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# Human Resource Development for Industrialization and Modernization in Vietnam: The Case of Bac Ninh Province

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**Abstract**

This study examines human resource (HR) development policies in Bac Ninh province, Vietnam, within the broader context of the country's industrialization and modernization efforts. Employing a mixed-methods approach that integrates policy content analysis with empirical data collected between 2008 and 2023, the research identifies critical institutional, structural, and operational challenges impeding effective HR development. Key findings reveal a persistent mismatch between workforce qualifications and industrial sector demands, limited coordination across policy frameworks, and inadequate engagement from the private sector. These issues hinder the province's ability to meet the evolving labor market requirements of a rapidly transforming economy. In response, the study proposes targeted policy recommendations, including enhancing decentralization mechanisms, reforming vocational training systems to align with industry needs, and fostering stronger public-private partnerships. By focusing on a localized case within an emerging economy, the study contributes to the broader discourse on adaptive HR policy design and implementation in the context of industrial transformation.

**Keywords:** Human Resource Development; Industrialization; Vietnam; Bac Ninh; Policy Analysis; Modernization


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## INTRODUCTION

The accelerated process of industrialization and modernization in Vietnam has placed unprecedented demands on the quality and adaptability of the country's human resources. As the economy transitions from agrarian to industrial and knowledge-based sectors, human capital has become a decisive factor in determining regional competitiveness and national growth. Within this framework, Bac Ninh province serves as a strategic node in Vietnam's economic transformation, owing to its high concentration of foreign direct investment and expanding industrial base. Despite favorable economic indicators, Bac Ninh faces persistent challenges in developing a labor force that meets the evolving needs of its high-tech and manufacturing sectors. These challenges are not unique to Bac Ninh but reflect broader systemic issues within Vietnam's approach to human resource development (HRD), including outdated vocational curricula, fragmented governance, and insufficient alignment between education outputs and labor market demands.

This study investigates the formulation and implementation of HRD policies in Bac Ninh under the national industrialization and modernization agenda. It seeks to evaluate the effectiveness of provincial strategies in equipping workers with relevant skills, and to identify institutional constraints that hinder policy outcomes. By integrating qualitative analysis of policy documents and quantitative data from enterprise and labor surveys, the research offers evidence-based insights into localized HRD dynamics. Through a focused case study approach, the paper aims to contribute to the broader discourse on decentralization, policy responsiveness, and workforce transformation in transitional economies. It also offers actionable recommendations for provincial governments seeking to harmonize HRD initiatives with economic development trajectories.

### Literature review

### Human Capital and Industrialization

Human capital plays a pivotal role in the trajectory of industrialization and economic modernization. Defined broadly as the stock of skills, knowledge, experience, and health accumulated by individuals, human capital is essential for enhancing labor productivity and fostering innovation (Becker, 1964; Schultz, 1961). In developing and transitional economies like Vietnam, the strategic development of human capital has been recognized as a cornerstone for successful integration into global value chains and the

transformation from agriculture-based economies to industrial and service-oriented structures.

The theoretical foundations of human capital stress the importance of investment in education and training as a means to boost productivity and long-term economic growth. This view is supported by empirical studies demonstrating a positive correlation between education levels and GDP per capita. Moreover, Hanushek and Woessmann (2012) argue that the quality of education—especially cognitive skills—is a more reliable predictor of economic outcomes than mere school enrollment or years of schooling. Therefore, policy focus must extend beyond quantity to quality and relevance.

In the context of industrialization, human capital facilitates not only workforce readiness but also technological absorption and process innovation. As industries adopt more advanced technologies, the demand for technically skilled labor rises. This dynamic is particularly salient in Vietnam's northern industrial provinces, including Bac Ninh, where foreign direct investment has fueled rapid growth in sectors such as electronics assembly and precision manufacturing. These sectors require a labor force that is adaptable, well-trained, and capable of continuous learning.

The relationship between human capital and industrialization is also bidirectional. While a skilled workforce supports industrial growth, the presence of dynamic industrial sectors creates demand for specialized education and training programs. This interaction underscores the importance of aligning vocational and higher education with the needs of the labor market. Failure to do so can lead to structural unemployment and skill mismatches, as evidenced in many developing countries undergoing rapid economic transformation.

Moreover, the transition to a knowledge-based economy necessitates a redefinition of human capital to include soft skills such as communication, critical thinking, and digital literacy. Traditional models of technical training are no longer sufficient. Employers increasingly value adaptability and problem-solving capabilities, especially in automated and technology-driven environments. In Bac Ninh, despite the proliferation of vocational schools and training centers, feedback from employers suggests that graduates often lack practical experience and essential non-technical competencies.

From a policy perspective, fostering human capital for industrialization requires a holistic approach that integrates education reform, labor market intelligence, public-private

partnerships, and lifelong learning systems. It also involves targeted investments in marginalized groups, including women and rural populations, to ensure inclusive development. In Vietnam, national strategies such as the "Human Resource Development Strategy 2011–2020" have set ambitious goals, but implementation remains uneven across regions.

Bac Ninh's challenge lies in operationalizing these national objectives within a local context marked by rapid economic shifts and limited institutional capacity. Understanding the dynamics of human capital in relation to industrial demands is thus crucial for designing effective and context-sensitive human resource development policies.

**Policy Implementation at Sub-national Levels**

The implementation of human resource development (HRD) policies at the sub-national level, particularly in emerging economies such as Vietnam, plays a critical role in bridging the gap between national development goals and local realities. In the context of Vietnam's socio-political structure, where provincial governments possess substantial autonomy in executing central mandates, the performance of HRD policies varies significantly across provinces. Bac Ninh, as one of the provinces at the forefront of industrialization, provides a revealing case for assessing both the opportunities and limitations inherent in localized HR policy execution.

Decentralization is widely viewed as a mechanism to enhance the efficiency, responsiveness, and accountability of public administration. The theoretical basis for decentralization rests on the notion that local governments are better positioned to understand and address the unique needs of their constituencies (Rondinelli et al., 1983). In Vietnam, a wave of decentralization reforms since the 1990s has granted provincial authorities increased control over budgeting, planning, and personnel management. Notably, the issuance of Resolution No. 18-NQ/TW and Resolution No. 19-NQ/TW in 2017 provided additional legal frameworks for streamlining administrative structures and promoting functional delegation to local levels.

However, empirical evidence from Vietnam suggests that decentralization outcomes are highly contingent on local capacity. Provinces such as Bac Ninh have benefited from strong leadership, a dynamic private sector, and favorable geographic location. Yet, even in such advantageous settings, implementation challenges persist. Nguyen and Vo (2020) argue that decentralization without adequate institutional capacity

can result in uneven development outcomes. In the realm of HRD, this translates into fragmented policy execution, duplication of training initiatives, and underutilization of available resources.

In Bac Ninh, the interplay between central guidelines and provincial initiatives often results in policy hybridity. For instance, while the province follows the national framework for vocational training set by the Ministry of Labor, Invalids and Social Affairs (MOLISA), it also introduces its own strategies tailored to the demands of local industries such as electronics, logistics, and mechanical manufacturing. This dual alignment creates opportunities for innovation but also leads to inconsistencies when coordination mechanisms are weak.

Interviews conducted with provincial policymakers highlight several barriers to effective HRD implementation. One key issue is the lack of horizontal integration among departments. Although multiple agencies—including the Department of Labor, Department of Education and Training, and Department of Planning and Investment—are involved in HRD, their efforts are often siloed. This leads to inefficiencies and misaligned priorities, particularly in allocating funds for training programs. Moreover, the absence of a unified monitoring and evaluation (M&E) framework further impedes performance tracking and adaptive learning.

Another critical constraint relates to stakeholder engagement. Despite policy mandates encouraging public-private collaboration, the involvement of industry actors in shaping and delivering training content remains limited. Only a fraction of enterprises actively participate in vocational education, typically through short-term internships or ad hoc training. This situation is exacerbated by a mismatch in expectations: while businesses demand job-ready graduates, training institutions often lack the resources or incentive structures to align curricula with real-world requirements.

The issue of funding also emerges prominently. While decentralization theoretically enables provinces to tailor budget allocations to local priorities, in practice, funding for HRD remains tightly linked to central transfers. Consequently, provincial programs may be underfunded or delayed due to bureaucratic bottlenecks. This is particularly problematic for programs requiring sustained investment in infrastructure, equipment, and faculty development.

Bac Ninh's experience also illustrates the role of political will in policy execution. Provinces with committed leadership can leverage decentralization to drive reform and experimentation. In Bac Ninh, several initiatives—such as partnerships with foreign firms for on-site training and the establishment of high-tech vocational centers—reflect proactive governance. However, such efforts are not systematically institutionalized and often depend on individual champions within the provincial apparatus.

Comparative studies further shed light on these dynamics. In countries like Indonesia and India, decentralization has similarly led to mixed outcomes in HRD, often shaped by disparities in administrative capacity, fiscal autonomy, and intergovernmental coordination. Lessons from these contexts underscore the need for supportive frameworks that combine autonomy with accountability, along with mechanisms for inter-jurisdictional learning.

Ultimately, the effective implementation of HRD policies at the sub-national level requires more than delegation of authority. It demands robust institutional capacity, integrated planning, inclusive stakeholder engagement, and adaptive management. Bac Ninh's trajectory demonstrates both the potential and pitfalls of decentralized HRD in a rapidly transforming socio-economic landscape. To enhance outcomes, a shift toward evidence-based governance, increased transparency, and cross-sectoral collaboration is imperative. These reforms would not only strengthen HRD outcomes in Bac Ninh but also provide a scalable model for other provinces navigating similar transitions.

## METHODOLOGY

This study adopts a mixed-methods approach integrating qualitative content analysis of policy documents and quantitative analysis of labor and training data from 2008–2023. The framework is based on William Dunn's (2018) five-stage policy analysis model: problem structuring, forecasting, prescription, monitoring, and evaluation.

Sources include Bac Ninh's annual labor reports, vocational training plans, and statistical yearbooks. Survey data were collected through 300 structured questionnaires targeting two main groups: 200 for government officials and 100 for local citizens. The study successfully retrieved 198 completed responses from officials and 95 from citizens, aimed at evaluating perceptions of the relevance and feasibility of HRD policies under the province's of industrialization and modernization agenda.

In addition to the surveys, a semi-structured interview approach was used to collect qualitative data from selected officials, vocational training instructors, and local enterprise representatives. The purpose of these interviews was to gain deeper insights into implementation challenges, institutional coordination, and the alignment of training with labor market needs.

The interview guide was structured around the following thematic questions:

1. How do you assess the feasibility of current HRD policies in Bac Ninh? What are the main constraints?
2. To what extent are vocational education programs aligned with the needs of local industries?
3. What mechanisms are in place for monitoring and evaluating HRD policy outcomes?
4. How effectively do different departments (e.g., labor, education, planning) coordinate in HRD policy implementation?
5. Are employers involved in the design and delivery of training programs? If so, how?
6. What are the key strengths and weaknesses of current vocational training institutions?
7. How do citizens and beneficiaries participate in the policy-making or feedback process?
8. What policy improvements would you recommend to enhance workforce readiness in Bac Ninh?

Interview responses were coded thematically and triangulated with survey findings and policy documents to ensure consistency and comprehensiveness in analysis.

## RESULTS

This section presents the findings from the survey conducted on 198 government officials and 95 local citizens in Bac Ninh, aiming to evaluate their perceptions regarding the feasibility and effectiveness of local human resource development (HRD) policies in the context of industrialization and modernization.

**Government Officials' Perception of Policy Feasibility**

The survey results show that 62.0% of government officials considered the HRD policies to be only "partially feasible," while 20.8% viewed them as "not feasible," and just 17.2% assessed them as "highly feasible." The predominant reasons for this cautious evaluation included insufficient budget allocations, fragmented institutional coordination, and a lack of incentives for policy execution at the grassroots level.

These perceptions reflect structural constraints within the provincial governance framework. Many respondents emphasized that although policy objectives were generally well-articulated, the actual implementation was hindered by overlapping responsibilities among departments and the absence of clear performance metrics.

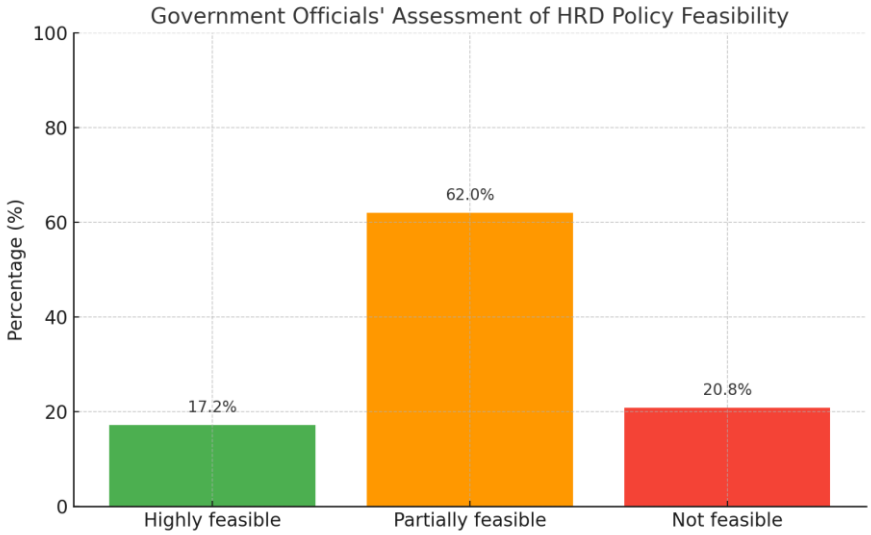



**Figure 1:** Government Officials' Perception of Policy Feasibility

Additionally, several officials expressed concern over the mismatch between vocational education outputs and the real needs of the labor market. A recurrent theme was the slow responsiveness of training programs to technological change, which resulted in a workforce that lagged behind in essential skills. Officials also pointed to the limited autonomy of local vocational institutions in updating curricula or engaging directly with enterprises.

Another notable insight was the lack of systematic performance evaluation for HRD initiatives. Respondents shared that while numerous policies had been issued to support youth training and job creation, few had measurable outcomes tied to actual

employment metrics. This lack of accountability weakened policy effectiveness and made it difficult to adjust or terminate underperforming programs.

Furthermore, several officials commented on the administrative complexity surrounding HRD policy implementation. With responsibilities split among the departments of labor, education, planning, and finance, coordination was often inefficient. Interdepartmental meetings were described as infrequent or superficial, with limited follow-through on joint action plans. This siloed approach undermined the integration of labor market data into policy design.

Budgetary limitations were also emphasized. Officials noted that funding for HRD programs was usually provided on an annual basis and tied to fixed budget lines, making it difficult to pilot innovative or multi-year initiatives. The application process for reallocating funds was reported to be cumbersome, further discouraging flexibility.

Some respondents highlighted efforts made by the province, such as creating new vocational centers and engaging with private sector partners, but acknowledged that such initiatives were still in their infancy and lacked institutionalization. Overall, the findings from this group indicate that while the intent to develop HRD capacity exists within the provincial administration, systemic issues in planning, resourcing, and coordination continue to undermine the feasibility of policy execution.

**Citizens' Assessment of Policy Effectiveness**

Among the 95 citizens surveyed, a striking 68.0% rated the policies as "ineffective," while 19.4% found them "partially effective" and only 12.6% considered them "effective." Respondents expressed concerns about the relevance and accessibility of vocational training programs, limited information about employment opportunities, and perceived favoritism in policy application.

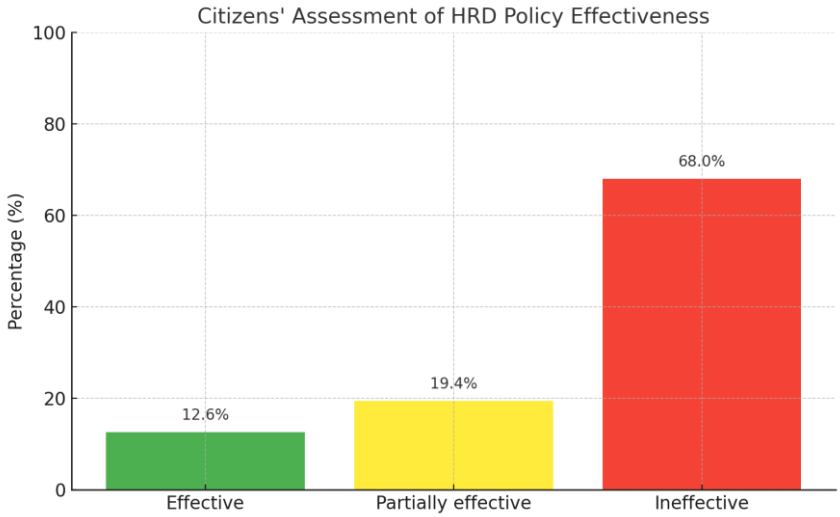



**Figure 2:** Citizens' Assessment of Policy Effectiveness

Many citizens, particularly younger respondents and those from rural areas, voiced frustration over the lack of career guidance and absence of practical experience within existing training programs. A common criticism was that courses were too theoretical and failed to reflect technological advancements in the labor market. Several mentioned that graduates frequently struggled to find jobs relevant to their training, with some resorting to low-skilled or informal employment.

Accessibility emerged as a major barrier. Rural residents noted that training centers were concentrated in urban areas, making participation logistically and financially burdensome. Moreover, limited dissemination of information about available programs meant that many were unaware of opportunities until it was too late. This gap in communication disproportionately affected less-connected and lower-income communities.

Trust in the fairness of selection processes was also a key concern. Some respondents speculated that places in government-sponsored training programs were allocated based on connections rather than merit or need. Such perceptions diminish public confidence and discourage broader participation.

Despite these concerns, a minority of citizens acknowledged recent improvements in vocational infrastructure and outreach efforts. However, they agreed that progress remained slow and that more comprehensive reforms were needed, including industry collaboration, curriculum updates, and post-training job support.

These insights underline a critical disconnect between the formal provision of HRD services and public expectations. To enhance legitimacy and impact, policy adjustments must prioritize inclusion, transparency, and relevance to actual labor market conditions.

**Cross-analysis of Stakeholder Insights**

A cross-analysis of responses from officials and citizens underscores a shared recognition of policy design-execution gaps. While officials acknowledged feasibility constraints, citizens were more critical of real-world impacts. This divergence suggests that although the administrative apparatus may intend to fulfill HRD objectives, its capacity and responsiveness to community needs remain limited.

The perception gap between government officials and citizens is instructive in identifying the disconnect between policy intent and its reception by the public. Officials tended to frame problems around systemic limitations—budget, coordination, administrative hurdles—while citizens focused more on how those systemic shortcomings translated into practical deficits in training relevance, job placement, and access.

For instance, while 62.0% of officials viewed policies as only partially feasible due to implementation constraints, 68.0% of citizens found them outright ineffective, suggesting a higher threshold of judgment based on lived experience rather than internal metrics. This discrepancy points to a critical failure in stakeholder communication and feedback loops that are essential in adaptive policy management.

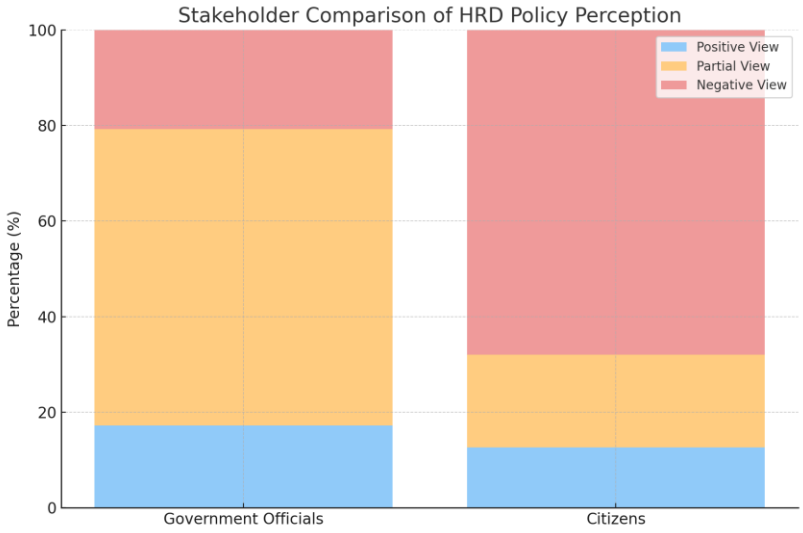



**Figure 3:** Stakeholder Comparison of HRD Policy Perception

Furthermore, the lack of joint forums for dialogue between administrators and citizens may be contributing to these disparities. Few respondents indicated the existence of consultative sessions or participatory planning processes. Without these mechanisms, policy cycles remain top-down, which limits their ability to accommodate ground-level realities.

Additionally, the analysis reveals that both groups recognize weaknesses in vocational education and training (VET) systems, particularly in terms of labor market alignment. Yet, while officials attribute the mismatch to systemic inertia and policy fragmentation, citizens see it as symptomatic of poor governance and favoritism. This dual perception could serve as a foundation for collaborative reform if effectively channeled.

**Table 1**: Summary comparison of stakeholder responses:

| Stakeholder Group | Positive View (%) | Partial View (%) | Negative View (%) |
|---|---|---|---|
| Government Officials | 17.2 | 62.0 | 20.8 |
| Citizens | 12.6 | 19.4 | 68.0 |

## Thematic Insights from Qualitative Feedback

Qualitative data collected from open-ended survey questions further support the statistical findings. Several officials cited a lack of interdepartmental coordination and difficulty in aligning training initiatives with economic plans. Citizens, meanwhile, repeatedly mentioned the perception that vocational training lacked prestige and practical relevance.

One citizen commented: "My son finished a two-year program, but still couldn't find a job. The training didn't match what local companies needed." This kind of feedback reinforces the importance of stakeholder-driven curriculum reform and enhanced employer engagement.

In addition to comments on job mismatch, citizens emphasized that vocational training programs were often perceived as fallback options for students who could not enter higher education. This perception reduced the attractiveness of such programs, especially among youth and families with higher aspirations. As a result, vocational institutions struggled to recruit qualified candidates, and their social legitimacy remained weak.

Officials, on the other hand, pointed out challenges in ensuring accountability within training centers. A few noted that instructors lacked up-to-date industry experience, and that curricula were rarely revised to reflect technological advancements or changing market demands. This inertia limited the adaptability of the education system, making it less responsive to Bac Ninh's rapidly evolving industrial landscape.

Both groups acknowledged a general lack of performance metrics to evaluate the effectiveness of vocational training. Respondents suggested that outcome-based evaluation—such as employment rates post-training or satisfaction among employers—was rarely implemented. Without these indicators, policy refinement remained guesswork.

Citizens also voiced concerns about limited access to feedback mechanisms. Many felt that their opinions were not considered in planning or improving training services. Participatory governance models, such as community consultations or stakeholder workshops, were either absent or superficial in their reach.

These qualitative insights reveal systemic gaps not just in training delivery but in governance, accountability, and public engagement. They point to the need for comprehensive reforms that go beyond infrastructure and funding, emphasizing coordination, transparency, and user-centered design.

**Gaps Between Vocational Training and Industrial Needs**

The survey findings point to a persistent mismatch between vocational training curricula and the specific requirements of Bac Ninh's industrial base. Interviews with employers (as cited in complementary data) indicate that graduates often lack soft skills, adaptability, and real-world experience. These deficits reduce their competitiveness in the job market and increase training costs for employers.

Employers consistently emphasized that while technical skills are essential, attributes such as teamwork, critical thinking, and time management are equally important for modern production settings. However, these qualities are often underdeveloped in vocational graduates, partly due to outdated curricula and limited opportunities for experiential learning. Many training programs still focus on rote memorization and classroom-based instruction rather than competency-based education.

Another area of concern is the weak connection between training institutions and industry stakeholders. Respondents noted the absence of formal channels for businesses to

provide input into curriculum design or participate in student assessments. As a result, the skillsets imparted often do not reflect the evolving demands of sectors such as electronics, logistics, and precision manufacturing, which dominate Bac Ninh's industrial profile.

Moreover, the lack of structured internships and apprenticeship opportunities limits students' ability to develop job-ready skills. Although some enterprises have piloted on-the-job training schemes in collaboration with local schools, these initiatives remain ad hoc and are not yet institutionalized. The absence of public-private partnerships on a broader scale further exacerbates the disconnect between supply and demand in the labor market.

The survey also highlighted deficiencies in career guidance and labor market information systems. Students often choose vocational tracks based on limited or outdated information, leading to imbalances in the distribution of skills across sectors. For example, oversupply in low-demand trades contrasts with shortages in high-growth areas such as automation and information technology.

Addressing these gaps requires systemic reforms, including regular labor market forecasting, industry representation on school boards, and incentive mechanisms for firms that offer apprenticeships. Additionally, policies should promote dual-training models that integrate classroom instruction with hands-on industry experience. By narrowing the gap between vocational training and actual job needs, Bac Ninh can better equip its workforce to support sustainable industrial growth.

**Institutional Bottlenecks and Resource Allocation**

Financial constraints were a dominant theme in the survey responses. Many officials noted that HRD initiatives often relied on short-term funding cycles, which discouraged long-term planning. Moreover, rigid budgetary procedures limited flexibility in reallocating funds to high-priority programs.

Beyond financial limitations, institutional fragmentation emerged as a significant barrier to effective policy implementation. Respondents described a complex administrative landscape in which responsibilities for planning, budgeting, training delivery, and evaluation were spread across multiple departments. This often led to duplication of efforts or, conversely, gaps in service delivery. For instance, while the Department of Labor might be responsible for training, it had limited influence over school curricula, which were controlled by the Department of Education.

Another commonly reported issue was the lack of performance-based budgeting. Most training programs received funds based on historical allocations or administrative quotas, rather than outcomes such as employment rates or employer satisfaction. As a result, underperforming programs continued to receive support, while innovative or demand-driven initiatives faced difficulties scaling up.

Administrative capacity was also a concern. Respondents pointed out that local HRD staff lacked the skills or data to conduct effective needs assessments or labor market forecasting. This knowledge gap hampered the ability to align training supply with economic trends, leading to mismatches in workforce qualifications.

Additionally, bureaucratic rigidity in public financial management was cited as a bottleneck. For example, reallocating unused training funds to new priorities required multiple layers of approval, delaying responsiveness to emerging needs. Officials described these procedures as time-consuming and risk-averse, disincentivizing experimentation and rapid policy adjustment.

Taken together, these institutional bottlenecks reveal the need for comprehensive governance reforms. Bac Ninh's HRD strategy would benefit from clearer mandates for interdepartmental coordination, simplified funding mechanisms, and investment in data infrastructure and administrative capacity. Only through such reforms can the province improve the efficiency and impact of its workforce development policies.

**Regional Comparisons and Best Practices**

When compared with similar provinces (e.g., Thai Nguyen, Hai Duong), Bac Ninh appears to lag in terms of integrated HRD governance. Other provinces have piloted collaborative models involving vocational schools, businesses, and provincial planning departments. Bac Ninh's relatively fragmented system underscores the need for a unified HRD coordination mechanism.

In provinces like Thai Nguyen, local authorities have established HRD coordination boards that include representatives from industry, vocational institutions, and government departments. These boards meet regularly to assess training needs, allocate resources, and review program outcomes. This approach has helped to improve labor market responsiveness and foster greater trust among stakeholders.

Hai Duong province offers another useful model. It has integrated its labor market information system with vocational planning, allowing for real-time adjustments in course offerings based on industry demand. This has led to a measurable increase in post-training employment rates and employer satisfaction. Bac Ninh, in contrast, lacks a formal mechanism for such integration, relying instead on ad hoc feedback and static annual plans.

Furthermore, successful provinces often tie performance-based incentives to training institutions. For example, schools in Binh Duong are rewarded based on their graduates' employment outcomes and employer ratings. This creates strong incentives for aligning curriculum with job market requirements. Bac Ninh has yet to implement such performance-linked funding mechanisms, which may explain the persistence of outdated and poorly targeted training content.

International comparisons also yield valuable lessons. In countries like Germany and South Korea, dual training systems combine classroom instruction with on-the-job apprenticeships. These models not only equip students with practical skills but also promote close collaboration between educators and employers. While such systems require strong institutional support and industry buy-in, they offer a blueprint for more adaptive and responsive HRD strategies.

Bac Ninh can draw on these examples to develop a roadmap for reform. Establishing a permanent, multi-stakeholder HRD council, digitizing labor market data, and introducing outcome-based incentives are practical first steps. In the longer term, aligning with regional and international best practices can help the province close the skills gap, improve workforce productivity, and enhance its competitiveness within Vietnam's industrial corridor.

## CONCLUSION

This study has provided a detailed examination of the human resource development (HRD) policies in Bac Ninh province within the broader context of Vietnam's industrialization and modernization goals. Based on survey data and stakeholder feedback, it is evident that while the province has made noteworthy strides in establishing vocational institutions and promoting workforce development, significant challenges persist in the alignment, feasibility, and effectiveness of these policies.

A major finding is the evident disconnect between policy design and implementation. Government officials acknowledge administrative fragmentation, resource constraints, and coordination issues as impediments to policy execution. Citizens, on the other hand, are primarily concerned with the limited relevance, accessibility, and fairness of HRD programs. Both groups underscore the lack of practical job-readiness among vocational graduates and the absence of performance-based evaluation mechanisms.

To address these issues, the following policy recommendations are proposed:

- *Establish a Provincial HRD Coordination Council:* This multi-stakeholder body should include representatives from local government, vocational schools, businesses, and civil society. Its mandate would be to synchronize HRD planning, monitor implementation, and adjust policies based on feedback and labor market trends.
- *Promote Demand-Driven Training Models:* Curricula must be revised regularly to reflect technological advancements and employer needs. Engagement with industries in curriculum design, internship facilitation, and assessment processes should be institutionalized.
- *Implement Performance-Based Budgeting:* Allocate funding based on program outcomes, such as employment rates and employer satisfaction. This would incentivize schools and training centers to improve quality and relevance.
- *Invest in Labor Market Intelligence Systems:* A real-time data platform should be developed to track job trends, skill shortages, and training needs. This would support evidence-based planning and guide students in making informed career choices.
- *Strengthen Inclusive Access:* Expand training centers into rural areas and provide financial support for disadvantaged groups. Programs should also incorporate soft skills and digital literacy to enhance employability.
- *Enhance Monitoring and Accountability:* Establish clear benchmarks for program evaluation and create public feedback mechanisms to ensure responsiveness to community needs.

In conclusion, transforming Bac Ninh's HRD system requires a holistic and adaptive approach. By leveraging best practices from other provinces and international

models, and by actively engaging stakeholders at all levels, the province can build a dynamic and inclusive workforce ready to meet the challenges of industrial transformation.

## REFERENCES


Becker, G. S. (1964). *Human Capital: A Theoretical and Empirical Analysis, with Special Reference to Education*. University of Chicago Press.

Dunn, W. N. (2018). *Public Policy Analysis: An Integrated Approach* (6th ed.). Routledge.

Hanushek, E. A., & Woessmann, L. (2012). Do better schools lead to more growth? *Journal of Economic Growth*, 17(4), 267–321.

Nguyen, V. T., & Vo, D. H. (2020). Decentralization and local public service delivery in Vietnam. *Asia-Pacific Journal of Public Administration*, 42(1), 43–61.

Rondinelli, D. A., et al. (1983). Decentralization in developing countries: A review of recent experience. *World Bank Staff Working Papers, No. 581*.

Schultz, T. W. (1961). Investment in human capital. *The American Economic Review*, 51(1), 1–17.

General Statistics Office of Vietnam. (2008–2023). *Bac Ninh Socio-Economic Statistical Yearbooks*. Hanoi: GSO.

Bac Ninh Department of Labor, Invalids and Social Affairs. (2023). *Annual Report on Employment and Training in Bac Ninh*.

Nguyen, T. M. H. (2025). *Chính sách phát triển nguồn nhân lực thực hiện công nghiệp hóa, hiện đại hóa ở tỉnh Bắc Ninh*. Luận án tiến sĩ, Học viện Chính trị quốc gia Hồ Chí Minh.

UNESCO-UNEVOC (2019). *Skills for a connected world*. Bonn: UNESCO.

World Bank (2021). *Vietnam: Skills and Jobs for a Strong Recovery and Inclusive Growth*. Washington, D.C.: World Bank.

OECD (2018). *Strengthening the Governance of Skills Systems: Lessons from OECD Countries*. OECD Publishing.

Ministry of Education and Training, Vietnam (2022). *Báo cáo tổng kết giáo dục nghề nghiệp*. Hanoi.

German Federal Ministry of Education and Research (2019). *The German Vocational Training System*. Berlin.

South Korea Ministry of Employment and Labor (2020). *National Human Resources Development Strategy*. Seoul.