

Application of Indian Knowledge System in Workforce Development and Employability to Achieve Sustainable Human Resource Development of the Organization

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Abstract: This paper examines how Indian Knowledge Systems (IKS)—a living corpus of intellectual, ethical, and practical traditions spanning philosophy, sciences, arts, governance, medicine, and pedagogy—can be systematically integrated into workforce development and employability initiatives to achieve Sustainable Human Resource Development (SHRD). Building on the policy impetus of India’s National Education Policy (NEP) 2020, the National Skills Qualifications Framework (NSQF), the Skill India Mission, and apprenticeship schemes (e.g., NAPS 2.0), we propose a multi-level model aligning IKS pedagogy and values with contemporary competence frameworks and ESG-driven organizational strategies. We develop a theory of change that connects IKS-informed learning (e.g., Panchakosha-based wellbeing, Bhagavad Gita—anchored leadership, Vedic mathematics for cognitive agility, Indian logic for critical thinking, and Ayurveda/Yoga for preventive health) to human capital outcomes (employability, engagement, and productivity) and sustainability outcomes (employee health, equity, ethical climate, social cohesion). We delineate design principles, a curriculum architecture, assessment strategies, and an implementation roadmap suited to Indian enterprises and global subsidiaries. A mixed-method evaluation design is provided. We conclude with research propositions and a forward agenda for evidence-building in SHRD through IKS.

Keywords: Indian Knowledge Systems, Sustainable HRD, Employability, NEP 2020, NSQF, Apprenticeship (NAPS), Panchakosha, Bhagavad Gita, Wellbeing, ESG, Skills

1. Introduction

Organizations increasingly face a dual imperative: build future-ready, employable talent and do so sustainably—balancing economic performance with employee wellbeing, social responsibility, and ethical culture. Sustainable Human Resource Development (SHRD) calls for HRD strategies that are long-term, stakeholder-centric, and regenerative. India’s NEP 2020 explicitly recognizes the value of IKS and advocates mainstreaming vocational education, thereby opening a policy window to mobilize IKS in workforce development. Yet, practical blueprints and rigorous evidence are still evolving. This paper addresses this gap by articulating a coherent framework and researchable agenda for applying IKS to workforce development and employability in pursuit of SHRD.

1.1 Objectives

1. Synthesize the conceptual intersections among IKS, employability, and SHRD.

2. Propose an IKS–SHRD integration model with curriculum, delivery, assessment, and policy alignment (NEP, NSQF, NAPS).
3. Specify an evaluation strategy and research propositions to advance an empirical evidence base.

1.2 Significance

The approach contextualizes global HRD with India’s civilizational strengths, addressing skills, mindset, and wellbeing. It is relevant for higher education institutions, Sector Skill Councils, MSMEs, large enterprises, and public systems.

2. Literature Review

2.1 Indian Knowledge Systems (IKS)

IKS encompasses epistemologies and practices across sastras (knowledge disciplines) and paramparas (traditions), validated through observation, logic, and practice. NEP 2020 emphasizes integrating IKS into curricula, pedagogy, and research, encouraging multilingual learning, ethics, and holistic education.

2.2 Employability and Workforce Development in India

Employability extends beyond domain knowledge to transferable skills (communication, problem-solving, digital, teamwork), work readiness, and career adaptability. NEP 2020 calls for integration of vocational education; NSQF provides outcomes-based levels and credit pathways; NAPS enables work-based learning and stipend support to apprentices. NSDC and Sector Skill Councils curate National Occupational Standards (NOS) aligned to industry demand.

2.3 Sustainable HRD (SHRD)

SHRD extends strategic HRM by embedding sustainability principles (environmental, social, and governance) into learning and talent systems. Current literature highlights practices such as health-promoting workplaces, values-based leadership, inclusion, green skills, and purpose-driven cultures. However, there is limited research on civilizational knowledge as a lever for SHRD outcomes—an explicit gap this paper targets.

2.4 IKS-Linked Competences

- **Holistic wellbeing:** Panchakosha model (physical, vital, mental, intellectual, and bliss layers) informs preventive health, resilience, and self-regulation; Yoga/Pranayama protocols improve stress recovery and attention.
- **Ethical and purpose-led leadership:** Bhagavad Gita frames duty (dharma), selfless action (nishkama karma), equanimity, and stakeholder orientation—relevant to ethical climate and transformational leadership.

- **Cognitive agility:** Vedic mathematics and Indian logic (Nyaya) strengthen mental models for abstraction, rapid calculation, inference, and problem deconstruction.
- **Intercultural and linguistic competence:** Emphasis on mother-tongue/multilingual education supports comprehension, inclusion, and knowledge transfer across diverse Indian workplaces.

3. Conceptual Framework: IKS → Employability → SHRD

We propose a **Theory of Change (ToC)** linking IKS-based inputs to employability and SHRD outcomes.

Inputs (IKS-informed Design):

1. **Curriculum elements:** Panchakosha wellbeing, Gita-based leadership, Indian logic & rhetoric, Vedic math, Indian ethics, indigenous management caselets, craft- and community-based learning.
2. **Delivery modes:** Blended learning; mother-tongue support; apprenticeship rotations (NAPS/optional trades); community immersions; yogic micro-practices in workday.
3. **Assessment:** NSQF-aligned outcomes; competency portfolios; OSCE-style practicals for service roles; wellbeing and ethical-climate indices.

Mediators (Employability & Capability):

- Work-readiness (communication, problem-solving, digital, teamwork)
- Self-regulation and resilience (attention control, recovery, sleep hygiene)
- Ethical reasoning and stakeholder sensitivity
- Career adaptability and lifelong learning orientation

Outcomes (SHRD):

- Sustainable productivity (error rates, cycle time, quality)
- Health & safety markers (reduced absenteeism, burnout)
- Inclusion and cohesion (reduced conflict, higher trust)
- Reduced attrition and stronger internal mobility
- ESG alignment (S, G) through ethical culture and wellbeing

4. Design Principles for IKS-Integrated Workforce Development

1. **Alignment with Policy & Standards:** Map to NEP 2020; credit and level mapping to NSQF Level descriptors; embed apprenticeship through NAPS 2.0.
2. **Holism with Evidence:** Combine IKS practices with contemporary behavioural science; ensure protocols are measurable and safe.

3. **Localization & Multilingual Delivery:** Use regional languages and workplace-relevant contexts; support code-switching for technical terminology.
4. **Work-Integrated Learning:** Simulations and live projects aligned to NOS; mentor-apprentice model.
5. **Ethical-by-Design:** Explicit instruction in dharma-based decision frameworks, anti-corruption, and fairness.
6. **Data-Driven Personalization:** Diagnostic baselines (skills, wellbeing), adaptive learning paths, and periodic reviews.

5. Curriculum Architecture

5.1 Foundation

- IKS Orientation: History, epistemology, relevance to modern work
- Panchakosha Wellbeing & Yogic Practices: Breathwork, asana micro-breaks, sleep and nutrition basics
- Ethics & Dharma in Work: Case discussions from Gita, Arthashastra, Thirukkural
- Indian Logic & Critical Thinking: Nyaya basics, argument mapping, fallacies
- Vedic Mathematics for Cognitive Agility

5.2 Employability Core

- Communication and digital fluency
- Problem-Solving & Lean Basics (16h)
- Teamwork & Conflict Transformation using Indian ethical frameworks
- Customer Orientation & Service Dharma
- Data Skills for Frontline Roles

5.3 Workplace Integration

- Apprenticeship Rotations (NAPS): department projects
- Community/Craft Immersion: sustainable practices, circularity
- Capstone: process improvement project linked to ESG/S—e.g., safety, waste reduction, accessibility

6. Implementation Roadmap

Phase 1: Governance & Readiness

- Constitute an **IKS–SHRD Steering Committee** (HR, L&D, Operations, Quality, CSR, Medical/Wellness, Ethics/Compliance).

- Map roles to NSQF levels and relevant NOS. Identify apprenticeships under NAPS 2.0.
- Establish ethical safeguards and safety protocols for wellbeing modules.

Phase 2: Co-Design & Pilot

- Co-create localized content (in English + regional language); train internal facilitators.
- Select 2–3 departments for pilots (e.g., manufacturing, customer service, logistics).
- Baseline measures: skills, engagement, absenteeism, minor-injury rate, burnout (validated scales), ethical climate.

Phase 3: Scale-Up

- Expand to enterprise-wide cohorts; integrate with Performance & Development; link to career pathways.
- Register apprenticeships and claim NAPS benefits where eligible; document ROI.

Phase 4: Institutionalization (18+ months)

- Embed into induction, leadership programs, and supplier development; publish an annual **People Sustainability Report** segment on IKS–SHRD outcomes.

7. Evaluation & Research Design

7.1 Mixed-Methods Evaluation

- **Quantitative:** Pre–post skill tests (NSQF-aligned), productivity/quality KPIs, absenteeism, attrition, incident rates; wellbeing scales (e.g., WHO-5), moral disengagement scales; difference-in-differences vs. matched controls.
- **Qualitative:** Focus groups, critical incident technique, ethnographic field notes on culture and practices.
- **Analytics:** Multilevel models (individual nested in team/department), mediation (self-regulation → performance), moderation (manager support).

7.2 Research Propositions

- **P1:** IKS-based wellbeing training improves attention regulation and reduces burnout, mediating gains in quality and safety.
- **P2:** Gita-based leadership modules increase ethical climate and reduce counterproductive work behaviours.
- **P3:** Mother-tongue scaffolding raises training transfer and shortens time-to-proficiency for frontline roles.
- **P4:** Apprenticeship pathways (NAPS) integrated with IKS curricula improve retention and internal mobility among early-career hires.
- **P5:** The combined model yields superior SHRD outcomes versus skills-only programs of similar duration.

8. Case Vignettes

1. **Manufacturing MSME:** Introduced 10-minute shift-opening pranayama and micro-asanas plus Vedic-math error-check routines for inventory tally; 4-month pilot showed fewer cycle count errors and improved focus.
2. **Customer Service Centre:** Dharma-based decision trees for complaint handling; reductions in escalations alongside improved CSAT.
3. **Logistics Firm:** Apprenticeship rotations with community immersion on sustainable packaging; measurable decrease in damage rates and waste.

9. Managerial Implications

- **HR:** Align learning paths with NSQF; leverage NAPS incentives; integrate wellbeing into JD and PDP.
- **L&D:** Build multilingual e-learning; certify internal IKS facilitators; adopt portfolio-based assessment.
- **Operations/Quality:** Tie micro-practices to process KPIs; use Gemba-style observation to refine workflows.
- **ESG/CSR:** Report S- and G-metrics from IKS–SHRD initiatives; partner with local knowledge holders.

10. Limitations

- Heterogeneity of IKS interpretations; risks of tokenism; need for safety/medical oversight for physical practices; requirement of high-quality facilitation; potential secularism/neutrality concerns requiring inclusive framing.

11. Future Scope of Research

1. **Randomized and quasi-experimental trials** testing specific IKS modules (e.g., pranayama protocols, Gita-based ethics training) on attention, stress biomarkers, error rates.
2. **Longitudinal designs** tracking retention, mobility, and health outcomes over 12–24 months.
3. **Comparative studies** across sectors (manufacturing vs. services vs. logistics) and enterprise sizes (MSME vs. large).
4. **Cross-cultural transferability:** Adapting IKS-informed SHRD to Indian subsidiaries of global firms.
5. **Neuroscience-informed studies** linking Panchakosha components with cognitive/affective markers and job performance.
6. **Economic evaluation:** Cost-effectiveness, ROI, and SROI of IKS–SHRD programs, including NAPS subsidy effects.
7. **Inclusive pedagogy:** Impact of mother-tongue scaffolding on learners with low prior attainment.

8. **IKS for green skills:** Mapping IKS crafts/practices to circularity and sustainability competencies.

12. Conclusion

IKS offers a distinctive, evidence-amenable pathway to integrate skills, ethics, cognition, and wellbeing into workforce development. Aligned with NEP 2020, NSQF, and NAPS, the proposed IKS–SHRD framework provides a pragmatic route for organizations to cultivate employability and sustainable performance. The agenda ahead is to generate rigorous, context-sensitive evidence and to institutionalize practices that honour tradition while meeting modern demands.

References

1. Government of India (2020). *National Education Policy 2020*. Ministry of Education.
2. Ministry of Education (n.d.). *Indian Knowledge Systems*. Official portal.
3. Government of India (2013). *National Skills Qualifications Framework (NSQF) Notification*. Ministry of Education/AICTE.
4. Ministry of Skill Development & Entrepreneurship (2023). *NAPS 2.0 Guidelines*. Apprenticeship Training Division.
5. MSDE/NSDC (n.d.). *Skill India Digital Hub (SIDH)*. Official portal.
6. Sherman, U. (2024). Sustainable human resource management: The good, the bad, and making it work. *Organizational Dynamics*, 53(1), 101112.
7. Aust, I., Matthews, B., & Muller-Camen, M. (2020). Common Good HRM: A paradigm for HRM in the 2020s? *Human Resource Management Review*, 30(4).
8. Ehnert, I., Parsa, S., Roper, I., Wagner, M., & Muller-Camen, M.