Vol-4 Issue-1 2026
Scientific Research Journal of Business, Management and Accounting
ISSN: 2584-0592, Peer Reviewed Journal

Indian Knowledge System as a Catalyst for Viksit Bharat 2047: An Economic and Sustainable Development Perspective

Arshdeep Kaur
Department of Business Management, Punjab College of Technical Education
(Affiliated to I. K. Gujral Punjab Technical University)
Email: arshdeep@pcte.edu.in

Abstract

The Indian Knowledge System (IKS) represents a vast and living body of traditional wisdom that spans education, philosophy, medicine, agriculture, governance, architecture, and environmental stewardship. As India works toward the vision of Viksit Bharat 2047 — a developed, self-reliant, and globally competitive nation by the centenary of its independence — there is growing recognition that this indigenous knowledge base can meaningfully complement modern development strategy rather than sit apart from it. This chapter examines how IKS can serve as a catalyst for Viksit Bharat 2047 from an economic and sustainable development standpoint. Using a qualitative, secondary-data-based research design, the study draws on peer-reviewed literature, government policy documents, and institutional reports to examine how indigenous knowledge intersects with education, agriculture, healthcare, rural entrepreneurship, and environmental management. It also considers key policy instruments, including the National Education Policy (NEP) 2020, the Indian Knowledge Systems Division, Startup India, Digital India, and the PM Vishwakarma Scheme, as institutional bridges between traditional wisdom and contemporary governance. The analysis suggests that combining IKS with modern science and technology can generate employment, strengthen sustainable resource management, and reinforce cultural identity, while also identifying documentation gaps, weak scientific validation, and fragmented policy implementation as persistent barriers. The chapter concludes that a deliberate, coordinated integration of indigenous knowledge into education, entrepreneurship, and public policy is central to realising a development model that is economically sound, ecologically responsible, and culturally rooted.

Keywords: *Indian Knowledge System; Viksit Bharat 2047; Sustainable Development; Indigenous Knowledge; National Education Policy 2020; Rural Entrepreneurship*

1. Introduction

India is among the oldest continuous civilisations in the world, and centuries of observation, experimentation, and lived practice have left it with an extraordinarily wide knowledge base. This body of thought and practice — commonly referred to as the Indian Knowledge System (IKS) — spans philosophy, mathematics, astronomy, medicine, agriculture, architecture, governance, economics, environmental management, and the arts. What distinguishes IKS from many modern, siloed disciplines is its integrative character: it treats scientific inquiry, ethical conduct, ecological responsibility, and human well-being as inseparable rather than competing concerns. Classical texts such as the Vedas, the Upanishads, the Arthashastra, the Charaka Samhita, the Sushruta Samhita, the Yoga Sutras, and Panini's Ashtadhyayi are frequently cited as evidence of this integrated worldview, and there is renewed interest — both academic and administrative — in bringing this heritage back into contemporary education, research, and policymaking (Government of India, 2020).

This renewed interest is closely tied to the government's Viksit Bharat 2047 vision, which aims to position India as a developed, inclusive, and globally competitive nation by the hundredth anniversary of its independence (NITI Aayog, 2023). The vision is deliberately broader than GDP growth alone; it foregrounds social equity, technological capability, environmental preservation, cultural continuity, and effective governance. Achieving these interconnected

goals arguably requires development strategy to draw as much on India's own civilisational strengths as on imported models of progress. Framed this way, IKS is not a nostalgic add-on to modern development planning but a potential source of indigenous, affordable, and culturally resonant solutions to some of India's most persistent development challenges (Sharma, 2022).

The relevance of IKS is sharpened further by the global sustainability conversation. Conventional, resource-intensive models of growth have contributed to environmental degradation, climate stress, and widening inequality in many parts of the world. Several strands of Indian knowledge — traditional water conservation, mixed cropping and seed-saving practices, community forest management, Ayurveda, and Yoga among them — embody a different orientation, one that treats responsible resource use and collective welfare as preconditions for prosperity rather than constraints on it. These practices are increasingly being revisited not only for their ecological logic but also for their capacity to generate rural livelihoods and preserve cultural heritage.

Education has been identified as the primary channel through which this integration can happen at scale. The National Education Policy (NEP) 2020 explicitly calls for weaving Indian knowledge traditions into school and higher education curricula, alongside a broader push toward multidisciplinary, experiential, and value-based learning (Government of India, 2020). This has been reinforced institutionally through the creation of the Indian Knowledge Systems (IKS) Division under the Ministry of Education, which supports curriculum development, faculty training, and research collaboration around indigenous knowledge (AICTE IKS Division, 2022). Beyond the classroom, sectors such as Ayurveda, Yoga, handicrafts, handloom, organic farming, and village industry already contribute meaningfully to employment and rural income, and government programmes such as Startup India, Digital India, Atmanirbhar Bharat, One District One Product, and the PM Vishwakarma Scheme have begun to create formal pathways for traditional knowledge to enter modern markets.

At the same time, the integration of IKS into mainstream development planning remains uneven. Much indigenous knowledge is poorly documented, its scientific basis is not always validated, research funding is limited, and intellectual property protections for community knowledge remain underdeveloped (Balasubramanian, 2021). Addressing these gaps requires coordinated effort across government, academia, industry, and local communities. Against this backdrop, this chapter examines how the Indian Knowledge System can act as a catalyst for Viksit Bharat 2047, with particular attention to its economic and sustainable development dimensions — education, entrepreneurship, agriculture, healthcare, and environmental management — and to the policy architecture that is currently trying to bring these strands together.

2. Review of Literature

Interest in the Indian Knowledge System has grown steadily in both academic and policy literature over the past five years, largely in response to NEP 2020 and, more recently, the Viksit Bharat 2047 vision. Much of this literature converges on a shared claim: that India's indigenous knowledge traditions carry practical value for contemporary problems in education, sustainability, health, and livelihoods, and not merely historical or cultural significance.

Mishra and Singh (2021) trace the historical development of IKS and argue that its exclusion from mainstream curricula over the twentieth century was less a reflection of its relevance than of colonial-era institutional choices. Their historical account is echoed by **Kumar and Kumar (2020)**, who examine IKS from a contemporary vantage point and conclude that indigenous knowledge remains directly applicable to present-day challenges in health, agriculture, and community governance, provided it is presented alongside — rather than in opposition to — modern scientific method.

A separate cluster of studies has focused specifically on the NEP 2020–IKS relationship. **Bhat (2024)** describes NEP 2020 as a potential turning point for Indian education precisely because it treats indigenous knowledge as a legitimate curricular resource rather than a symbolic gesture. Mandavkar (2025) makes a similar argument, noting that NEP 2020's emphasis on interdisciplinary and transdisciplinary learning gives institutions a formal mandate to combine traditional wisdom with modern subject matter in ways that were previously difficult to justify administratively. Gaur (2024) extends this discussion by examining how ancient sciences, languages, arts, and philosophical systems might

realistically be absorbed into existing subject frameworks without diluting either the traditional material or contemporary academic rigour.

Several studies focus on implementation rather than policy intent. **Balasubramanian (2021)** identifies curriculum reform, institutional support, and community involvement as the three preconditions for translating NEP 2020's IKS provisions into practice, and cautions that policy ambition alone will not produce integration without sustained institutional investment. **Mukherjee (2022)** approaches the same problem from a curriculum-design angle, proposing frameworks for balancing traditional and modern knowledge streams so that students gain genuine interdisciplinary competence rather than a superficial overlay of one system onto another. Complementary work by **Mehta (2021) and Nair (2021)** considers the enabling infrastructure this requires — digital tools for documenting and disseminating traditional knowledge, and structured faculty training so that educators are equipped to teach material that sits outside their own formal training. **Rao (2022)** adds that dedicated centres of excellence within universities can anchor this work institutionally, giving IKS research a stable home rather than leaving it dependent on individual faculty interest.

A distinct but related line of literature situates IKS within the broader Viksit Bharat 2047 discourse rather than education policy specifically. **Bhardwaj, Ranjan, and Sharma (2024)** examine how curriculum reform under NEP 2020 connects to India's wider public administration goals, arguing that curricular change is itself a form of institution-building relevant to long-run development planning. The edited volume by **Chakraborty, Singh, and Banerjee (2025)** brings together contributions across library and information science, education, and engineering to argue that IKS integration is not confined to any single discipline but is, in principle, a cross-cutting resource for national development. NITI Aayog's (2023) own vision document for Viksit Bharat 2047 situates cultural and knowledge heritage alongside economic growth, technology, and governance as pillars of the 2047 target, giving this literature a degree of policy grounding that purely academic studies do not carry on their own.

Taken together, this body of work establishes fairly clearly that IKS has a legitimate and growing place in Indian education policy, and that its integration is being actively debated at the level of curriculum design, faculty capacity, and institutional structure. What remains comparatively underexplored is the economic and sustainable-development dimension of this integration — how IKS-linked entrepreneurship, indigenous industry, rural livelihoods, and environmental management connect to the broader Viksit Bharat 2047 agenda, beyond the classroom. Much of the existing literature is education-centred, and empirical evidence on how traditional knowledge is being converted into commercial, agricultural, or environmental outcomes at scale is still limited. This chapter addresses that gap by examining IKS specifically through an economic and sustainable development lens, situating it alongside relevant government programmes rather than education policy alone.

3. Objectives of the Study

This chapter is guided by the following objectives:

- To examine the conceptual and philosophical foundations of the Indian Knowledge System and their relevance to India's contemporary development priorities.
- To assess the contribution of IKS to economic development, self-reliance, and rural entrepreneurship in the context of the Viksit Bharat 2047 vision.

4. Research Methodology

This study follows a qualitative, exploratory research design appropriate to a conceptual and policy-oriented inquiry. Rather than testing statistical relationships, the chapter examines the philosophical, economic, and policy dimensions of the Indian Knowledge System and its relationship to the Viksit Bharat 2047 vision. This approach is consistent with recent scholarship in this area, which has similarly relied on conceptual and documentary analysis rather than primary fieldwork (Mishra & Singh, 2021; Bhat, 2024).

Data for the study is drawn entirely from secondary sources. These include peer-reviewed journal articles, edited academic volumes, conference proceedings, and policy documents issued by the Ministry of Education, the Indian

Knowledge Systems Division (AICTE IKS Division, 2022), NITI Aayog (2023), and allied government bodies, along with the National Education Policy 2020 (Government of India, 2020) and publicly available material on the Sustainable Development Goals. Sources were selected on the basis of direct relevance to IKS, Viksit Bharat 2047, or related economic and sustainability themes, and were prioritised where they were peer-reviewed, government-issued, or published by an established academic press.

The analytical approach combines descriptive and comparative document analysis. The literature and policy material were read closely to identify recurring themes — the philosophical basis of IKS, its role in sustainable development and economic self-reliance, its place in education and entrepreneurship, and its application to environmental and public-health concerns — and these themes structure the Analysis and Discussion sections that follow. Government initiatives such as NEP 2020, the IKS Division, Mission LiFE, Atmanirbhar Bharat, Digital India, Skill India, and the Sustainable Development Goals were examined specifically for points of convergence with IKS principles, so that the study could assess where policy intent and indigenous knowledge practice already align and where gaps remain.

The scope of the study is limited to conceptual and documentary analysis; it does not draw on primary data such as surveys, interviews, or field observation, and its findings should be read as an interpretive synthesis of existing literature and policy rather than as empirically tested conclusions. Within this scope, the study adopts an interdisciplinary lens, drawing on economics, sustainability studies, public policy, education, and environmental management to build a rounded picture of how the Indian Knowledge System might support India's development trajectory to 2047.

5. Analysis

Read together, the literature and policy documents reviewed for this chapter point to several consistent patterns in how the Indian Knowledge System is positioned relative to Viksit Bharat 2047.

First, IKS is repeatedly framed as a holistic rather than narrowly economic development resource. Where conventional growth models tend to measure progress primarily through output and GDP, the literature on IKS consistently pairs economic activity with ethical governance, environmental stewardship, and social welfare (Mishra & Singh, 2021; Kumar & Kumar, 2020). This is not simply a philosophical preference; it reflects the observation that many of India's current development challenges — resource depletion, climate vulnerability, and regional inequality — are precisely the kinds of problems that a narrowly output-focused model struggles to address.

Second, the education-policy literature shows that NEP 2020 has functioned as the principal institutional lever for IKS integration to date. Bhat (2024) and Mandavkar (2025) both treat NEP 2020's multidisciplinary mandate as the practical mechanism through which IKS content can enter formal curricula, while Balasubramanian (2021) and Mukherjee (2022) show that the success of this mechanism depends heavily on complementary investment in curriculum design, faculty training, and institutional infrastructure — none of which follow automatically from policy language alone. This suggests that policy intent and implementation capacity need to be assessed separately when evaluating IKS integration.

Third, self-reliance and decentralised economic activity emerge as a recurring theme connecting IKS to national programmes. Traditional emphasis on local resource management, community-based enterprise, and ethical trade maps fairly directly onto contemporary initiatives such as Atmanirbhar Bharat, Make in India, and the PM Vishwakarma Scheme, which similarly prioritise domestic production and artisanal or craft-based livelihoods. NITI Aayog's (2023) Viksit Bharat 2047 vision document explicitly places this kind of self-reliant, locally rooted economic activity alongside technology and infrastructure as a pillar of the 2047 target, lending institutional weight to what is otherwise a largely academic argument.

Fourth, in agriculture and environmental management specifically, the literature treats traditional ecological knowledge as complementary to, rather than a substitute for, modern scientific method. Practices such as mixed cropping, seed conservation, and community forest management are consistently described as low-cost and locally adapted, with the implication that their value lies in resilience and affordability rather than in yield maximisation alone

— a distinction that matters for how these practices are best combined with, rather than replaced by, modern agricultural science.

Finally, and most consistently across the literature, documentation and validation gaps are identified as the central constraint on IKS integration. Balasubramanian (2021) and Mukherjee (2022) both note that a large share of traditional knowledge remains orally transmitted, undocumented, and scientifically unverified, which limits its credibility in policy and commercial contexts alike. This finding recurs often enough across otherwise independent studies that it can reasonably be treated as the single most binding constraint on scaling IKS-based development strategy, ahead of funding or institutional support considered individually.

6. Discussion

The Viksit Bharat 2047 vision seeks a India defined by economic prosperity, social equity, technological progress, environmental sustainability, and cultural strength (NITI Aayog, 2023). The analysis above suggests that IKS is well positioned to support several, though not all, of these goals simultaneously — which is precisely what makes it an attractive, if still underused, development resource.

In education, the case for integration is now reasonably well established in the literature and reinforced institutionally through the IKS Division (AICTE IKS Division, 2022) and NEP 2020 (Government of India, 2020). Introducing indigenous knowledge into curricula is argued to deepen students' understanding of India's intellectual heritage while supporting the multidisciplinary, critical-thinking-oriented learning that NEP 2020 more broadly promotes. Value-based education rooted in Indian philosophical traditions is also credited with supporting character development and social responsibility, which — while harder to measure than curricular content — is frequently cited as a rationale for integration in its own right (Gaur, 2024).

Economically, the discussion in the literature centres on decentralised growth, local entrepreneurship, and self-sufficiency. Traditional economic practice, with its emphasis on resource efficiency and community-based enterprise, maps onto current national initiatives — Atmanirbhar Bharat, Make in India, Skill India, Startup India, and Digital India among them — in ways that suggest economic modernisation need not come at the expense of traditional practice. If anything, the literature suggests these can be mutually reinforcing: indigenous knowledge supplies locally adapted, low-cost approaches, while digital platforms and modern branding give these approaches commercial reach they would not otherwise have.

Agricultural sustainability is treated as a particularly strong fit for this kind of integration. Traditional systems oriented around ecological balance, biodiversity, and long-term soil health — mixed cropping, organic methods, crop rotation, seed preservation, and rainwater harvesting — remain directly relevant to present-day concerns about climate resilience and food security. Combining these approaches with modern agricultural technology has the potential to raise productivity without the ecological costs typically associated with purely input-intensive farming, though the literature reviewed here does not provide strong quantitative evidence on the scale of this benefit and this remains an area where further empirical work would be valuable.

Public health offers a comparable pattern. Traditional systems such as Ayurveda, Yoga, Siddha, and naturopathy have gained wider international acceptance for preventive and holistic care, and this growing acceptance has an economic dimension — wellness tourism, herbal medicine, and related industries are increasingly significant contributors to employment and export earnings. Integrating traditional healthcare approaches with modern medical research is presented in the literature as a way to potentially lower healthcare costs while improving preventive outcomes, though again the evidence base for this claim in the Indian context specifically is still developing.

Environmental management is where IKS's community-based orientation is most visible. Practices such as sacred groves, traditional irrigation systems, and community-led forest management demonstrate how local knowledge has historically supported ecological resilience, often at lower cost than centrally administered conservation programmes. Incorporating these practices into environmental policy could plausibly support India's broader climate commitments, though doing so systematically would require the kind of documentation and validation effort identified earlier as the field's central constraint.

Two structural challenges recur throughout this discussion. The first is documentation and scientific validation: much traditional knowledge remains oral, at risk of being lost through rapid urbanisation, and not yet subject to the kind of systematic verification that would let it be confidently scaled through policy or commercial channels (Balasubramanian, 2021). The second is the underlying perception — still present in parts of both policy and public discourse — that traditional and modern knowledge systems are in tension with one another. The literature reviewed here consistently pushes back against this framing, arguing instead that scientific method can validate and refine traditional practice while indigenous knowledge supplies locally appropriate, affordable solutions that pure technology transfer often lacks. Related to this is the question of commercialisation: traditional medicinal knowledge, handicrafts, and biodiversity-based innovation carry real commercial value, but only if intellectual property protection, benefit-sharing arrangements, and geographical indication registration are strengthened enough to prevent misappropriation and ensure that originating communities actually benefit.

7. Findings and Recommendations

7.1 Findings

- IKS offers a genuinely holistic development framework — one that pairs economic activity with environmental care, social equity, and cultural continuity — that is distinguishable from conventional growth-first development models (Mishra & Singh, 2021).
- NEP 2020 has functioned as the primary policy mechanism enabling IKS integration into education, but its success depends on complementary investment in curriculum design, faculty training, and institutional infrastructure rather than policy language alone (Bhat, 2024; Balasubramanian, 2021).
- IKS-linked self-reliance and decentralised entrepreneurship align closely with existing national programmes — Atmanirbhar Bharat, Make in India, Skill India, and the PM Vishwakarma Scheme — suggesting real, if still underexploited, synergy between indigenous knowledge and current economic policy (NITI Aayog, 2023).
- Traditional agricultural and ecological practices remain relevant to climate resilience and food security, and can plausibly complement — rather than be replaced by — modern agricultural science.
- Traditional health systems such as Ayurveda and Yoga carry economic potential through wellness tourism, herbal medicine, and preventive healthcare, though the evidence base quantifying this potential in the Indian context remains limited.
- Documentation gaps and limited scientific validation are the most consistently cited constraint on scaling IKS-based development strategy, ahead of funding or institutional support taken individually (Balasubramanian, 2021; Mukherjee, 2022).
- Intellectual property protection and benefit-sharing arrangements remain underdeveloped relative to the commercial potential of traditional medicinal knowledge, handicrafts, and biodiversity-based innovation.

7.2 Recommendations

- Educational institutions should embed IKS across disciplinary curricula, supported by dedicated faculty training programmes, so that indigenous knowledge is taught with the same rigour as other subject matter rather than as a supplementary module (Nair, 2021; Mehta, 2021).
- Universities should establish dedicated interdisciplinary research centres for IKS, along the lines proposed by Rao (2022), to give this work an institutional base and to support systematic scientific validation of traditional practices.
- Government bodies should prioritise the digitisation and documentation of indigenous agricultural, medicinal, and ecological knowledge before intergenerational transmission gaps widen further, in partnership with local communities and research institutions.

- Policy support for IKS-linked entrepreneurship should be strengthened through targeted incubation funding, particularly in Ayurveda, organic farming, handicrafts, and eco-tourism, alongside stronger intellectual property and benefit-sharing frameworks to protect originating communities.
- Traditional ecological knowledge — community forest management, traditional irrigation, and water conservation practices — should be more systematically incorporated into national environmental and climate policy rather than treated as a supplementary or symbolic reference point.
- A coordinated national effort across government, academia, industry, and local communities is needed to move IKS from a largely policy-level commitment to a practically implemented one, with clearer accountability for documentation, validation, and commercialisation outcomes.

8. Conclusion

This chapter has examined the Indian Knowledge System as a potential catalyst for the Viksit Bharat 2047 vision, focusing specifically on its economic and sustainable development dimensions. The evidence reviewed suggests that IKS offers a genuinely distinctive development resource — one that pairs economic activity with environmental responsibility, social equity, and cultural continuity, rather than treating these as competing priorities — and that this orientation is already partially reflected in national programmes such as NEP 2020, Atmanirbhar Bharat, and the PM Vishwakarma Scheme. At the same time, the analysis points clearly to unfinished work: much indigenous knowledge remains undocumented and scientifically unvalidated, institutional support is uneven across sectors, and intellectual property protections have not kept pace with the commercial potential of traditional knowledge. Realising IKS's contribution to Viksit Bharat 2047 will depend less on further reaffirming its relevance — which the literature now does fairly consistently — and more on the harder, less visible work of documentation, validation, faculty capacity-building, and coordinated policy implementation across government, academia, industry, and local communities. Approached this way, India's traditional knowledge heritage is not simply a cultural inheritance to be preserved, but a strategic resource that, if systematically integrated with modern science and public policy, can meaningfully support a development path that is economically competitive, environmentally sustainable, and culturally rooted.

References

- AICTE IKS Division. (2022). *Indian knowledge systems initiatives*. Indian Knowledge Systems Portal. https://iksindia.org
- Government of India. (2023). *Viksit Bharat @2047: Voice of youth*. Government of India. https://www.pmindia.gov.in/en/news_updates/pm-to-launch-viksit-bharat-2047-voice-of-youth-on-11th-december/
- Government of India, Ministry of Education. (2020). *National Education Policy 2020*. https://www.education.gov.in/sites/upload_files/mhrd/files/NEP_Final_English_0.pdf
- International Labour Organization. (2023). *World employment and social outlook: Trends 2023*. International Labour Organization. https://doi.org/10.54394/SNCP1637
- Mandavkar, P. (2025). Indian Knowledge System (IKS) and National Education Policy (NEP-2020). *SSRN*. https://doi.org/10.2139/ssrn.5205032
- Organisation for Economic Co-operation and Development. (2023). *Education at a glance 2023: OECD indicators*. OECD Publishing. https://doi.org/10.1787/e13bef63-en
- UNESCO. (2021). *Reimagining our futures together: A new social contract for education*. UNESCO. https://unesdoc.unesco.org/ark:/48223/pf0000379707
- United Nations. (2015). *Transforming our world: The 2030 agenda for sustainable development*. https://sdgs.un.org/2030agenda
- United Nations Development Programme. (2022). *Human development report 2021/2022: Uncertain times, unsettled lives*. UNDP. https://hdr.undp.org/content/human-development-report-2021-22
- United Nations Educational, Scientific and Cultural Organization. (2022). *Knowledge-driven actions: Transforming higher education for global sustainability*. UNESCO. https://unesdoc.unesco.org/ark:/48223/pf0000380519

- World Bank. (2023). *World development report 2023: Migrants, refugees, and societies*. World Bank. https://doi.org/10.1596/978-1-4648-1941-4
- World Economic Forum. (2023). *The future of jobs report 2023*. World Economic Forum. https://www.weforum.org/publications/the-future-of-jobs-report-2023/
- Sharma, P., & Gupta, D. (2023). Traditional knowledge and innovation: Building resilient economies through Indian Knowledge Systems. *International Journal of Innovation Studies, 7*(4), 312–326. Journal homepage: https://www.sciencedirect.com/journal/international-journal-of-innovation-studies (specific article not located)
- Kumar, A. (2023). Indian Knowledge Systems and sustainable development: A framework for higher education. *International Journal of Indian Culture and Business Management, 30*(2), 185–201. Journal homepage: https://www.inderscience.com/jhome.php?jcode=ijicbm