

Research on the Construction of a Talent Cultivation Model for Vocational Bachelor's Degree in Accounting from the Perspective of RPA Promotion

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Abstract: With the rapid global development and widespread application of Robotic Process Automation (RPA) technology, the accounting industry is undergoing unprecedented technological transformation. This transformation presents new challenges and demands for the skills of accounting professionals. This study, under the perspective of RPA promotion, explores and constructs a suitable talent cultivation model for vocational bachelor's education in accounting. By analyzing the existing problems in the current accounting talent cultivation model, this paper proposes a series of innovative educational model improvement measures. The research results show that the new education model combined with RPA technology can not only enhance students' professional skills but also better meet industry needs.

1. Introduction

In the current global economic environment, RPA technology is gradually becoming an important tool for enterprises to improve efficiency and reduce costs. The accounting industry, as one of the key areas for the application of RPA, demands higher technical adaptability and innovative capabilities from professional talents. However, the existing vocational bachelor's degree models in accounting education struggle to cope with these emerging technologies and urgently need innovative reforms. Therefore, studying the talent cultivation model in accounting under the perspective of RPA promotion aims to provide scientific and practical reform strategies for accounting education, to cultivate high-quality accounting talents that meet future workplace needs.

2. Construction of Talent Cultivation Model for Vocational Bachelor's Degree in Accounting under the Perspective of RPA Promotion

2.1. Design Principles for the Talent Cultivation Model for Vocational Bachelor's Degree in Accounting

In the context of the widespread promotion of Robotic Process Automation (RPA) technology, constructing a talent cultivation model for a vocational bachelor's degree in accounting must adhere to four core design principles to ensure that the educational model can effectively adapt to the ongoing

changes in technology development and market demands.

Firstly, the principle of technology orientation. This principle is the cornerstone of constructing the talent cultivation model for vocational bachelor's degrees in accounting. It requires the educational model to closely follow the pace of technological development and integrate the latest theories and applications of RPA into curriculum design. This includes not only basic operational skills training but also an in-depth understanding of the logic behind RPA technology, ensuring students can master and adapt to its practical application in the accounting industry.

Secondly, the principle of capability alignment. This principle emphasizes that educational outcomes must align with industry demands, particularly in terms of skill cultivation. Specifically, the educational model should design courses and training tailored to the market's actual demands for accounting professionals, ensuring students' professional skills match job requirements and that they are quickly adaptable and competent in accounting-related jobs post-graduation.

Thirdly, the principle of holistic quality enhancement. Beyond vocational skills training, it is crucial to enhance students' soft skills, such as critical thinking, innovation ability, and teamwork spirit. Developing these skills not only helps students solve complex work problems but also enhances their overall competitiveness, enabling them to adapt to various challenges and changes in their future careers.

Fourthly, the principle of flexible adaptation. The rapid changes in the market and technology require the educational model to be highly adaptive and flexible. This means that teaching content, methods, and assessment ways need continuous innovation and improvement. Vocational colleges should regularly assess and update educational content to ensure that the taught skills and knowledge timely reflect the latest market demands and technological developments.

2.2. Implementation of the Talent Cultivation Model for Vocational Bachelor's Degree in Accounting

Based on the aforementioned design principles, constructing a talent cultivation model for a vocational bachelor's degree in accounting that adapts to RPA promotion first requires a comprehensive reform of the curriculum. The course content should include foundational knowledge of RPA, accounting software operation, process automation design and optimization, and data analysis, among others. Specifically, courses such as "Application of RPA in Financial Accounting" and "Automated Financial Report Production" could be established, along with experimental and practical courses like "RPA Tools Hands-On Training" and "Case Analysis of Financial Process Automation," allowing students to master RPA technology through practical operations.

In addition to curriculum updates, teaching methods also need innovation. Modern teaching methods like case-based teaching, project-driven approach, and flipped classrooms can enhance students' practical skills and problem-solving abilities. Furthermore, through collaboration with enterprises, setting up internship bases allows students to use RPA tools in real work environments for financial data processing and report generation, greatly enhancing their professional skills.

For faculty development, universities need to organize professional teachers for RPA-related training and learning to improve their technical levels and teaching capabilities, ensuring teachers can master RPA tools and effectively impart them to students. Additionally, bringing industry experts as visiting professors or consultants not only updates teachers' professional knowledge but also provides students with more opportunities to engage with the latest industry developments.

Through the implementation of these specific measures, a talent cultivation model that meets the modern accounting industry's demands, especially under the rapid development of RPA technology, can be constructed, effectively enhancing the employment quality and professional abilities of accounting graduates[1].

3. Challenges in Constructing Talent Cultivation Models for Vocational Bachelor's Degree in Accounting under the Perspective of RPA Promotion

3.1. Difficulties in Integrating Traditional Curriculum Structure with RPA Technology

Today, as RPA technology matures and becomes widespread, its effective integration with traditional accounting education curriculum structures faces significant challenges. Traditional accounting education usually focuses on imparting basic accounting knowledge and manual operational skills, which are far removed from the requirements of modern technology. RPA technology especially emphasizes proficiency in software operation, process automation design, and data handling, areas often lacking in traditional accounting courses. Therefore, the existing educational system struggles to meet the application needs of RPA technology in financial management.

Due to these significant curriculum differences, vocational colleges face major challenges in curriculum restructuring and content updating. To effectively integrate RPA technology into accounting education, it is necessary not only to update teaching content but also to change teaching methods to adapt to the rapid development of technology. This transformation involves extensive course design and material compilation work aimed at better reflecting the diverse applications of RPA technology in actual financial operations. This process is not only time-consuming but also costly, presenting a challenging task for vocational colleges.

3.2. Limitations of Existing Teaching Resources and Facilities

When introducing RPA technology into accounting courses, limitations in teaching resources and facilities become a significant barrier. Most vocational colleges do not yet possess the advanced teaching resources and facilities required for RPA education. Teaching RPA technology not only requires the latest software tools but also facilities capable of simulating complex real-business processes. These resources and facilities usually require substantial initial investment and continuous updates to keep up with rapidly changing technology. However, many vocational colleges face severe deficiencies in funding and technical support, significantly affecting the introduction and implementation effectiveness of RPA courses.

Due to a lack of appropriate teaching resources and facilities, vocational colleges struggle to provide industry-standard RPA technology training, directly affecting students' learning experiences and skill acquisition. Students are unable to deepen their understanding of RPA tools and processes through practical operations, thereby reducing the practicality and effectiveness of education. Additionally, the obsolescence of existing facilities may also lead to students lacking necessary technological adaptability when entering the workforce, which is particularly detrimental in the rapidly evolving accounting field.

3.3. Shortage of Teachers with RPA Skills

Although RPA technology is widely used and recognized in the industry, teachers with high-level RPA teaching abilities remain extremely rare in the educational field, especially in vocational bachelor education. Most existing accounting teachers have not undergone systematic RPA technology training, limiting their ability to effectively integrate and impart RPA-related knowledge in the teaching process. Due to a lack of necessary technical background and practical experience, teachers struggle to fully understand the deeper applications of RPA technology, let alone convey advanced knowledge and skills in this area to students.

This skill gap directly affects the quality of courses and the modernization of educational content.

As a result, students fail to receive necessary technical training, impacting their learning outcomes and hindering their preparation for an upcoming technology-driven workplace environment. More seriously, the lack of technical skills among teachers also impedes the innovation and updating of the entire educational model, making it difficult for vocational colleges to improve education quality and meet the industry's demand for highly skilled talent. This challenge not only limits internal development within the educational system but also affects students' competitiveness and development potential in their future careers.

3.4. Lagging Educational Policies

In the field of education, the speed of policy updates often cannot keep pace with technological advancements. Especially for the emerging RPA technology, many current educational policies do not adequately reflect its importance and support. This lag not only affects the timely updating of educational content but also leaves vocational colleges lacking sufficient policy guidance and clear support in key areas such as curriculum setting, financial investment, and talent cultivation. Therefore, when vocational colleges attempt to integrate RPA technology into their educational systems, they often face significant uncertainty and implementation difficulties.

Moreover, the inappropriateness of policies also leads to vocational colleges lacking the necessary support framework for technological investments and curriculum innovations[2]. Without adequate policy support, schools may struggle to secure the necessary funds to purchase the latest RPA software or build corresponding teaching environments, and they may also find it difficult to attract and train teachers with relevant technological teaching capabilities. This policy gap ultimately affects the quality of modern technology education received by students, limiting their competitiveness in a technology-driven workplace.

3.5. Gap Between Student Skills and Market Demands

As market demands for accounting professionals rapidly evolve, proficiency in RPA and related technologies has become an important professional qualification. However, the issue of delayed updates in the current educational model means that the skills students acquire during their studies often do not meet the practical needs of the workplace. This mismatch between education and market demands, particularly in the application of RPA skills, exacerbates the skill gap between students and the requirements of modern accounting positions.

This gap has a direct impact on students' career development. When graduates enter the job market, they often find that their skills are insufficient to meet the increasing demands for automation and technologization in the workplace. This not only reduces their employability but can also affect the start and long-term development of their careers. Therefore, students may face significant challenges when confronting high-skill positions after completing their studies, which in turn increases the challenges for vocational colleges in talent cultivation.

4. Improvement Measures for the Construction of Talent Training Models in Vocational Undergraduate Accounting under the Promotion of RPA Technology

4.1. Promoting Integration of Curriculum Structure with RPA Technology

To effectively integrate RPA technology into accounting education, vocational colleges need to take innovative steps to restructure existing curriculum structures. Firstly, specialized RPA courses should be designed and introduced, covering not only basic RPA concepts and operational skills but also advanced applications such as process optimization and system integration[3]. This ensures that

students gain a deep understanding of the functionality and potential of RPA from both theoretical and practical perspectives. Additionally, to integrate RPA technology more comprehensively, traditional accounting courses should also be adjusted to include RPA-related case studies and practical components, allowing students to learn how to apply these advanced technologies in real-world scenarios while studying traditional accounting knowledge.

Furthermore, the course design should encourage interdisciplinary learning approaches, such as incorporating computer science and data analytics into accounting courses, to create a multidimensional teaching framework. This interdisciplinary course structure not only cultivates students' professional skills in the accounting field but also enhances their technological capabilities, enabling them to effectively utilize RPA tools in complex work environments. This transformation of the educational model is aimed at meeting the demands of modern accounting workplaces, ensuring students can smoothly transition to high-tech and efficient work settings upon graduation.

4.2. Optimizing Teaching Resources and Facility Configurations

Updating and optimizing teaching resources and facilities are key to implementing effective RPA education. To this end, vocational colleges should actively invest in the most advanced software tools and simulation systems, which includes purchasing licenses and subscribing to the latest versions of RPA software as well as building or upgrading laboratory facilities to support various RPA teaching and practice activities. Such facility upgrades ensure that students learn and practice in a setting that closely resembles the actual work environment, thereby better understanding the practical applications and potential issues of RPA technology. Additionally, enhancing laboratory facilities also aids teachers in conducting more experiments and project-based learning activities, improving the interactivity and practicality of teaching.

Moreover, to further enrich the curriculum and keep it up-to-date with industry developments, schools should proactively establish partnerships with leading RPA technology providers and professional practice companies[4]. Through such partnerships, schools can regularly receive the latest industry resources and technology updates, and also invite industry experts to deliver guest lectures or short-term workshops, providing students with real-time industry insights and career guidance. Such industry collaboration not only improves the quality of education but also helps students build valuable professional networks, enhancing their future employability.

4.3. Enhancing Teachers' RPA Technology Training

To ensure an improvement in educational quality, vocational colleges must strengthen RPA technology training for teachers. This means regularly organizing professional training conferences and workshops, specifically focused on the latest RPA software and teaching methods. These trainings should cover not only the basics of RPA technology but also extend to advanced application skills such as process optimization and system integration, ensuring that teachers are fully proficient in all aspects of RPA technology. Additionally, these training events should also include innovations in teaching strategies and methods, helping teachers explore how to more effectively incorporate these technologies into classroom teaching, thereby enhancing interactivity and student learning outcomes.

Establishing partnerships with RPA technology providers is also crucial for enhancing teachers' technical capabilities. Through such partnerships, teachers can obtain necessary software licenses and ongoing technical support, enabling them to effectively use the latest RPA tools in the classroom. Moreover, cooperation also facilitates teachers' exposure to the latest industry developments and case studies, effectively integrating theory with practice, not only enhancing the practicality and forward-looking nature of courses but also stimulating students' interest and potential for professional development. Through these measures, vocational colleges can ensure their teaching staff remains

industry-leading in both technology and pedagogy.

4.4. Strengthening Educational Policy Support

For the innovation and sustained development of educational models, policy-level support is crucial. Government and educational authorities need to take active steps by updating and improving existing educational policies to clearly support and promote the widespread application of RPA technology in higher education[5]. This should include providing necessary financial support for the development and implementation of RPA courses, ensuring that vocational colleges can access the latest software tools and technologies, and improving teaching facilities. Furthermore, the government should consider enacting specific regulations that not only encourage but also reward vocational colleges that innovate in course setting and teaching methods, thereby promoting an improvement in educational quality.

Additionally, policymakers should promote and support cooperation between vocational colleges and industry enterprises. By establishing solid partnerships with businesses, vocational colleges can gain a more direct understanding of industry needs, while enterprises can participate in course design and teaching processes, jointly cultivating accounting professionals who meet modern workplace demands. Such cooperation not only provides students with practical and internship opportunities but also helps vocational colleges maintain the timeliness and practicality of their teaching content. This kind of policy support will provide a strong backing for vocational colleges, helping them stay ahead in the rapid development of educational technology.

4.5. Enhancing Student Skills and Career Adaptability

To enhance students' career adaptability and bridge the gap between their skills and market demands, vocational colleges need to adopt diversified practical teaching strategies. Firstly, increasing training that simulates real work environments and project-driven learning methods allows students to apply RPA and related technologies in settings similar to actual work environments. This teaching approach not only enhances students' practical operational skills but also improves their ability to solve complex problems, a key skill increasingly demanded in the accounting industry.

Moreover, cooperating with businesses to offer internship programs is another key strategy[6]. Through such partnerships, students can directly participate in the daily operations of enterprises, gaining a deeper understanding and experience of the practical applications of RPA technology. These practical opportunities not only help students better understand the theoretical knowledge learned in the classroom but also allow them to experience work pressures and challenges in advance, better preparing them for future careers. The implementation of these measures will greatly improve the quality of education and ultimately enhance students' competitiveness in the job market.

5. Conclusion

This study, by analyzing the issues present in the current educational model, proposes a series of improvement measures for talent training models based on RPA technology. The research indicates that optimizing curriculum structure, enhancing teacher training, improving teaching resources and facilities, and strengthening policy support can effectively enhance the quality of education. Future research could further explore the application of RPA technology in other academic disciplines, assess the long-term effects of educational reforms, and discuss how to promote RPA-integrated teaching models more broadly across educational levels. Additionally, research should focus on the ongoing impact of advancements in RPA technology on educational strategies to adapt to the continuously changing technological and market environments.

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