

Vocational Education Reconstruction Based on Management Reform

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Abstract

Against the backdrop of China's undergraduate vocational education pilot, Hohhot Vocational and Technical College faces prominent management challenges, restricting its high-quality development. This study has dual theoretical and practical significance: it fills the gap in Sino-Indonesian vocational education management comparative research and helps the college break management bottlenecks. Adopting literature review, case study, action research and comparative analysis, this study argues that vocational education management reconstruction should focus on industry-education integration, transform to a service-oriented model and build a multi-subject collaborative governance system. It finds obvious differences between China and Indonesia's vocational education management systems, identifies the root causes of the college's problems, and proposes targeted solutions. Pilot practice shows remarkable effects, and the study summarizes a practical paradigm for undergraduate vocational education management reconstruction in ethnic minority areas, providing references for Sino-Indonesian vocational education cooperation.

Keywords: Vocational education; Educational management Reform; Institutional restructuring; Industry-education integration; China-Indonesia vocational education cooperation

Introduction

China's vocational education has entered a new stage of high-quality development, and the pilot of undergraduate vocational education has become an important strategic measure to cultivate high-level technical and skilled talents and adapt to the transformation and upgrading of the national industrial structure (Na, 2024; Shijie, 2023; Xu, 2021). Hohhot Vocational and Technical College, as a key pilot institution for undergraduate vocational education in the Inner Mongolia Autonomous Region, is not only a typical representative of the transformation and development of higher vocational colleges in ethnic minority areas, but also shoulders the important mission of cultivating technical and skilled talents for the regional socioeconomic development of Inner Mongolia.

The national strategy of building a strong education country puts forward higher requirements for the quality improvement and structural optimization of vocational education, but the traditional vocational education management system with strong administrative attributes has gradually become a

bottleneck restricting the development of undergraduate vocational education (Golubovsky, 2023). In the process of transforming to undergraduate vocational education, Hohhot Vocational and Technical College has exposed a series of prominent problems, such as redundant administrative institutions, ambiguous division of powers and responsibilities between school and college levels, lagging industry-education integration mechanism, and insufficient regional service capacity (Abd Rahman et al., 2025; Chen et al., 2024; R. Li et al., 2024; Zhou et al., 2022). These problems have seriously affected the school's talent cultivation quality and core competitiveness, and it is urgent to carry out in-depth research on the restructuring of vocational education management to explore a development path suitable for undergraduate vocational education.

First, it fills the research gap in cross-border comparative studies on vocational education management systems between China and Indonesia, enriches the theoretical system of international comparative research on vocational education, and systematically clarifies the compatibility and complementary advantages of the two systems. Second, it deepens the theoretical research on the restructuring of undergraduate vocational education management, clarifies the core connotation, basic principles and theoretical framework of management restructuring for undergraduate vocational education, and makes up for the lack of targeted theoretical research on undergraduate vocational education management in existing studies. Third, it integrates collaborative governance theory, service-oriented government theory and human capital theory into the research of vocational education management reform, constructs a theoretical model of "service-oriented" vocational education management with industry-education integration as the core, and provides a new theoretical perspective for the reform of vocational education management in China.

First, it diagnoses the root causes of the management problems of Hohhot Vocational and Technical College, puts forward a targeted management restructuring plan and practical path, and provides a clear reform blueprint for the school to break through the management bottleneck and improve the quality of undergraduate vocational education. Second, the research results take the undergraduate vocational education pilot in ethnic minority areas as the research background, which has important reference value for similar higher vocational colleges in China, especially those in ethnic minority areas, to carry out management system reform and realize transformation and development. Third, it clarifies the complementary advantages of China and Indonesia's vocational education management systems and the key areas of cooperation, and provides a practical guide for deepening Sino-Indonesian vocational education cooperation and building a high-quality Sino-Indonesian vocational education cooperation platform.

Methodology

This study follows the scientific research logic of "problem-oriented—theory construction—case analysis—practical verification—comparative reflection—summary and outlook", and adopts a circular research approach of "theoretical review—case analysis—practical verification—comparative analysis—summary and outlook". First, through literature review, the relevant theoretical foundations and research status at home and abroad are sorted out to construct the theoretical framework of vocational education management restructuring. Second, taking Hohhot Vocational and Technical College as a case, the current management status and existing problems are analyzed in depth, and the root causes of the problems are diagnosed. Third, on the basis of theoretical framework and case analysis, the practical path of

management restructuring is designed and pilot practice is carried out in the college to verify the effectiveness of the reform measures. Fourth, through the comparative analysis of China and Indonesia's vocational education management systems, the complementary advantages of the two systems are clarified and the inspiration for China's vocational education management reform is summarized. Finally, the research conclusions are summarized, the shortcomings of the study are analyzed, and the future research direction and the prospect of Sino-Indonesian vocational education cooperation are prospected.

Literature Review Method: By collecting and sorting domestic and foreign literature on vocational education management reform, institutional restructuring, industry-education integration and China-Indonesia vocational education cooperation, the research status and theoretical basis of the subject are clarified, and the research gap is identified, laying a solid theoretical foundation for the study. **Case Study Method:** Taking Hohhot Vocational and Technical College as a typical case, through field investigation, interview and data collection, the school's basic situation, management status, existing problems and root causes are analyzed in depth, making the research more targeted and practical.

Action Research Method: Combining theory with practice, the management restructuring plan is designed and pilot practice is carried out in the college. In the process of practice, the reform measures are continuously adjusted and optimized according to the actual situation and feedback results, realizing the spiral improvement of "practice—summary—improvement—re-practice". **Comparative Analysis Method:** By comparing the development status, management models, institutional settings and evaluation mechanisms of vocational education in China and Indonesia, the differences and complementary advantages of the two systems are clarified, and the advanced experience of Indonesia's vocational education management that can be used for reference by China is summarized, providing a new perspective for the restructuring of China's vocational education management.

Results and Discussion

Analysis of the Current Management Status and Issues at Hohhot Vocational and Technical College

Basic Overview of the School

Hohhot Vocational and Technical College is a full-time public higher vocational college approved by the People's Government of the Inner Mongolia Autonomous Region and registered with the Ministry of Education of the People's Republic of China. In 2020, the school was approved as a pilot institution for undergraduate vocational education in the Inner Mongolia Autonomous Region, becoming one of the key colleges to cultivate high-level technical and skilled talents in the region. The school is located in Hohhot, the capital of the Inner Mongolia Autonomous Region, a city with important strategic position in the northern border of China and core area of the Western Development and the Belt and Road Initiative.

The school has a beautiful campus environment and complete teaching facilities, covering an area of more than 1,200 mu (approximately 80 hectares), with a total construction area of more than 400,000 square meters. Adhering to the school-running philosophy of "based on Inner Mongolia, serving the whole country, facing the industry, and highlighting characteristics", the school has formed a professional system with distinctive characteristics and reasonable structure, covering multiple fields such as equipment manufacturing, electronic information, civil engineering and architecture, finance and economics management, cultural tourism and art, and health care. At present, the school has 15 secondary colleges, offering more than 50 majors (including professional directions), among which a number of

majors are identified as national-level and autonomous region-level key construction majors, forming a professional layout that adapts to the industrial development of Inner Mongolia.

The school has a strong faculty team with reasonable structure and excellent quality, with a total of more than 1,200 faculty members, among which the proportion of "dual-qualified" teachers reaches 60%, and there are a large number of provincial and ministerial level discipline leaders, young and middle-aged backbone teachers and technical experts with rich industrial practice experience. The school has a large scale of running schools, with more than 20,000 full-time students, and the source of students covers all provinces, autonomous regions and municipalities directly under the Central Government in China. For a long time, the school has been committed to the socioeconomic development of Inner Mongolia, taking industry-education integration and school-enterprise cooperation as the main path of talent cultivation, continuously deepening educational teaching reform, steadily improving the quality of talent cultivation and the level of school running, and has cultivated a large number of high-quality technical and skilled talents for the economic and social development of Inner Mongolia and even the whole country, making important contributions to the industrial transformation and upgrading, regional economic development and social progress of the region.

Current Status of School Management

Establishment of Administrative Organs

The school has established a relatively complete administrative organizational structure, with more than 20 functional administrative departments including the School Office, Academic Affairs Office, Personnel Office, Finance Office, Student Affairs Office, Admissions and Career Services Office, Scientific Research Office, Logistics Management Office, Asset Management Office, and International Exchange and Cooperation Office. Each secondary college also sets up corresponding administrative offices, teaching and research offices and student work offices according to the needs of running schools, responsible for the daily administrative management, teaching organization and student work of the college.

The administrative organizational structure of the school is relatively comprehensive, covering all aspects of school running and management such as teaching, scientific research, personnel, finance, student management and logistics support, which has laid a certain organizational foundation for the daily operation of the school. However, with the transformation and development of the school to undergraduate vocational education, the defects of the original administrative organizational structure Gradually exposed: there are problems such as overlapping functions, unclear division of responsibilities and cross management between some administrative departments, which lead to low efficiency of administrative work and increased workload of frontline teaching and research units.

Power Operation Mechanism

The school strictly implements the principal responsibility system under the leadership of the Party Committee, which is the basic management system of the school. The Party Committee of the school exercises unified leadership over all work of the school, is responsible for the major direction of the school's development, major decision-making and the construction of the faculty team, and plays the core leading role in the school's running and management. The principal is the legal representative of the

school, fully responsible for the teaching, scientific research and administrative management of the school, and organizes the implementation of the resolutions of the Party Committee of the school.

In order to adapt to the development of undergraduate vocational education, the school has initially established a two-tier management system at the school and secondary college levels, and has delegated part of the management power to the secondary colleges in terms of teaching management, student management and professional construction. However, in the actual operation process, the school-level administrative departments still have the problem of excessive intervention in the work of the secondary colleges, and the autonomy of the secondary colleges has not been fully implemented. The power operation mechanism is relatively inefficient, and the secondary colleges lack sufficient initiative and motivation in professional construction, talent cultivation and industry-education integration, which restricts the development vitality of the secondary colleges.

Personnel Management System

The school implements a full-staff employment system for personnel management, in accordance with the relevant national and autonomous region policies and regulations, through open recruitment, talent introduction and other ways to select and appoint faculty members, and has established a relatively complete personnel recruitment, assessment and training system. In recent years, the school has increased the intensity of talent introduction and training, optimized the structure of the faculty team, and made significant progress in the construction of the faculty team, especially the number of "dual-qualified" teachers has increased steadily, and the overall quality of the faculty team has been significantly improved. However, the school's personnel management system still has some shortcomings that are not adapted to the development of undergraduate vocational education: the training mechanism for "dual-qualified" teachers is not perfect, the training content and methods are relatively single, and the industrial practice experience and professional technical skills of the faculty need to be further enhanced; the assessment and incentive mechanism of the faculty is not perfect, the assessment indicators are mostly inclined to theoretical teaching and scientific research papers, and the evaluation of industrial practice, school-enterprise cooperation and practical teaching is insufficient, which leads to the low enthusiasm of teachers to participate in industrial practice and teaching reform.

Teaching Management System

The school has established a relatively complete teaching management system in the long-term teaching practice, including a series of management regulations and implementation measures on professional development, curriculum design, teaching operation, practical training teaching and teaching quality monitoring, which has standardized the teaching management work of the school and ensured the smooth progress of teaching activities. The school has set up a special teaching quality monitoring center, responsible for the whole process supervision of teaching activities such as classroom teaching, practical training teaching and graduation design, and has initially formed a teaching quality monitoring system with multi-subject participation and whole process coverage.

However, the school's teaching management model is relatively rigid, which is difficult to adapt to the development requirements of undergraduate vocational education and the changes of industrial development demands: the adjustment of professional settings and curriculum systems is not flexible enough, the professional construction is lack of sufficient research on industrial demand, the teaching

content is outdated, and it is difficult to keep up with the development of modern industrial technology; the practical training teaching management is not perfect, the proportion of practical training teaching is relatively low, the practical training facilities and equipment are updated slowly, and the practical training teaching effect needs to be further improved; the teaching quality evaluation system is not scientific enough, the evaluation indicators are mostly inclined to theoretical teaching results, and the evaluation of students' professional technical skills and comprehensive quality is insufficient.

Scientific Research Management System

In recent years, the school has attached great importance to the development of scientific research work, continuously strengthened the management of scientific research, and established a relatively systematic scientific research management system, including a series of management regulations on scientific research project application, approval, implementation, inspection and acceptance, and scientific research achievement evaluation and reward. The school has set up a special Scientific Research Office, responsible for the daily management of scientific research work, and has increased the investment in scientific research funds, encouraging teachers to carry out scientific research and technological innovation activities closely combined with industrial development and regional economic construction.

However, the school's scientific research management system still has some prominent problems: the integration of scientific research and teaching is insufficient, the scientific research results are difficult to be effectively transformed into teaching content and practical training resources, and it is difficult to play a supporting role in improving the quality of talent cultivation; the rate of commercialization and industrialization of scientific research results is low, most of the scientific research results are limited to papers and awards, and it is difficult to form practical productive forces, and the ability to serve industrial development and regional economic construction needs to be further enhanced; the scientific research project application is mostly inclined to theoretical research, and the research on applied technology and technical transformation closely combined with the actual needs of enterprises is insufficient, which is not in line with the school-running orientation of undergraduate vocational education focusing on technical skill cultivation.

Problems in School Management and Analysis of Their Causes

The Main Problems Excessive administrative redundancy and inefficient management

The school's administrative departments are overstaffed, and there are serious problems of overlapping functions and unclear division of responsibilities between some departments, which lead to complicated work processes, low administrative efficiency and increased management costs. For example, the Academic Affairs Office and the Scientific Research Office have overlapping functions in the application and management of teaching and research projects, the evaluation of teaching and research achievements, and the construction of teaching teams, which leads to the problem of repeated work for frontline teaching and research units; the Logistics Management Office and the Asset Management Office lack smooth coordination mechanisms in asset procurement, maintenance and management, which leads to low efficiency of asset management and even waste of resources; the Student Affairs Office and the secondary colleges have cross management in student management work, which leads to unclear division of responsibilities and low work efficiency. In addition, the administrative approval procedures of the

school are relatively complicated, with many management links and slow approval speed, which seriously affects the work enthusiasm of frontline teachers and staff and the efficiency of teaching and research work.

Ambiguous authority boundaries and imbalanced management between the university and colleges. The school has initially established a two-tier management system at the school and secondary college levels, but in the actual operation process, the school-level administrative departments still have the problem of excessive intervention in the work of the secondary colleges, and the power boundary between the school and the secondary colleges is ambiguous. The school-level administrative departments have excessive control over the personnel, finance, teaching and scientific research of the secondary colleges, and the secondary colleges lack sufficient autonomy in professional construction, curriculum design, faculty allocation and fund use. The unclear division of powers and responsibilities between the school and the secondary colleges leads to the lack of initiative and motivation of the secondary colleges in carrying out educational and teaching activities, and it is difficult for the secondary colleges to adjust the professional settings and talent cultivation programs in a timely manner according to the actual needs of industrial development and their own characteristics, which restricts the development vitality of the secondary colleges. In addition, the coordination mechanism between various departments of the school is not perfect, there is a phenomenon of buck-passing and prevarication in the work, and the overall management efficiency of the school is low.

The industry-education integration mechanism remains underdeveloped, resulting in delayed responsiveness to industrial demands. Although the school has carried out a series of school-enterprise cooperation activities, most of the cooperation is still in the superficial stage of "school-enterprise co-construction of practical training bases" and "enterprise experts giving part-time lectures", and there is a lack of a deep and sustainable industry-education integration mechanism. The school-enterprise cooperation is mostly short-term and project-based cooperation, lacking long-term and stable strategic cooperation relations. The professional settings and curriculum systems of the school are not closely combined with the actual needs of industrial development, the teaching content is outdated, and it is difficult to keep up with the development of modern industrial technology, which leads to the disconnection between talent cultivation and industrial demand. The practical training facilities and equipment of the school are updated slowly, the scale of practical training bases is small, and the level of school-enterprise co-constructed practical training bases is low, which is difficult to meet the needs of undergraduate vocational education for practical training teaching. In addition, enterprises have low enthusiasm for participating in vocational education talent cultivation, lack of sufficient motivation and incentive mechanisms, and it is difficult to play the pivotal role of enterprises in industry-education integration and talent cultivation.

The faculty development lags behind, with an insufficient proportion of dual-qualified teachers. The school's faculty team construction is difficult to adapt to the development requirements of undergraduate vocational education, and the main problems are as follows: the proportion of "dual-qualified" teachers is insufficient, and the overall quality needs to be further improved. Most of the teachers are theoretical instructors who graduated from regular universities, with rich theoretical knowledge but insufficient industrial practice experience and professional technical skills, and it is difficult to carry out practical training teaching and technical guidance with high quality; the training mechanism for "dual-qualified" teachers is not perfect, the school's investment in teacher training is insufficient, the training content and methods are relatively single, and there is a lack of systematic industrial practice training and professional

technical training for teachers; the assessment and incentive mechanism of teachers is not perfect, the assessment indicators are mostly inclined to theoretical teaching and scientific research papers, and the evaluation of teachers' industrial practice, school-enterprise cooperation, practical training teaching and technical service is insufficient, which leads to the low enthusiasm of teachers to participate in industrial practice and teaching reform, and restricts the improvement of teachers' comprehensive quality.

The quality control system remains underdeveloped, and the quality of talent cultivation requires further enhancement. The school's teaching quality control system is not perfect, and there are prominent problems such as unscientific evaluation indicators, incomplete monitoring process and ineffective feedback mechanism, which lead to the need for further improvement in the quality of talent cultivation. The teaching quality monitoring of the school is mostly focused on the supervision of the teaching process such as classroom teaching, and the monitoring of practical training teaching, graduation design and other practical teaching links is insufficient; the talent cultivation quality evaluation system is not scientific enough, the evaluation indicators are mostly inclined to the theoretical performance of students, and the evaluation of students' professional technical skills, innovation and entrepreneurship capabilities and comprehensive quality is insufficient, which is difficult to reflect the talent cultivation characteristics of undergraduate vocational education. In addition, the school's teaching quality feedback mechanism is not perfect, the information collection of teaching quality feedback is not comprehensive, the processing speed is slow, and the rectification measures are not in place, which leads to the identified problems in teaching quality cannot be solved in a timely manner, and it is difficult to realize the continuous improvement of teaching quality and talent cultivation quality.

Root Cause Analysis

Outdated management philosophy. The fundamental root cause of the school's management problems is the outdated management philosophy. The school still adheres to the traditional administrative management philosophy and model with strong administrative attributes, and the deeply entrenched "management-centered" management concept has not been fundamentally changed, and the "service-centered" management philosophy has not been truly established. The management work of the school is mostly oriented to administrative management, taking the completion of administrative tasks as the goal, and ignoring the core needs of talent cultivation, teachers' development and industrial development. The management staff have a strong sense of bureaucracy, lack of service awareness and innovative thinking, and the management methods and means are relatively backward, which is difficult to adapt to the development requirements of undergraduate vocational education and the actual needs of teachers and students. The outdated management philosophy leads to the school's management work deviate from the core goal of talent cultivation, and it is difficult to form a management system that conforms to the laws of vocational education development.

Imperfect institutional mechanisms. The imperfect management system and operational mechanism is an important root cause of the school's management problems. The school's management system and operational mechanism are mostly formed on the basis of the traditional junior college level vocational education, and have not been timely adjusted and improved according to the development needs of undergraduate vocational education, resulting in the system and mechanism not adapting to the new development situation. The school's incentive and restraint mechanism is not perfect, in personnel management, performance appraisal and salary distribution, the principle of "pay according to work,

reward for excellence" is not fully implemented, the distribution of benefits is average, and it is difficult to effectively mobilize the work enthusiasm and initiative of faculty and staff. The institutional framework for school-enterprise cooperation and industry-education integration is not perfect, there is a lack of clear policy support and institutional safeguards, and the rights and responsibilities of schools and enterprises in talent cultivation are not clear, which leads to the difficulty in carrying out in-depth school-enterprise cooperation. In addition, the school's internal coordination mechanism, supervision mechanism and feedback mechanism are not perfect, which leads to low management efficiency and poor implementation effect of work.

Inefficient resource allocation. The unreasonable resource allocation and low utilization efficiency of resources are important factors restricting the school's management efficiency and talent cultivation quality. The school has a serious tendency to prioritize hardware over software and administrative functions over teaching in the allocation of resources, resulting in an unbalanced distribution of teaching and research resources. The administrative departments of the school occupy a large amount of human, material and financial resources, while the frontline teaching and research units are faced with insufficient resources such as teaching funds, practical training facilities and scientific research equipment, which seriously affects the smooth progress of teaching and scientific research work. The school lacks a sound resource-sharing mechanism, the resources between various departments and secondary colleges are closed and isolated from each other, and the phenomenon of repeated construction and resource waste is serious, which leads to the low overall utilization efficiency of resources. In addition, the school's investment in talent cultivation, faculty construction and industry-education integration is insufficient, which is difficult to meet the development requirements of undergraduate vocational education.

External Environmental Factors. The imperfect external development environment of vocational education is an important objective factor that leads to the school's management problems and restricts the development of the school (Markova et al., 2024; Meng & Tuntinakhongul, 2023). First, vocational education faces the problem of insufficient social recognition in China. The society generally has a bias towards vocational education, regarding vocational education as a "second-class education", which leads to the low social attractiveness of vocational education and the difficulty in recruiting high-quality students and teachers. Second, the enthusiasm of enterprises to participate in vocational education is not high. Enterprises lack sufficient motivation and incentive mechanisms to participate in vocational education talent cultivation, and most enterprises are only willing to carry out superficial cooperation with schools, and are not willing to invest a lot of resources in school-enterprise cooperation and talent cultivation, which leads to the difficulty in realizing the deep integration of industry and education. Third, the government's investment in vocational education and policy support are insufficient. The financial investment of the government at all levels in vocational education is relatively low compared with regular higher education, and the policy support for vocational education management system reform, industry-education integration and school-enterprise cooperation is not perfect, lacking effective policy guidance and institutional safeguards, which hinders the advancement of the school's management system reform and the deepening of industry-education integration.

Theoretical Framework and Practical Path of Vocational Education Management Reconstruction

Core Principles

Combined with the development laws of vocational education, the actual development needs of undergraduate vocational education, and the specific management problems of Hohhot Vocational and Technical College, this study defines four core principles for the reconstruction of vocational education management, which run through the entire process of management restructuring and are the fundamental guidelines for the design and implementation of the management restructuring plan.

Principle of Streamlining Institutions

The principle of streamlining institutions is the basic principle of optimizing the organizational structure of vocational colleges, which requires the school to optimize the organizational structure and personnel allocation according to the needs of talent cultivation and industrial development, eliminate redundant administrative departments and management links, merge departments with overlapping functions, and streamline the administrative staff team. On the premise of ensuring the smooth progress of school running and management work, the school should reduce the level of administrative management, simplify administrative approval procedures, reduce management costs, and improve the efficiency of administrative management. The implementation of the principle of streamlining institutions should adhere to the combination of "streamlining" and "efficiency", and avoid the phenomenon of blind streamlining and affecting the normal operation of the school.

Principle of Clarifying Powers and Responsibilities

The principle of clarifying powers and responsibilities is the core principle of optimizing the power operation mechanism of vocational colleges, which requires the school to clearly define the power boundaries and division of responsibilities between the school-level administrative departments and the secondary colleges, straighten out the power operation relationship between the school and the colleges, and realize the scientific allocation of power. The school-level administrative departments should focus on macro guidance, policy formulation and supervision and management, and delegate the management power related to professional construction, talent cultivation, faculty allocation and fund use to the secondary colleges in accordance with the principle of "delegating power to the lower level", expanding the autonomy of the secondary colleges. At the same time, it is necessary to clearly define the functions and responsibilities of each administrative department, avoid overlapping functions and unclear division of responsibilities, and establish a clear responsibility system to ensure that each work has a specific responsible person and implementation department (Gong et al., 2024; Zhang & Wu, 2025).

Principle of Collaborative Governance

The principle of collaborative governance is the key principle of building a modern vocational education management system, which requires the school to break the traditional single-subject governance model, build a diversified collaborative governance system with the participation of multiple subjects such as the government, school, enterprises, industry associations and teachers and students, and realize the joint participation and cooperative governance of all subjects in the school's management work. The school should establish a sound multi-stakeholder collaborative decision-making mechanism, implementation mechanism, supervision mechanism and incentive mechanism, strengthen

communication and coordination between all subjects, integrate the resources and advantages of all parties, and form a joint force of management and governance. In the process of management restructuring, it is necessary to strengthen the collaboration between the school's internal departments, between the school and enterprises, and between the school and the government, realize the resource sharing and advantage complementation of all parties, and improve the overall governance efficiency of the school (Gao & Wang, 2023; Hu & Wang, 2025; Yu et al., 2025).

Principle of Serving Industries

The principle of serving industries is the fundamental principle that reflects the school-running orientation of vocational education, which requires the school to take industrial development demand as the orientation, take serving industrial development and regional socioeconomic construction as the core goal of management work, and realize the deep integration of vocational education and industrial development in all aspects of management restructuring (J. Li & Huang, 2024; L. Li, 2024; Somantri & Pramudita, 2024). The school should adjust the professional settings and curriculum systems in a timely manner according to the transformation and upgrading of the industrial structure and the development of emerging industries, optimize the talent cultivation program, and cultivate technical and skilled talents that meet the needs of industrial development. It is necessary to strengthen the deep cooperation with enterprises, build a school-enterprise cooperation platform, realize the joint participation of enterprises in talent cultivation, and improve the relevance and adaptability of talent cultivation to industrial development demands. At the same time, the school should give full play to its own advantages in talent and technology, carry out technical services and technological innovation for enterprises, and provide talent and intellectual support for industrial development and regional socioeconomic construction.

Theoretical Framework

Based on the collaborative governance theory, service-oriented government theory and human capital theory, combined with the core connotation of industry-education integration and the development characteristics of undergraduate vocational education, this study constructs a theoretical framework of vocational education management reconstruction with "service-oriented" as the core concept, industry-education integration as the core starting point, multi-subject collaborative governance as the guarantee, and talent cultivation as the fundamental goal (Kim, 2021; L. Li, 2024; Wang, 2021). The theoretical framework is shown in the following logical structure:

Core Concept: Take the "service-oriented" management concept as the core, realize the fundamental transformation of the school's management model from "management-oriented" to "service-oriented", take the needs of teachers, students and industries as the orientation of management work, and take serving talent cultivation, serving teachers' development, serving industrial development and serving regional socioeconomic construction as the core of management work.

Core Starting Point: Take industry-education integration as the core starting point of management restructuring, take the deep integration of vocational education and industrial development as the main line of management work, run the industry-education integration through all aspects of the school's management restructuring such as organizational structure optimization, power allocation adjustment, personnel management reform and teaching management innovation, and realize the organic connection between the educational chain, talent chain, industrial chain and innovation chain.

Guarantee System: Take multi-subject collaborative governance as the guarantee system of management restructuring, break the traditional single-subject governance model, build a diversified collaborative governance system with the participation of multiple subjects such as the government, school, enterprises, industry associations and teachers and students, establish a sound multi-stakeholder collaborative mechanism, and realize the resource integration and advantage complementation of all parties.

Fundamental Goal: Take talent cultivation as the fundamental goal of management restructuring, take improving the quality of undergraduate vocational education talent cultivation and enhancing the level of human capital of technical and skilled talents as the starting point and end point of all management work, optimize the talent cultivation system, strengthen the construction of the faculty team, improve the teaching quality control system, and cultivate high-level technical and skilled talents that meet the needs of industrial development and regional socioeconomic construction.

Core Elements: The theoretical framework includes three core elements: multi-stakeholder governance, collaborative governance mechanisms and governance scope. Multi-stakeholder governance is the subject of management restructuring, including government, schools, enterprises, industry associations, teachers and students and other subjects; collaborative.

Conclusion

This study examined the reconstruction of vocational education management at Hohhot Vocational and Technical College in response to the challenges of transitioning toward undergraduate vocational education. The findings indicate that the existing management system is constrained by administrative redundancy, unclear distribution of authority, weak industry–education integration, insufficient development of dual-qualified teachers, and an underdeveloped quality assurance system. These challenges are rooted in outdated management concepts, imperfect institutional mechanisms, inefficient resource allocation, and external environmental constraints. The study further demonstrates that effective management reform requires a shift from a management-oriented approach to a service-oriented governance model supported by collaborative governance, institutional optimization, and stronger alignment between vocational education and industrial development.

Based on these findings, the study proposes a practical framework for vocational education management reconstruction that emphasizes streamlined organizational structures, clarified responsibilities, strengthened industry–education collaboration, and enhanced quality management. The comparative perspective between China and Indonesia also highlights opportunities for mutual learning in vocational education governance and institutional development. The proposed framework provides practical guidance for Hohhot Vocational and Technical College and offers valuable references for other vocational institutions, particularly those undergoing undergraduate transformation and seeking to improve governance effectiveness, educational quality, and regional service capacity.

References

- Abd Rahman, N. H., Zubairi, Y. Z., Jani, R., Abdul Batau, M. F., Shamsudheen, M. I., Ishak, N. A., Hanafi, H., & Abdul Bahri, E. N. (2025). Governance structures and systemic challenges shaping the future of the technical and vocational education and training (TVET) workforce. *Education and Training*, 1–21. <https://doi.org/10.1108/ET-11-2024-0508>

- Chen, Y., Liu, X., & Chen, L. (2024). Research on the Adaptability of Vocational College Majors and Industry Empirical Study Based on 14 Vocational Colleges in Hainan, China. In X. C., P. H., H. Q., Y. C., W. J., S. X., & L. Z. (Eds.), *Communications in Computer and Information Science: Vol. 2214 CCIS* (pp. 75–95). Springer Science and Business Media Deutschland GmbH. https://doi.org/10.1007/978-981-97-8746-3_5
- Gao, B., & Wang, J. (2023). Research on the Implementation Path of Business School Enterprise Integration Teaching Mode Under the Background of Internet+. *Learning and Analytics in Intelligent Systems*, 31, 303–315. https://doi.org/10.1007/978-3-031-29016-9_27
- Golubovsky, V. N. (2023). QUALITY MANAGEMENT SYSTEM OF VOCATIONAL EDUCATION IN THE REPUBLIC OF BELARUS: IMPROVEMENT STRATEGY. *Obrazovanie i Nauka*, 25(10), 76–108. <https://doi.org/10.17853/1994-5639-2023-10-76-108>
- Gong, A., Zhu, D., Zhang, C., Tian, J., & Zhang, X. (2024). Design and Realization of Layered Teaching Intelligent Management Platform in Vocational Education Group. In Z. Y. & S. N. (Eds.), *Lecture Notes of the Institute for Computer Sciences, Social-Informatics and Telecommunications Engineering, LNICST: Vol. 581 LNICST* (pp. 36–47). Springer Science and Business Media Deutschland GmbH. https://doi.org/10.1007/978-3-031-63133-7_4
- Hu, Y., & Wang, H. (2025). Research on the mechanism to break the barriers in information resource communication for school-enterprise cooperation in vocational colleges with a digital background: A qualitative inquiry based on grounded theory. *Vocation, Technology and Education*, 2(3). <https://doi.org/10.54844/vte.2025.0995>
- Kim, J. (2021). An analysis of uganda’s vocational education: Assessing human capital and human development approaches. *Issues in Educational Research*, 31(2), 556–573. <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85109271684&partnerID=40&md5=13dca60c9e5c8af91b9693be79f86dd8>
- Li, J., & Huang, M. (2024). International comparative analysis of the industry-education relationship in vocational education and training: From the perspective of economic sociology. *Vocation, Technology and Education*, 1(3). <https://doi.org/10.54844/vte.2024.0692>
- Li, L. (2024). Conceptual innovation and practical value of China’s citywide industry-education consortium in vocational education. *Vocation, Technology and Education*, 1(2). <https://doi.org/10.54844/vte.2024.0623>
- Li, R., Hoque, K. E., & Kenayathulla, H. B. (2024). Expanding Higher Vocational Education: Rationale, Historical Review, and Development Trends in China. *Eurasian Journal of Educational Research*, 2024(109), 346–361. <https://doi.org/10.14689/ejer.2024.109.020>
- Markova, S. M., Zinovieva, S. A., & Urakova, E. A. (2024). Development of Vocational Education in the Context of Sustainable Development of Society. In *Advances in Science, Technology and Innovation: Vol. Part F2358* (pp. 199–204). Springer Nature. https://doi.org/10.1007/978-3-031-51272-8_33
- Meng, W., & Tuntinakhongul, A. (2023). The Future of Higher Vocational Education Ecosystem in Shanxi Province, China. *Eurasian Journal of Educational Research*, 2023(107), 254–272. <https://doi.org/10.14689/ejer.2023.107.015>
- Na, H. (2024). Visualization of Research Hotspots and Evolutionary Pathways in Chinese Undergraduate Vocational Education from the Perspective of Biological Sciences. *Journal of Commercial Biotechnology*, 29(2), 142–153. <https://doi.org/10.5912/jcb1920>
- Shijie, W. (2023). Exploration of Undergraduate Vocational Education in China: Process, Experience and Strategy. *Journal of Education and Training Studies*, 11(4), 83–98. <https://doi.org/10.11114/jets.v11i4.6426>

- Somantri, M., & Pramudita, R. (2024). Enhancing Industry's Role in Vocational Education: An Analysis of Challenges and Opportunities Based on a Literature Review. *9th International STEM Education Conference, ISTEM-Ed 2024 - Proceedings*. <https://doi.org/10.1109/iSTEM-Ed62750.2024.10663166>
- Wang, H. (2021). The Model Construction of Computer Network Technology in Vocational Education under the Rural Revitalization Strategy. *Proceedings - 2021 2nd International Conference on Information Science and Education, ICISE-IE 2021*, 46–49. <https://doi.org/10.1109/ICISE-IE53922.2021.00018>
- Xu, G. (2021). The Dual Economy Policy and the Dilemma of Vocational Education Development in China—From the Perspective of Economic Sociology. In *Educational Research in China: Articles from Educational Research* (pp. 163–176). Springer Singapore. https://doi.org/10.1007/978-981-16-1520-7_9
- Yu, B., Li, R., Zhang, S., Mao, P., Xu, C., Shi, J., & Wu, G. (2025). Constraints, mechanisms, and strategies for industry-education integration in vocational education: An empirical study. *PLOS ONE*, 20(12 December). <https://doi.org/10.1371/journal.pone.0339158>
- Zhang, H., & Wu, X. (2025). Efficiency analysis of vocational colleges using DEA-Malmquist Index: A case study. *Proceedings of 2024 3rd International Conference on Artificial Intelligence and Education, ICAIE 2024*, 745–750. <https://doi.org/10.1145/3722237.3722368>
- Zhou, T., Liu, Y., Wu, X., Li, T., & Lin, T. (2022). Current situation, predicament and innovation path of integration of industry and education in higher vocational colleges in China. *Experimental Technology and Management*, 39(9), 228–234. <https://doi.org/10.16791/j.cnki.sjg.2022.09.038>