

Social innovation hubs : Transforming vocational education for sustainable entrepreneurship and development

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Abstract

As developing nations grapple with youth unemployment, social inequality, and ecological degradation, vocational education models focused solely on skill acquisition prove inadequate for these complex challenges. This paper presents a theoretical framework for transforming vocational education into a strategic policy instrument for social innovation and sustainable entrepreneurship. Using an interpretivist methodology grounded in critical policy ethnography, the study analyzes policy frameworks and conducts semi-structured interviews with 23 students and 15 faculty members at vocational institutes in Rajasthan. The study proposes reconceptualizing vocational institutions as “social innovation hubs” that generate sustainable entrepreneurship solutions.

Subject Classification (2020): 97B10, 97B30, 97B99, 97C60.

Keywords: Social entrepreneurship, Sustainable innovation, Vocational education policy, UN SDGs, Diffusion dynamics, Institutional theory.

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1. Introduction

Vocational education in developing countries faces a critical juncture. Despite significant investments in training infrastructure and curricular reform, the expected dividends of reduced unemployment, social inclusion, and sustainable growth, remain elusive [1], [2]. Traditional Vocational education, shaped by industrial-era human capital theory, assumes a linear relationship between skill development, employability, and productivity [3], [4]. However, this model has proved inadequate for addressing complex, interdependent twenty-first century challenges including climate change, technological disruption, and systemic inequality [5], [6]. Current Vocational education policies largely treat vocational training as a labour-market intervention, prioritising industry-ready workers over community-centred solutions [7], [8], leaving institutions disconnected from the Sustainable Development Goals (SDGs) [9].

Against this backdrop, this paper asks how Vocational education institutions in developing contexts can be reconceptualised as social innovation hubs that generate, diffuse, and scale sustainable entrepreneurial solutions aligned with the SDGs, guided by three subsidiary questions: what institutional and policy barriers inhibit this transformation; how governance frameworks enable or constrain social entrepreneurship and sustainability integration; and what mechanisms facilitate diffusion of socially innovative practices into wider communities. Theoretically, this paper integrates Social Innovation Theory [10], [11], [12], Institutional Economics [13], and Diffusion of Innovations Theory [14], [15], yielding the Diffusion Dynamics Convergence Model—conceptualising vocational institutions as nodes within broader innovation ecosystems capable of generating cascading social and economic impacts.

2. Literature Review and Theoretical Framework

India's Vocational education system has undergone several reform cycles, from the Craftsmen Training Scheme and Industrial Training Institutes (ITIs) to the National Skill Development Mission (2015) and National Education Policy (NEP) (2020), reflecting shifting paradigms linking skill formation to economic competitiveness and global labour-market participation [16], [17], [18]. Despite these reforms, persistent unemployment, skill mismatch, and marginalisation of community-based knowledge reveal the limitations of a purely human capital lens [3], [4]; Tilak [16] and Mehrotra and Ghosh [18] read skill formation as a social and institutional process rather than a purely technical one.

Alternative paradigms - Sen's [19] capability approach and the systems thinking of McGrath and Powell [20]-shift focus from labour-market readiness toward expanding human freedoms and treating Vocational education as part of an adaptive ecosystem of institutions, communities, and markets. Social Innovation Theory [10], [11], [12] bridges these views: social innovation denotes novel practices addressing unmet needs and improving collective wellbeing through collaboration and institutional transformation, often emerging in India from grassroots initiatives, cooperatives, and community enterprises [21], [22]. Sustainable Entrepreneurship [23] extends this by integrating economic viability with ecological responsibility, aligning enterprise development with the SDGs [24], [25], while the Diffusion of Innovations Framework [14] explains how such innovations diffuse through institutional and social networks [15]. This study's Diffusion Dynamics Convergence Model operationalises these three streams into three diffusion mechanisms: network effects, institutional adaptation, and capability enhancement [26], [27].

3. Methodology

The study adopts an interpretivist orientation, viewing policy and institutional practice as socially constructed and historically contingent [28], grounded in critical policy ethnography [29], [30], which examines policy as both discursive and material, with institutional ethnography [31] tracing how macro-level frameworks activate within vocational institutions' micro-contexts.

The empirical work was situated in Rajasthan, which encapsulates the structural tensions of India's Vocational education landscape and participates in the Skill India Mission through the Rajasthan Skill and Livelihoods Development Corporation (RSLDC). Data were collected via purposive sampling from 23 students and 15 faculty across government-funded and private VTIs selected for their involvement in sustainable enterprise, skill innovation, or community-oriented training. Student participants represented renewable energy, food processing, and tourism programs; faculty included trainers, curriculum coordinators, and institutional heads. Semi-structured interviews captured the heterogeneity of experiences and interpretive frames within these ecosystems. An ethical approval has been received for this study. The ethical approval number is IHECBITS/P/67/25. Every respondent has duly signed the informed consent and the names of the respondents have been anonymized.

4. Discussion and Analysis

4.1 *Policy–Practice Dissonance: The Symbolic Work of Vocational Reform*

While national frameworks such as the NEP 2020, the National Skill Development Mission (2015), and the Skill India Vision 2023 project Vocational education as an engine of inclusion and innovation, the interpretivist analysis reveals institutional practices remain dominated by instrumental, economistic imperatives, exemplifying what Ball [30] calls the “policy enactment paradox”: policy becomes performative rather than transformative, performing symbolic work that marginalises community-based and non-formal learning systems [29]. A senior faculty member noted:

“Curricula are designed centrally, largely reflecting industrial expectations, while community perspectives rarely inform what or how we teach.”

This dissonance can be theorised as institutional decoupling [32], [33], the gap between an institution’s formally stated policy language and its actual daily routines, wherein policy language outpaces institutional routines still bound to legacy accountability regimes, measuring placements rather than enterprises created.

Such contradictions reflect North’s [13] concept of path dependence, institutional norms persisting despite rhetorical innovation. Yet actors exhibit interpretive agency, where one faculty member linked electrical maintenance training to solar technology at a panchayat’s request, unmandated by the syllabus but valuable to students and community alike, illustrating what Ball [30] terms “creative non-compliance.” These low-visibility, unofficial acts of adaptation, termed *infrapolitics* [34], represent early forms of institutional innovation [35] that generate ripple effects across communities.

4.2 *Institutional Adaptation and the Recontextualisation of Policy*

Vocational institutions recontextualise national policy through sensemaking, negotiation, and institutional creativity [36], [37]. While formal compliance with national directives is widespread, institutions simultaneously embed alternative logics reflecting local socio-economic realities. As one faculty member explained, institutes follow the National Skills Qualifications Framework (NSQF) but modify training content for local needs such as water conservation or renewable energy maintenance.

Rajasthan’s hybrid governance regime, combining state funding, private partnership, and panchayat support, produces multi-level policy assemblages where competing objectives intersect [38], balancing

government-funded and CSR-funded courses against state targets and innovation expectations is not easy. Institutions frequently adopt language of innovation and entrepreneurship to align with global narratives while continuing through bureaucratic hierarchies, one principal admitting the term is used in reports because it is expected, even as the actual focus remains on placements.

Such institutional mimicry allows organisations to navigate conflicting demands and preserve operational stability [39]. One institute redesigned an electrical installation course around a community solar project, an instance of institutional bricolage [40], improvising new arrangements from available funding and partnerships are at hand to achieve developmental outcomes without formal policy frameworks. These solar modules later diffused to nearby districts through faculty exchanges.

4.3 Social Innovation and the Reorientation of Vocational Purpose

The reorientation of Vocational education towards social innovation represents a paradigmatic shift from labour supplier to producer of societal value, a collective, transformative process addressing unmet needs and enhancing societal capacity to act [10], [11], [12]. This requires educators to act as institutional entrepreneurs [35], leveraging available resources and legitimacy to introduce novel practices.

A social entrepreneur working in rural development observed:

“Traditional vocational training gives technical skills but not the ability to identify community problems or create solutions with social impact.”

A student highlighted the ecosystem deficit:

“We are five classmates starting a waste recycling enterprise, but face obstacles like credit and registration, while the government celebrates startup culture in engineering colleges and ignores us.”

These narratives demonstrate that transforming vocational institutions into social innovation hubs requires curricular change alongside a reconfiguration of governance, performance metrics, and institutional incentives. The Diffusion Dynamics Convergence Model, Figure 1, proposes three interconnected levers, network effects, institutional adaptation, and capability enhancement, which together convert locally-tested innovations into system-wide change.

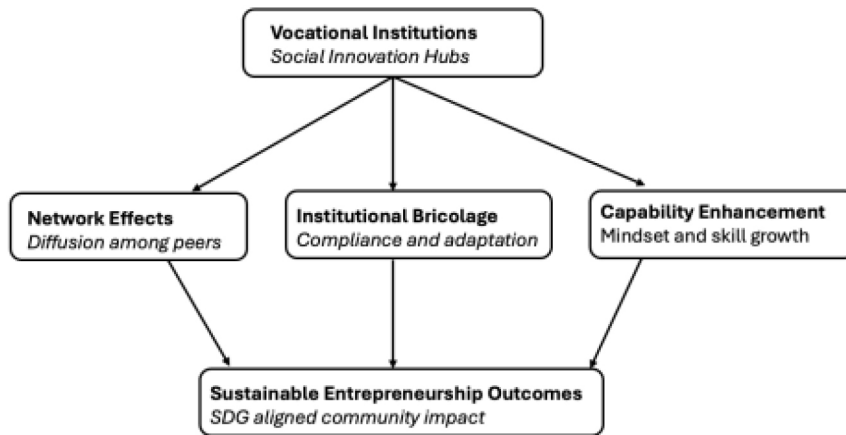


Figure 1

The Diffusion Dynamics Convergence Model: a vocational institution functioning as a Social Innovation Hub generates sustainable entrepreneurship outcomes through three converging diffusion mechanisms.

4.4 Limitations

The study's findings are geographically bounded to Rajasthan, and institutional-governance patterns may differ across India's more industrialised or remote states. The sample (23 students, 15 faculty) was purposively drawn from institutes already engaged in sustainability-oriented training, biasing findings toward more innovation-receptive contexts, and as a cross-sectional study it cannot trace how diffusion mechanisms unfold over time. Consistent with its interpretivist design, the study aims for analytical rather than statistical generalisability; future research should test the model across multiple states and longitudinally.

5. Conclusion

This study has argued for a fundamental reconceptualisation of Vocational education in India, from a labour-market supply mechanism to a distributed network for Sustainable Social Innovation. Drawing on interpretivist methodology and fieldwork in Rajasthan, the paper reveals a persistent tension between policy discourse and institutional enactment, reframing it as a space for interpretive agency that embeds social and ecological values within constraints. Key policy implications are that Vocational Education must be repositioned from labour market policy to

comprehensive development policy, with performance frameworks recognising social enterprise creation, community impact, and environmental outcomes alongside traditional employment metrics. State skill missions such as RSLDC could pilot outcome-based grants blending Corporate Social Responsibility (CSR) and public funding around verified community enterprises, the National Credit Framework could formally credit social-entrepreneurship modules, and NSQF indicators could add a social impact credit alongside placement rates. Multi-stakeholder governance must integrate community voices into curriculum design, and institutional incentives must reward social innovation, demonstrating how educational policy can catalyse multiplier effects across multiple SDGs simultaneously.

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Received April, 2026