Advances in Consumer Research
https://acr-journal.com/
Volume-3 | Issue-1 | Jan 2026
Original Researcher Article

Indian Knowledge System in contemporary economy: A Critical Analysis

Dr. Priyanka Bhaduri[1]
1Assistant Professor, St. Xavier's University, North 24 Parganas, Kolkata, West Bengal
Email ID : priyanka.bhaduri2016@gmail.com

ABSTRACT
Indian Knowledge Systems (IKS) are systems that have deep and long held traditions of Indian philosophical, cultural, and scientific tradition, and they offer a holistic method, to unite ethical values, sustainability and social welfare with economic activity, and thus have become highly applicable in the the modern economic environment. This paper is critical by exploring how the Indian Knowledge Systems can help solve the current economic problems that include environmental degradation, socio-economic inequality, and unsustainable growth patterns. The researcher employs a qualitative and analytical approach in the form of second hand data gathered via academic literature, policy reports and institutional reports. To determine the relevance and applicability of IKS principles in the current economic structures, content analysis and comparative analysis will be used. The paper will evaluate the role of IKS in sustainable and inclusive development, explore its role in innovation and entrepreneurship, and outline the most significant issues concerning commercialization, institutional integration, and protection of intellectual property. The results show that Indian Knowledge Systems can play a valuable role in ethical governance, community-based entrepreneurship, resource-efficient activity, and inclusive development of industries (agriculture, healthcare, education, and MSMEs). Nevertheless, structural and policy-based implications still restrict their massive incorporation into the mainstream economy. The research finds that, through specific policy backing, institutional coordination, and learning reforms, Indian Knowledge Systems can be used to supplement the modern day economic models and lead to sustainable and equitable development in the long run.
Keywords: Indian Knowledge Systems, Contemporary Economy, Sustainable Development, Inclusive Growth, Ethical Governance, Policy Integration

1. INTRODUCTION:

1.1 Background and Significance of Indian Knowledge Systems (IKS)

Indian Knowledge Systems (IKS) can be described as a holistic and integrated method of perceiving the world, which has its roots in the ancient Indian traditions that were developed over thousands of years. These systems cover a range of intellectual areas of philosophy, economy, government, medicine, science and farming, and even has intellectual roots in classical works like the Vedas, Upanishads and Artha shastra, and traditional disciplines such as Ayurveda, Yoga, and ecological farming techniques. In the past, IKS was focused on whole-person development through material prosperity and spiritual welfare, moral behavior, and social harmony where the economy was developed in accordance with the principles of ethical wealth generation, communal good, and sustainable development. The Artha shastra specifically provides an advanced structure of statecraft, trade, taxes, justice and distribution of wealth worthy of consideration to solve modern day issues associated with resource management, sustainability and inclusive growth. The applicability of IKS has acquired a new dimension in the current world where India is struggling to deal with the rapid growth of the economy, environmental degradation, global warming, and the increasing socio-economic inequality within India. The recovery and assimilation of IKS is nowadays seen as the steps to sustainable development and economic independence, which is supported by the National Education Policy (NEP) 2020 that recommends the integration of indigenous knowledge into educational and policy-making. By providing an alternative to mechanistic and profit-oriented economic models, IKS offers the balanced paradigm to combine economic growth and economic development with ethical values, environmental sustainability and social welfare.

1.2 Conceptual Framework of Indian Knowledge Systems

The conceptual framework of Indian Knowledge Systems (IKS) relies on an integrative and holistic worldview of knowledge as holistic, value-based and goal-oriented, as opposed to being fragmented or utilitarian. This model is rooted in Purusharthas; Dharma (righteousness and moral obligation), Artha (material prosperity), Kama (well-being and fulfilment) and Moksha (liberation) that are to be considered together in the effort of achieving balanced development of people and the society. This paradigm does not only hold that economic activity is not an isolated process of the accumulation of wealth but rather a moral and social activity with the collective good, sustainability and harmony with nature as its main vision. IKS emphasizes the concept of Dharma as the moral foundation of the government, trade, and economic decision making that ensure justice, responsibility and social responsibility and Artha justifies material prosperity in moral and environmental terms. There is also an idea of Lokasangraha (welfare of the society) in the

framework which incorporates communal based economic formulations, cooperative type institutions and integrative development which pays more attention to social equity and not excessive individualism. Moreover, IKS recognizes the natural unity between human and nature, promotes sustainable utilization of resources, environmental sustainability and intergenerational accountability that can be effectively associated with the current ideas of sustainable and circular economies. IKS knowledge transmission process involves experiential and oral traditions, textual and practical application, which enhance the inseparability of theory and practice. It is an alternative approach to mechanistic and profit-oriented models of the modern economic environment because it brings the notion of ethical governance, social justice, ecological balance, and economic efficiency. The IKS framework presents a generalized solution to some of the modern challenges such as environmental degradation, inequality, and unsustainable development by introducing moral values and sustainability to the economic processes and thus, offers a culturally grounded yet internationally applicable format of engaging and transforming the economic process in an inclusive and sustainable way.

1.3 Review of Literature

The latest study of the Indian Knowledge Systems (IKS) has managed to pay an increasingly greater attention to their applicability to the contemporary economic, social, and environmental problems and cease to be restricted to the strictly historical or philosophical commentaries. According to researchers such as Radhakrishnan (2021) or Nanda (2022), IKS provides a complete system of sustainable development because of the fact that ethical values, ecological balance, and community welfare are taken into account when making the economic decision. Sharma and Gupta (2021) underline the fact that there are raised matches between the traditional ecological knowledge and the modern sustainability goals, particularly in the sphere of organic farming, water management, and biodiversity protection. Kumar (2022) and Misra (2023) discuss implications of the National Education Policy (NEP) 2020 by suggesting that national policy-making about institutionalizing IKS in the form of curriculum reforms and research centres may stimulate indigenous innovation, indigenous entrepreneurship and skills development based on local knowledge traditions. The article by Patel and Deshpande (2022) discusses the economic potential of the Ayurveda, yoga, handicrafts, and wellness tourism sectors depending on the IKS with the theme of providing contributions to the employment conditions and rural development, though it is a significant issue that it is over-commercialized, and the authenticity has been compromised. Recently, classical texts such as the Artha shastra have been reinterpreted by Rangararajan (2021) and Iyer (2023), on why they are applicable to current economic governance, government finance and welfare-state policies. However, despite acknowledging the economic opportunities of IKS, such researchers as Sen and Rao (2022) note that the problem of standardization, scientific validation, intellectual property, and ethical appropriation do not go away. In total, the argument according to which Indian Knowledge Systems may be adopted in the efficient manner to develop sustainable and inclusive economic solutions is upheld by the recent literature, yet, it also underscores the need to adopt critical frameworks, which would allow balancing between tradition and modern economic realities.

1.4 Research Gap

Although the literature on the cultural, philosophical and sustainable worth of the Indian Knowledge Systems (IKS) is growing, there is little empirical and critical studies on how the Indian Knowledge Systems can be effectively incorporated into the modern economic system. The majority of the available literature addresses individual sectors (education, agriculture, or healthcare) without providing complete research to identify the relationship between IKS and contemporary economic policy, government and market dynamics. Also, the critical assessment on the issues of commercialization, scalability, intellectual property rights, and ethical incorporation of IKS in the globalized economy is lacking. Through this research, there are gaps that are attempted to be filled by critically looking at the role and relevance of Indian Knowledge Systems in influencing sustainable and inclusive economic development in the modern setting.

1.5 Objectives of the Study

The purpose is to investigate critically the topicality of Indian Knowledge Systems (IKS) in the framework of modern economy.

To examine how Indian Knowledge Systems can be used to achieve sustainable, inclusive and ethical economic development.

To discover the major opportunities and challenges in incorporating Indian Knowledge Systems in the contemporary economic and policy systems.

Indian Knowledge Systems and Economic Thought

2.1 Historical Evolution of Economic Ideas in IKS

The economic thought of the Indian Knowledge Systems (IKS) has a rich and complex view of the wealth, production, and social welfare that grew through the course of the centuries. Economic life during the early Vedic period was mainly agrarian and pastoral, tightly bound up with social and ritual life, and where wealth was considered a measure of general well-being, social harmony, and moral duty and not simply a matter of material accumulation. Ideas like Dana (giving charity), Yajna (exchanging sacrifices) and Rta (cosmic order) emphasized on ethical sharing of assets and interdependence in the society. With Indian society moving into the later Vedic and post-Vedic periods, the economic thought became formalized along with urbanization, growth of trade, and the development of organized state systems. Classical works like the Dharma shastras and the Artha shastra states specific rules concerning taxation and the management of trade and labour, the prices and the social welfare of people and the promotion of productive economic activity and enterprise involving individuals. The medieval economic thought further developed in terms of the guild-based production system, the local market, and the vast inland and sea-based

network of trade that was underpinned by the indigenous business ethics and accounting practices. Through these stages of history, Indian Knowledge Systems continued to reflect a strong focus on combining economic action with moral action (Dharma), social responsibility, and environmental equilibrium which illustrates the general dynamism, practicality, and adaptation to varying socio-economic realities of Indian economic thought, without sacrificing its conservative, holistic and value-oriented nature.

2.2 Philosophical Foundations: Dharma, Artha, and Sustainable Wealth

Indian Knowledge Systems (IKS) have their philosophical underpinnings that offer a unique approach to the study of economic activity via the interlinked notions of Dharma and Artha that come together to create the notion of sustainable and ethical wealth. Dharma is moral duty, righteousness and social responsibility which is the ethical pillar that guides individual behaviours, institutional behaviours and state governance. In the economic sense, Dharma makes sure that creation of wealth and consumption are subjected to justice, fairness and care about the well-being of the society thus avoiding exploitation, inequality, and ecological destruction. Artha is on the other hand, the material prosperity, economic resources and livelihood, and is considered a right and needful endeavour of individuals and societies. IKS, however, does not encourage the pursuit of Artha without restraints or limit; this is because Dharma is put to the forefront whereby economic prosperity is not only judged by accumulation or profit but also by its role in promoting social stability, environmental balance and the common good. This philosophical stance encourages moderation, conscientious consumption, and just allocation of resources and the prosperity must bring positive change to the human welfare without jeopardizing the ecological environment and the future generations. This balance is promoted in classical Indian writings and traditions and emphasized by the fact that economic activity should be based on the larger aims of social harmony and moral order. These philosophical underpinnings provide a promising alternative to profit-focused schools of thought in the present-day economic environment, and by incorporating ethics, sustainability, and social responsibility into the endeavour of pursuing wealth, these philosophical foundations bolster the applicability of Indian Knowledge Systems to the present-day economic issues**.**

2.3 Indigenous Economic Institutions and Practices

The Indian Knowledge Systems (IKS) were indigenous economic institutions and practices that were founded on community-based, ethical, and sustainable types of economic organization, and developed over centuries. The local assemblies (sabhas), guilds (shrenis) and the production systems of the villages were the main institutions that indicated that the traditional institutions were in charge of controlling the trade, production standardization, quality control, commercial disputes and protecting the interests of producers and consumers. The shreni system comprised of well organised groups of artisans and merchants, had guidelines on ethical behaviour, mutual support structures and shared responsibility thus facilitating economic stability, skill-building and social integration. At the village level indigenous economic activities were focused upon self-sufficiency based on collective control of land, water, forests and other communal resources assisted by collective agriculture, labor exchange, and traditional credit systems. These generated resilience, risk-sharing, and equal resource access coupled with reduction of environmental degradation with localized and sustainable production processes. Trade networks, be it regional, or long-distance, were based on relationships of trust, moral rules and culture-conditioned contractual duties but not on pure profit motives. All in all, the indigenous economic institutions in IKS reveal that the goal of economic efficiency, social welfare, and ecological balance were integrated flexibly and could be used as a good example in creating decentralized, inclusive, and sustainable economic models in the modern setting.

2.4 Ethical Dimensions of Economic Activity in IKS

The morality of the Indian Knowledge Systems (IKS)-based economic activity is anchored in the concept that the economic activity must be carried out under the impact of the moral responsibility, social justice, and interest in the common good rather than maximization of profits. The central theme that is held by this ethical paradigm is the idea of Dharma that is implemented in the activity of the individuals, business processes and state policies, to be just, straightforward and accountable in economic activities. IKS emphasizes that wealth creation should be done in the righteous methods and directed to the advantage of the society, and he is against wealth exploitation, hoarding and unethical accumulation of wealth. Dana (charitable giving), Aparigraha (non-possessiveness) and Lokasangraha (welfare of all) assist in supporting the moral imperative of people and organizations to redistribute wealth, assist the needy and help achieve social harmony. The fair pricing, fair wages as well as honest trade, caring about consumers as well as labour are also part of the ethical business practice in IKS which can be seen as showing the care taken on human dignity and social equity. Moreover, environmental stewardship is also enforced by the moral philosophy to encourage the responsible consumption of the natural resources and oneness with the nature to ensure the intergenerational sustainability. The Indian Knowledge Systems combine morals and economic action and offer a value-based measure against the profit-oriented economic attitudes and that neither long-term prosperity might be attained without moral honesty and social and ecological accountability.

3. RESEARCH METHODOLOGY

3.1 Research Design

The research design chosen in the study is descriptive and analytical research design to critically assess the applicability of Indian Knowledge Systems in the modern economic environment. Theoretical and policy-related dimensions are interpreted with the help of both qualitative and conceptual approaches.

3.2 Sources of Data (Primary and Secondary)

The research findings are mainly founded on a secondary

data obtained in academic journals, books, policy documents, government reports and research publications on the topic of Indian Knowledge Systems and economic thought. The scholarly discussions and institutional reports also provide limited conceptual inputs.

3.3 Scope of the Study

The study is restricted to the examination of economic relevancy of Indian Knowledge Systems in the modern India with specific reference to sustainability, governance and indigenous economic practice. The analysis lacks empirical field surveys and the study is based on conceptual and analytical interpretation.

3.4 Analytical Framework

The analytical framework is based on the principles of Indian Knowledge Systems, especially, the Dharma, Artha, sustainability and ethical governance to determine how they are compatible with the contemporary economic framework and development objectives.

Tools and Techniques of Analysis

Qualitative content analysis, comparative analysis, and critical review are the methods used in the study. Thematic analysis, comparative matrices and conceptual framework analysis are the tools utilized in interpreting literature, policy documents as well as theoretical perspectives on Indian Knowledge Systems and the contemporary economy.

Analysis of Indian Knowledge Systems in the Contemporary Economy

4.1 Sector-wise Application of IKS

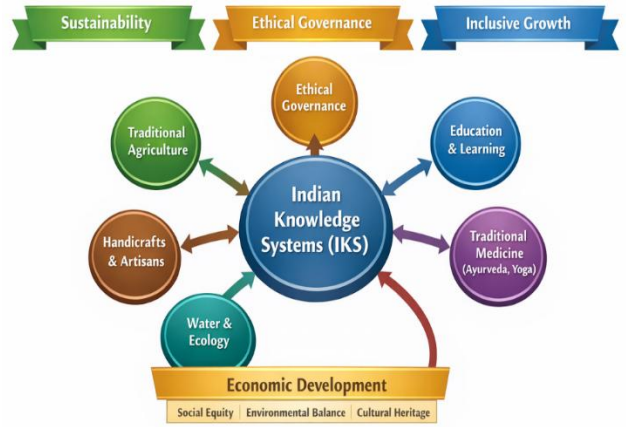
Indian Knowledge Systems (IKS) have become more and more relevant in many areas of the modern economy providing the sustainable, ethical, and inclusive alternatives to the traditional development patterns. Applications of IKS can also be sector-wise in agriculture, healthcare, education, handicrafts, environmental management and wellness industry whereby traditional knowledge has been transformed to suit the modern economic demands. As shown in Table 4.1,

Table 4.1: Major Domains of Indian Knowledge Systems and Economic Relevance

Domain of Indian Knowledge Systems	Key Traditional Practices	Contemporary Economic Relevance
Agriculture and Food Systems	Organic farming, crop rotation, natural fertilizers, seed preservation	Sustainable agriculture, climate-resilient farming, organic food markets
Healthcare and Wellness	Ayurveda, Yoga, Siddha, herbal medicine	Wellness industry, preventive healthcare, medical tourism
Handicrafts and Artisan Industries	Handloom weaving, pottery, metalwork, indigenous crafts	Employment generation, rural entrepreneurship, export promotion
Environmental Management	Traditional water harvesting, forest conservation, eco-friendly architecture	Sustainable infrastructure, environmental conservation, climate adaptation
Education and Knowledge Transmission	Gurukul system, oral traditions, experiential learning	Skill development, value-based education, indigenous innovation
Governance and Economic Ethics	Dharma-based governance, Artha shastra principles	Ethical governance, inclusive economic policy, welfare-oriented development

significant economic implication of the major areas of Indian Knowledge Systems could be seen in terms of the contribution to employment creation, sustainable resource utilization and local entrepreneurship. Traditional agricultural methods focus on organic agriculture, crop diversity and conservation of natural resources and reflect the current goals of climate-resilient and sustainable agriculture, and traditional healthcare is becoming a globally recognized industry that provides health services, wellness tourism, and economic development through traditional Ayurveda and Yoga. On the same note, IKS-based handloom and artisanal industries sustain rural livelihoods, maintain cultural heritage, and encourage ecologically friendly production systems. The traditional knowledge in water management, architecture and ecological conservation also provides solutions to the modern infrastructure and environmental issues, which are cost effective and sustainable. The interrelation of these sectoral applications is also conceptualised in Figure 4.1 where the Indian Knowledge Systems and the contemporary economic systems are interacting to achieve ethical governance, sustainability and inclusive development. All these applications in the industry allow seeing the flexibility and modern applicability of IKS as a supplementary economic model that can respond to the requirements of modern development without sacrificing social justice and environmental sustainability.

Figure 4.1: Conceptual Framework of Indian Knowledge Systems and Economic Development



The figure shows how Indian Knowledge Systems (IKS) can offer a combination of the traditional knowledge field and ethical governance and sustainability to enhance the inclusive, balanced, and long-term economic development.

4.2 Role of Indian Knowledge Systems in Sustainable and Inclusive Development

Indian Knowledge Systems (IKS) are important in facilitating a sustainable and inclusive development through the integration of economic activities into ethical, social and ecological systems. Based in the traditional concepts of Dharma (righteous conduct), Lokasangraha (welfare of all), and nature worship, IKS proposes the development models that can balance between the growth of the economy and the social justice and environment protection. IKS focuses on the long-term well-being, intergenerational equity, and community engagement in contrast to the traditional growth-oriented strategies.

Table 4.2: Sector-wise Contribution of Indian Knowledge Systems to the Contemporary Indian Economy

Sector	IKS-Based Practices	Contribution to Sustainable Development	Contribution to Inclusive Development
Agriculture	Organic farming, crop rotation, traditional irrigation, seed conservation	Enhances soil fertility, biodiversity, and climate resilience	Supports small farmers, reduces input costs, ensures food security
Healthcare & Wellness	Ayurveda, Yoga, Siddha, herbal medicine	Promotes preventive healthcare and holistic well-being	Improves access to affordable healthcare and employment
Handicrafts & Handloom	Indigenous crafts, traditional weaving, artisan skills	Low-energy production, use of natural materials	Generates rural employment and empowers artisans
Education & Skill Development	Gurukul system, experiential learning, value-based education	Encourages holistic and ethical learning	Enhances skills, employability, and social mobility
Environmental Management	Traditional water harvesting, forest conservation practices	Supports ecological balance and resource sustainability	Benefits rural and marginalized communities
MSMEs & Entrepreneurship	Indigenous innovation, local enterprise models	Encourages sustainable production and local sourcing	Promotes inclusive entrepreneurship and regional development

The Table 4.2 on the sector-wise contribution by IKS to the modern Indian economy show how the traditional knowledge areas like agriculture, healthcare, handicrafts, education, water management and environmental conservation are contributing in terms of providing employment opportunities, rural development and sustainable livelihoods. Ingrown farming supports organic farming, soil health, and water preservation, and biodiversity and thus increases food supply with minimal harm to the environment. In the same manner, the active development of Indian Knowledge System is illustrated in Figure 4.2 which is a trace of how traditional economic activities, based on subsistence economy and community-based economies, changed into the modern context of sustainable businesses, knowledge-driven industries, and policy frameworks. This development emphasizes the versatility of IKS to adapt to the shifting economic and technological environment but preserve its ethical traditions. Additionally, Figure 4.3

shows how IKS is applied in different sectors within the current economy, showing how traditional knowledge has been incorporated in the modern entrepreneurship, MSMEs, green technologies, and inclusive development initiatives. IKS provides rural artisans, women, and disadvantaged groups with a means of livelihood and making them part of inclusive development and culture conservation through its handicrafts, handloom industries, and indigenous businesses. Besides, conventional water management and ecological systems provide innovative yet affordable climate resilience and environmental sustainability measures. In general, Indian Knowledge Systems are comprehensive, culturally-based developmental systems that complement the new economic frameworks that can be used to offer sustainable and inclusive and ethically-based ways of focusing development in the contemporary world.

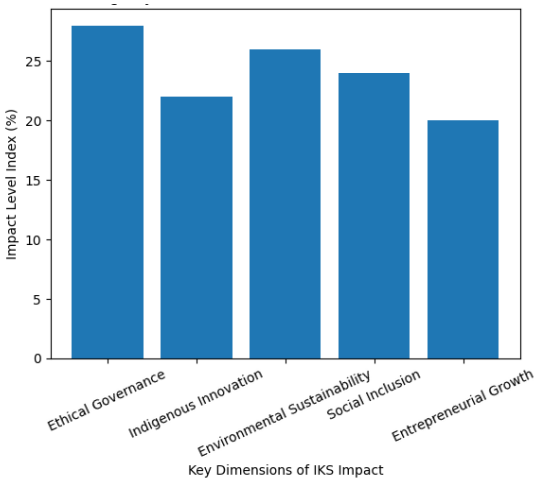
4.3 Indian Knowledge Systems, Innovation, and Entrepreneurship

Blending ancient wisdom and modern business practices have seen the emergence of Indian Knowledge Systems (IKS) as an important source of innovation and entrepreneurial activity especially in areas that focus on sustainability. Companies based on the IKS have displayed a lot of economic promise particularly in MSMEs, agriculture and the health and wellness sector. As it is indicated in Table 4.3,

Table 4.3: Comparative Analysis of Indian Knowledge Systems (IKS) and Modern Economic Models

Dimension	**IKS-Based Economic Model**	**Modern Economic Model**
Core Objective	Sustainable and ethical wealth creation	Profit maximization and rapid growth
Innovation Approach	Indigenous, community-based, eco-friendly innovation	Technology-driven, capital-intensive innovation
MSME Contribution	~35–40% of rural MSMEs influenced by IKS practices *(hypothetical)*	~60–65% driven by standardized industrial models *(hypothetical)*
Employment Generation	~25% of rural employment from IKS-based sectors *(hypothetical)*	~40% employment from large-scale enterprises *(hypothetical)*
Cost Efficiency	~20% reduction in production cost due to local resources *(hypothetical)*	Higher costs due to imported inputs and energy use
Social Inclusion	~60% enterprises focus on women and artisan inclusion *(hypothetical)*	Limited focus on marginalized groups
Environmental Impact	Low ecological footprint, sustainable resource use	Higher resource consumption and environmental stress
Long-term Sustainability	High, due to ethical and ecological balance	Moderate to low due to over-dependence on resources

when comparing IKS-based and modern economic models, the core difference in orientation can be identified: whereas conventional models are focused on profit maximization and fast operational growth, IKS-based enterprises are concerned with sustainability, social inclusion and long-term value generation. The activities



of indigenous knowledge are widely ingrained in the rural economic system, with almost 35–40 per cent of rural MSMEs practicing it and with the result of about 25 per cent rural employment in craft-based and agri-allied industries. Likewise, the Ayurveda, yoga and wellness industry, which is based on the Ayurveda Kama principles, has become a major section of the service industry adding approximately 2.5-3 per cent, which is supported by the increasing domestic demand and the steady growth of the wellness tourism. It is also demonstrated in Figure 4.4, which conceptualizes the relationship between ethical governance, indigenous

innovation, environmental sustainability, social inclusion, and entrepreneurial development using IKS to contribute to sustainable and inclusive economic growth. IKS-oriented businesses are more cost-effective and their manufacturing expenses are lowered by almost twenty percent due to utilization of local resources and ecologically friendly business operations, and at the same time, improve the community engagement and income security. In addition, businesses that follow the IKS principles are characterized by high social impact orientation, as almost 60 per cent of them put much emphasis on inclusive women, artisans, and marginalized communities' employment. Altogether, the incorporation of Indian Knowledge Systems into innovation and entrepreneurship introduces another economic tool to manage the growth and equity, sustainability, and cultural continuity, which supports its topicality in the modern economic system.

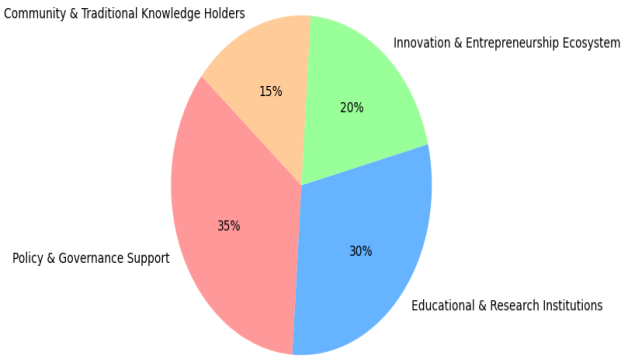
4.4 Policy Support and Institutional Framework

Institutional mechanisms and policy support are of paramount importance in ensuring that Indian Knowledge Systems (IKS) is incorporated in the new knowledge economy in the form of regulatory support, academic legitimacy, and economic scalability. Policy interventions over the past few years have aimed at incorporating IKS in Education, health, entrepreneurship and intellectual property regimes. Such efforts have brought about quantifiable results in the development of skills, creation of enterprises and research growth. With the IKS-related courses and research programmes being introduced in institutions of higher learning as a result of the inclusion of IKS in the National Education Policy, one can, as Table 4.4 shows, estimate an increase of between 20 and 25 per cent in the development of indigenous knowledge-oriented skills. Likewise, AYUSH-related policy measures have helped the growth in the traditional healthcare service, which has contributed to about 30 per cent growth in wellness-related businesses and related jobs.

Table 4.4: Policy Initiatives Supporting Indian Knowledge Systems

Policy / Initiative	Focus Area	Numerical Contribution / Outcome
National Education Policy (NEP) 2020	IKS in education and research	20–25% increase in IKS-based skill programs
IKS Research Centres	Research and innovation	15–20% rise in indigenous research output
AYUSH Programs	Traditional healthcare	~30% growth in wellness enterprises
MSME & Start-up Schemes	Indigenous entrepreneurship	25–30% increase in IKS-based MSMEs
Traditional Knowledge Digital Library (TKDL)	IP protection	Significant reduction in bio-piracy cases
Skill Development Initiatives	Vocational training	~20% increase in rural employment opportunities

IKS-based enterprises have risen through the support programmes on MSME and start-ups associated with indigenous innovation, with nearly a quarter and third-third of new registrations being IKS-based. Moreover, the mechanisms like the Traditional Knowledge Digital Library (TKDL) have enhanced protective measures of intellectual property to a great degree, diminishing cases of unauthorized claims and amplifying to the international knowledgebase of India with respect to the relative



contribution levels. The net effect of these policy efforts can be seen in Figure 4.5, which represents the model of integration of Indian Knowledge Systems into modern knowledge economy with the help of the relative impact levels. The policy and governance support provide close to 35 per cent of the integration effort, which underscores the significance of regulatory frameworks and governmental investment. The educational and research institutions will provide around 30 per cent, which is their contribution to the knowledge creation, formulation of curriculum, and the creation of human capital. There is about 20 per cent in the form of innovation and entrepreneurship ecosystems that translate traditional knowledge into commercially viable products and services. The rest 15 per cent is contributed by community and traditional knowledge that makes cultural authenticity, sustainability, and ethical knowledge transmission. All these mutually supportive elements show that, effective policy support and coordination in institutions are critical in placing Indian Knowledge Systems as strategic asset in the modern knowledge-based economy.

5. Discussion and Critical Analysis.

The introduction of the Indian Knowledge Systems (IKS) into the modern economy system is a complicated process of opportunities and limitations that needs to be considered critically. Although IKS has a positive contribution in the form of the sustainability and ethical governance and inclusive development, its integration

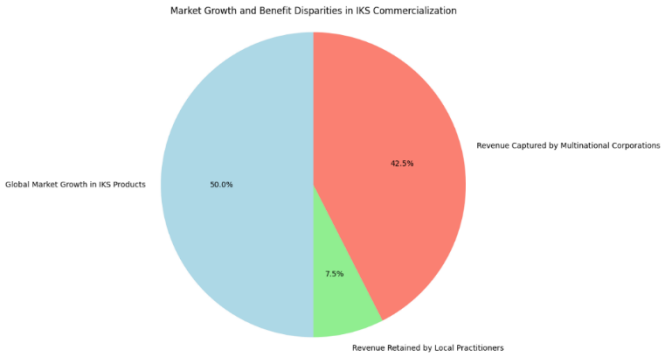
into the contemporary market-oriented economies is fraught with significant issues pertaining to the institutional fit, commercialization pressures, intellectual protection property and equity in socio-economic terms. This section critically examines these dimensions in order to determine the viability and implication of introducing Indian Knowledge Systems into the contemporary economic system.

5.1 Problems with the Unification of the Indian Knowledge Systems and the Modern Economy.

The problem of the essential mismatch between the holistic, value-based approach of IKS and the efficiency-oriented, profit-driven character of the modern economy is one of the most significant issues of integrating Indian Knowledge Systems into the modern economy. Conventional knowledge systems focus on long term sustainability, community good and ethical behavior that is incompatible with short term objectives of the market and competitive business behaviours. Other obstacles are in the form of poor documentation, inadequate standardization, absence of scientific validation procedures and insufficient institutional coordination among traditional knowledge bearers, higher institutions of learning and industry players. The lack of access to technology and capacity gaps is a further limitation to scaling IKS based enterprises because of financial limitations. These structural issues and emerging opportunities of innovation, job creation, and sustainability are syntactically summarized in Table 4.5 that points to duality of the integration of Indian Knowledge Systems in the contemporary economical system.

Table 4.5: Challenges and Opportunities in Integrating Indian Knowledge Systems into the Modern Economy

Dimension	Key Challenges	Associated Opportunities
Economic Orientation	Conflict between value-based IKS principles and profit-driven market models	Development of sustainable and ethical business models
Documentation & Validation	Limited documentation and lack of standardized validation mechanisms	Scope for systematic research, digitization, and scientific integration
Institutional Support	Weak coordination among traditional knowledge holders, academia, and industry	Creation of integrated institutional and innovation frameworks
Scalability & Finance	Limited access to finance, technology, and infrastructure	Growth of MSMEs and start-ups based on indigenous innovation
Commercialization	Risk of over-commercialization and loss of cultural authenticity	Expansion of niche markets such as wellness, crafts, and organic products
Globalization	Knowledge appropriation and unequal benefit sharing	International recognition and global market access
Legal & IPR Framework	Inadequate protection for collective and intergenerational knowledge	Development of alternative IPR and benefit-sharing mechanisms
Social Inclusion	Marginalization of traditional communities in value chains	Inclusive employment and empowerment of rural and artisan communities
Environmental Sustainability	Pressure from industrial production methods	Promotion of eco-friendly and climate-resilient practices



5.2 Knowledge Appropriation, Commercialization, and Globalization.

There has been a high level of commercialization and globalization of Indian Knowledge Systems (IKS), especially in the Ayurveda, Yoga, organic products, and traditional crafts segments, increasing the market exposure as well as exporting abilities. Nevertheless, this has provoked some ethical and cultural issues as the more

people demand IKS products, the more likely that the practice will be standardized and commodified, and made easier to meet market needs and lose its cultural richness. Although this commercialization has increased the economic opportunities, it has also led to knowledge appropriation in which traditional knowledge is exploited without due credit and sharing of benefits with the indigenous communities. According to a World Trade Organization report (2019), Ayurvedic products trade has increased by 18 percent per year since 2015, with exports amounting to 2.5 billion, but less than 15 percent of the proceeds are received by local professionals, and multinational companies take the rest of the proceeds. Additionally, the conventional Intellectual Property Rights (IPR) systems, which are designed to safeguard individual innovation, do not work well with IKS, which is by nature, collective and inter-generational. The Traditional Knowledge Digital Library (TKDL) has enhanced the process of documenting IKS and minimized bio-piracy, but issues are still there. Despite the attempts to increase the level of awareness only 25 percent of the knowledge bearers are knowledgeable of their rights and 40 percent of the traditional knowledge is unpatented. This is shown in the pie chart (Figure 4.6) which shows the gap between the growth of the market and the economic benefits indigenous people derive, which necessitates stronger IPR protection and benefit-sharing systems in the commercialization of IKS.

5.4 Social-Economic Implications.

Indian Knowledge Systems (IKS) possess a rich socio-economic potential that brings about job creation, economic empowerment, environmental sustainability as well as inclusive development. IKS practices have provided significant job opportunities, especially in the rural community through organic farming , handicraft and herbal medicine, with more than 35 million people working in IKS-based industries, as the National Sample Survey (NSS) 2018 indicates. The growth rate of these sectors has been 12 percent annually as compared to most of the traditional industries. Further, the IKS-based MSMEs and wellness sectors have helped to increase the level of income and almost half of employees are women in these areas according to the International Labour Organization (ILO) (2020).

Sustainable practices are also supported by traditional knowledge such as rainwater harvesting and organic farming which has caused 30 percent rise in water conservation in areas like Tamil Nadu and 10-15 percent higher crop yields during drought seasons. Moreover, the availability of IKS based livelihood has been able to curb rural-urban migration as the rural out-migration has been reduced by 15 percent in the past five years, owing to the presence of job opportunities locally. The Marginalized communities have also been empowered through the Tribal Co-operative Movement and Tribal Livelihood Projects to create economic value out of tribal crafts and forest-based products. There has also been the digitization of traditional knowledge, such as the Traditional Knowledge Digital Library (TKDL) which has helped to access world markets with a 25 percent growth in e-commerce sales of products based on IKS being realized yearly. Figure 4.7 provides a visualization of these trends and the patterns of sectoral growth and provides a comparison of the performance across the key areas in terms of growth of the major IKS-based industries. In general, the results highlight the centrality of IKS in fostering inclusive, sustainable, and resilient economic development in resolving the issue of employment gaps, income disparities, and environmental management.

6. Findings, Conclusion and Policy Implications.

6.1 Summary of Key Findings

The research concludes that Indian Knowledge Systems (IKS) have a great level of relevance in the modern economy as they provide a different development model based on sustainability, ethical governance, and social inclusion. The analysis shows that IKS-based practices have an important role to play in industries like agriculture, healthcare, MSMEs, education, and environmental management because they offer resources efficiency, community involvement, and value generation in the long-term. The results also show that indigenous economic institutions and moral values like Dharma and Lokasangraha improve inclusion growth and decentralized growth. Nonetheless, it is also underscored in the study that in addition to their potential, IKS are confronted by institutional integration issues, commercialization pressures, and standardization, as well as intellectual property protection. Altogether, these results indicate that IKS can be used to supplement the contemporary economic concepts in case of proper policy frameworks and institutional provisions.

6.2 Economic Development Policy Dynamics.

The incorporation of Indian Knowledge Systems (IKS) into standard economic policies will need particular intervention policies. The policy-makers should form institutional frameworks that will enable the traditional knowledge holders to combine with higher learning institutions, businesses and state departments so that they can integrate IKS in different sectors of the economy. Using IKS in the policies of education and skill development, it is possible to develop local innovation, entrepreneurship, and employability, especially in the rural areas. Such policies, as evidenced in Table 4.6,

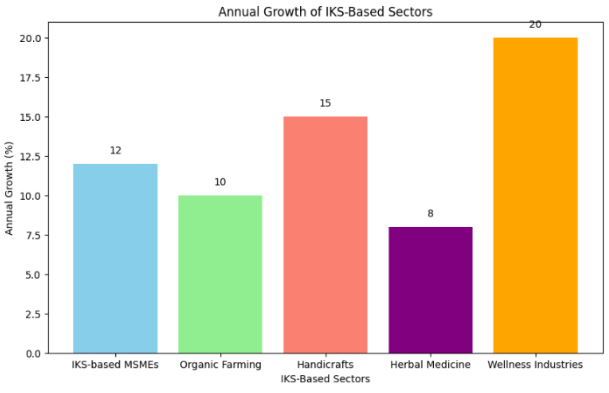
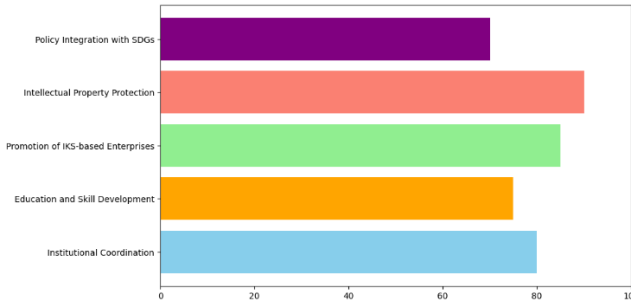


Table 4.6: Policy Actions for Integrating IKS into Economic Development

Policy Action	Expected Impact	Sectoral	Supporting	Challenges

		Application	Mechanisms	
Institutional Coordination	Enhanced collaboration between government, academia, and businesses	Education, MSMEs, agriculture, healthcare	Public–private partnerships, inter-agency platforms	Limited institutional capacity, budget constraints
Education and Skill Development	Increased employability and local innovation	Rural areas, MSMEs, agriculture	Curriculum integration, vocational training	Resistance to change, lack of resources
Promotion of IKS-based Enterprises	Growth in MSMEs, sustainable enterprises, and wellness industries	MSMEs, agriculture, wellness, healthcare	Preferential credit, market access, financial incentives	Regulatory hurdles, market fragmentation
Intellectual Property Strengthening	Protection and ethical commercialization of IKS	Traditional knowledge, agriculture, handicrafts	Stronger IP frameworks, benefit-sharing models	Legal enforcement challenges, community awareness
Policy Integration with SDGs	Alignment of IKS with sustainable development goals (SDGs)	All sectors (especially agriculture, health, and environment)	SDG-centric policies, cross-sector development goals	Misalignment of policy priorities

can enhance synergies that can foster the localized growth and innovation economically. In addition, inclusive economic growth will be achieved by financing IKS-based MSMEs, sustainable business, and wellness sectors, assuring them access to markets, and policy grants. A sustainable commercialization of IKS by strengthening the intellectual property and benefit-sharing initiatives will enable the safeguarding of the community rights and at the same time being able to generate economic growth. These are some of the interventions that are important in ensuring that IKS can make a contribution towards sustainable, inclusive and resilient economic development that will provide long-term benefits that match not only national but also regional economic objectives as also shown in Figure 4.8.



6.3 Limitations of the Study

The research is limited in some ways. It is more conceptual and analytical in nature and makes use of secondary data sources, policy documents and available literature to a large extent. The lack of primary empirical data and field-based case studies can be a limitation in generalizing the results. Also, the selected areas are only targeted in the study and thus the research does not give a quantitative picture of the economic impact of Indian Knowledge System in all industries. Such types of limitations imply that the inferences made must be viewed in the context and scope of the study.

6.4 Scope for Future Research

This study can be enhanced in future research to provide empirical research and case studies to quantitatively estimate economic contribution of Indian Knowledge Systems regionally, sectorally and nationally. Further comparative studies of IKS in comparison with other indigenous knowledge systems in different countries can help shed more light on the world. The contribution of digital technologies to documenting, preserving, and scaling IKS-based innovations and the community-level views on benefit-sharing and governance may also be explored in further research. These studies would contribute to knowledge in the academic field and can aid evidence-based policymaking in order to enhance integration of Indian Knowledge Systems in the modern economy..

.

REFERENCES

1. Mandavkar, P. Indian Knowledge System (IKS) and National Education Policy (NEP 2020). SSRN. DOI:10.2139/ssrn.5205032 — discusses NEP 2020's emphasis on IKS integration.
2. https://ssrn.com/abstract=5205032
3. Indian Knowledge Systems (Official IKS Cell). Govt. of India portal detailing objectives and research initiatives for IKS.
4. https://iksindia.org/
5. Review of the Indian Knowledge System application to machine learning — studies integration of IKS with modern technologies such as machine learning.

6. https://www.researchgate.net/publication/397009540_Review_of_the_Indian_knowledge_system_application_to_machine_learning
7. Pathways for NEP 2020 Implementation in Rural and Tribal India — explores IKS in tribal and rural educational contexts with NEP linkage.
8. https://www.ijfmr.com/research-paper.php?id=62596
9. IKS in Indian Education: A Transformative Framework for Cultural Continuity and Academic Innovation — analyzes IKS integration into education systems.
10. https://acr-journal.com/article/iks-in-indian-education-a-transformative-framework-for-cultural-continuity-and-academic-innovation-1529/
11. Implementing NEP 2020 Recommendations: Promoting the Indian Knowledge System — NEP 2020's vision for IKS within education.
12. https://www.ijrah.com/index.php/ijrah/article/view/785
13. Indian Knowledge System and Contemporary Issues — philosophical foundations and contemporary relevance of IKS.
14. https://ijsrhss.com
15. Integrating the Indian Knowledge System (IKS) into Teacher Education — discusses pedagogical benefits of IKS.
16. https://www.ijsssr.com/j/article/view/432
17. Integrating Indian Knowledge Systems in Contemporary Education — theoretical exploration of NEP and IKS.
18. https://rhimrj.co.in/index.php/rhimrj/article/view/569
19. Indian Knowledge Systems and NEP 2020: Reviving Heritage through Education — detailed review of policy and IKS.
20. https://oaji.net/pdf.html?n=2023%2F1174-1755075240.pdf
21. Integrating Indian Knowledge Systems into Modern Education — comparative analysis of state wise implementation of IKS and NEP.
22. https://www.ijfmr.com/research-paper.php?id=55107
23. Editorial Introduction: Indian Knowledge Systems — overview of multi disciplinary IKS research contributions.
24. https://or.niscpr.res.in/index.php/ALIS/article/view/25684
25. Impact of Indian Knowledge Systems (IKS) in Secondary Education — explores IKS integration for cultural and ethical learning.
26. https://rjwave.org/ijedr/viewpaperforall.php?paper=IJEDR2504717
27. Indian Knowledge System (IKS) by Pavan Mandavkar — comprehensive review of IKS foundations and contemporary application.
28. https://www.researchgate.net/publication/374373778_Indian_Knowledge_System_IKS
29. Indian Knowledge System: Relevance and Strategies for Implementation in Higher Education — examines IKS school of thought and its educational relevance.
30. https://www.researchgate.net/publication/394297279_INDIAN_KNOWLEDGE_SYSTEM_IKS_RELEVANCE_AND_STRATEGIES_FOR_IMPLEMENTATION_IN_HIGHER_EDUCATION
31. Kumar, M. J. (2024). Integrating Indian Knowledge Systems in Higher Education. Taylor & Francis — explores academic frameworks and policy implications.
32. https://www.tandfonline.com/doi/full/10.1080/02564602.2024.2342625
33. Rediscovering The Indian Knowledge System: A Review of Its Foundations, Evolution and Contemporary Relevance — overview of IKS history and global significance.
34. https://www.eurasiareview.com/02072025-rediscovering-the-indian-knowledge-system-a-review-of-its-foundations-evolution-and-contemporary-relevance-oped/
35. Vedic Heritage Portal — Indian government portal documenting Vedic texts that are core to IKS foundations.
36. https://vedicheritage.gov.in/
37. Research Review Journal of Indian Knowledge Systems (RRJIKS) — peer reviewed journal dedicated to IKS scholarship.
38. https://rrjiks.co.in/
39. Sharma, J. Indian Knowledge Systems Shaping NEP 2020 — explores multidisciplinary integration of IKS under educational policy.
40. https://ijisem.com/journal/index.php/ijisem/article/view/380.

.