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Indicator Design and Implementation Strategies for Service Contribution Evaluation in Higher Vocational Colleges

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Abstract: How well higher vocational colleges serve their regions is now a practical test of institutional competitiveness. Service contribution evaluation is a key governance tool for guiding higher vocational colleges to shift from internal quality improvement to social value creation. The service contribution of higher vocational colleges is characterized by vocational orientation and applicability, regionality and embeddedness, and diversity and integration. On this basis, this study constructs an evaluation indicator system covering five primary dimensions: talent supply, technical services, social services, international cooperation, and reform leadership. Four implementation strategies are proposed: differentiated, tiered, and categorized evaluation standards; a diversified and collaborative structure of evaluation actors; dynamic monitoring-based evaluation methods; and diagnostic and improvement-oriented application of evaluation results. These strategies are intended to promote the shift of service contribution evaluation from precise measurement to relational diagnosis and value diagnosis.

Keywords: Higher Vocational Colleges; Service Contribution; Evaluation Indicators; Evaluation Strategies.

1. Introduction

Vocational education is not a lesser track beside general education. It is a distinct educational type, marked by boundary crossing, integration, and reconstruction has [1]. Its social value lies in its structural embeddedness in regional economic and social development. For higher vocational colleges, school evaluation should not only measure the quality of internal education and teaching, but also assess the level of service contribution to regional economic and social development. It is necessary to shift from the logic of education's own development to the logic of serving the building of a modern powerful country and promoting people's all-round development. However, at the practical level, how to scientifically evaluate the service contribution of higher vocational colleges remains a difficulty in policy implementation. Based on this, this paper first clarifies the connotation and value of service contribution of higher vocational colleges to establish the evaluation orientation, then proposes an operational evaluation indicator system, and discusses the implementation strategies.

2. Main Analysis

2.1. Connotation and Characteristics of Service Contribution of Higher Vocational Colleges

Service contribution of higher vocational colleges should not be read through the same lens used for general universities. The differences are mainly manifested in the vocational orientation of educational functions, the localization of service functions, and the technical applicability of research functions[2]. The discussion below therefore treats the concept at three levels rather than offering a single definition.

2.1.1. Vocational Orientation and Applicability of Contribution Modes

From the perspective of type differentiation in higher education, General higher education tends to organise services around disciplinary knowledge, scientific research or engineering research fields, higher vocational colleges are organized around a different centre of gravity: vocational positions or vocational fields. The service contribution of general universities often uses the production and dissemination of disciplinary knowledge as its medium. It starts from the disciplinary knowledge system and applies scientific principles to engineering design and technological development. Its contribution forms therefore tend toward principle discovery, policy consultation, and high-end talent pools. In contrast, higher vocational colleges emphasize work-process knowledge and technical skills and their application. Their service contribution directly targets the front line of production and service. It emphasizes a clear interface between skill supply and vocational positions under realistic constraints such as quality, cost, and safety. In this way, it helps solve on-site problems in enterprise technology application and cultivates high-quality technical and skilled talents who can quickly adapt to job requirements and turn technical solutions into production outcomes.

2.1.2. Regionality and Embeddedness of Contribution Orientation

Regionality here is not simply a matter of geography. It refers to deep embeddedness at the regional organizational level. Compared with general universities, the differentiated advantage of higher vocational colleges lies precisely in taking root locally, closely centering on local industrial layouts and economic development priorities, and becoming technology R&D centers and consulting service centers for local enterprises, especially small and medium-sized enterprises. Research shows that alleviating regional skill shortages cannot rely on isolated strategies adopted by individual employers; instead, it requires collaborative action through local partnerships[3]. Therefore, the service contribution of higher vocational colleges is naturally anchored to regional economic and industrial demands: when industries upgrade, programs are adjusted; when enterprises transform, training follows up; when technologies iterate,

services are updated. At present, higher vocational colleges generally use platforms such as municipal industry-education consortia, industry-education integration communities, and industry colleges to promote multi-stakeholder collaborative governance. Professional development and talent cultivation are deeply integrated into industrial development, and the quality of their service contribution depends on whether they can form a structural alignment with regional demands.

2.1.3. Diversity and Integration of Contribution Paths

Some researchers have proposed that vocational education generates transmission mechanisms through factor agglomeration, human capital accumulation, economic and social development, and national strategy advancement. Its contribution is manifested in enhancing cultural, talent, economic, political, and diplomatic strength[4]. From the perspective of practical forms, the service contribution of vocational colleges includes multiple paths such as talent supply, technical services, social services, and international cooperation. Specifically, talent cultivation is a foundational contribution: it focuses on aligning the specifications and quality of high-skilled talent cultivation with industrial demands. Scientific and technological innovation is an applied contribution: it promotes technology implementation and serves front-line industrial scenarios. Social services are an extended contribution: they respond to national and regional development strategies such as rural revitalization and the building of a learning society. International cooperation is an open contribution: it serves enterprises' overseas expansion while exporting the development achievements of domestic vocational education. Furthermore, higher vocational colleges make a fundamental contribution by providing practical guidance for developing the domestic vocational education system and by promoting reform and innovation in vocational education as a distinct type.

2.2. Evaluation Indicators for Service Contribution of Higher Vocational Colleges

Turning service contribution into an operational governance tool requires a defensible indicator system. However, current service evaluation indicators cannot fully reflect the true degree of alignment between service supply and social demand in higher vocational colleges. Based on the typological characteristics of service contribution of higher vocational colleges, this paper attempts to construct evaluation indicators and shift the evaluation focus from absolute output to multi-dimensional service quality.

2.2.1. Design Principles of Evaluation Indicators

Three design principles guide the framework. First, adhere to type-based positioning and respond precisely to the typical characteristics of service contribution of higher vocational colleges, highlighting vocational orientation, local service, industry-education integration, and parallel education and training. Second, balance scale and efficiency, forming a comparative diagnosis of "how much has been done" and "how well it has been done" regarding the service contribution of higher vocational colleges. Third, balance commonality and individuality. A unified evaluation yardstick cannot accommodate institutions with different service orientations and positions, and may easily cause institutions with distinctive characteristics to gravitate toward generic standards. Therefore, indicator design must leave room for identifying differences in service types among institutions.

2.2.2. Basic Framework of Evaluation Indicators

Table 1. Evaluation Indicator Framework for Service Contribution of Higher Vocational Colleges

Primary indicator	Secondary indicator	Observation point
Talent Supply	Supply Structure	Graduate job-major matching rate; Graduate local employment rate; Graduate entrepreneurship rate
	Supply Quality	Employment rate in large enterprises; Starting salary for graduates; Employer satisfaction
Technical Services	Service Scale	Number of regional SMEs served; Number of horizontal technical service projects; Number of scientific and technological achievements transformed
	Service Efficiency	Economic benefits generated by horizontal technical services; Revenue from achievement transformation; Science and technology achievement awards
Social Services	Skill Training	Scale of enterprise employee skill training; Scale of vocational education teacher training; Revenue from vocational training
	Lifelong Learning	Continuing education course resources developed; Community/elderly education; Scale of science popularization activities
	Special Services	Scale of rural revitalization services; Number of vocational colleges assisted within and outside the city; Traditional culture inheritance activities; Other special service projects
International Cooperation	Cooperative Education	Number of international students; Number of overseas cooperative education sites; Number of students in international joint training programs
	Resource Export	Number of vocational education standards/resources/equipment adopted by foreign countries
	Overseas Training	Overseas technical personnel training; Overseas training bases
Reform Leadership	Teaching Models	Typical cases of school-running model; Awards in skills competitions;
	Standards and Systems	Number of vocational education standards; Policy consultation outcomes

As shown in Table 1, The five primary indicators correspond to service contribution evaluation of higher vocational colleges: talent supply, technical services, social services, international cooperation, and reform leadership. Secondary indicators identify the main dimensions within each field. Each secondary indicator is designed with two to four observation points, striving to strike a balance between data availability and diagnostic effectiveness.

2.3. Evaluation Strategies for Service Contribution of Higher Vocational Colleges

The core question for service contribution evaluation strategy is not how to use indicators to calculate a score. It is how evaluation can stimulate dialogue and improvement.. Evaluation standards should reflect tiered and categorized approaches; evaluation should involve a multi-stakeholder collaborative governance structure; evaluation methods should cover the entire process; and evaluation results should form a closed-loop feedback mechanism. In this way, the guiding, incentivizing, and regulating functions of evaluation can be realized.

2.3.1. Refine the Evaluation Criteria based on Hierarchical Classification

Categorized evaluation of higher vocational colleges is an inevitable response to the diversified development needs of higher vocational education in the new era[5]. Full consideration should be given to the two educational levels of vocational undergraduate and higher vocational diploma programs, avoiding evaluating them by the same standards. Given that diploma-level programs emphasize skill adaptation while undergraduate-level programs emphasize technological leadership, tiered design should be applied to specific evaluation indicators and standards. For example, in terms of technical service contribution, diploma-level institutions should focus on skill training and process improvement, while undergraduate-level institutions should focus on technological breakthroughs and R&D innovation. In addition, full consideration should be given to two factors: the school's service region and the program category. For example, programs related to modern manufacturing, such as electronic information and equipment manufacturing, differ significantly from those related to modern service industries in terms of service contribution modes, paths, and emphases. Provinces and cities also have objective differences in institutional service targets and service volumes due to different industrial layouts and economic positions. Therefore, service contribution evaluation should compare institutions horizontally within the same program track, with emphasis on their absolute level of service to major strategic needs in that field. It should also compare them within the same regional track, highlighting contributions that are irreplaceable within the region.

2.3.2. Establish a Diversified and Collaborative Structure of Evaluation Actors

Service contribution of higher vocational colleges involves multiple stakeholders, including the government, industry, enterprises, and learners. However, in previous evaluations, expert evaluations organized by government departments and school self-evaluations have dominated, while evaluations by social actors such as industries and enterprises have often been absent. The core of promoting the diversification of evaluation actors lies in clarifying the eligibility of evaluation actors, their forms of participation, and the boundaries of responsibility in social evaluation. Government departments should systematically cultivate and support third-party evaluation institutions and engage industry experts, key enterprise personnel, and scholars from research institutions in developing evaluation standards. These institutions should be encouraged to conduct independent evaluations of service contribution of higher vocational colleges, thereby enhancing the credibility and professionalism of evaluation. Acting as a "market mirror," these institutions should fairly assess the quality of talent supply, the ability to address enterprise needs, and the social benefits of services. Their conclusions and recommendations should be direct, authentic, and precise. On the one hand, this enhances schools' social reputation; on the other hand, it compels schools to reflect and improve, thereby helping to form an evaluation ecosystem that enables mutual verification across multiple perspectives and a balance of interests among multiple parties.

2.3.3. Implementing an Evaluation Method of Dynamic Monitoring

Service contribution evaluation in higher vocational colleges should cover the whole process, not only final outcomes. At the process evaluation level, a monitoring and evaluation system should be further developed. Big data and artificial intelligence should be used to support indicator monitoring, data analysis, and dynamic early warning, and to generate periodic reports for institutions. The reports should focus on value-added summaries, horizontal comparisons, problem identification, and development forecasts. They should fully explore institutions' service contribution potential in different dimensions and guide institutions to improve in a planned manner. At the outcome evaluation level, a combination of qualitative and quantitative, subjective and objective methods should be adopted to systematically examine the cumulative effects of institutional service contribution, landmark achievements, and actual impact on regional development. The evaluation should examine which key technical problems institutions have solved for enterprises and what irreplaceable contributions they have made to the implementation of national strategies and coordinated regional development. This will guide institutions to consolidate their characteristics, disseminate experience, and set benchmarks, thereby further improving their overall service contribution capacity.

2.3.4. Deepen the Application of Evaluation Results from Diagnostic Improvement

Whether evaluation can guide and incentivise institutions depends on how results are used. The service contribution evaluation results of higher vocational colleges should be appropriately linked to project resource allocation, performance-based funding, and dynamic adjustment. Institutions with significant service effectiveness and outstanding value-added contributions should receive policy support and opportunities to share good practices, while institutions with poor service effectiveness and a disconnect from regional demands should receive early warnings and active guidance. At the same time, simple ranking of institutions based on evaluation results should be avoided to prevent institutions from falling into utilitarian competition. Instead, evaluation results should be transformed into targeted diagnostic reports, establishing a closed loop of "Monitoring–Diagnosis–Evaluation–Improvement–Re-evaluation",
returning to the fundamental logic of promoting characteristic development, differentiated competition, and service to society. Only in this way can service contribution evaluation become an institutional engine that promotes high-quality services provided by higher vocational colleges to economic and social development, rather than an extra burden on institutions.

3. Conclusion

The evaluation of service contribution of higher vocational

colleges cannot keep following the path of precise measurement. Instead, it should move toward relational diagnosis and value diagnosis, with optimizing the service structure of higher vocational colleges as the ultimate goal. When service evaluation can provide institutions with comprehensive, accurate, understandable, and actionable feedback, service contribution evaluation can transform from an external assessment tool into an internal improvement mechanism.

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