriculum design, the vast majority of application-oriented universities still focus on basic theoretical courses in accounting, with insufficient offerings of interdisciplinary integrated courses, resulting in the cultivation quality of accounting talents not meeting the development requirements of the digital intelligence era.With the rapid development of the digital economy, the integration of digital technology and traditional financial accounting continues to deepen, and traditional accounting work is gradually being replaced by digital intelligence financial technology. Application-oriented universities should precisely align with society's diverse demands for financial talents and leverage the deep integration of interdisciplinary subjects to comprehensively promote the continuous innovation and upgrading of the financial field, fully demonstrating the demand for intelligence-accounting-integrated talents in the context of the digital intelligence era.Universities should construct a systematic promotion mechanism, organically integrate digital technology with traditional education, and construct an interdisciplinary curriculum system.

2.3. Training methods: From professional theoretical teaching to 'school-enterprise collaborative education

Traditional accounting talent cultivation methods, which focus on professional theoretical knowledge teaching, often lead to a mismatch between talent supply and demand.Enterprises, as the frontline of the industry, have a sharper insight and execution force regarding new technologies and trends.Integrating the actual needs of enterprises into the teaching system of universities can ensure the practicality and foresight of teaching content.Therefore, in the process of cultivating intelligence-accounting-integrated talents, the method of school-enterprise collaborative education is particularly important.Universities can establish practical training bases for accounting students through deep cooperation with enterprises, enhancing students' practical abilities.On

the one hand, universities can invite enterprise experts to participate in curriculum design and jointly develop course content that meets industry needs.On the other hand, enterprises can introduce horizontal projects into universities as part of practical teaching, allowing students to improve their professional skills and teamwork abilities while solving enterprise practical problems.Through this approach, students can not only master cutting-edge financial knowledge but also better understand the actual needs of enterprises, laying a solid foundation for their future career development.

3. Problems faced by accounting talents in application-oriented universities in the digital intelligence era

3.1. Outdated talent cultivation objectives

With the development of the digital intelligence era, the current talent cultivation objectives of application-oriented universities for accounting talents mostly still focus on the cultivation of traditional accounting-oriented talents, with bookkeeping, accounting, and reporting as the core objectives, neglecting digital intelligence capabilities such as financial data analysis and intelligent decision support, resulting in a mismatch between students' ability structures and enterprise needs.Students face the dual dilemma of professional surplus and capability shortage in the job market.Traditional talent cultivation objectives are significantly detached from the innovative thinking of enterprise financial accounting.This talent cultivation plan runs counter to enterprises' expectations for accounting talents.With the widespread use of digital technologies in enterprises, the role positioning of accounting personnel has undergone significant changes, and the digital intelligence transformation forces enterprise accounting talents to transform from traditional-accounting-oriented to intelligence-accounting-integrated .Enterprises urgently need intelligence-accounting-integrated talents who possess multi-dimensional capabilities of finance, technology and business, while traditional cultivation models struggle to output such composite talents.In the context of the digital intelligence era, the talent cultivation objectives of application-oriented universities need to keep pace with the times and gradually align with the direction of new-type accounting talents in enterprises to adapt to the new trends of enterprise development.

3.2. Too many theoretical curriculum system

The curriculum systems of contemporary application-oriented universities' accounting majors generally have problems with not aligning with enterprise development.On the one hand, from the perspective of professional knowledge, traditional theoretical accounting curriculum settings mainly focus on accounting calculation courses, with the content mostly being basic accounting professional knowledge and financial skills, overly focusing on basic theoretical knowledge and financial skills such as bookkeeping and report preparation, while the proportion of emerging technology content such as intelligent finance, big data analysis, and blockchain is insufficient.Enterprise accounting positions have fully transformed towards business-finance integration, but university textbooks and courses are still based on old knowledge frameworks, resulting in a severe disconnect between what students learn and what enterprises need, making it difficult for students to be competent for emerging positions such as financial sharing centers and intelligent risk control.On the other hand, the practical training curriculum system is difficult to perfect.For example, emerging technologies such as intelligent finance, big data analysis, and blockchain need to be reflected in practical training courses, but currently, financial professional textbooks still use the framework which is based on theories. This can not widely apply financial course content under the digital intelligence background.All these situations indicate that application-oriented universities face numerous challenges in constructing a practical training system oriented towards digital intelligence financial application systems in the context of the big data era.

3.3. Insufficient industry-education integration

Currently, society's demand for accounting professionals is growing.It not only requires them to possess solid professional basic knowledge and proficient skills but also requires them to meet the diverse needs of current enterprises, such as being proficient in using intelligent financial software like Yonyou and Kingdee for their automated bookkeeping, intelligent reimbursement, risk warning, and other functions.However, many application-oriented universities have not fully recognized the importance of practical teaching, failing to effectively simulate real enterprise financial environments, limiting the improvement of students' practical abilities. Moreover, the connection between universities and enterprises is lacking in pertinence and effectiveness, and the depth of cooperation is also significantly insufficient.Some enterprise cooperation projects often remain superficial, failing to deeply tap into students' potential.This makes it difficult for students to obtain practical learning opportunities that keep pace with social development, and there is a significant gap between the actual work scenarios they face after graduation and campus learning, requiring a significant amount of time and effort to adapt to work scenarios.This not only affects the employment competitiveness of accounting students but also restricts the improvement of talent cultivation quality in university accounting majors.In addition, some application-oriented universities lack long-term stable cooperation mechanisms and effective communication channels with enterprises when cooperating with them, resulting in insufficient continuity and systematicness of cooperation projects. These have become important factors restricting the in-depth development of industry-education integration.

3.4. Weak faculty strength

In the context of the digital intelligence era, the faculty construction of accounting majors in application-oriented universities faces numerous dilemmas: Firstly, the knowledge structure of the traditional teacher group is aging, making it difficult to master digital intelligence financial courses, and universities have limited investment in teacher training, making it difficult for teachers to access the latest industry dynamics and technological developments, with outdated knowledge updates, making teachers feel powerless when facing digital intelligence financial courses and difficult to integrate cutting-edge knowledge into teaching.Secondly, although young teachers possess solid theoretical foundations, they lack enterprise practical experience.Most of these young teachers directly enter universities to teach after graduating from schools, lacking in-depth understanding of actual enterprise work processes and businesses, making it difficult to integrate practical work cases and skills into teaching, resulting in a significant gap between students' knowledge and skills needed for future work, making it difficult for graduates to quickly adapt to job positions after graduation.Thirdly, the faculty structure is unreasonable, lacking composite teachers who understand both professional theoretical knowledge and enterprise practices, making it difficult to meet the comprehensive ability requirements for teachers under the background of industry-education integration.The weakness of faculty strength seriously affects the teaching quality of accounting majors, hinders the realization of talent cultivation objectives, and urgently needs attention and resolution.

4. Innovation paths for the talent cultivation model of accounting majors in application-oriented universities in the digital intelligence era

4.1. Clarify training objectives and cultivate intelligence-accounting-integrated talents

With China's economy transitioning to a high-quality development stage, the reform of talent development mechanism reform is urgent.Application-oriented universities should deeply understand the new requirements of the digital intelligence era for accounting talent cultivation, clarify the cultivation direction of accounting professionals, and clarify new objectives for cultivating intelligence-accounting-integrated talents.For this pur-

pose, application-oriented universities should deeply understand the job demands of enterprises for accounting professionals and reconstruct the talent cultivation system.On the one hand, application-oriented universities can formulate characteristic cultivation directions for students in combination with regional industrial characteristics and university positioning, such as financial data analysts and intelligent tax planners.On the other hand, construct a "double helix" cultivation path to achieve professional ability leap.Universities should attach importance to cultivating students' core professional abilities in accounting, achieve ability leap through a stepped curriculum system of basic abilities (financial accounting basics) → core abilities (financial decision-making, data analysis) → extended abilities (strategic finance, data governance), while guiding students to deeply integrate accounting professional knowledge with digital technologies, modularly embed digital technology modules such as Python data analysis and RPA process automation into professional courses, highlighting the cross-innovation between accounting professional knowledge and the digital era, and cultivate innovative and composite high-quality accounting professionals.

4.2. Optimize training content and perfect the digital intelligence accounting curriculum system

In the context of the digital wave, the digital intelligence transformation of the accounting industry has become an irreversible trend.In this situation, application-oriented universities, as important bases for cultivating accounting talents, must closely align their financial courses with the actual needs of enterprises and regularly cultivate high-quality financial talents with finance-intelligence integration abilities.To achieve this goal, universities need to construct cutting-edge financial course systems and implement a multi-dimensional curriculum system of "basic courses + core courses + practical courses." On the one hand, integrate emerging technologies such as big data, artificial intelligence, and blockchain into the curriculum system, open cutting-edge courses such as intelligent financial decision-making and big data financial analysis, broadening students' horizons.On the other hand, strengthen the practical teaching links, enhance students' practical operation abilities and problem-solving abilities for complex problems through simulation of enterprise financial scenarios and implementation of school-enterprise cooperation projects.At the same time, pay attention to cultivating students' digital intelligence thinking and innovative abilities, encourage students to participate in scientific research projects and discipline competitions, stimulate their exploration spirits and creativity, and lay a solid foundation for cultivating high-quality financial talents that meet the needs of the digital intelligence era.To ensure the effective implementation of the curriculum system, it is necessary to simultaneously promote the "enterprise mentor + university teacher" dual-mentor collaboration mode, break traditional teaching barriers, promote deep integration of theory and practice, and effectively enhance the practical abilities of the faculty team, making teaching content more aligned with enterprise actual needs, and construct a process evaluation plus outcome-oriented evaluation multi-dimensional evaluation system, provide timely feedback on learning progress, enhance professional abilities and literacy, and accurately align with industry needs to cultivate high-quality accounting talents that better match the market.

4.3. Innovate training methods and advance school-enterprise collaborative education

In response to the pain points of traditional accounting education emphasizing theory over practice, application-oriented universities should deepen industry-education integration and realize school-enterprise collaborative education models.Firstly, construct a virtual-real integrated digital training platform.Universities should jointly construct high-simulation financial work environments with enterprises, integrate mainstream financial software such as Yonyou and Kingdee with Python, Excel data analysis tools, covering the entire process training scenarios such as account processing and data mining.By deploying financial robot application platforms, simulate intelligent operations such as automated bookkeeping and tax declaration, enable students to directly experience the disruptive impact of technology on traditional financial work, and achieve simulated environ-

ment and real tool composite training, effectively enhancing students' abilities to master modern financial technologies.Secondly, construct a dynamic guidance mechanism for bidirectional knowledge flow between universities and enterprises.Enterprises need to establish direct channels for industry dynamics, promptly provide feedback on policy changes and technological innovations, and guide teachers to adjust teaching content. Universities, through student ability portrait systems, accurately grasp students' knowledge structures and learning needs, and promote enterprise mentors to implement layered and classified guidance.Adopt the case teaching plus on-site demonstration mode, enterprise mentors synchronously teach standardized operation processes while handling complex businesses, forming a dynamic optimization closed loop of demand - feedback - adjustment.Finally, innovate a multi-dimensional evaluation mechanism.Establish dual-dimensional assessment standards for abilities and literacy, comprehensively evaluate students' professional skills and soft skills through project-based assessments, dynamic evaluations, and comprehensive feedback.The joint supervision mechanism between universities and enterprises relies on multi-source data to dynamically optimize the cultivation plan, forming a closed-loop management of evaluation - feedback - improvement, helping students achieve comprehensive improvements in knowledge, abilities, and literacy.

4.4. Strengthen faculty construction and enhance teaching quality

In the digital intelligence era, application-oriented universities bear the heavy responsibility of cultivating intelligence-accounting-integrated talents, and strengthening faculty construction is imperative.Firstly, implement a targeted training system.Design layered and classified training plans based on teachers' knowledge blind spots, systematically update frontier technology knowledge such as big data analysis, blockchain, and artificial intelligence through special training courses, rely on enterprise practice bases to conduct immersive learning, such as participating in enterprise annual budget preparation, tax planning, and other core businesses, realizing knowledge transformation of taking problems to practice and bringing cases back to the classroom.For example, teachers transform practical experiences from participating in enterprise financial shared center construction into case libraries for the Intelligent Finance course by integrating flow reconstruction, data governance, and other actual combat experiences.Secondly, innovate the dual-mentor cultivation model.Establish a dual-track cultivation mechanism for young teachers, with university mentors focusing on teaching specification guidance and enterprise mentors providing project actual combat support through mentor-apprentice pairing. For example, in the Financial Robot Application course, enterprise mentors lead young teachers in developing RPA process automation scripts and simultaneously guide students in completing the digital transformation of actual business scenarios in enterprises, achieving teaching and learning.Finally, construct a teaching-research mutual promotion collaborative mechanism.Promote the normalization of enterprise mentor system and teaching seminars, select digital financial experts from cooperative enterprises to serve as enterprise mentors, form cross-disciplinary teaching teams with university teachers, regularly conduct bilateral seminars, and transform real projects from financial shared centers and intelligent reimbursement systems into practical teaching topics. Through industry-education integration projects, promote the transformation of teachers from knowledge transmitters to project mentors, providing faculty guarantees for perfecting digital accounting curriculum systems.

5. Conclusion

In summary, in the context of the digital intelligence era, application-oriented universities, as key bases for cultivating accounting professionals, must actively embrace changes and fully promote industry-education integration to cultivate high-quality talents that meet the needs of the era.By clarifying the training objectives of intelligence-accounting-integrated talents, optimizing digital financial curriculum systems, advancing school-enterprise collaborative education models, and strengthening faculty construction, application-oriented universities can effectively respond to the challenges brought by digital intelligence transformation.This not

only helps to enhance students' comprehensive qualities and employment competitiveness but also provides strong talent support for the sustainable development of the accounting industry.In the future, with the continuous development and application of digital intelligence technologies, application-oriented universities should continue to explore and innovate talent cultivation models, contributing more to cultivating more intelligence-accounting-integrated talents that meet the needs of the era.

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