

Article

# The Implementation Dilemmas and Execution Deviations of the "Industry-Education Integration" Policy in Vocational Colleges: A Case Study of Jiangxi Province

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**Abstract:** Industry-education integration has become a central component of China's vocational education reform, yet the implementation of this policy varies significantly across regions. Jiangxi Province, despite being designated a pilot area, continues to experience notable difficulties in translating policy goals into substantive institutional practices. Existing research tends to focus on policy design or successful cases from economically developed regions, offering limited insight into how weak industrial ecosystems, misaligned incentives, and fragmented governance structures shape implementation outcomes in less-developed provinces. This study employs a qualitative multi-case approach, drawing on policy documents, institutional materials, public records, and interview-based evidence from Nanchang VR Industry College, Jiangxi Manufacturing Polytechnic, and vocational colleges in Ganzhou. The findings show that policy execution is constrained by three interrelated mechanisms: divergent incentives between colleges and enterprises, limited organizational capacity in teacher development and equipment modernization, and multi-agency governance fragmentation that generates inconsistent administrative demands. These mechanisms collectively lead to symbolic cooperation, unstable enterprise participation, and incomplete curriculum-industry alignment. The study contributes a three-dimensional analytical framework that explains implementation deviation in less-developed regions and offers practical insights for improving coordination, strengthening institutional capacity, and enhancing sustainable enterprise engagement.

**Keywords:** industry-education integration; policy implementation; vocational colleges; governance fragmentation; Jiangxi Province

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## 1. Introduction

In recent years, China has advanced a national strategy that places industry-education integration at the core of vocational education reform. This policy orientation reflects a broader shift in the country's industrial transformation agenda, which increasingly requires a skilled workforce capable of supporting emerging sectors such as digital manufacturing, virtual reality (VR), and advanced materials [1]. As provinces seek to align human capital development with industrial upgrading, vocational colleges have been tasked with serving as key institutional actors bridging educational supply and enterprise demand [2]. Jiangxi Province, which has been designated as a pilot region for industry-education integration in several technical fields, provides an illustrative context where policy ambition and regional constraints intersect [3]. Despite strong governmental commitment and the establishment of multiple "industry colleges," policy implementation at the institutional level often encounters significant obstacles, resulting in limited cooperation depth, symbolic partnerships, and fragmented governance practices.

Existing research on industry-education integration generally affirms the importance of collaborative training models, dual-subject governance, and enterprise participation in curriculum development [4]. Studies published after 2023 have emphasized topics such as the digital transformation of vocational colleges, the institutional design of industry colleges, and the role of cross-sector governance mechanisms [5]. However, three limitations persist. First, much of the literature focuses on policy design rather than implementation processes, offering limited insights into how provincial or local institutional environments condition policy outcomes. Second, prior studies often adopt case descriptions of successful cooperation in economically developed regions, but rarely examine regions like Jiangxi, where industrial ecosystems are relatively weak and enterprise participation is structurally constrained [6]. Third, research seldom explores the mechanisms through which incentive misalignment, institutional capacity gaps, and fragmented governance co-produce execution deviations. As a result, the gap between policy expectations and actual practices remains insufficiently theorized.

To address these deficiencies, this study proposes an analytical framework centered on three dimensions, incentive alignment, organizational capacity, and collaborative governance, and applies it to explain the implementation dilemmas encountered by vocational colleges in Jiangxi. The study focuses on three representative cases: the VR Industry College in Nanchang, which illustrates challenges in sustaining enterprise participation in rapidly evolving digital sectors; Jiangxi Manufacturing Polytechnic, a provincial demonstration college facing coordination barriers and resource underutilization; and vocational institutions in Ganzhou, where incomplete industrial chains limit opportunities for deep integration. By examining these cases, the study reveals how policy execution is shaped by the interplay between regional industrial foundations, institutional incentives, and multi-department governance arrangements.

Methodologically, this research adopts a qualitative multi-case design combining literature analysis, policy document review, semi-structured interview materials, and cross-case comparison. Policy documents from provincial authorities, internal reports from vocational colleges, and publicly available industry-education integration evaluations constitute the primary data sources. These materials are analyzed through thematic coding to identify recurring patterns of implementation challenges. The cross-case comparison approach enables the study to highlight both shared structural constraints and institution-specific variations, offering an empirically grounded explanation of execution deviations across different types of vocational institutions.

This study makes both academic and practical contributions. Academically, it enriches policy implementation research by situating industry education integration within a less-developed regional context, demonstrating how local industrial ecosystems and institutional incentives jointly influence policy execution. It also provides a theoretically informed framework applicable to broader studies of vocational education governance. Practically, the findings offer actionable guidance for improving regional coordination mechanisms, enhancing college capacities, and fostering more sustainable forms of enterprise participation. By grounding the analysis in real cases from Jiangxi, the study highlights the need for context-sensitive strategies that bridge the gap between national policy design and local implementation realities.

## **2. Literature Review**

Research on industry-education integration has expanded rapidly in recent years as vocational education systems worldwide attempt to adapt to technological change and evolving labor market demands. Although existing studies offer valuable insights into cooperation mechanisms and institutional arrangements, several unresolved issues remain, particularly regarding the implementation of integration policies in regions with weaker industrial ecosystems. The following review summarizes three major strands of research relevant to this study: industry-education integration models, policy

implementation and governance theories, and the interaction between vocational colleges and regional industrial ecosystems.

### *2.1. Studies on Industry-Education Integration Models*

Existing scholarship highlights multiple benefits of industry-education integration, such as strengthened practice-oriented curricula, improved skill relevance, and enhanced resource circulation between schools and enterprises [7]. Post-2023 research further emphasizes the importance of embedding digital technologies, co-developing curricula with industry experts, and establishing flexible training pathways aligned with emergent industrial sectors. These studies generally demonstrate how collaborative structures can improve students' employability and enhance enterprises' talent pipelines.

However, the literature has several limitations. First, most analyses focus on institutional design, such as the establishment of industry colleges or dual-subject governance, but rarely investigate why these mechanisms underperform in specific contexts. Second, research tends to draw evidence from economically developed regions, resulting in analytical frameworks that implicitly assume strong enterprise participation capacity [8]. This makes it difficult to generalize findings to provinces like Jiangxi, where industrial chains are incomplete and enterprise engagement is structurally constrained. Comparative studies emphasize differences in governance structures between countries, yet few examine intra-national regional disparities [9]. As a result, the literature lacks explanations for why integration efforts remain superficial or symbolic in less-developed areas.

The gap indicates the need for analyses that capture how regional industrial environments shape the feasibility, form, and depth of industry-education cooperation. This study contributes by examining the Jiangxi context, where policy mandates are strong but industrial support foundations are weak, highlighting how these conditions generate distinct implementation barriers.

### *2.2. Policy Implementation and Collaborative Governance Frameworks*

Policy implementation research provides conceptual tools for understanding deviations between policy design and actual outcomes. Existing scholarship underscores the relevance of actor incentives, organizational capacity, and inter-agency coordination in shaping implementation performance [10]. Studies published since 2023 increasingly recognize that complex, multi-stakeholder policies, such as those in education, public health, or digital governance, require interdependent coordination mechanisms rather than hierarchical directives [11].

Nevertheless, several deficiencies persist. First, research often treats policy execution challenges as administrative or managerial problems without fully addressing how structural incentives misalign across actors [12]. Second, existing studies seldom apply policy implementation theories to the vocational education sector, thus overlooking its unique governance dynamics involving education authorities, industry regulators, enterprises, and training institutions. Third, although some studies compare top-down and multi-centered governance models, they rarely examine how fragmented responsibilities across local departments create ambiguity and duplication [13].

The literature therefore lacks a comprehensive framework for explaining how incentive misalignment, capacity constraints, and governance fragmentation jointly influence implementation outcomes. This study addresses this gap by proposing a three-dimensional analytical model integrating incentive alignment, organizational capacity, and cross-department collaboration to interpret industry-education integration outcomes in Jiangxi.

### 2.3. Research on Vocational Colleges and Regional Industrial Ecosystems

A third body of research examines how vocational colleges interact with regional industrial structures. Existing studies emphasize the importance of aligning talent training with local economic development, highlighting how close coordination with industrial clusters can promote curriculum updates, internship quality, and employment outcomes [14]. After 2023, new research increasingly focuses on the digitalization of industries and the implications for vocational program design.

However, many studies implicitly assume that regional industries have sufficient depth and capacity to support training partnerships. In contrast, less-developed regions often lack enterprises capable of long-term cooperation, limiting the feasibility of deep integration [15]. Few studies systematically explore the consequences of industrial weaknesses on policy implementation, nor do they analyze how local economic structures mediate policy execution.

This gap is critical because vocational colleges in provinces like Jiangxi operate within industrial ecosystems that are less mature, less diversified, and more vulnerable to market fluctuations. Existing frameworks insufficiently explain how these structural factors constrain policy implementation and contribute to cooperation discontinuity, resource underutilization, or misaligned program offerings.

This study contributes to the literature by integrating regional industrial ecosystem analysis into policy implementation research. Through Jiangxi cases, it illustrates how limitations in enterprise capacity, industrial chain completeness, and technology absorption shape integration outcomes.

## 3. Theoretical Framework and Methodology

Industry-education integration in vocational colleges is shaped by a complex interplay of policy mandates, institutional incentives, and regional industrial conditions. To explain why policy execution frequently deviates from central intentions, particularly in less-developed regions such as Jiangxi, this study constructs a theoretical framework integrating three analytical dimensions: incentive alignment, organizational capacity, and collaborative governance. These dimensions provide a lens through which the study interprets the processes and outcomes of policy implementation across different vocational institutions. The methodological design adopts a qualitative multi-case approach grounded in document analysis, field-based evidence, and cross-case comparison.

### 3.1. Theoretical Framework

This study employs a theoretical framework integrating three analytical dimensions, incentive alignment, organizational capacity, and collaborative governance, to explain the mechanisms underlying policy execution deviations in industry-education integration. Together, these dimensions clarify why vocational colleges in Jiangxi continue to face implementation challenges despite strong governmental directives and institutional commitment. Table 1 summarizes the core features of each dimension and their implications for vocational education practice.

**Table 1.** Summary of the Theoretical Framework.

| Analytical Dimension | Key Features   | Typical Manifestations in Vocational Colleges                            | Implications for Policy Execution                              |
|----------------------|--|--|--|
| Incentive Alignment  | Divergent goals among colleges, enterprises, and government agencies | Short-term cooperation, symbolic partnerships, low enterprise investment | Leads to superficial implementation and weak training outcomes |

|                          |  |   |  |
|--------------------------|--|---|--|
| Organizational Capacity  | Teacher expertise, equipment quality, institutional management systems | Outdated facilities, limited dual-qualified faculty, fragmented curriculum governance | Limits the depth and sustainability of integration     |
| Collaborative Governance | Coordination of multiple government and industry actors                | Overlapping responsibilities, policy ambiguity, inconsistent evaluation standards     | Causes administrative burdens and execution deviations |

The first dimension, incentive alignment, highlights the need for coherent objectives among key actors. Vocational colleges seek to meet policy indicators, secure funding, and enhance institutional visibility, while enterprises prioritize operational efficiency, cost control, and risk reduction, limiting their willingness to invest in long-term training or curriculum co-development. Government agencies focus on ensuring compliance and demonstrating progress in talent cultivation and industrial upgrading. When these incentives diverge, as frequently observed in Jiangxi, collaboration becomes procedural or symbolic, resulting in short-term partnerships and inconsistent enterprise participation.

The second dimension, organizational capacity, concerns colleges' ability to mobilize resources, update curricula, and sustain cooperation. Constraints emerge from shortages of dual-qualified teachers, outdated training facilities, and fragmented administrative structures. Many institutions struggle to maintain equipment that keeps pace with fast-evolving technologies, particularly in VR and digital manufacturing. Weak curriculum governance and limited coordination capacity further hinder the translation of policy requirements into sustained practice, widening the gap between intended and actual outcomes.

The third dimension, collaborative governance, reflects the multi-agency environment in which integration policies operate. Successful implementation requires coordinated action among education authorities, industry regulators, human resource departments, enterprises, and local governments. In practice, however, governance is fragmented: colleges face overlapping procedures, unclear responsibilities, and inconsistent evaluation criteria from different agencies. This fragmentation increases administrative burdens, reduces policy coherence, and encourages institutions to prioritize compliance over substantive collaboration.

The interaction of these three dimensions forms the foundation of the analytical framework. As summarized in Table 1, incentive misalignment fosters superficial cooperation, capacity limitations restrict substantive implementation, and fragmented governance generates ambiguous policy signals. Together, these factors explain why industry-education integration often results in partial rather than deep implementation in vocational colleges, particularly in regions with weaker industrial ecosystems such as Jiangxi. This framework provides a grounded lens for interpreting the empirical findings presented in subsequent chapters.

### 3.2. Research Methodology

#### 3.2.1. Research Design

This study adopts a qualitative multi-case research design to examine the mechanisms underlying policy implementation in vocational colleges. This design allows for in-depth exploration of complex processes that cannot be adequately captured through quantitative indicators alone. It also facilitates cross-case comparison, enabling the identification of common patterns and divergent institutional responses.

The selection of Jiangxi Province is deliberate: although the region has been designated as a national pilot for industry-education integration, its industrial ecosystem remains less mature compared with coastal provinces. This makes Jiangxi a representative

context for examining the structural challenges of policy execution in regions with limited industrial support capacity.

### 3.2.2. Case Selection

The study selects three vocational institutions in Jiangxi to ensure analytical diversity based on policy participation, industrial alignment, and geographical representativeness. The Nanchang VR Industry College, positioned in an emerging digital sector, reflects high technological thresholds and the difficulty of sustaining enterprise participation amid rapid technological iteration. Jiangxi Manufacturing Polytechnic, a provincial demonstration college frequently involved in policy pilots, represents institutions that face significant coordination burdens due to overlapping administrative requirements and inconsistent evaluation standards. Vocational colleges in Ganzhou, situated in areas with incomplete industrial chains, reveal the constraints posed by limited enterprise capacity and the challenges of establishing stable, long-term cooperation. Together, these cases illustrate distinct yet interconnected pathways through which policy execution diverges across different institutional and regional contexts.

### 3.2.3. Data Sources

The empirical foundation of this study draws upon four categories of data. First, national, provincial, and municipal policy documents, including implementation plans, evaluation guidelines, and annual progress reports, provide essential information on the institutional expectations surrounding industry-education integration. Second, institutional materials from the sampled vocational colleges, such as collaboration agreements, curriculum reform documents, and internal assessments, offer direct evidence of how policy requirements are translated into organizational practices. Third, public records, including government announcements, project descriptions, and audit results, supply additional insights into the operationalization of integration initiatives at the local level. Finally, field-based evidence derived from semi-structured interview summaries, expert consultations, and public lectures conducted in Jiangxi vocational institutions enriches the dataset by providing contextualized perspectives on policy interpretation and implementation challenges. Although publicly available documents constitute the primary data source, the interview-related materials strengthen triangulation and enhance the interpretive depth of the analysis.

### 3.2.4. Data Analysis

The data analysis proceeded through a structured, four-stage process designed to ensure coherence between empirical observations and theoretical constructs. The first stage involved open coding, during which recurring themes related to incentive structures, organizational capacities, and governance practices were identified across the collected materials. In the second stage, axial coding was used to reorganize these themes into broader analytical categories aligned with the study's theoretical framework. This was followed by a cross-case comparison phase that systematically examined similarities and differences among the three selected institutions, thereby revealing both shared mechanisms and case-specific variations in policy execution. In the final stage, findings were integrated into the "incentive-capacity-collaboration" framework to explain the underlying sources of implementation deviations. This iterative analytical strategy not only ensured internal consistency but also enabled the study to generate insights that extend beyond the individual cases examined.

## 3.3. Ethical Considerations

Given that some sources include interview summaries and institutional materials, confidentiality measures were taken to anonymize sensitive information. No identifiable

names or confidential internal documents are disclosed. All referenced materials are publicly accessible or provided with permission for academic use.

#### 4. Findings and Discussion

This chapter presents the empirical findings derived from cross-case analysis of three vocational colleges in Jiangxi, Nanchang VR Industry College, Jiangxi Manufacturing Polytechnic, and vocational institutions in Ganzhou. The analysis reveals three interconnected mechanisms contributing to policy implementation deviations: incentive misalignment, capacity constraints, and fragmented governance. These mechanisms not only operate within each institution but also interact with regional industrial characteristics, influencing the depth and sustainability of industry-education integration efforts.

##### 4.1. Incentive Misalignment between Colleges and Enterprises

Across all cases, the most prominent finding concerns divergent incentives between vocational colleges and enterprises. Although policy documents encourage enterprises to contribute to curriculum development, equipment investment, and apprenticeship arrangements, actual participation tends to remain limited and short-term.

At Nanchang VR Industry College, enterprises frequently shifted their collaboration focus due to rapid technological updates in VR hardware and software. Interviews with administrators indicated that enterprises were more interested in short-term project outsourcing than long-term training partnerships, which were perceived as costly and slow in producing returns. Colleges, however, prioritized the fulfillment of policy indicators, such as establishing an "industry college," signing cooperation agreements, or completing annual evaluation tasks, resulting in superficial cooperation that lacked substantive industrial involvement.

A similar pattern emerged in Jiangxi Manufacturing Polytechnic, where enterprises participated primarily during policy inspection periods, often providing temporary staff or equipment demonstrations to meet evaluative requirements. In Ganzhou, where enterprises are generally smaller with limited R&D investment, cooperation was even more symbolic: many enterprises expressed willingness to collaborate but lacked resources to support curriculum alignment or training base construction.

These findings confirm the first dimension of the theoretical framework: when actor incentives diverge, cooperation becomes procedural rather than transformative.

##### 4.2. Capacity Constraints within Vocational Colleges

A second major finding concerns the limited organizational capacity of vocational colleges to sustain deep integration. Capacity constraints manifested in three critical areas: human resources, material resources, and institutional management.

A comparative summary of these capacity constraints across the three cases is presented in Table 2, which highlights significant differences in teacher qualifications, equipment conditions, and curriculum governance structures.

**Table 2.** Capacity Constraints Across Cases.

| Capacity Dimension      | Nanchang VR Industry College              | Jiangxi Manufacturing Polytechnic     | Ganzhou Vocational Colleges                       |
|-------------------------|---|---------------------------------------|---|
| Dual-qualified Teachers | Moderate, limited by high tech thresholds | Higher, but uneven across departments | Low due to difficulty attracting industry experts |

|                       |  |  |   |
|-----------------------|--|--|---|
| Training Equipment    | Updated but inconsistent with enterprise standards | Partially modernized, outdated in several labs     | Significantly outdated, lacks advanced equipment        |
| Curriculum Governance | Fragmented, reactive to enterprise project cycles  | Improving but burdened by administrative reporting | Weak, lacking systematic curriculum revision mechanisms |

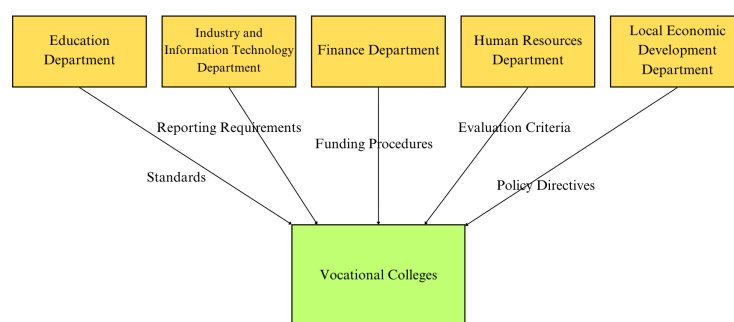
In Nanchang, although equipment for VR training existed, it often lagged behind enterprise standards because technology evolved faster than procurement cycles. Teachers lacked the ability to rapidly update instructional content. Similarly, in Jiangxi Manufacturing Polytechnic, laboratory equipment updates were uneven across departments, leading to mismatches between teaching content and enterprise production processes. In Ganzhou, capacity constraints were more structural: limited funding, weaker local industries, and difficulties recruiting teachers with industrial experience all hindered deep cooperation.

These patterns demonstrate that capacity is a core determinant of whether institutions can translate policy intentions into meaningful practices.

#### 4.3. Fragmented Governance and Ambiguous Policy Responsibilities

Across the three cases, colleges consistently reported challenges arising from fragmented governance structures. Industry-education integration in Jiangxi involves multiple government units, education, industry and information technology, finance, human resources, and local economic development departments, each issuing its own standards, incentives, and reporting requirements. This multiplicity of administrative actors generates overlapping responsibilities, duplicated procedures, and inconsistent evaluation criteria. As a result, vocational colleges often devote substantial time and resources to navigating administrative expectations rather than strengthening substantive cooperation with enterprises.

The institutional complexity of this multi-agency arrangement is depicted in Figure 1, which outlines the fragmented governance structure and the overlapping reporting lines faced by vocational colleges. This fragmentation not only burdens institutions with excessive compliance tasks but also weakens policy coherence, contributing to ambiguous implementation priorities and short-term actions oriented toward satisfying individual departments rather than achieving meaningful integration outcomes.



**Figure 1.** Fragmented Governance Structure.

#### 4.4. Cross-Case Comparative Findings

Building on the governance challenges, the cross-case analysis identifies both shared and divergent patterns across the three institutions. Common issues include symbolic cooperation, where agreements satisfy policy requirements but lack substantive enterprise involvement. Enterprise participation remains unstable and often driven by



short-term project cycles rather than long-term training needs. Curriculum-industry alignment is similarly limited due to outdated equipment, insufficient dual-qualified teachers, and weak mechanisms for sustained curriculum revision.

At the same time, differences reflect institutional contexts. Nanchang VR Industry College struggles with rapid technological iteration, resulting in volatile, project-based cooperation. Jiangxi Manufacturing Polytechnic faces heavier coordination pressures stemming from inconsistent administrative expectations. In Ganzhou, weak industrial ecosystems restrict enterprise engagement, making deep collaboration structurally difficult.

Overall, the findings show that execution deviations arise from the interaction of misaligned incentives, capacity constraints, and fragmented governance. Their specific manifestations vary by institution, underscoring that policy implementation is shaped by contextual and structural factors rather than uniform administrative processes.

#### *4.5. Discussion: Interactions Among the Three Mechanisms*

Taken together, the findings suggest that incentive misalignment, capacity constraints, and fragmented governance do not operate independently; rather, they reinforce one another.

When enterprises lack incentives, colleges struggle to secure meaningful participation; this shortfall exacerbates curriculum-industry mismatch, reducing the perceived value of cooperation.

When colleges lack organizational capacity, enterprises perceive limited returns on investment, further weakening their willingness to engage.

Fragmented governance amplifies uncertainty and administrative burden, diverting institutional resources toward compliance activities rather than substantive integration.

In provinces with strong industrial ecosystems, one mechanism may compensate for another, for instance, robust enterprise participation may offset limited college capacity. However, in Jiangxi's less-developed industrial environment, the negative effects accumulate rather than balance, producing persistent execution deviations.

Moreover, these findings extend existing literature by demonstrating that regional industrial weakness is not merely a contextual factor but a structural determinant of policy feasibility. This helps explain why national models of industry-education integration often succeed in coastal regions but encounter obstacles in inland provinces.

### **5. Conclusion**

This study examined the implementation dilemmas and execution deviations of the industry-education integration policy in vocational colleges in Jiangxi Province. Drawing on a multi-case analysis of Nanchang VR Industry College, Jiangxi Manufacturing Polytechnic, and vocational institutions in Ganzhou, the research demonstrated that policy outcomes are shaped by the combined effects of incentive misalignment, organizational capacity constraints, and fragmented governance structures. These mechanisms not only operate independently but also reinforce one another, creating persistent barriers to achieving substantive integration between educational institutions and enterprises.

The findings reveal that although industry-education integration has been advanced as a central strategy for aligning talent development with industrial upgrading, actual implementation often remains superficial. Cooperation agreements are frequently symbolic, enterprise participation is unstable, and curriculum alignment with industrial needs is partial at best. Colleges face considerable limitations in updating equipment, engaging dual-qualified teachers, and sustaining long-term enterprise partnerships. At the same time, governance fragmentation, characterized by overlapping administrative responsibilities, inconsistent evaluation criteria, and short-term project cycles, further intensifies execution pressures and contributes to policy ambiguity.

The study makes three major contributions. First, it provides an empirically grounded explanation of why policy intentions diverge from local outcomes in less-developed regions, highlighting the structural role of weak industrial ecosystems. Second, it advances a theoretically informed framework based on incentive alignment, organizational capacity, and collaborative governance, which can be applied to broader analyses of vocational education reforms in similar contexts. Third, by integrating policy documents, institutional materials, and field-based evidence, the study offers a methodologically robust approach for examining policy execution processes in complex governance environments.

Practically, the findings suggest several directions for improving the implementation of industry-education integration. Government agencies should streamline administrative responsibilities and establish unified evaluation mechanisms to reduce compliance burdens and signal clearer policy priorities. Vocational colleges need to strengthen their internal capacity through targeted teacher development, equipment modernization, and more systematic curriculum governance. Enterprises may require stronger incentives, such as subsidies, tax benefits, and project-based funding, to enhance their willingness to participate in long-term collaborative training.

Future research could extend this study by incorporating longitudinal data to trace policy evolution over time or by conducting cross-provincial comparisons to explore how different industrial structures influence policy feasibility. Despite limitations related to case scope, the findings underscore the importance of context-sensitive strategies that bridge the gap between national policy design and local implementation realities.

## References

1. L. Ghosh, and R. Ravichandran, "Emerging technologies in vocational education and training," *Journal of Digital Learning and Education*, vol. 4, no. 1, pp. 41-49, 2024. doi: 10.52562/jdle.v4i1.975
2. H. Bing, and Z. Zhenzhen, "Synergistic development of vocational education and regional economy in the era of high-quality growth," *International Educational Research*, vol. 8, no. 3, pp. p66-p66, 2025.
3. H. Zhang, "The Intrinsic Logic and Practical Pathways of Empowering Vocational Education Through Industry-Education Integration: Summary of the Session on Industry-Education Integration for Advancing High-Quality Vocational Education," *World Vocational and Technical Education*, vol. 1, no. 1, pp. 38-54, 2025.
4. Y. Liang, and H. Chen, "Exploring the implementation path of school-enterprise cooperation in integrating industry and education in vocational education," In *2024 7th International Conference on Humanities Education and Social Sciences (ICHESS 2024)*, December, 2024, pp. 394-403. doi: 10.2991/978-2-38476-323-8\_46
5. E. Costa, P. Vicente, and E. Reis, "Driving Innovation Through Cross-Sector Collaboration with Higher Education Institutions," In *INTED2025 Proceedings*, 2025, pp. 2045-2053. doi: 10.21125/inted.2025.0581
6. Y. Tang, W. Dai, and Y. Li, "The Pathways and Challenges of Local Vocational Colleges Boosting Rural Talent Revitalization: A Case Study of Four Colleges in Guangdong," In *2024 3rd International Conference on Educational Science and Social Culture (ESSC 2024)*, April, 2025, pp. 494-501. doi: 10.2991/978-2-38476-384-9\_57
7. J. Zhang, "Research on Innovation of Industry-Education Integration Model in Chinese Applied Vocational Universities," *Pacific International Journal*, vol. 8, no. 3, pp. 110-116, 2025. doi: 10.55014/pij.v8i3.835
8. J. Li, and M. Huang, "International comparative analysis of the industry-education relationship in vocational education and training: From the perspective of economic sociology," *Vocation, Technology & Education*, vol. 1, no. 3, 2024. doi: 10.54844/vte.2024.0692
9. X. Zhang, and X. Li, "Research on the quality of high-skilled personnel training in higher vocational colleges in Jiangxi Province, China," *Journal of Roi Kaensarn Academi*, vol. 8, no. 8, pp. 700-706, 2023.
10. N. H. Abd Rahman, Y. Z. Zubairi, R. Jani, M. F. Abdul Batau, M. I. Shamsudheen, N. A. Ishak, and E. N. Abdul Bahri, "Governance structures and systemic challenges shaping the future of the technical and vocational education and training (TVET) workforce," *Education+ Training*, pp. 1-21, 2025. doi: 10.1108/et-11-2024-0508
11. Z. Li, J. Zheng, and J. Xiong, "Examining project-based governance of higher vocational education in China: a case study," *Higher education policy*, vol. 36, no. 2, pp. 250-269, 2023.
12. D. Misra, and B. Stensaker, "Balancing control and legitimacy in higher education policy implementation," *Studies in Higher Education*, vol. 49, no. 12, pp. 2343-2356, 2024. doi: 10.1080/03075079.2024.2306340

13. M. Alaa Abdel-Moneim, and D. H. Rosenbloom, "Polycentric governance and inclusive policies: Egypt and the implementation of fiscal stimulus in response to the Covid-19 pandemic," *International Journal of Public Administration*, vol. 47, no. 14, pp. 971-989, 2024. doi: 10.1080/01900692.2023.2220085
14. S. Yoto, W. A., P. A. P., and A. Romadin, "Unveiling the Distinctive Impact of Vocational Schools Link and Match Collaboration with Industries for Holistic Workforce Readiness," *Open Education Studies*, vol. 6, no. 1, p. 20240045, 2024.
15. M. Kayyali, "Aligning Vocational Education With Industry Needs: Successful Partnerships and Practices," In *Innovative Approaches in Vocational and Regional Education*, 2025, pp. 1-48.

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