

**STRATEGIC HUMAN RESOURCE DEVELOPMENT AS THE CORE CATALYST  
FOR VIKSIT BHARAT 2047**

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**Abstract:** The national goal to transform India into a fully developed nation by the centenary year of its independence in 2047—designated as 'Viksit Bharat 2047'—is highly dependent upon the comprehensive modernization and structural overhaul of its Human Resource Development (HRD) architecture. While macroeconomic models frequently highlight capital accumulation, infrastructure investments, and digital public platforms, this study argues that the primary binding constraint on India's long-term trajectory resides in its critical human resource imbalances. Employing an analytical and descriptive research design built upon structured secondary data from 2010 to 2025 compiled from national and international databases (including NITI Aayog, the Ministry of Labour and Employment, the World Bank, the International Labour Organization, and the UNDP), this paper examines the structural frictions impeding India's human capital transition. The quantitative analysis demonstrates that despite a highly favorable demographic profile and rapid digital expansion, severe bottlenecks persist: a critical deficit in formally trained workers (standing at 12% in 2025), a massive concentration of the workforce within low-productivity informal employment (74%), a persistent deficit in female labor force participation (37%), and low aggregate investments in research and development (0.85% of GDP). This research provides an original Strategic Human Resource Management (SHRM) framework tailored for macro-developmental policy. It concludes that shifting from quantity-driven employment matrices to quality-driven, high-productivity competence systems is mandatory to avoid the middle-income trap. Actionable policy interventions, including integrated industry-academia qualification frameworks, structured transition models for the informal workforce, targeted corporate incentives for female retention, and localized skill infrastructure deployment, are subsequently formulated to accelerate resilient, technology-driven national growth.

**Keywords:** Human Resource Development, Strategic HRM, Viksit Bharat 2047, Skill Development, Labor Informality, Talent Transformation, Human Capital Index.

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## **1. INTRODUCTION**

In the contemporary landscape of global economics and management, the conceptualization of a developed nation has evolved beyond mere aggregations of Gross Domestic Product (GDP) or physical asset accumulation. Authentic national development is increasingly recognized as a function of institutional depth, corporate innovation capability, technological sovereignty, and the comprehensive development of human capabilities. As the Government of India articulates its strategic vision for 'Viksit Bharat 2047'—aiming to build a fully developed, high-income economy scaled between \$30 and \$40 trillion by the centenary year of its independence—the discourse must shift toward human capital management. Macroscopic goals regarding industrial production, export competitiveness, and infrastructure

deployment cannot be actualized in a vacuum; they demand an exceptionally sophisticated, agile, and highly skilled human resource asset base capable of executing complex economic activity.

Historically, India's economic growth profile, particularly post the market-oriented liberalization reforms of 1991, has been highly service-driven, fueled by an elite, high-technology service enclave. This unique trajectory has created a profound structural contradiction within the national labor ecosystem. While aggregate macroeconomic growth indicators consistently position India as the world's fastest-growing major economy, the structural transformation of its broader workforce remains incomplete. The traditional reallocation of labor from low-productivity subsistence agriculture into high-productivity, labor-intensive manufacturing value chains has stagnated. Consequently, the vast majority of the national labor pool is confined within informal employment matrices, characterized by low wage growth, minimal skill progression, and a total absence of formal corporate social protection. This persistent structural fragmentation presents a direct, binding threat to the sustainability of the long-term national transformation toward 2047.

This research paper establishes a systemic link between Strategic Human Resource Management (SHRM) theory and macro-level development economics to analyze the human capital challenges confronting India as it approaches the 2047 horizon. While current policy documents and existing academic works frequently address economic indicators, technological systems, and digital public infrastructures in an isolated manner, there remains a critical academic void regarding an integrated, indicator-driven HR framework that addresses the dynamic interdependencies between skill development, labor formalization, gender diversity, and workplace digital literacy. By synthesizing empirical secondary data spanning the 2010–2025 timeline and benchmarking these metrics against developed economy criteria (such as OECD norms), this paper aims to bridge this void. It offers a structured macro-HR framework and targeted operational recommendations to transform the nation's massive population volume into a high-tier asset base.

## **2. LITERATURE REVIEW**

The theoretical foundation of human resource development at the macro-economic level is deeply rooted in Human Capital Theory, pioneered by Schultz (1961) and Becker (1964). These seminal works established that expenditures on education, vocational skill building, and health infrastructure should not be viewed as mere consumption outlays, but as strategic capital investments that yield long-term productivity gains. Human capital represents the primary engine of qualitative economic expansion, acting as the fundamental source of technological adaptation and commercial innovation. In the context of emerging economies, this theory implies that the velocity of national growth is ultimately bounded by the aggregate competence level of the workforce. If institutional investments fail to keep pace with demographic shifts, an economy faces the severe risk of encountering the 'middle-income trap,' where growth plateaus due to an inability to switch from low-wage resource exploitation to a high-value knowledge economy.

Concurrently, the capability approach formulated by Amartya Sen (1999) expanded the definition of economic development by repositioning it from a narrow focus on real

income growth per capita to the comprehensive extension of human capabilities and freedoms. Under this framework, systematic development of human resources serves as both the principal instrument and the ultimate ethical goal of state policy. Applied to the Indian subcontinental landscape, empirical literature demonstrates that while post-1991 liberalization drove substantial expansions in nominal wealth and middle-class consumption (Ahluwalia, 2002), it did not execute uniform human capital expansion. As long-term diagnostic reports by the United Nations Development Programme (2023) demonstrate, India's human development index (HDI) tracking remains constrained within the medium development category. This systemic stagnation highlights that gross education enrollment gains have failed to convert into real quality-driven competencies and high-tier human capital infrastructure.

Within the discipline of management, Strategic Human Resource Management (SHRM) models, notably the resource-based view (RBV) of the firm (Barney, 1991; Wright & McMahan, 1992), argue that sustained competitive advantage is achieved through the deployment of human resources that are valuable, rare, inimitable, and non-substitutable. Extending this organizational theory to the macro-national level, an economy's long-term global competitiveness is determined by its national HR architecture—defined by its skilling institutions, labor regulation clarity, and workplace diversity frameworks. Research by the International Labour Organization (2023) and demographic analysts (Bloom et al., 2003) points out that a highly favorable shift in national age structures—the demographic dividend—can accelerate savings and investment rates. However, this demographic asset can easily devolve into a profound socioeconomic burden if it is not explicitly matched by productive, formal job creation and rapid, demand-driven skill alignment with corporate industry needs.

Furthermore, contemporary management literature focused on Industry 4.0 highlights the disruptive, non-linear impacts of digital public infrastructure (DPI) and technological integration on workplace dynamics. The accelerating deployment of artificial intelligence, robotic process automation, and big data analytics compresses traditional organizational growth cycles while accelerating the obsolescence of manual skill sets. Strategic research by NITI Aayog (2022) underlines that digitalization serves as an exponential catalyst for public service efficiency and transactional optimization. However, corporate HR literature simultaneously warns of a widening digital divide, where severe geographic and socio-class discrepancies in advanced technology competencies create an unequal, two-speed labor market, unless actively mitigated by comprehensive national upskilling and continuous workplace learning architectures.

### **3. RESEARCH METHODOLOGY**

This study utilizes a descriptive and analytical research design to execute a macro-level evaluation of India's human resource development prospects and structural constraints within the strategic timeline of the Viksit Bharat 2047 objective. The methodology conceptualizes national growth through an integrated macro-HR system model, evaluating how individual labor variables interact with and bound overall economic performance. To eliminate the volatility associated with short-term economic shocks, the study relies upon a 15-year

longitudinal secondary database tracking established macro-human resource and employment parameters from 2010 to 2025. This structural timeline provides a reliable baseline for identifying secular trend shifts and calculating necessary velocity adjustments.

The data points utilized in this research are drawn exclusively from authoritative, internationally synchronized, and national public databases, ensuring maximum comparative validity. The primary data pipelines include the Ministry of Labour and Employment Annual Reports, Ministry of Statistics and Programme Implementation (MoSPI) Periodic Labour Force Surveys (PLFS), NITI Aayog policy frameworks, the World Bank World Development Indicators (WDI), the International Labour Organization (ILO) data repository, and the United Nations Development Programme (UNDP) human development indices. The analytical matrix tracks five core clusters of variables: (i) Vocational Skilling Intensity (percentage of the workforce possessing formal technical training), (ii) Labor Formalization Index (the structural share of informal vs. formal contracts), (iii) Workplace Gender Diversity measures (specifically the Female Labor Force Participation Rate), (iv) Foundational Human Capital Indices (Mean Years of Schooling and composite HDI values), and (v) Workplace Digital Competence levels (internet penetration and tech literacy tracking).

The analytical framework operates via formal cross-national comparative benchmarking and rigorous trend analysis. The empirical trajectories calculated for India across each designated HR indicator are systematically mapped against the minimum structural thresholds observed in advanced developed economies (utilizing OECD averages as the developed baseline standard). Qualitative content analysis is concurrently deployed to evaluate the operational effectiveness of strategic state initiatives (such as the National Skill Development Mission, the National Education Policy 2020, and the Digital India paradigm), identifying execution gaps between legislative intent and institutional outcomes. Finally, a strategic synthesis matrix is constructed to map the complex interdependencies between talent quality, labor formalization, technological adoption, and administrative quality, isolating the critical binding human resource constraints that require immediate, non-linear structural interventions.

## **4. EMPIRICAL ANALYSIS AND FINDINGS**

### **4.1 Skill Development Intensity and Industry 4.0 Realities**

The empirical evaluation of India's vocational infrastructure reveals a critical structural deficit that represents a major barrier to high-value knowledge-economy status. Longitudinal data tracking the proportion of the active workforce that has undergone formal, accredited technical or vocational training demonstrates an incremental progression, moving from a very low baseline of 2.0% in 2010 to an estimated 12.0% by 2025. While this upward momentum highlights the expanding footprint of national skill deployment programs, the absolute magnitude of the metric highlights a severe systemic vulnerability. When benchmarked against advanced developed nations—where the formally skilled proportion of the workforce routinely reaches between 50% and 70% (e.g., Germany, Japan, South Korea)—India's talent readiness displays an acute gap. This vast deficit indicates that the massive population volume remains majorly under-skilled relative to the high-tier cognitive and technical demands of advanced manufacturing and digital corporate management systems.

| Year  | Workforce with Formal Training (%) | OECD Baseline Average (%) | Absolute Performance Gap (%) |
|-------|------------------------------------|---------------------------|------------------------------|
| 2010  | 2.0%                               | 55.0%                     | -53.0%                       |
| 2015  | 4.0%                               | 56.0%                     | -52.0%                       |
| 2020  | 7.0%                               | 58.0%                     | -51.0%                       |
| 2023  | 9.0%                               | 60.0%                     | -51.0%                       |
| 2025* | 12.0%                              | 62.0%                     | -50.0%                       |

**Table 1: Macro Workforce Vocational Skilling Trajectory vs. OECD Standards (2010–2025)**

This acute skilling gap generates significant challenges for corporate human resource management. Organizations operating within the high-growth sectors of the Indian economy face a severe talent paradox: high aggregate youth unemployment coexisting with intense corporate talent shortages. This structural mismatch arises because the formal educational apparatus remains heavily focused on theoretical rote-learning models, failing to institutionalize the complex problem-solving abilities, data analytical capabilities, and advanced technological competencies mandated by Industry 4.0 systems. Consequently, corporate enterprises are forced to incur substantial internal training costs to make fresh graduates frictionally employable. Without a non-linear acceleration in vocational training intensity, the economy's capability to absorb advanced foreign direct investment (FDI) into high-value technological manufacturing remains structurally constrained.

#### **4.2 Structural Frictions of Informal Labor and Social Protection**

The institutional composition of India's labor market is heavily characterized by pervasive contractual informality. Longitudinal empirical data demonstrates that the proportion of total employment operating within the informal sector was a massive 92.0% in 2010, contracting gradually to 74.0% by 2025. This gradual reduction indicates a positive trend toward corporate formalization, driven by systematic state actions such as the introduction of the unified Goods and Services Tax (GST) data trail, the expansion of the digital banking system, and the integration of micro-enterprises onto formal registration portals. However, the absolute reality that nearly three-quarters of the national workforce remains informal in 2025 represents a major structural bottleneck. Informal employment inherently isolates workers from legally mandated employment contracts, stable wage progression, corporate provident funds, and healthcare insurance frameworks, bounding the expansion of a resilient, high-consumption domestic middle class.

| Year  | Informal Employment Share (%) | Formal Employment Share (%) | Aggregate Unemployment Rate (%) |
|-------|-------------------------------|-----------------------------|---------------------------------|
| 2010  | 92.0%                         | 8.0%                        | 3.5%                            |
| 2015  | 88.0%                         | 12.0%                       | 5.0%                            |
| 2020  | 80.0%                         | 20.0%                       | 7.1%                            |
| 2023  | 76.0%                         | 24.0%                       | 6.2%                            |
| 2025* | 74.0%                         | 26.0%                       | 6.0%                            |

**Table 2: Labor Ecosystem Formalization and Unemployment Dynamics (2010–2025)**

From a strategic HR perspective, widespread labor informality systematically undermines national talent optimization and productivity scaling. Workers confined within informal agreements typically operate in highly fragmented, low-technology business units where capital intensity is minimal and structured training mechanisms are non-existent. This structure prevents the accumulation of progressive corporate competencies, keeping workers trapped in low-tier livelihoods. Concurrently, the national unemployment rate, which escalated to 7.1% during the economic disruptions of 2020 and settled at 6.0% in 2025, highlights a persistent core friction: the macroeconomic framework continues to generate aggregate capital expansion without generating high-quality, formal corporate career pathways at the scale required to absorb the youth bulge. This mismatch undermines the optimization of the demographic asset.

### **4.3 Gender Diversity and Female Labor Force Participation**

A highly critical human resource bottleneck within the Indian macroeconomic ecosystem is the severe under-utilization of female talent. Longitudinal labor data tracking the female Labor Force Participation Rate (LFPR) demonstrates a pattern of structural stagnation followed by recent recovery, moving from 23.0% in 2010 down to a critical low of 21.0% in 2018, before registering a positive structural advance to 37.0% by 2025. This recent expansion is directly attributable to targeted state policies, including massive financial inclusion initiatives for rural women, the scaling of self-help group networks, and structural advancements in universal rural water and sanitation infrastructure that compressed unpaid domestic labor timelines. However, when benchmarked against global developed criteria—where female labor participation consistently tracks above 60.0%—the national average indicates that a massive proportion of the educated female population remains structurally excluded from the formal commercial arena.

| <b>Year</b> | <b>Female LFPR (%)</b> | <b>Male LFPR (%)</b> | <b>Aggregate Labor Force Participation (%)</b> |
|-------------|------------------------|----------------------|------------------------------------------------|
| 2010        | 23.0%                  | 78.0%                | 56.0%                                          |
| 2015        | 22.0%                  | 77.0%                | 53.0%                                          |
| 2020        | 25.0%                  | 74.0%                | 49.0%                                          |
| 2023        | 32.0%                  | 76.0%                | 55.0%                                          |
| 2025*       | 37.0%                  | 77.0%                | 57.0%                                          |

**Table 3: Gender-Disaggregated Labor Force Participation Trends (2010–2025)**

The implications of this gender diversity deficit are highly consequential for national competitiveness. Macroeconomic management literature establishes that closing the labor participation gender gap is not merely an ethical imperative, but a direct driver of non-linear output expansion, with the capacity to add up to 1.5 to 2.0 percentage points to annual real GDP growth velocity. In the corporate sphere, the persistent loss of highly educated female talent—often driven by institutional frictions surrounding marriage, childbirth, corporate childcare availability, and structural workplace safety deficits—creates a severe drain of high-tier management capabilities. To achieve the high-income targets of Viksit Bharat 2047, national corporate HR strategies must deploy aggressive diversity maintenance frameworks,

comprehensive parental support architectures, and inclusive workspace safety systems to permanently institutionalize female talent across all management hierarchies.

#### **4.4 Foundational Human Capital Indices and Educational Quality**

The quantitative mapping of India's foundational social infrastructure demonstrates a profound disconnect between aggregate macroeconomic scale and individual human development indicators. The national composite Human Development Index (HDI) score registered a stable, linear advancement from 0.58 in 2010 to 0.65 in 2025. This expansion reflects successful, long-term state focus on basic primary school infrastructure access, universal childhood immunization coverage, and comprehensive multi-dimensional poverty reduction paradigms. However, the absolute metric leaves India structurally constrained within the UNDP's 'medium human development' classification, standing in sharp contrast to the minimum developed country benchmark of 0.85. The underlying educational metric shows that the Mean Years of Schooling achieved by the adult population advanced from 4.4 years in 2010 to 7.0 years in 2025, lagging heavily behind advanced OECD standards which consistently track above 12.0 years of formal schooling.

| <b>Year</b> | <b>Human Development Index (HDI)</b> | <b>Mean Years of Schooling</b> | <b>Life Expectancy (Years)</b> | <b>Infant Mortality Rate (per 1,000)</b> |
|-------------|--------------------------------------|--------------------------------|--------------------------------|------------------------------------------|
| 2010        | 0.58                                 | 4.4                            | 66.0                           | 47.0                                     |
| 2015        | 0.61                                 | 5.4                            | 68.0                           | 38.0                                     |
| 2020        | 0.63                                 | 6.1                            | 70.0                           | 30.0                                     |
| 2023        | 0.64                                 | 6.7                            | 71.0                           | 27.0                                     |
| 2025*       | 0.65                                 | 7.0                            | 72.0                           | 24.0                                     |

**Table 4: Foundational Human Capital and Public Health Index Trends (2010–2025)**

This clear lag in foundational human capital points to an acute quality deficit across the primary and secondary educational systems. Independent national learning assessments consistently demonstrate that gross school enrollment expansions have failed to ensure functional literacy and basic numerical competence, with large majorities of rural students failing to meet grade-appropriate learning goals. This deficit is driven by chronic shortages of highly trained pedagogical staff, outdated curricular architectures focused on memorization rather than cognitive application, and severe regional discrepancies in infrastructure. Concurrently, public health metrics show positive shifts—with life expectancy reaching 72.0 years and the Infant Mortality Rate contracting to 24.0 per 1,000 births by 2025—yet persistent nutritional deficiencies and high out-of-pocket health spend continue to limit the full cognitive and physical capacity of the future labor pool.

#### **4.5 Digital Literacy Divides and Workplace Innovation Competence**

In sharp contrast to the acute institutional bottlenecks observed within the labor and social infrastructure sectors, India's trajectory across internet penetration and digital public platform deployment represents an exceptionally powerful accelerator for non-linear competence building. Systemic internet penetration expanded from a narrow 8.0% baseline in 2010 to a commanding 72.0% by 2025, driven by the rollout of hyper-affordable data services and

ubiquitous mobile communications networks. This extensive footprint provided the foundational structural architecture for India's globally recognized Digital Public Infrastructure (DPI), enabling universal digital identity verification, real-time secure financial transactions, and unified data lockers. This digital matrix has dramatically compressed financial transaction friction and optimized public subsidy distribution frameworks.

| <b>Year</b> | <b>Internet Penetration Rate (%)</b> | <b>Global Innovation Index Rank</b> | <b>Gross R&amp;D Expenditure (% of GDP)</b> | <b>Domestic Patent Filings</b> |
|-------------|--------------------------------------|-------------------------------------|---------------------------------------------|--------------------------------|
| 2010        | 8.0%                                 | 62                                  | 0.70%                                       | 39,000                         |
| 2015        | 27.0%                                | 81                                  | 0.68%                                       | 46,000                         |
| 2020        | 45.0%                                | 48                                  | 0.66%                                       | 56,000                         |
| 2023        | 67.0%                                | 40                                  | 0.75%                                       | 82,000                         |
| 2025*       | 72.0%                                | 38                                  | 0.85%                                       | 95,000                         |

**Table 5: Digital Penetration, Innovation Capacity, and Research Investment Trends (2010–2025)**

However, this extensive digital foundation faces a severe innovation deficit when evaluated through national research capacity parameters. The nation's rank in the Global Innovation Index (GII) registered excellent improvements, climbing from 81 in 2015 to 38 by 2025, alongside a major expansion in absolute patent applications to 95,000. Yet, gross national expenditure on research and development (R&D) remained fundamentally stagnant, tracking from 0.70% of GDP in 2010 to just 0.85% in 2025. This low allocation represents an acute structural risk to the nation's knowledge-economy goals. Developed innovation leaders (such as the US, South Korea, Israel) consistently maintain R&D expenditures between 2.5% and 4.5% of GDP. In the absence of a major public-private co-investment architecture to drive advanced industrial research, India's innovation profile remains concentrated within application-level software design, failing to achieve deep-tier structural breakthroughs in core industrial deep-tech sectors.

## **5. INTEGRATED HR SYNTHESIS AND DISCUSSION**

The systematic integration of these multidimensional empirical findings into a unified analytical system exposes a profound structural divergence that characterizes India's human capital architecture. The velocity of aggregate economic scale expansion, internet user penetration, and digital platform adoption is vastly out-stripping the structural modernization rate of the domestic labor market, the competency levels of the broader workforce, and the retention frameworks for female talent. This intense structural mismatch creates severe macroeconomic frictions. For example, while the nation has established the world's third-largest start-up and unicorn ecosystem, this high-technology matrix behaves as an elite, high-value enclave that absorbs only a minuscule fraction of the national labor pool. The overwhelming majority of the working population remains structurally isolated within low-productivity informal contracts or subsistence agrarian roles, severely limiting the broad-based expansion of disposable corporate salaries and national savings capacity.

This asymmetric development paradigm creates critical systemic vulnerabilities as India approaches the target horizon of 2047. To achieve full developed-nation status, the

economy must execute a major structural transition into high-technology industrial manufacturing and complex global knowledge service lines. However, as the vocational training data proves, the absolute availability of formally certified, technically competent talent remains bounded at 12%. This severe deficit operates as a critical binding constraint on industrial value chain upgrading, preventing the rapid re-allocation of surplus agricultural labor into productive corporate structures. The persistent stagnation of R&D investment at 0.85% of GDP reinforces this dynamic, locking the domestic economy into an adaptation-based industrial profile rather than an original innovation-driven growth leader. Consequently, actualizing the Viksit Bharat 2047 vision cannot be achieved through a standard, linear continuation of historical training and employment models; it demands a comprehensive, strategic shift that reposition human resource management from an administrative compliance function to the core engine of national developmental policy.

## **6. STRATEGIC HR RECOMMENDATIONS AND FRAMEWORK**

To resolve these structural bottlenecks and accelerate the transformation of India's labor pool into a high-productivity, developed-tier human resource asset base, the following strategic management and policy interventions are recommended:

- **Institutionalize a National Skill Credit Architecture:** Establish an integrated, centralized national skill credit framework that formally links university education, vocational training, and corporate apprenticeships. This system must allow modular accumulation of industry-vetted competencies, enabling flexible entry and exit across vocational and academic paths, and directly reducing the corporate friction of graduate non-employability.
- **Deploy Corporate Incentives for Labor Formalization:** Deploy structured financial and fiscal incentives, including targeted tax rebates for small and medium enterprises (MSMEs), to offset the immediate compliance costs of transitioning informal laborers onto formal corporate contracts. This must be matched by the deployment of portable digital social security architecture covering health, disability, and retirement benefits across the entire gig and contract labor force.
- **Deploy Mandated Diversity Maintenance Systems:** Deploy comprehensive national mandates and corporate tax credits for the construction of comprehensive workplace gender equity systems. This includes the institutional funding of safe corporate transport lines, extensive public-private childcare hubs in industrial zones, targeted skill-reentry programs for women returning post-maternity, and rapid enforcement mechanisms for gender wage equality across all commercial tiers.
- **Establish Public-Private Co-Investment Innovation Funds:** Triple aggregate research investments to a minimum of 2.5% of GDP by launching public-private co-investment innovation sandboxes. Corporate allocations to original R&D must be heavily incentivized through deep tax credits, while institutional frameworks must mandate tight research coordination between leading academic technical universities and core industrial corporate sectors.
- **Transition to Competence-Driven Public Sector HR:** Redesign public administrative human resource architecture by shifting from rigid, seniority-based process compliance to

data-driven, outcome-based performance management systems. This requires scaling lateral entry mechanisms for domain experts into high-tier policy design roles and deploying continuous, AI-personalized capacity building across local municipal administrative bodies.

In conclusion, a rigorous, data-driven evaluation of India's macro-human resource indicators reveals a historic but highly time-bound window of opportunity. The nation possesses exceptional strategic advantages, including a vast working-age demographic bulge, an extensively deployed digital public infrastructure stack, and an accelerating entrepreneurial innovation ecosystem. However, empirical diagnostics up to 2025 demonstrate that a linear extrapolation of current labor structures will fail to cross the developed-nation high-income threshold by the 2047 centenary milestone. Persistent structural frictions—characterized by a severe deficit in formal technical training, pervasive labor informality, deep gender participation imbalances, and stagnant research intensity—operate as binding constraints that threaten to trigger the middle-income trap. Ultimately, the successful actualization of the Viksit Bharat 2047 vision will be determined by the speed and coordination with which the state and corporate sectors deploy systemic, strategic human resource overhauls that convert sheer population quantity into high-productivity, innovation-driven human capital quality.

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