

Original Research Article

Research on key issues and countermeasures facing higher vocational education in the context of overseas expansion

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Abstract: Against the backdrop of China's accelerated global expansion of production capacity, technology and standards, vocational education's overseas outreach is evolving from fragmented initiatives into a comprehensive strategic deployment. Drawing upon current overseas educational practices of higher vocational institutions, this paper identifies four key bottlenecks: inadequate implementation of national strategies due to strategic gaps; standardization hindered by overly uniform teaching materials; instructional disruption caused by insufficient dual-competence faculty; and accumulated brand risks stemming from the absence of evaluation and mutual recognition mechanisms. To address these challenges, a four-pronged macro-level pathway is proposed: tiered and categorized orientation, open-source knowledge communities, global faculty development programmes, and cloud-based quality assurance mutual recognition. This framework employs negative lists, modularized teaching materials, blockchain-based quality control, and multilateral certificate mutual recognition to achieve cross-border synergy between educational and industrial chains. The research provides a replicable framework for advancing vocational education overseas from project-based initiatives to comprehensive strategies, serving both international industrial capacity cooperation and enriching global vocational education governance with Chinese solutions.

Keywords: vocational education going global; key issues; solutions

1. Introduction

As Chinese enterprises, technologies and standards accelerate their global expansion, the internationalization of vocational education has evolved from isolated initiatives into a systematic strategy. Represented by the Lu Ban Workshops, Silk Road Institutes and the 'Chinese Language + Vocational Skills' programme, the overseas deployment of vocational education is shifting from 'showcasing highlights' to 'deep integration', becoming a vital channel for serving international industrial capacity cooperation and meeting overseas demand for technical and skilled personnel. Unlike academic universities, higher vocational institutions focus on cultivating technical skills, resulting in an internationalization approach with stronger 'industrial cohesion'. They must both follow enterprises' overseas expansion to 'train talent locally' and export practical training standards, curriculum packages, and teaching staff to support local industrial chain upgrades. However, cross-border education faces multiple challenges including cultural differences, institutional disparities, resource constraints, and quality risks. Institutions cannot simply replicate domestic models; instead, they must balance value conflicts with market returns and navigate the path between public service attributes and sustainable operations. Therefore, systematically identifying key challenges in overseas operations, standardization, faculty mobility, resource sharing, and risk governance for higher vocational institutions, while proposing a strategic framework aligned with industrial globalization, educational digitalization, and cultural diversity, serves multiple purposes. It provides institutions with a roadmap for international expansion, offers empirical references for policymakers to refine support mechanisms, and leverages China's vocational education solutions to bolster skills development in

developing nations – thereby demonstrating educational confidence and international responsibility.

2. Key challenges faced by higher vocational colleges in the overseas expansion of vocational education

2.1. Lack of clear direction, strategic objectives drifting, and weak implementation capacity

The concept of "vocational education going global" is often simplistically interpreted as "establishing schools abroad". However, the absence of tiered, categorized guidance documents at the national level leaves higher vocational institutions navigating uncharted waters by trial and error. Consequently, institutions within the same cohort approach international expansion in divergent ways: some treat it as a new recruitment channel, others as an extension of industry-academia collaboration projects, while others view it as an overseas aid mission. Evaluation criteria remain fragmented and inconsistent. This lack of clarity in direction has led to misallocation of all subsequent resources: programmes replicate domestic popular subjects without considering whether the host country's industries genuinely require such skills; scale is pursued indiscriminately, disregarding local population size and affordability; and partnerships prioritise "familiar" institutions over entities with actual facilities, qualifications, and student recruitment capacity. Over time, projects become trapped in a cycle of 'political fanfare – lacklustre enrolment – subsequent funding shortfalls,' squandering public funds and institutional reputation while demoralizing teaching staff and corporate partners. More critically, this lack of strategic direction prevents vocational education's overseas expansion from aligning with national priorities: programmes intended to support industrial cooperation and cultivate local technical talent become isolated educational islands; initiatives meant to export Chinese standards are forced to compromise with lower foreign benchmarks due to absent top-level design, ultimately diluting the distinctiveness of China's vocational education brand.

2.2. Textbooks fail to adapt to local conditions, hindering standardized output

Domestically prevalent project-based and task-oriented teaching materials heavily rely on Chinese contexts: case study enterprises, data standards, process specifications, legal regulations, and even cultural frameworks are all "Made in China". When transplanted wholesale overseas, it becomes commonplace for students to struggle with comprehension, teachers to face teaching difficulties, and enterprises to reject their validity. Firstly, technical regulations, safety standards, and measurement units in overseas destinations differ significantly from those at home. Students operating local equipment using Chinese textbooks face substantial safety and compliance risks. Secondly, the corporate cultures, employment systems, and professional ethics depicted in case studies often bear little resemblance to local realities, making classroom discussions difficult to relate to. Thirdly, the language in these textbooks is often a literal translation from Chinese, featuring stiff technical terminology that increases the learning burden for students with weaker foreign language skills and complicates adaptation by local teaching staff. Constrained by copyright ownership and state-owned asset management regulations, institutions cannot freely adapt or co-develop materials with foreign partners. Instead, they resort to "cutting off the foot to fit the shoe" by deleting entire chapters, resulting in a fragmented curriculum. Textbook deficiencies directly impede the export of Chinese standards: students learn "Chinese techniques" yet are assessed against "local certification", creating dual standards that leave graduates caught between two systems. Local enterprises show limited recognition of Chinese qualifications, restricting employment prospects and diminishing enrolment appeal – perpetuating a vicious cycle.

2.3. Insufficient dual-role capabilities among teaching staff, resulting in poor continuity of instruction

The ideal overseas vocational education instructor should possess expertise in Chinese technology, proficiency in local languages and cultures, and the ability to bridge corporate practice. However, in reality, higher vocational institutions generally lack such a "dual-competence" talent pipeline. Firstly, the language barrier proves formidable: core teaching staff, predominantly technical specialists, possess limited proficiency in English or the local language. This hinders in-depth classroom interaction, confining instruction to superficial demonstration and translation. Secondly, high turnover rates persist: institutional constraints—Such as the batch system for official overseas assignments, visa duration limitations, family relocation challenges, and children's education—Result in predominantly short-term postings of 3–6 months. Teachers must rotate just as they become familiar with their environment, undermining pedagogical continuity. Thirdly, incentive mechanisms are absent: there are no established guidelines for converting overseas teaching workloads, awarding additional points for professional title evaluations, or distributing performance bonuses. Teachers view overseas assignments as "sacrifice" rather than "development", limiting their motivation. More critically, the domestic "dual-qualified" standard relies on alternating placements between academic and industry settings. However, overseas branches or teaching sites are often distant from clusters of Chinese enterprises, making timely practical placements difficult for teachers. This leads to delayed technological updates and classroom case studies that remain outdated year after year. This faculty shortfall not only undermines teaching quality but also diminishes the exemplary effect of China's vocational education model. Local education authorities observe that "even Chinese teachers struggle to adapt to the environment," naturally reducing their willingness to adopt Chinese standards.

2.4. Absence of quality assurance and evaluation systems, accumulation of brand risks

Once the "Vocational Education Overseas" initiative is implemented, it faces a vacuum regarding "who will evaluate, what will be evaluated, and how it will be evaluated". Current domestic evaluation metrics heavily emphasize hardware investment and short-term outputs—Such as campus floor space, equipment value, enrolment figures, and certification rates—Making them ill-suited for overseas operations. Host nations, meanwhile, often assess vocational programmes through the lens of general or higher education frameworks, resulting in a fundamental disconnect. This lack of unified standards leads to three major consequences: firstly, teaching processes become opaque, with curriculum design, teaching hour allocation, practical training implementation rates, and corporate engagement depth remaining untracked, leaving educational quality wholly dependent on the personal integrity of project leaders; secondly, the value of certificates varies wildly, with students from the same cohort receiving either Chinese vocational qualifications, local vocational certificates, or merely institutional completion certificates. Despite significant disparities in societal recognition, all are packaged as "achievements of Chinese vocational education" for external promotion; Thirdly, risk management is reactive. When incidents occur – such as misleading recruitment claims, student visa violations, or internship safety breaches – unclear accountability between schools and domestic authorities often results in damage control after the fact, by which time negative publicity has already amplified. This absence of quality assurance places the "Chinese vocational education brand" in a state of perpetual over-extension: a single problematic project today may lead to collective visa refusals for all similar institutions recruiting overseas tomorrow. Long-term, this not only undermines educational soft power but also tarnishes the reputation of Chinese enterprises, hindering deeper vocational education cooperation between the two nations.

3. Pathways and strategies for enhancing the internationalization of higher vocational education

3.1. Replacing institutional autonomy with a tiered and categorized national strategic approach to strengthen management

Elevate the "Overseas Expansion of Vocational Education" from individual institutions' discretionary initiatives to a nationally coordinated project. First delineate the "track", then enable institutions to follow the blueprint, fundamentally ending the drift towards an "anything goes" approach. At the national level, a three-dimensional coordination mechanism linking "production capacity, education, and diplomacy" should be established. An annual "White Paper on Strategic Priorities for Overseas Vocational Education" would be issued by a State Council inter-ministerial joint conference, using a three-tiered "country-industry-education" coding system to guide institutions on "where to go first, where to go next, and where to avoid for now." Countries and industries included in the priority list would receive a package of preferential measures covering tariffs, investment, foreign aid, credit, and visas. Those excluded would, in principle, receive no fiscal subsidies and be excluded from professional title evaluation incentives, thereby creating a 'policy center of gravity.' Under this framework, institutions need only align with the white paper, selecting "tracks" matching their strengths to automatically connect with industrial demands, diplomatic strategies, and risk warnings—Eliminating the need to "feel their way across the river." Once the orientation is fixed, subsequent steps—Such as programme design, scale planning, partner selection, and funding arrangements—Gain a shared coordinate system. This effectively avoids structural imbalances like "crowding into popular countries while neglecting less favoured regions" and prevents the vicious cycle of "political hype—Poor enrolment—Funding shortfalls". In the long term, this tiered and categorised approach elevates China's vocational education outreach from project-level competition to systematic output. It not only supports national capacity cooperation initiatives but also safeguards educational brands from being diluted through low-level duplication.

3.2. Addressing textbook incompatibility through an open knowledge community

Transform teaching materials from "Chinese-made products" into "open-source content co-created by China and the world", reshaping content, standards and copyright through a global knowledge community mindset, allowing "Chinese craftsmanship" to naturally integrate into local regulations and cultures. The state establishes a "Vocational Education Overseas Knowledge Commons" through the National Smart Education Platform, employing open-source agreements and blockchain-based rights verification. Textbooks are decomposed into "universal modules + replaceable modules": universal modules store China's practice-proven craft pathways, quality parameters, and operational procedures; replaceable modules feature reserved interfaces allowing foreign educators, enterprises, and certification bodies to upload local regulations, measurement units, safety standards, and cultural case studies. The platform incorporates multilingual intelligent translation and terminology databases to lower secondary creation barriers. Version iteration records are tamper-proof, safeguarding originality while encouraging collaboration. Through a 'Share-Co-create-Co-recognize' mechanism, Chinese standards transcend static texts, retaining core characteristics through continuous localization to achieve "One Standard, Multiple Expressions". Curriculum content dynamically aligns with local certification requirements and job specifications at Chinese enterprises, resolving the dual-track dilemma of "learning Chinese techniques while pursuing local qualifications". Regarding copyright, the state centrally acquires original Chinese content rights and places them in an open-source repository, allowing institutions to adapt materials without state asset audit concerns. Foreign

contributors receive commercial publishing royalties proportional to their creative input, stimulating active participation. Thus, textbooks evolve from "imported goods ill-suited to local conditions" into "living documents co-created by Chinese and foreign partners." Chinese standards spread globally without being simplistically replicated or diluted.

3.3. Cultivating an amphibious teacher ecosystem through the "global vocational education coverage" initiative

Transform teaching staff from "temporary assignments" into a "globally mobile profession" through an institutionalized "Teacher-Scholar" programme, enabling educators to freely establish roots, rotate assignments, and develop expertise across both domestic and international settings. This fosters a self-evolving ecosystem of dual-competence talent. The state establishes a "Global Vocational Education Coverage" initiative, emulating overseas sabbatical systems to create a revolving door between "institutions-enterprises-international organizations": on one hand, selecting high-calibre "dual-qualified" teachers domestically and granting them up to three years as "overseas education practitioners", retaining their original institutional personnel status and promotion pathways, with remuneration shared between specialized government funding and overseas programme costs; Concurrently, technical specialists and vocational educators are selected in host nations and granted 'Chinese Vocational Education Visiting Scholar' status. They undertake a year-long standardized immersion programme in China, focusing on teaching methodology and pedagogy. Upon completion, they return to their home countries as "seed teachers" embodying Chinese standards. Bidirectional mobility is facilitated through real-time digital platform matching. Teachers may autonomously select assignments—Such as overseas teaching, enterprise placements, standard translation, or collaborative curriculum development—Akin to "taking on projects". Points earned correlate with professional titles, allowances, and honours, fostering a sustainable "global vocational education labour market". Language and cultural preparation are integrated into pre-deployment training via a "language + industry + legal" micro-certificate model, with teachers completing online modules before undertaking assignments. During overseas assignments, the platform provides remote teaching research, peer support, and psychological assistance to mitigate culture shock and professional isolation. This initiative transforms short-term teaching engagements into a sustainable ecosystem, addressing the pitfalls of superficial 3-6 month rotations while fostering organic cross-pollination between Chinese and international educators. This cultivates a new generation of "amphibious" professionals who master both Chinese technological expertise and local regulatory frameworks.

3.4. Building a brand firewall through cloud-based quality assurance and international mutual recognition

Employing a digital "Cloud Quality Assurance" platform to ensure the entire teaching process is fully auditable, then affixing an "international passport" to certificates through multilateral mutual recognition agreements. This dual leverage of transparency and standardization safeguards the lifeline of China's vocational education brand. The state-led "Vocational Education Overseas Cloud Quality Assurance" blockchain platform mandates that all overseas programmes upload course outlines, teaching logs, practical training completion rates, corporate engagement records, student portfolios, and assessment results in real time. Once recorded, this data becomes immutable and accessible for verification by regulatory bodies, partner enterprises, and students across borders. The platform incorporates a risk warning model that automatically flags anomalies—Such as reduced teaching hours, absent enterprise mentors, or deviating assessment standards—Triggering simultaneous

alerts to domestic authorities and host-country educational institutions. This ensures "process visibility, issue traceability, and accountability." On the export side, it promotes multilateral mutual recognition aligned with Chinese standards: first establishing a "Vocational Education Certificate Mutual Recognition Council" with Belt and Road countries to jointly develop a universal framework based on learning outcomes, competency modules, and assessment levels; then embedding mutual recognition clauses as intergovernmental obligations through regional free trade agreements. Certified programmes receive dual-label credentials combining "Cloud Quality Assurance + Mutual Recognition," enabling students to pursue further studies, employment, or skilled migration applications across member states. The platform and mutual recognition system reinforce each other: the former provides verifiable data, the latter confers international validity; the former prevents "bad money driving out good," the latter ensures "good money" commands premium value. Brand risk management shifts from "post-incident firefighting" to "pre-emptive filtering". Any programme failing Cloud Quality Assurance audits is barred from mutual recognition lists, thereby losing its recruitment appeal. Thus, China's vocational education expansion abroad no longer relies on fragmented pledges, but instead earns international credibility through a transparent, comparable and traceable quality system. This creates a virtuous cycle where "today's outstanding programme elevates tomorrow's national brand".

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