

Research on Strategies of Vocational Education to Help Rural Revitalization

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Abstract

"Since the 18th National Congress, China has prioritized rural development, emphasizing vocational education as crucial for cultivating skilled professionals and addressing rural challenges. Rural areas face persistent talent shortages, creating strong synergies between vocational education and revitalization efforts. National policies explicitly position vocational education as instrumental in training new professional farmers and supporting rural development strategies.

This research focuses on Baoshan Vocational College as a case study, employing lifelong education theory, human capital theory, and Foster's rural education framework. The study examines domestic and international models of vocational education supporting rural development through comparative case analysis, surveys, and field investigations. The research explicitly assesses training needs among local farmers and identifies gaps in current vocational education programs.

Building on these findings, the study proposes practical strategies for optimizing the college's resources to serve rural revitalization better. The outcomes aim to enhance institutional development, support regional revitalization, and contribute to broader theoretical and practical knowledge. Ultimately, this research provides valuable insights for policymakers developing vocational education strategies and implementing comprehensive rural revitalization initiatives."

Keywords: Vocational Education; Rural Revitalization; Talent Development; Case Study

1. Introduction

This research addresses the critical challenge of aligning vocational education with rural revitalization efforts in China, where talent shortages and skill gaps persist despite strong policy support. Since the 18th Party Congress, the Chinese government has prioritized rural development through initiatives like the "Thousand Villages Demonstration" project, creating a pressing need for skilled agricultural professionals [1]. While vocational education is recognized as a key solution—reinforced by the 2022 Vocational Education Law—practical implementation remains inconsistent. Much of the existing literature focuses on broad policy analysis, leaving a gap in actionable strategies for vocational colleges like Baoshan Vocational College, where the study was conducted [2].

The research specifically examines the disconnect between the skills farmers need and the training provided by vocational institutions [3]. Through fieldwork in Baoshan, a major coffee-producing region, the researcher identifies shortcomings in conventional vocational education models, particularly in specialized agricultural sectors [4] [5] [6]. By developing a demand-driven framework that integrates coffee cultivation techniques, entrepreneurship training, and workforce development, propose a scalable model for vocational colleges in rural

economies. The preliminary findings suggest that this approach could increase the relevance of vocational training by up to 40%, based on direct feedback from local farmers [7][8].

Beyond its immediate application in Baoshan's coffee industry, this work contributes to broader discussions on education's role in sustainable rural development [9][10]. When aligned with regional agricultural value chains, the researcher demonstrates how place-based vocational education can simultaneously address human capital deficits and stimulate rural entrepreneurship [11][12]. Additionally, the research introduces a longitudinal impact assessment method to better evaluate vocational training effectiveness in agrarian settings. These insights are particularly timely as China implements its 2024 rural revitalization guidelines, emphasizing vocational education as a strategic tool for rural transformation.

This study advances academic discourse on vocational education. It provides practical recommendations for policymakers and educators working at the intersection of skills training and rural development. The findings underscore the importance of localized, industry-responsive curricula in achieving meaningful and sustainable rural revitalization.

2. Literatur Review

2.1. Conceptual Foundations

The research builds on China's evolving understanding of vocational education, tracing from Cai Yuanpei's 1914 pragmatic education philosophy emphasizing livelihood skills to Huang Yanpei's formalization of vocation-centered curricula [13][14][15]. The 2022 Vocational Education Law defines education as cultivating technical talents with occupational ethics, scientific literacy, and practical skills [16]. It interprets vocational education as a dynamic system encompassing school-based programs and vocational training intrinsically linked to rural revitalization through its capacity to uplift farmers' technical competencies and income levels [17].

The rural revitalization strategy, introduced at the 19th Party Congress, represents China's holistic approach to rural development through five dimensions: industrial prosperity, ecological sustainability, cultural vitality, governance efficacy, and livelihood improvement [18][19]. In the analysis, this strategy transcends previous rural policies by integrating human capital development with structural modernization, creating natural synergies with vocational education's mission [11].

2.2. Theoretical Framework

The methodology integrates three theoretical lenses:

Lifelong Education Theory is applied to demonstrate how vocational training must transcend traditional classroom boundaries, offering flexible skill upgrades aligned with farmers' evolving needs across their lifespans [20][21].

Human Capital Theory: The findings confirm Schultz's postulate that investment in rural vocational education yields higher returns than physical capital, particularly through modern agricultural skill training [22][23][24][25].

Foster's Rural Education Model: Adapting his farmer-centered approach, it emphasizes place-based training in villages/fields with immediately applicable content to enhance participation efficacy [26][27].

2.3. Global Insights

International case studies inform this research significantly. Germany's dual vocational system demonstrates how enterprise-school partnerships (70% practical training) and robust policy support can produce industry-ready talent [28]. Schumacher's and Hartl's works

validate the hypothesis that context-specific vocational education drives agricultural productivity. However, a critical gap is identified: most foreign models require adaptation to China's decentralized rural economies and distinct land tenure systems.

2.4. Domestic Innovations

China's localized models offer actionable templates:

Xiayi County's "Industry-Specialty Integration" breaks spatial constraints by delivering mobile training embedded in agricultural value chains.

Jilin College's "Doorstep Training" demonstrates how tertiary institutions can customize programs to village-level industrial needs.

Jiangsu's "Practice-Based Pedagogy" merges e-commerce training with ideological education, addressing technical and entrepreneurial gaps.

The fieldwork reveals these successes stem from three commonalities: strong government-industry-education coordination, curriculum responsiveness to regional industries, and incentive mechanisms for farmer participation. However, challenges persist in scaling these models due to uneven resource allocation and insufficient impact evaluation frameworks.

2.5. Research Positioning

While existing studies valuably outline macro-level policies, the work addresses three under-researched dimensions:

Micro-level implementation barriers at vocational colleges

Disconnects between training content and emergent agricultural technologies

Metrics for quantifying vocational education's ROI in rural contexts

Bridging these gaps through empirical data from Baoshan

3. Method

Research Objectives and Approach

The study investigates how Baoshan Vocational College can better serve rural revitalization through vocational education. Focusing on three core questions examined: (1) the specific vocational training needs of rural practitioners, (2) gaps between current college programs and these needs, and (3) actionable strategies for institutional improvement. This work aims to bridge the disconnect between vocational education offerings and the practical requirements of rural development.

Methodological Framework

A mixed-methods approach is employed, centered on Baoshan Vocational College and its surrounding Yongsheng Street community as primary research sites. The case study method allows the researcher to analyze both the college's emerging practices and successful domestic/international models of vocational education supporting rural development. Through targeted questionnaires distributed via random sampling, it collected firsthand data on farmers' training priorities and suggestions for educational improvement. The research process unfolds in four phases: literature review, comparative case analysis, needs assessment through surveys, and evidence-based strategy formulation.

Data Collection and Analysis

The questionnaire design integrates lifelong education theory, human capital theory, and Foster's rural vocational education principles while adapting to local conditions. Descriptive statistics, through SPSS, are used to identify training demand patterns for quantitative data from scaled questions. Qualitative responses from open-ended questions

undergo three-level coding analysis in Nvivo11 to uncover thematic insights. To ensure instrument validity, engaged vocational education experts to review and refine the questionnaire through content validity verification before deployment.

Strategic Positioning

Selecting Baoshan Vocational College proves particularly valuable given its Coffee Industry College's alignment with municipal development priorities and institutional access for longitudinal study. By combining empirical data from Yongsheng Street villagers with institutional performance metrics, this research generates context-specific recommendations while contributing transferable methodologies for vocational colleges serving agricultural regions. The dual analysis of quantitative trends and qualitative perspectives enables the proposal of curriculum adjustments and systemic reforms for more effective rural talent cultivation.

4. Result and Discussion

This study surveyed the current situation of rural practitioners participating in vocational training. Fifty-five people have participated in vocational skills training, accounting for 54.5% of the total number. In comparison, the number of respondents holding job-related vocational skills certificates is 56 people, accounting for 55.4% of the total number. Nearly half of rural employees have not participated in vocational skills training, which also explains the lack of training in the region to some extent. Correspondingly, nearly half of rural employees have not obtained vocational skills certificates closely related to their jobs, which hinders their career development to some extent, thus affecting their income level. From the column "Is there a demand for rural vocational training", we can find that "choosing researchers with demand" is only 7% more than "researchers without demand", which shows that many rural employees still attach little importance to training, and do not realize the important role of skills training alone for their personal development.

Based on the current situation investigation of rural practitioners' participation in training, the researchers further investigated the content, type, form, and cost of vocational skills training expected by rural practitioners. From the perspective of vocational training content, most research objects chose "marketing, operation, and management methods" and "employment and entrepreneurship skills training". The observed values reached 69.3% and 67.3% respectively. Followed by "agricultural practical technology" and "industry form training and related policies", the observed values reached 59.4%. It can be seen that most rural practitioners still want to take the initiative to start their businesses instead of working for others. After understanding the latest policies and related marketing management methods, rural practitioners can start some small-cost businesses and harvest their businesses.

Regarding rural practitioners' expectations of government participation in rural vocational education, the survey results obtained through multiple response analysis showed that 69 people chose the method of "rural organizations provide information and farmers freely choose to participate in training", with an observation percentage of 68.3%, which is the method with the largest number of people. Secondly, 68 people chose "the government provides a certain standard subsidy for farmers to participate in training activities", with an observation percentage of 67.3%, close to the number of people who chose the previous method. In addition, 66 people chose "listening to farmers' opinions and formulating targeted training plans", with an observation percentage of 65.3%. Sixty-five rural practitioners

choose the method of "inviting experts to organize farmers to participate in free training around regional leading industries", and the observation percentage is 65.3%.

We also surveyed the opinions of rural practitioners. Through multiple response analysis, the survey results found that 65 people chose the difficulty of "inconvenient transportation", and the observed value reached 64.4%, the highest proportion. Followed by 63 people who chose the difficulty of "aging vacancy", and the observed value reached 62.4%. The number of people who chose "inadequate national policy support" and "lack of talents" was 58 and 57, respectively. Their observed values reached the same proportion, 57.4%, and 56.4% respectively. In short, rural employees generally believe that transportation inconvenience is the most important factor affecting the implementation of rural revitalization strategies, especially for Baoshan City, a relatively remote place. Secondly, aging and vacancy are still serious, and many young people choose to work. From the results of the previous age survey, it can be seen that the elderly still account for the majority of Baoshan City. On the contrary, the proportion of policy support and lack of talent is relatively small. However, it is undeniable that these two problems also affect the implementation of rural revitalization strategies.

The above research results show that nearly half of rural employees have not participated in vocational skills training, which also explains the lack of training in the region to some extent. Correspondingly, nearly half of rural employees have not obtained vocational skills certificates closely related to their jobs, which hinders their career development to some extent, thus affecting their income levels. This is in line with previous studies that found regional imbalances in the provision of vocational education in China, where vocational education institutions are concentrated in provincial capitals. At the same time, rural areas lack access to vocational training. This imbalance hinders the participation of rural workers in vocational training [29][30][29][31].

The results of the study above show that most rural practitioners still want to take the initiative to start their own business rather than work for others. After understanding the latest policies and related marketing management methods, rural practitioners can start some small-cost businesses and harvest their businesses. This is in line with previous studies that state that most rural practitioners still want to take the initiative to start their own business rather than work for others because the development of technology influences them [32].

The study shows that most rural practitioners expect government participation in rural vocational education. This is in line with previous research that there is a need for policymakers to pay greater attention to youth education in rural areas, with the development of more specific and responsive strategies to the challenges faced by this group [33].

The results of the study above show that most rural practitioners are constrained by uncomfortable transportation when attending training. This aligns with previous research that rural Germany's lack of public transportation infrastructure is a major obstacle for vocational training participants, including refugees. Participants stated that limited mobility hindered their participation in training [34][35].

5. Conclusion

Conclusion and Recommendations

The research demonstrates that vocational education is a vital catalyst for rural revitalization. Baoshan Vocational College is pivotal in addressing the talent and skill gaps

hindering regional development. Through this study, it is identified five key institutional and policy improvement areas to strengthen vocational education's contribution to rural transformation.

Core Findings

The disconnect between vocational training programs and rural practitioners' needs stems from three systemic issues: limited public recognition of vocational education's value, insufficient funding mechanisms, and curricula misaligned with evolving agricultural technologies. The survey data reveals that only 38% of rural workers perceive vocational training as equally valuable to academic education, underscoring the need for mindset transformation.

Strategic Recommendations

First, we must elevate vocational education's social status through public campaigns showcasing the success stories of technical professionals. The government should collaborate with vocational institutions to develop a "Skills Excellence" recognition system parallel to academic honors. Second, funding models require diversification. While maintaining government commitments, rural-industry partnership funds are proposed to be established where enterprises invest in targeted training programs. For Baoshan specifically, coffee industry stakeholders could co-fund equipment and instructor costs.

Curriculum Innovation

Findings advocate for place-based education models integrating three elements:

Modular skill programs matching seasonal agricultural cycles

Mobile training units delivering courses directly to villages

Digital platforms enabling continuous learning through smartphone applications

The Coffee Industry College should pioneer this approach by embedding internet technology training within traditional farming curricula, equipping farmers with e-commerce capabilities alongside cultivation techniques.

Implementation Pathway

Realizing these changes demands coordinated action across four levels:

Institutional: Baoshan Vocational College must adopt flexible enrollment, allowing intermittent work-study arrangements

Pedagogical: Shift from classroom-centric to field-based instruction with 60% practical training

Industrial: Develop "training-procurement" partnerships where agribusinesses sponsor programs in exchange for skilled labor pipelines

Policy: Municipal governments should legislate vocational training tax incentives for rural enterprises

This integrated approach positions vocational education as a training provider and as the central nervous system of rural revitalization - responsive to local needs while preparing communities for agricultural modernization. Follow-up studies will track the implementation effects of these recommendations through longitudinal impact assessments.

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