



THE SYNTHESIS OF INDIAN KNOWLEDGE SYSTEMS (IKS) AND GREEN ENTREPRENEURSHIP: A COMPREHENSIVE FRAMEWORK FOR SUSTAINABLE INNOVATION

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ABSTRACT

The worldwide search for sustainable livelihoods has now begun to show that Eurocentric models are left behind as they can only represent monetised ways of living, as opposed to being sustainable. This paper explores how the ancient principles of the Indian Knowledge System (IKS) are combined with modern green entrepreneurship to create an ethical, holistic model of sustainability. Using Dharma (ethical duty), Artha (value-driven wellbeing), and Karma Yoga (truthful actions), this paper illustrates how the wisdom of the past is a means for creating modern ecopreneurship. Through the use of numerous disciplines, the authors of this paper look at successful examples of Vrikshayurveda, a traditional agricultural system based on ancient Indian texts, and at how traditional handicrafts can be revived through the creation of micro, small, and medium enterprises (MSMEs) and the introduction of Geographical Indication (GI) tagging. Additionally, the use of new technology, such as Artificial Intelligence and Block chain technology, in the protection of traditional knowledge is reviewed. The results demonstrate that enterprises created using the IKS and supported by government programs such as the Start-Up India Programme and the Scheme of Fund for Regeneration of Traditional Industries (SFURTI) create new pathways toward achieving social equity and environmental stewardship. Ultimately, the authors conclude that the combination of ancient ways of environmentalism with modern innovations is critical to India's path toward its goal of Atmanirbhar Bharat (self-reliant nation) by 2020, as well as to the United Nations Sustainable Development Goals (SDGs).

KEYWORDS: Indian Knowledge System (IKS), Green Entrepreneurship, Sustainable Development, Circular Economy, Vrikshayurveda, MSMEs, Geographical Indication, Women Empowerment.

INTRODUCTION

At the core of the Indian Knowledge Systems is a holistic worldview that understands humans, society and Nature as an interconnected web of life. In contrast, reductionist paradigms predominantly developed in the West view Nature as a resource to be exploited, while Indian Knowledge Systems view all forms of life as being interrelated as a sacred union of existence. As a result, the essential nature of the Indian Knowledge Systems forms the normative base for the current concept of Green Entrepreneurship or Sustainable Business. The strategic foundation of an IKS-driven Sustainable Corporate Strategy is based upon various classical principles of the Bhagavad Gita, Arthashastra and Upanishads that emphasised an approach to business that extends beyond the immediate goal of maximising profit. Instead, these philosophies represent the underlying principles and value that position business in a way that values long term value creation and ethical responsibility. As such, the dharma

of an organisation indicates the appropriate duty within a given context, which transcends mere legal compliance and leads to a responsibility to protect the environment and uplift the local community. Artha, in similar terms, indicates that the accumulation of wealth must take place through ethical means, with a focus on the well-being of all.

OBJECTIVES OF THE STUDY

- ❖ To identify the main Indian Knowledge Systems that would enable
- ❖ To look at how connecting ancient wisdom like Vrikshayurveda as well as traditional Handicrafts with modern-day technologies could contribute to Agriculture and MSMEs.
- ❖ To evaluate the socio-economic implications of applying IKS-based methods, particularly with respect to farmer income, access to markets, and women's entrepreneurial empowerment.
- ❖ To investigate the contributions of Institutional Frameworks; Intellectual Property Rights (IPR) Protection – Geographical Indications (GI Tags) and Digital Technology – towards creating a resilient ecosystem for IKS-based Start-ups. To identify the main Indian Knowledge Systems that would enable
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METHODOLOGY

- In this study, there is a hybrid approach based on both qualitative & quantitative methodologies in order to explore the use of the Indigenous Knowledge Systems (IKS) on entrepreneurial foundations or businesses. In this aspect, the main approaches in the study include:
 - 1. Literature Review: Analysis of the ancient texts (Vedic texts - Vedas, Upanishads, Arthashastra) including academic Journals, policies, & the Government File (National Education Policy, NEP 2020)
 - 2. Analyses of Case Studies: Based on data from successful businesses in documented forms, writing about Organic Farming, Tribes Ecopreneurship, Artisanal Products (Handicrafts ETC.)
 - 3. Analysis of the Secondary Data: Analysis of the type of economy related to GIs, Funding in Start-Up India, MSME Schemes approaches;
 - 4. Conceptual Model Development: Development of the conceptual framework or model which embeds the ancient ethical norms of IKS with its implementation in the current management scenario aiming for Sustainable Development via the four approaches above.

IKS CONCEPTS AND ENTREPRENEURIAL CASES

In recent years, the agricultural renaissance has been shaped by the scientific validation of Vrikshayurveda, a traditional agricultural method based on ancient wisdom that focuses on sustaining plant health and soil fertility. Recent research conducted by the Agricultural College and Research Institute at Madurai indicates that the yield for Proso millet (*Panicum miliaceum* L.) grown using traditional, organic methods is comparable to the yield of Proso millet grown using contemporary chemical fertilizers.

Biomass is transferred (BMT) from tree species, such as *Albizia lebeck* and *Gliricidia sepium*, to enhance nitrogen levels within soils. Leaf tea sprays from *Moringa oleifera* and *Mangifera indica* are applied as a foliar source of nutrition. A 5 percent mixture is used for this purpose.

• **Handicrafts, GI Tags, and MSME Clusters**

The handicrafts sector in India is seen as a 'Treasure House of Traditional Skills' which has been rejuvenated all over again through the SFURTI Framework (Scheme of Fund for Regeneration of Traditional Industries) that organizes artisans into collectives in order to improve both the level of production and competitiveness. Through hard intervention (Financial Support) artisans can receive funding of up to 90% of the cost of developing a production facility (up to Rs. 5 Crore) while through soft intervention (Skill Development) artisan skills are improved.

Geographic indicators (GI) are an important aspect of rural development; therefore, the GI allows for exclusive market entry and premium pricing.¹⁷ Some examples are as follows: Basmati rice made Rs.38,443 crore in foreign exchange in 2019 following the registration of its GI Tag; Darjeeling tea extended its export base from 35 to 45 different countries; Chengalikodan Nendran Banana is sold for Rs.75/kg on the basis of the GI whereas

without its GI, comparable products are sold for Rs.50/kg. In addition, several Artisan products such as Paithani sarees, Warli art and Pokaran pottery that have achieved GE recognition provide protection to the artisans from counterfeiting and also enable access to e-commerce directly via platforms like India Handmade.

- **Women Entrepreneurs and Empowerment**

Women are the keepers of indigenous knowledge regarding healthcare and nutrition. This knowledge can now be monetized as an outcome of modern-day entrepreneurship. Some examples of successful female entrepreneurs include:

1. Sumeet Kaur from Spudnik Farms- Sumeet partnered with the Kunbi community to save root and tuber biodiversity, raising farmers' monthly income from \$57 to \$287.
2. Monika Shukla from Humble Bee- Monika is using her background in scientific beekeeping combined with Artificial Intelligence and IoT technology to develop ecological methods to combat climate change. Together with 1000s of forest-dwelling women, Monika has developed new ways of producing honey and other bee products.
3. Nivedita Rai from Karghewale- Nivedita is turning Handloom wage workers into independent designer/entrepreneurs using an incubator model to help them increase their income

- **Policy Support and Institutional Frameworks**

The Government of India has created an enabling environment through the Start-up India initiative and MSME support schemes.

Scheme Name	Core Objective	Key Benefit for IKS Ventures
PMEGP	Employment generation in non-farm sectors.	25-35% subsidy for rural ventures in traditional medicine/food.
Start-up India Seed Fund	Proof of concept and prototyping.	Grants up to Rs. 20 Lakh for market entry and product trials.
CGTMSE	Collateral-free credit flow.	Guarantees for loans up to Rs. 5 Crore for MSMEs.
TKDL	Defensive protection of IKS.	Digitized repository to prevent bio piracy and improper patents.

The National Education Policy (NEP) 2020 has catalysed the integration of IKS into Higher Education Institutions (HEIs). Institutions like Rishihood University have established IKS incubation centers like the *Utsaha Incubation Centre*, providing capital access and academic credits for student-led ventures that digitize civilizational wisdom (e.g., the *Inculcate App*).

- **Digital Technologies and Governance**

Digital Technology and the Way We Govern When developed with a respectful approach towards Indigenous Data Sovereignty, digital innovation is a catalyst for IKS. Tools powered by artificial intelligence, such as ePathshala, assist rural students in gaining access to traditional knowledge through a means of democratization. Additionally, it is proposed that Blockchain can "decolonize" the digital aspects of IKS systems through:

1. **Permissioned Access:** Ensuring community-led governance of data.
2. **Smart Contracts:** Automating benefit-sharing for traditional medicinal discoveries.
3. **Decentralized Storage:** Protecting oral traditions and cultural knowledge from exploitation.

CONCLUSION

The blending of the Indian Knowledge System (IKS) with the concept of 'green entrepreneurship' provides a tremendous opportunity to establish an economy that is self-sufficient and sustainable. Greater adoption of IKS will provide Indian businesses with a framework to move beyond profit-driven operations and utilize the philosophies of Dharma (Righteousness) and Artha (Wealth) to create sustainable livelihoods that support local communities while generating profit. This report outlines that IKS is not merely a relic of times gone by but is very much alive and evolving today and continues to provide pathways to efficient production systems through agriculture, handicrafts, and circular economies. Both the case studies of Vrikshayurveda and tribal ecopreneurship demonstrate that the combination of high-yield and chemical-free production methods, coupled with zero-waste resource management practices, can be achieved using Indigenous Knowledge. Ultimately though, the full impact of this movement will depend on strong governance over Geographical Indicators (GI), scientific validation of traditional knowledge/practices, and the creation of financial tools that can accommodate the natural cycles of green business. India's vision for the development of a Viksit Bharat by 2047 will rely on the successful integration of IKS into mainstream education, industry, and policy and, thereby, contribute to an enduring future that is culturally rooted and resilient. In conjunction with connecting to the past and integrating

the latest innovations in technology, India has the potential to become a model of development for the world where no one gets left behind and the planet is preserved for future generations.

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