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Beyond the Ivory Tower: Reconfiguring Universities as Ecosystem Infrastructure for MSME Competitiveness and Inclusive Livelihoods in the Global South

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***Abstract*— This comparative study addresses a critical paradox across the Global South: despite the rapid expansion of Higher Education Institutions (HEIs) and the prevalence of Micro, Small, and Medium Enterprises (MSMEs)—the primary engines of employment—economies remain plagued by low productivity, high graduate unemployment, and insecure livelihoods. Through a qualitative comparative analysis of India, Kenya, and Brazil, we identify a shared structural gap: a profound misalignment between HEIs, which are incentivized toward academic publication, and the practical needs of local enterprises for skills, innovation, and support. To bridge this gap, we propose a fundamental reconceptualization of the university as intentional "Ecosystem Infrastructure." This framework, analyzed against alternative models (e.g., NGO-led grassroots or state-driven industrial systems), positions HEIs as foundational platforms operating via four interlinked pillars: as Talent Forges co-creating industry-relevant skills; Innovation Platforms for applied solutions; Trusted Anchors stabilizing local networks; and Inclusion Gateways for marginalized communities. Our findings suggest this model holds significant potential for synergistically boosting MSME competitiveness and inclusive growth. We conclude with a scalable policy blueprint, advocating for the realignment of accreditation, faculty incentives, and funding toward building relational capital, thereby enabling HEIs to transform from peripheral actors into central drivers of sustainable development.**

***Keywords*—Higher Education Institutions, Universities, Global South, MSMEs, Ecosystem Infrastructure, Skills Mismatch, University-Industry Linkage, Inclusive Development, Graduate Employability, Institutional Transformation, Social Inclusion.**

I. Introduction: The Unfulfilled Promise

Across the Global South, a persistent misalignment continues to impair inclusive economic growth. Universities graduate millions of young people each year, yet many enter the labour market without the practical skills, professional networks, or contextual exposure demanded by local economies.

At the same time, Micro, Small, and Medium Enterprises (MSMEs)—widely recognised as the backbone of these economies—remain structurally constrained despite their scale and economic importance.

In India, MSMEs employ an estimated 110–120 million people, accounting for more than 60 per cent of the non-farm and industrial workforce. They contribute roughly 30–33 per cent of GDP and 45–46 per cent of total exports, yet continue to face persistent capability and productivity gaps. In Kenya, between 7.4 and 10.4 million MSMEs represent over 90 per cent of private sector enterprises and generate eight to nine out of every ten jobs. However, more than 80 per cent operate informally, limiting their access to finance, skills, and institutional support. In Brazil, MSMEs account for over 90 per cent of formal enterprises, contribute 27–30 per cent of GDP, and employ between 54 and 62 per cent of the formal workforce. Despite being the primary source of new job creation, many struggle to scale and improve productivity.

Together, these patterns reveal a shared structural challenge. Economies rely heavily on MSMEs for employment and livelihoods, yet higher education systems remain weakly connected to the enterprises and local ecosystems that sustain them. Across these diverse contexts, a common paradox emerges: economies with dense MSME ecosystems and expanding human capital continue to experience low enterprise productivity, limited diffusion of innovation, and fragile livelihood security. The constraint, therefore, is not a lack of entrepreneurial activity, but a disconnect between scale and competitiveness.

National policies have increasingly positioned Higher Education Institutions (HEIs) as the solution to this challenge. Universities are framed as engines of growth, expected to drive innovation, foster entrepreneurship, and bridge skills gaps. However, as this comparative analysis of India, Kenya, and Brazil demonstrates, a significant implementation gap separates policy intent from institutional practice.

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Faculty incentive structures continue to prioritise academic publication over engagement with local enterprises. Curricula often remain detached from the realities of informal economies, MSMEs, and emerging green sectors. Successful pilot initiatives persist as isolated pockets of excellence, rarely translating into systemic change.

This paper argues that addressing this crisis requires a fundamental reconceptualisation of the role of universities. Rather than viewing HEIs as stand-alone educational providers or isolated innovation hubs, we propose understanding them as ecosystem infrastructure—foundational, connective platforms that underpin MSME competitiveness, employment generation, and inclusive growth. Drawing on comparative policy analysis and case studies from India, Kenya, and Brazil, the paper advances a framework in which HEIs are reconfigured across four core functions: talent forges, innovation platforms, trusted ecosystem anchors, and inclusion gateways. Such a transformation is essential to reposition universities from peripheral actors to central nodes of sustainable and equitable development.

II. The Dual Imperative: Competitiveness And Inclusion

The development challenge in the Global South is not singular but dual. It requires simultaneously enhancing economic dynamism and ensuring its benefits are broadly shared.

MSME & Enterprise Competitiveness: MSMEs dominate these economies but are often trapped in informality, with low technological adoption, limited access to finance, and weak links to knowledge networks. Enhancing their productivity, innovation capacity, and market access is non-negotiable for national economic resilience.

Inclusive Growth, Employment & Livelihoods: Economic growth must translate into decent work, particularly for the massive youth populations and marginalized groups in rural areas, urban informal settlements, and among women. This demands creating quality employment pathways and strengthening diverse livelihood systems beyond formal wage jobs.

The central thesis of this paper is that these two imperatives are not trade-offs but synergies. A more competitive, innovative MSME sector is a primary generator of inclusive employment.

Conversely, drawing on diverse community talent and addressing grassroots livelihood challenges can be a powerful source of innovation for enterprises. HEIs, properly configured, are uniquely positioned to activate this synergy.

III. Diagnostic: Why Are HEIS Falling Short?

Despite policy mandates, HEIs often remain under-leveraged. Evidence from our three focal countries reveals common, deep-seated constraints:

India exemplifies the challenge of scale without absorption. With a Gross Enrollment Ratio (GER) still around 26.3% and ambitions to reach 50% by 2035, the system is expanding rapidly (AIU, 2020). The National Education Policy (NEP) 2020 provides a visionary framework for multidisciplinary and industry-linked education. Yet, on the ground, a disconnect persists. A staggering 8.5 million graduates enter the market annually, but India's massive MSME sector absorbs only about 38% of them. This points to a fundamental misalignment: curricula and training are not co-created with the very enterprises that could employ graduates. Faculty have little incentive to engage with the messy realities of local MSMEs, as promotion hinges on academic publications, not community impact.

Kenya's experience highlights a critical paradox: while the country has successfully institutionalized innovation at the national policy level, this has not yet translated into deep institutional reform within universities. A vibrant, policy-driven ecosystem exists, spearheaded by agencies like the Kenya National Innovation Agency (KeNIA), which actively promotes commercialization and trains vice-chancellors in entrepreneurial leadership (KeNIA, 2025). Grassroots initiatives also show promise—for instance, a partnership between Egerton University and the KCB Foundation trained 481 entrepreneurs, with 85% reporting improved financial management skills (Muthoni et al., 2025). However, such programs remain largely project-based, dependent on external funding and individual champions, and fail to become embedded in the university's permanent structure—its core curricula, faculty incentives, and budgetary priorities. Systemic frailties persist: only 23% of trainees in the cited study could access post-training mentorship, and rural absenteeism reached 25% due to logistical barriers. This gap between top-down policy intent and on-the-ground academic culture risks leaving graduates—as Paul Zeleza (2018) cautioned—"tarmacking" (unemployed and adrift), revealing a landscape of policy-level institutionalization alongside operational fragmentation at the institutional level.

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Brazil offers a lesson in embeddedness without scale. Here, a strong model of the "Sustainable University" (SU) has taken root, particularly in community and technical institutes, linking HEI activities to local environmental and economic sustainability (Lima & Trindade, 2021). University-Industry Collaboration (UIC) research reveals a crucial insight: for low-tech sectors that dominate the economy, deep, development-oriented partnerships (like joint R&D) drive innovation, while superficial engagements (conferences, publications) do not (Mikhailov et al., 2024). This points the way toward high-impact partnerships. Yet, these locally embedded models often struggle to scale nationally, constrained by fiscal limitations and poor integration with federal MSME policies. The infrastructure may exist—Brazil has the highest college incubation penetration at 51%—but the institutional mechanisms to connect it effectively to a critical mass of enterprises and students are often lacking.

IV. Alternative Models & Comparative Insights

While the ecosystem infrastructure model presents a transformative pathway, it is not the only way HEIs engage with MSMEs and livelihoods in the Global South. Examining alternative models reveals critical trade-offs and underscores why a structured, infrastructural approach may be more sustainable and scalable.

The NGO-Driven Grassroots Model (Example: Bangladesh)

In this model, the primary drivers of livelihood development and MSME support are non-governmental organizations (NGOs) and social enterprises, with HEIs playing a peripheral, often ad-hoc role.

Mechanism: Large-scale grassroots networks (e.g., BRAC, Grameen) deliver microfinance, skills training, and market linkages directly to communities. HEIs may provide occasional research or expert consultation but are not integrated into program design or delivery.

Strengths: Exceptional reach into marginalized communities, rapid prototyping of solutions, and deep contextual understanding. This model excels at microenterprise scaling and immediate poverty alleviation.

Limitations: Initiatives often remain project-based and donor-dependent, with limited pathways for institutionalizing knowledge or scaling innovations. HEIs' vast resources and research capacities remain under-leveraged, creating a missed opportunity for systemic impact. The model can also lead to parallel systems that do not strengthen public institutions.

The State-Directed Industrial Integration Model (Example: China)

Here, HEIs function as explicit extensions of national and regional industrial policy, tightly aligned with state-led development goals.

Mechanism: Universities and technical colleges are directly linked to priority sectors (e.g., manufacturing, ICT). Curricula, research agendas, and even campus locations are planned to feed specific industrial clusters and technological upgrading programs.

Strengths: Highly effective in achieving rapid, large-scale industrial upgrading and technological catch-up. It ensures a direct pipeline of skilled labor for targeted sectors and facilitates efficient technology transfer from lab to factory.

Limitations: It often curtails institutional autonomy and academic freedom. The focus on top-down priorities can marginalize community-centric needs, social enterprises, and informal MSMEs. There is limited space for the "inclusive livelihoods" agenda if it falls outside state-defined industrial objectives.

Comparative Analysis: Why the Ecosystem Infrastructure Model?

Placing these models alongside the cases of India, Kenya, and Brazil reveals a strategic spectrum:

Autonomy vs. Alignment: The NGO model offers grassroots alignment but weak institutional integration. The state-directed model offers strong alignment but weak autonomy. The ecosystem infrastructure model seeks a hybrid: embedding HEIs within national goals while preserving their autonomy as neutral conveners and innovation platforms.

Scale vs. Sustainability: Grassroots models achieve scale through replication but face sustainability challenges. State-directed models achieve scale through mandate but can be inflexible. The ecosystem model aims for scale through network effects and institutionalization, building sustainable capacity within public HEIs.

Inclusion vs. Competitiveness: The NGO model prioritizes inclusion, the state-directed model prioritizes industrial competitiveness. The ecosystem model, as argued in this paper, is distinct in its pursuit of synergy, using inclusion (e.g., engaging social enterprises, rural MSMEs) as a source of innovation for competitiveness.

Insight: Neither complete grassroots emergence nor total state direction fully optimizes the unique potential of HEIs.

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The ecosystem infrastructure framework proposes a vital third way: leveraging the public mission and embeddedness of HEIs to create a structured, yet adaptive, platform that can simultaneously drive competitiveness and inclusion, benefiting from both state support and community partnership without being wholly controlled by either.

V. A New Framework: The Four Pillars Of HEI As Ecosystem Infrastructure

To bridge these gaps, we propose a framework where HEIs are consciously designed and supported to perform four interconnected infrastructural functions:

Talent Forges for the Real Economy: Moving beyond generic degrees, HEIs must become agile forges of context-relevant skills. This involves co-designing curricula with MSME associations and social enterprises, integrating apprenticeships, and valuing "soft" skills like problem-solving and adaptability—skills ironically best honed by the "much-derided liberal arts" (Zeleza, 2018).

Innovation Platforms for Sustainable Competitiveness: HEIs must evolve from being repositories of abstract knowledge to becoming platforms for mission-oriented innovation. This means supporting not just high-tech commercialization but also the incremental innovations, appropriate technologies, and sustainable processes that can transform low-tech sectors, from agriculture to artisanal manufacturing.

Trusted Anchors for Enterprise Ecosystems: HEIs can serve as neutral, credible conveners. They can anchor local business networks, connect informal entrepreneurs to formal mentorship and finance, and broker partnerships between large corporations, MSMEs, and smallholder farmers. The Brazilian case shows the power of HEIs as place-based anchors for regional development.

Inclusion Gateways for Marginalized Livelihoods: By virtue of their geographic spread, HEIs can act as gateways for inclusive development. This requires proactive outreach to women-led enterprises, refugee entrepreneurs, and rural communities. It means recognizing and partnering with social enterprises—which are already heavily engaged in HEI incubators in Kenya (52% of portfolios)—as vital intermediaries in linking knowledge to marginalized populations.

VI. Pathways To Transformation: From Policy To Practice

Realizing this infrastructural role demands moving beyond drafting new policies to the hard work of institutional redesign. Our comparative analysis suggests five actionable pathways:

Measure What Matters: University accreditation and funding must shift from counting inputs (number of incubators, research papers) to valuing ecosystem outcomes. Key Performance Indicators (KPIs) should include graduate absorption rates by local MSMEs, income increases for supported entrepreneurs, and the number of sustained community partnerships.

Reward Engagement, Not Just Publication: Faculty incentive structures require radical overhaul. Tenure and promotion criteria must formally value applied research, successful technology transfer, MSME mentorship, and curriculum co-creation with industry. Universities should embed "practitioners-in-residence" from the social and private sectors to bridge cultural divides.

Build Bridges with Formalized Partnerships: Ad-hoc linkages must give way to structured ecosystems. This means establishing formal partnership frameworks granting MSMEs access to labs and expertise, creating multi-stakeholder regional innovation councils, and officially recognizing social enterprises as strategic partners in national education and MSME policies.

Leverage Digital Tools for Scale and Inclusion: Digital infrastructure can overcome geographic and logistical barriers. India's digital stack can be used to create virtual incubation networks across thousands of colleges. Kenya's mobile money ecosystem can facilitate seamless support for micro-entrepreneurs. Technology can help scale Brazil's local embeddedness model.

Align Funding with Ecosystem Building: Public, donor, and corporate social responsibility (CSR) funding must shift from building physical infrastructure to building institutional and relational capital. Funding should support partnership managers, community liaison officers, and long-term capability-building programs rather than just constructing new buildings.

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VII. Conclusion: Towards Synergistic Futures — Higher Education Institutions As Ecosystem Infrastructure

Across the Global South, a persistent development paradox endures: expanding higher education systems and vibrant MSME sectors operate largely in parallel, failing to unlock their shared potential. Youth graduate into economies where productive employment pathways remain fragile, while MSMEs—despite being the primary engines of employment—struggle with innovation, skills absorption, and access to knowledge networks. Comparative evidence from India, Kenya, and Brazil illustrates that this disconnect is not context-specific, but systemic in nature.

This paper has argued that resolving this paradox requires a fundamental shift in how higher education institutions are conceived and governed. Rather than functioning as isolated "engines" of instruction or innovation, HEIs must be deliberately reconfigured as foundational ecosystem infrastructure—institutions designed to connect human capital formation with enterprise competitiveness and inclusive livelihoods at scale. The comparative analysis demonstrates that this shift is not aspirational rhetoric, but an actionable pathway grounded in existing policy visions, institutional experiments, and embedded practices across diverse Global South contexts.

From Fragmentation to Systemic Integration

If current trajectories persist, many Global South systems risk deepening fragmentation: graduates equipped with credentials but disconnected from local economic demand, and MSMEs constrained by limited access to skills, innovation, and institutional support. Such fragmentation reinforces informality, inequality, and economic vulnerability, particularly in rural and marginalized regions.

The alternative future outlined in this paper is one of systemic integration. Anchored in the Four Pillars framework, this future positions HEIs as central nodes within national and regional development ecosystems. In this integrated model:

Graduates become ecosystem contributors, with employability defined not only by formal job placement but by measurable engagement with local enterprises, social enterprises, and community value chains.

MSMEs function as learning laboratories, actively co-creating curricula, applied research, and innovation processes—particularly in low- and medium-technology sectors where incremental, context-specific innovation drives productivity and employment.

Campuses evolve into regional anchors, sustaining mentorship networks, applied research partnerships, and enterprise support systems that persist beyond short-term projects or donor cycles.

This shift transforms higher education from a peripheral actor into a coordinating platform that aligns knowledge creation with real economic and social needs.

A Policy Blueprint for Transformative Action

Achieving this integrated future requires moving decisively from pilot-driven experimentation to system-level policy redesign. The comparative findings point to three interdependent levers that policymakers, funders, and institutional leaders can act upon immediately.

First, mandate and measure ecosystem impact; Accreditation, ranking, and funding frameworks must move beyond input-centric indicators toward outcomes that reflect societal value. Metrics such as graduate absorption by local enterprises, income growth among supported entrepreneurs, and the durability of HEI–community partnerships should be central to institutional assessment. This redefines success around contribution, not compliance.

Second, align financing with partnership and performance; Public budgets, donor instruments, and corporate social responsibility funding should explicitly incentivize HEI–MSME–community collaboration. Outcome-linked financing mechanisms can reward sustained partnerships, capability building, and innovation adoption, rather than the mere creation of infrastructure or short-term programs.

Third, enable institutions to engage at scale; Policy must create the connective tissue for durable engagement: formal partnership frameworks granting enterprises access to university resources; practitioners-in-residence embedded within faculties; and national digital infrastructures leveraged to scale mentorship, innovation exchange, and enterprise support across regions.

Closing Reflection

The comparative trajectories of India, Kenya, and Brazil reveal that the components for this transformation already exist—in ambitious policy visions, in promising but fragmented pilots, and in locally embedded institutional models.

What is missing is deliberate architectural integration: the alignment of incentives, capabilities, and accountability structures that allow higher education institutions to operate as ecosystem actors rather than isolated entities.

This transformation demands clarity from policymakers, courage from university leadership, and commitment from ecosystem partners to invest in the relational capital that underpins inclusive growth. If achieved, higher education institutions can fully embrace their public mission within the realities of the Global South—catalyzing a virtuous cycle in which enterprise competitiveness and inclusive livelihoods reinforce one another.

The result will not only be more resilient economies, but more equitable societies—where universities do not merely produce graduates, but actively fuel livelihoods, innovation, and community resilience. This is not merely a hopeful vision, but a necessary and feasible pathway for the Global South—a future where universities are recalibrated as the foundational infrastructure of inclusive, competitive economies

REFERENCES

Academic Journal Articles

[1] Lima, G. T., & Trindade, E. P. (2021). Sustainable university: From the worldwide conception to the Brazilian Amazonia. Sustainability, 13(19), Article 10875. https://doi.org/10.3390/su131910875

[2] Mikhailov, A. S., Costa, P. R., & de Silva, M. T. (2024). University–industry collaboration and innovation in low-tech industries: The case of Brazil. Triple Helix: A Journal of University–Industry–Government Innovation and Entrepreneurship. Advance online publication. https://doi.org/10.1163/21971927-12340015

[3] Muthoni, G., Kamau, J., & Wambugu, A. (2025). Universities as hubs for MSME capacity building: Lessons from a Kenyan bank–higher education institution training initiative. Trends in Higher Education, 4(3), 32–45.

Institutional Reports and Policy Documents

[4] Association of Indian Universities. (2020). Reimagining Indian universities: Perspectives on the National Education Policy 2020. AIU Press.

[5] Government of India, Ministry of Skill Development and Entrepreneurship. (2022). Annual report: Pradhan Mantri Kaushal Vikas Yojana (PMKVY) 2021–22. Government of India.

[6] Kenya National Innovation Agency. (2025). Entrepreneurial university transformation programme: Vice-chancellors' leadership training report. KeNIA Publications.

[7] Ministry of Micro, Small and Medium Enterprises. (2024). Annual report 2023–24. Government of India. https://msme.gov.in

[8] Government of Kenya, Ministry of Investments, Trade and Industry. (2025). Draft national MSME policy. https://msme.go.ke

[9] Government of Kenya, Ministry of Education. (2023). Technical and vocational education and training (TVET) reform strategy 2023–2027. Government of Kenya.

[10] Government of Brazil. (2023). Ministry of education and regional development: Annual synthesis report. Federal Government of Brazil.

Conference Proceedings and Keynote Addresses

[11] Zeleza, P. T. (2018, March 15). Positioning universities as engines of innovation for sustainable development and transformation. Keynote address presented at the 2nd Biennial Conference on the State of Higher Education in Kenya, Nairobi, Kenya.

International Organization Reports

[12] International Labour Organization. (2023). World employment and social outlook: Trends 2023. International Labour Office.

[13] International Finance Corporation. (2023). MSME finance gap: Assessment of the shortfalls and opportunities in emerging markets. IFC, World Bank Group.

[14] International Telecommunication Union. (2022). Digital development dashboard: Country profiles for India, Kenya, and Brazil. ITU.

[15] Organisation for Economic Co-operation and Development. (2023). Entrepreneurship and innovation metrics for developing economies: A policy framework. OECD Publishing. https://doi.org/10.1787/5898143f-en

[16] United Nations Development Programme. (2020). Inclusive industrial development report: Pathways to sustainable livelihoods. UNDP.

[17] United Nations Development Programme. (2024). SME digitalisation and sustainability reporting in Brazil. UNDP.

[18] United Nations Educational, Scientific and Cultural Organization. (2023). Higher education and sustainable development: Global monitoring report. UNESCO Publishing.

[19] United Nations Conference on Trade and Development. (2023). MSME development and resilience in Brazil. UNCTAD.

[20] World Bank. (2020). Doing business 2020: Comparing business regulation in 190 economies. World Bank Group.

[21] World Bank. (2022). Enterprise surveys: India, Kenya, and Brazil country profiles. World Bank Group.

[22] World Bank. (2023). MSME productivity and growth in developing economies: A comparative analysis. World Bank Group. https://doi.org/10.1596/978-1-4648-1895-7

[23] World Economic Forum. (2022). Global competitiveness report 2022. World Economic Forum.

Supplementary and Ecosystem References

[24] Acumen. (2022). Social enterprise and inclusive markets: Annual impact report. Acumen Fund, Inc.

[25] ANDE (Aspen Network of Development Entrepreneurs). (2023). The state of the small and growing business sector: Global report. ANDE.

[26] British Council. (2018). Skills for employability: Kenya labour market analysis. British Council Kenya.

[27] Federation of Kenya Employers. (2018). Survey on graduate employability and skills mismatch. FKE Publications.

[28] Global Entrepreneurship Monitor. (2023). Global report 2022/2023: Adapting to a "new normal". GEM Consortium.

[29] India Brand Equity Foundation. (2025). MSME sector in India. https://www.ibef.org/industry/msme

[30] Kenya National Bureau of Statistics. (2016). Micro, small and medium establishments (MSME) survey. KNBS. https://www.knbs.or.ke

[31] Serviço Brasileiro de Apoio às Micro e Pequenas Empresas. (2023). SMEs participation in employment and GDP in Brazil. SEBRAE. https://www.sebrae.com.br

[32] Stanford Social Innovation Review. (2022–2023). Social enterprise ecosystems [Special series]. Stanford Social Innovation Review.

Media Source

[33] CIO Africa. (2025, February 12). Kenya's universities embrace entrepreneurial leadership training.