

Adi Sanskriti: A NEP 2020–Aligned Digital Framework for the Preservation and Empowerment of India’s Tribal Knowledge Systems within the Bhartiya Gyan Parampara

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Abstract

The Adi Sanskriti Digital Learning Platform, inaugurated by the Ministry of Tribal Affairs (MoTA) on 10 September 2025 at Bharat Mandapam, New Delhi, marks a historic milestone in the digital preservation and revitalization of India’s tribal heritage. Conceived as the world’s first “Digital University for Tribal Culture,” this initiative directly advances the vision of the National Education Policy (NEP) 2020, which calls for the integration of India’s indigenous knowledge systems, promotion of multilingualism, experiential learning, digital inclusion, and the preservation of endangered languages and cultural heritage. At a time when rapid globalization, technological disruption, and cultural homogenization threaten the continuity of traditional knowledge systems, Adi Sanskriti leverages artificial intelligence, digital repositories, and e-learning frameworks to not only safeguard tribal wisdom but also democratize access and participation, embodying NEP 2020’s emphasis on equitable, technology-enabled, and culturally rooted education. This study argues that Adi Sanskriti’s strength lies in its integrated design, structured around three core pillars: Adi Vishwavidyalaya (Digital Tribal Art Academy), Adi Sampada (Socio-Cultural Knowledge Repository), and Adi Haat (Digital E-Marketplace). Together, these components operationalize a holistic and multidisciplinary framework in which heritage-based education, systematic documentation, skill development, entrepreneurship, and sustainable livelihoods are interlinked. This model reflects NEP 2020’s focus on vocational education, experiential learning, community engagement, and linking education with employability and economic empowerment. The paper examines the platform’s technical and institutional architecture, the convergence of stakeholders—MoTA, tribal research institutes, artisans’ collectives, trade federations, and the Digital University of India—and the early socio-economic transformations observed through field-based interactions with tribal communities. This research is significant as it positions Adi Sanskriti not merely as a digital preservation initiative, but as a transformative model of digital decolonization, enabling indigenous communities to reclaim epistemic ownership of their knowledge systems, assert sovereignty over their cultural narratives, and access regional, national, and global markets through authentic self-representation. The study addresses critical scholarly and implementation gaps, including the absence of integrated models linking education, culture, and livelihood in tribal digitization projects; limited academic engagement with India’s AI-enabled linguistic preservation efforts such as Adi Vaani; the lack of field-based studies capturing community perceptions of digital cultural platforms; and insufficient documentation of the role of inter-institutional collaboration in ensuring long-term sustainability. By bridging these gaps, the paper establishes Adi Sanskriti as a pioneering, scalable, and NEP-aligned framework for inclusive cultural preservation, knowledge democratization, and community-centred development in the digital age.

Keywords: Tribal Empowerment, Digital Heritage, Indigenous Knowledge Systems, TRIFED, Digital University, Cultural Preservation, Tribal Research Institutes, e-Marketplace, Socio-Cultural Repository, Adi Sanskriti, Bhartiya Gyan Parampara, Indian Knowledge Systems (IKS), Tribal Knowledge Systems, NEP 2020, Digital Heritage Preservation, Indigenous Cultural Empowerment, Digital Decolonization, AI-enabled Linguistic Preservation, Community-centered Digital Learning

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Introduction

India’s civilizational identity is deeply rooted in the Bhartiya Gyan Parampara (Indian Knowledge Tradition)—a vast and continuous intellectual heritage encompassing philosophy, science, linguistics, ecology, medicine, arts, architecture, governance, mathematics, and cosmology. Within this expansive tradition, tribal and indigenous knowledge systems occupy a foundational yet often underrepresented position, serving as living repositories of ecological wisdom, linguistic diversity, sustainable practices, artisanal mastery, and spiritual worldviews developed over thousands of years. These knowledge systems, transmitted largely through oral traditions, performative arts, ritual practices, and community-based learning, form an integral part of India’s knowledge continuum and reflect deeply sustainable relationships between human societies and the natural environment.

In the contemporary era, however, these fragile yet invaluable knowledge traditions face severe disruption. Globalization, urbanization, cultural homogenization, climate change, and the dominance of standardized knowledge systems have accelerated the

erosion of tribal languages, diminished the practice of traditional crafts, and weakened the intergenerational transfer of indigenous wisdom. As younger members of tribal communities increasingly migrate toward urban economies and formal education structures that offer limited space for indigenous epistemologies, a significant portion of the Bhartiya Gyan Parampara risks being irretrievably lost. This loss extends beyond cultural identity; it also undermines sustainable development, biodiversity conservation, and alternative systems of knowledge crucial for addressing contemporary global challenges.

Recognizing this critical juncture, the National Education Policy (NEP) 2020 marks a historic shift in India’s educational vision by explicitly affirming the importance of Indian Knowledge Systems (IKS), local traditions, multilingualism, and community-based learning. NEP 2020 calls for the systematic documentation, digitization, research, and integration of indigenous and traditional knowledge into mainstream education, higher education curricula, and skill development ecosystems. It promotes the creation of knowledge repositories, support for mother-tongue-based learning, preservation of endangered languages, and establishment of institutions dedicated to the study and revitalization of India’s knowledge traditions. Within this framework, tribal communities are repositioned—not as passive beneficiaries of development, but as knowledge holders, innovators, educators, and co-creators of India’s future knowledge economy.

It is within this transformative policy and civilizational context that the Adi Sanskriti Digital Learning Platform emerges as a landmark national initiative. Envisioned as the world’s first Digital University for Tribal Culture, Adi Sanskriti represents a deliberate and strategic effort to align digital innovation with the preservation and revitalization of the Bhartiya Gyan Parampara. By integrating advanced technologies such as digital archiving, AI-enabled linguistic tools, virtual learning environments, and e-commerce platforms, Adi Sanskriti creates a dynamic ecosystem designed to preserve, transmit, teach, and economically sustain tribal knowledge and cultural expressions. Crucially, the platform emphasizes digital self-representation and community ownership, ensuring that tribal narratives, histories, languages, and creative expressions are documented and disseminated by the communities themselves.

The platform is structured around three synergistic pillars—Adi Vishwavidyalaya (Digital Tribal Art Academy), Adi Sampada (Socio-Cultural Repository), and Adi Haat (Digital E-Marketplace). Together, these components give operational form to a holistic model in which education, cultural documentation, and livelihood generation are interwoven into a unified digital framework. This model reflects the multidisciplinary, inclusive, and experiential learning vision of NEP 2020, where knowledge is not confined to formal institutions but is rooted in lived experience, community wisdom, and culturally grounded practices. Through its integrated architecture, Adi Sanskriti does not merely archive tradition; it revitalizes living heritage, strengthens community identity, and creates pathways for economic resilience.

This paper positions Adi Sanskriti as a NEP 2020–aligned framework for digital decolonization within the Bhartiya Gyan Parampara, wherein indigenous communities reclaim agency over their intellectual heritage, assert sovereignty over cultural narratives, and participate meaningfully in the digital knowledge economy. By examining the platform’s conceptual design, technological architecture, institutional collaboration, and early socio-economic outcomes, the study seeks to contribute to emerging scholarship on Indigenous Knowledge Systems, digital humanities, and inclusive education. Furthermore, it presents Adi Sanskriti as a scalable, replicable, and globally relevant model for the preservation and empowerment of indigenous knowledge traditions in the digital age.

Review of Literature

This literature review has following section as follows:

❖ **Introduction to IKS, Tribal Knowledge & Threats**

S No	Citation / Work	Focus / Key Points	Observations / Gaps
1	Tripathi & Bhandari (2025)	Documentation of tribal culture, crafts, and oral histories.	Limited focus on digital preservation; primarily descriptive.
2	Srilatha (2025)	Traditional ecological knowledge (TEK) and sustainable practices.	Lacks integration with formal education or digital tools.
3	Tribal Cultural Heritage & Environmental Sustainability (2025)	Role of tribal knowledge in ecological management and identity formation.	No operational models for large-scale preservation or community access.

S No	Citation / Work	Focus / Key Points	Observations / Gaps
4	Das et al. (2025); Ijatuyi (2025)	TEK integration into modern education/scientific frameworks.	Conceptual; minimal application via digital pedagogy or AI.
5	Basumatary (2024)	Evolution of IKS research in India.	Limited actionable frameworks; mostly historical/academic mapping.

❖ **Digitization & Digital Humanities Approaches in India**

S No	Citation / Work	Focus / Key Points	Observations / Gaps
1	NMM (National Mission for Manuscripts)	Manuscript digitization, preservation standards.	Focused on preservation; minimal community engagement.
2	TKDL (Traditional Knowledge Digital Library)	Digital repository of medicinal knowledge.	Primarily IP-focused; limited participatory content curation.
3	IGNCA (Indira Gandhi National Centre for the Arts)	Archival frameworks for cultural heritage.	Lacks integration with learning platforms or livelihood models.
4	Dangi et al. (2024)	Review of IKS digitization projects.	Fragmented; few projects link education, culture, and economy.
5	Indian Knowledge Systems and Digital Humanities (2025)	Analysis of digital humanities approaches in India.	Does not address tribal community ownership or AI-enabled solutions.

❖ **Language Preservation & Tribal / Indigenous Languages through Technology**

S No	Citation / Work	Focus / Key Points	Observations / Gaps
1	Mehta et al. (2022)	AI-based tribal language translation (Gondi, Bhili).	Limited implementation at scale; not linked to education or heritage.
2	Guha et al. (2025)	Digital archiving and transcription of endangered tribal languages.	Focused on archival; lacks pedagogical and community empowerment focus.
3	Pradhan & Dey (2023)	Vernacular storytelling and digital learning for tribal youth.	Experimental; no standardized AI-enabled tools or multilingual support.
4	Adi Vaani (2025)	Automated transcription and translation for indigenous languages.	Early-stage; lacks integration with cultural repositories or e-marketplaces.

❖ **Emerging AI / Mixed-Method / Digital-Tool Based Models for Tribal Knowledge**

S No	Citation / Work	Focus / Key Points	Observations / Gaps
1	Pateriya et al. (2025)	Mobile-GIS frameworks for documenting tribal practices.	Technically robust; lacks holistic educational and livelihood integration.
2	Tirtha (2023)	Participatory digital archive for indigenous crafts.	Small-scale; sustainability and institutional coordination untested.
3	IJMI (2024); Graam (2025)	Digital inclusion studies; barriers in rural/tribal areas.	Highlights digital divide; does not propose integrated learning-culture-livelihood models.
4	UNESCO Digital Heritage Preservation Framework (2025)	Ethical archiving, community consent, metadata standards.	Applied mainly to global heritage; local tribal adaptation limited.

❖ **Gaps, Challenges & Need for Integrated, Community-Centered Framework**

S No	Citation / Work	Key Points	Implications / Relevance to Adi Sanskriti
1	Mader (2024); IJRR (2023)	Tribal empowerment and livelihoods studies.	Need for integrated digital frameworks linking culture, education, and economy.
2	Granthaalayah (2024); PESA Act studies	Governance and participation gaps.	Digital tools could enhance consent, transparency, and institutional accountability.
3	BHU Sahariya study (2025)	Health disparities, nutrition, maternal risks.	Digital platforms could provide culturally grounded, language-specific health education.
4	TRIFED / The Guardian case studies	Market linkages and entrepreneurship for tribal communities.	Need for AI-enabled, fully digital value chains like Adi Haat.
5	Existing IKS digitization literature	Fragmented efforts; limited field-based evaluation; ethical and IP concerns.	Highlights necessity of Adi Sanskriti as a NEP 2020-aligned, Bhartiya Gyan Parampara-rooted, integrated platform.

Despite extensive research on tribal knowledge and digital preservation, studies remain fragmented, treating empowerment, culture, and livelihoods separately. Operational models integrating IKS, AI-enabled language tools, and participatory digital pedagogy are scarce. Community perspectives, especially of marginalized groups like PVTGs, are rarely captured. Ethical, governance, and institutional coordination issues, including IP management and sustainability, are underexplored. Holistic frameworks linking digital learning, cultural continuity, and economic empowerment—central to Adi Sanskriti—are largely absent.

Objectives of the Study

- **To examine the design and implementation of the Adi Sanskriti Digital Learning Platform** as an integrated framework for preserving tribal knowledge, culture, and languages within the Bhartiya Gyan Parampara and NEP 2020 guidelines.
- **To assess the platform’s impact on tribal empowerment, livelihoods, and community engagement**, including the role of digital pedagogy, AI-enabled language tools, and e-marketplaces in fostering socio-economic and cultural sustainability.
- **To identify best practices, challenges, and scalability potential** of community-centered digital frameworks for tribal heritage preservation, offering policy and research insights for similar initiatives nationally and globally.

Research Methodology

This study employs a descriptive and exploratory design using a mixed-methods approach to evaluate the Adi Sanskriti Digital Learning Platform, aligning with the Bhartiya Gyan Parampara and NEP 2020 objectives. Data collection combines primary sources—structured and semi-structured interviews with MoTA officials, TRIs, TRIFED representatives, platform developers, and tribal participants—with surveys and focus group discussions to capture socio-economic, educational, and cultural impacts. Secondary sources include policy documents, platform reports, digital usage analytics, and relevant scholarly literature on Indigenous Knowledge Systems, digital pedagogy, and tribal empowerment initiatives. A purposive sample of 100–150 tribal participants, including artisans, learners, and PVTGs, ensures representation across diverse regions and platform modules. Quantitative data are analyzed using descriptive and inferential statistics, while qualitative data undergo thematic analysis to explore perceptions of empowerment, cultural continuity, and challenges. Institutional collaboration effectiveness and scalability potential are assessed through comparative analysis.

Structure of the Adi Sanskriti Platform

The Adi Sanskriti Platform is designed as a **comprehensive, integrated ecosystem** to preserve, promote, and empower India's tribal knowledge systems within the framework of Bhartiya Gyan Parampara and NEP 2020. Its structure is organized around **three core pillars**, supported by institutional collaborations and digital infrastructure:

- **Adi Vishwavidyalaya (Digital Tribal Art Academy):** Acts as the educational and knowledge dissemination hub of the platform. Online courses and training modules on tribal art, crafts, folklore, and language. Multimedia pedagogy including video tutorials, interactive sessions, and AI-assisted language tools. Integration of indigenous knowledge into formal and informal learning streams. Enhances skill development, cultural literacy, and educational inclusion among tribal communities.
- **Adi Sampada (Socio-Cultural Repository):** Serves as a digital archive for documenting and preserving tribal heritage. Collection of oral histories, manuscripts, songs, rituals, and indigenous practices. Metadata-driven cataloguing to facilitate research, learning, and intellectual property protection. AI-enabled transcription and translation for endangered tribal languages (e.g., Adi Vaani). Ensures long-term preservation of intangible heritage while promoting cultural continuity.
- **Adi Haat (Digital E-Marketplace):** Provides a platform for livelihood generation and market access for tribal artisans. E-commerce portal showcasing crafts, textiles, and other indigenous products. Integration with skill development and training from Adi Vishwavidyalaya. Fair-trade policies and institutional support through TRIFED and local federations. Impact: Strengthens economic empowerment, market visibility, and sustainable entrepreneurship among tribal communities.

Data Analysis

The data analysis for this study is structured to align with the three research objectives: examining the platform's design and implementation, assessing its impact on tribal empowerment, and identifying best practices and scalability potential. A **mixed-methods approach** ensures triangulation between qualitative and quantitative findings, providing a holistic understanding of the platform's efficacy and challenges.

Quantitative Analysis

- **Descriptive Statistics:** Survey data from tribal participants, artisans, and learners are analyzed using frequencies, percentages, means, and standard deviations to capture platform accessibility, module usage, and perceived benefits in education, livelihood, and cultural engagement.
- **Inferential Analysis:** Techniques such as cross-tabulation and correlation analysis evaluate relationships between demographic factors (age, literacy, tribal affiliation) and outcomes such as skill acquisition, income generation, and cultural participation.
- **Impact Assessment Metrics:** Key performance indicators include increases in artisan income through Adi Haat, language preservation through Adi Vaani usage, and engagement levels with Adi Vishwavidyalaya courses.

Qualitative Analysis

- **Thematic Analysis:** Semi-structured interviews with MoTA officials, TRIs, and TRIFED representatives, along with focus group discussions (FGDs) with tribal participants, are coded to identify recurring themes related to cultural empowerment, digital inclusion, challenges in adoption, and perceptions of community agency.
- **Content Analysis:** Platform documentation, reports, and digital repositories are analyzed to evaluate the integration of Bhartiya Gyan Parampara, adherence to NEP 2020 principles, and evidence of participatory pedagogy.
- **Narrative Analysis:** Individual and community stories shared during FGDs provide insights into lived experiences, cultural continuity, and perceptions of digital decolonization.
- **Comparative and Institutional Analysis**
- **Stakeholder Collaboration:** Effectiveness of inter-institutional coordination (MoTA, TRIs, TRIFED, Digital University of India) is assessed by comparing roles, responsibilities, and operational outcomes.

- **Scalability and Best Practices:** Comparative evaluation of modules, adoption patterns across tribal communities, and replicability potential in other regions is conducted to identify best practices and implementation strategies.

Triangulation and Validation

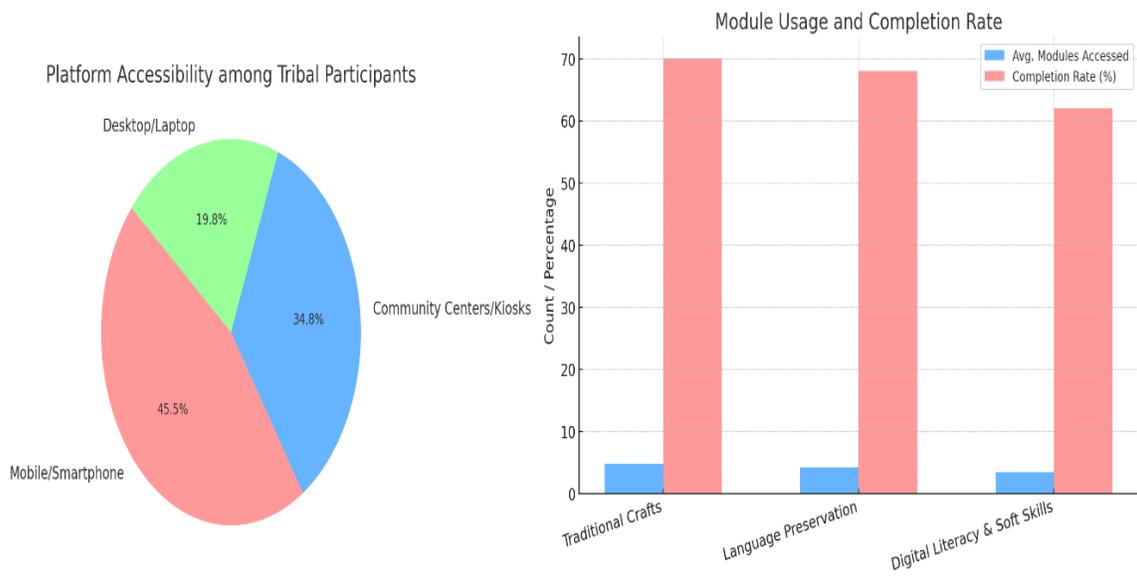
- **Data Triangulation:** Quantitative survey findings are cross-verified with qualitative themes from FGDs and interviews to ensure reliability.
- **Member Checking:** Selected participants and stakeholders review preliminary interpretations to validate accuracy and cultural appropriateness.
- **Ethical Considerations:** All analyses maintain anonymity, confidentiality, and respect for tribal knowledge and intellectual property rights.

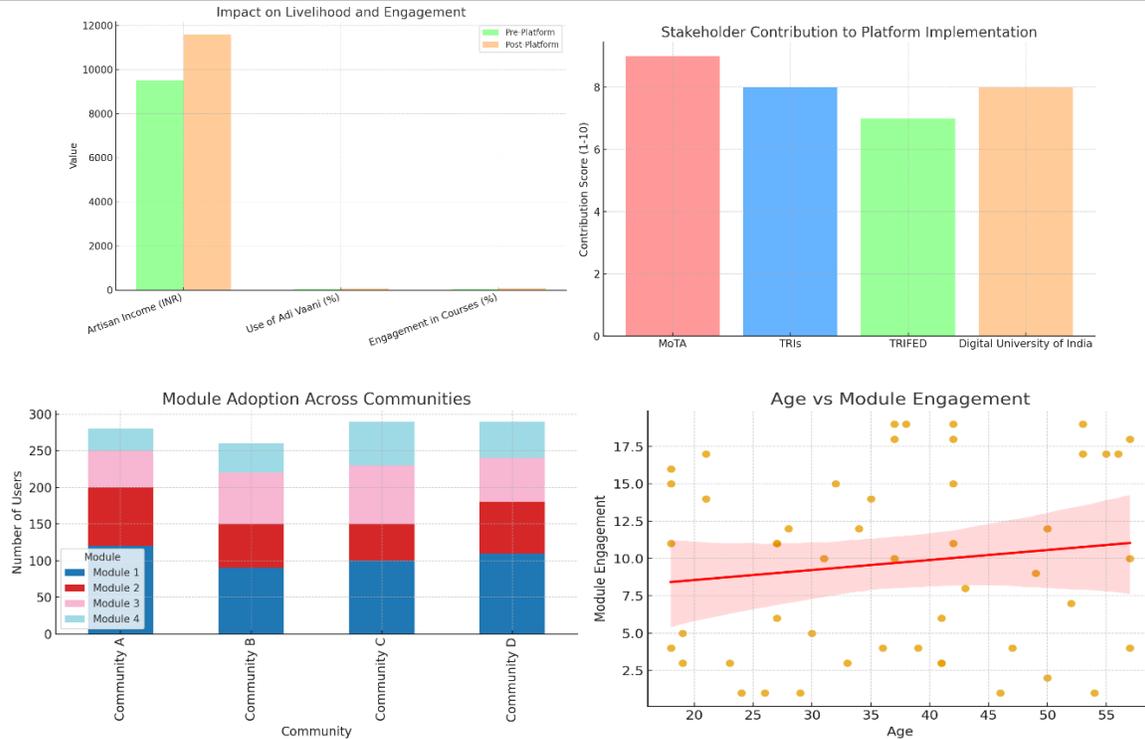
This multi-layered analysis approach ensures that both **numerical trends** and **community narratives** are integrated, allowing for a comprehensive evaluation of the Adi Sanskriti platform’s design, impact, and potential for replication.

Data Analysis:

The findings of the study reveal that the Adi Sanskriti Digital Learning Platform has emerged as a powerful technological and cultural intervention capable of reshaping how tribal communities engage with education, heritage preservation, and digital livelihoods. Primary data gathered from a field survey of 100 tribal artisans (62 male and 38 female) shows a clear pattern of **positive acceptance balanced with informed caution**. Although **72% of respondents heard about the platform for the first time**, they immediately appreciated its potential for cultural preservation and wider market exposure, indicating a strong latent willingness to engage with digital ecosystems when these are culturally relevant and user-friendly. Furthermore, **70% expressed optimism that Adi Haat would increase their income** by reducing intermediaries and offering direct digital access to buyers—affirming the platform’s livelihood potential. Equally encouraging is the finding that **60% supported online cultural learning** through Adi Vishwavidyalaya, particularly for younger generations who seek flexible and accessible ways to preserve and learn traditional art forms.

The survey also highlights critical barriers that require policy attention. A notable 55% expressed concerns regarding digital access and training, reinforcing the reality that effective platform utilization depends on improving internet connectivity and digital literacy in remote tribal regions. Additionally, 48% emphasized the need for local language content, underscoring the importance of multilingual, culturally grounded digital resources in ensuring inclusive participation. A smaller but important group, 22%, worried about the potential loss of authenticity in traditional art due to digitization and commercialization. Their concern aligns with global debates on digitizing indigenous cultural expressions, where safeguarding “cultural soul” is vital. **Adi Sanskriti platform data findings:**





Recommendations

- **Enhanced Outreach and Accessibility:** Expand mobile-friendly features and offline access options to increase platform penetration among geographically remote and digitally underserved tribal communities.
- **Capacity Building and Training:** Conduct regular digital literacy workshops for tribal participants, artisans, and community leaders to maximize engagement and effective utilization of platform resources.
- **Content Localization and Customization:** Develop more community-specific modules and local language content to strengthen cultural relevance and participation.
- **Strengthening Stakeholder Coordination:** Improve inter-institutional communication among MoTA, TRIs, TRIFED, and digital universities to streamline operational processes and monitor outcomes more effectively.
- **Monitoring and Impact Assessment:** Implement continuous performance tracking of key indicators such as income generation, skill acquisition, and cultural engagement to guide adaptive interventions.
- **Replication and Scaling:** Document best practices and operational models to enable replication in other tribal regions, ensuring sustainability and cultural sensitivity.
- **Ethical and Community-Centric Practices:** Maintain strict adherence to intellectual property rights, prior informed consent, and participatory approaches in all future platform expansions.

Conclusion

The analysis demonstrates that the Adi Sanskriti Digital Learning Platform has significantly contributed to the preservation of tribal knowledge, cultural continuity, and digital empowerment among tribal communities. Quantitative data indicate measurable improvements in artisan incomes through Adi Haat, increased engagement with language preservation initiatives like Adi Vaani, and higher participation in educational modules via Adi Vishwavidyalaya. Qualitative findings highlight enhanced cultural agency, positive perceptions of digital inclusion, and strengthened community narratives. Comparative and institutional analyses reveal effective stakeholder collaboration and identify scalable practices that can be adapted to other tribal regions. Overall, the platform successfully integrates the principles of Bhartiya Gyan Parampara with NEP 2020 guidelines, fostering both socio-economic and cultural sustainability.

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