

Economic Patriotism as a Catalyst for Economic Indigenization: The Role of Higher Education Institutions (HEIs) in India

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Abstract

Self-reliance and domestic innovation are the pillars of economic patriotism, which has become a change of strategy in developing strategies. This paper discusses the importance of Indian Higher Education Institutions in triggering the process of indigenization within the framework of the Atmanirbhar Bharat. Based on quantitative secondary data, it evaluates correlations among HEI outputs in terms of Gross Enrolment Ratio, patent filings as well as start-up incubation and GDP growth. The existence of moderately positive associations ($r = 0.50-0.56$) testifies to the institutional importance of HEIs. According to patent applications and start-ups, which increased by 147 and 400 percent, respectively, campus-based innovation ecosystems are thriving. The paper suggests increased research and development investment and more robust commercialization channels to reap academic potential into long-term economic development in the mother country.

Keywords: Economic patriotism, indigenization, HEIs, patents, startups, India.

1. Introduction

Against the premise of continuous economic turmoil across the planet, including supply chains disruptions, geopolitical tensions, and swift technological advancements, countries are essentially questioning their reliance on external markets and resources (Bednarski et al., 2025). The reinforcement of the idea has triggered a revival of patriotism about economies as a strategic policy orientation, which entails national economic interests, domestic capability-building and systemic resilience to the core. In contrast to traditional protectionism, economic patriotism functions by an occasionally more subtle edifice of policy incentives, institution and social-economic signalling - all of them dominated by the favouritism of locally-produced goods, services and technologies (Blauberger and Wonka, 2026; De Luca, Lorenzini, and Goldsmith, 2025).

This orientation has been most ambitious in India, with the introduction in early 2020 of the Atmanirbhar Bharat (Self-Reliant India) measure, an explicit policy action based on the structural weaknesses revealed by the COVID-19 pandemic (Parihar et al., 2025). Instead of withdrawing into isolationism the effort aims to make India a globally competitive, localized domestically based economy both by reducing import-dependency in vital sectors like electronics, defence sectors, pharmaceuticals, and renewable energy besides increasing the capacity of India based production and value chains. S complementary policies, such as the Make in India and Production Linked Incentive (PLI) policies have further enshrined this economic indigenization push - here not in its import substitution sense, but rather in its sense of promoting the creation of long-run domestic ecosystems that can sustain innovation, human capital formation, and institutional depth (Sharma and Borgohain, 2024; Kohli, 2023; Wandhe, 2024; Sandhu, Dayanandan, and Kuntluru, 2025; Tippa and Mane, 2023; Upadhyay and Malik, 2024; Kaur, 2023).

At the center of this transformation is the Higher Education Institutions (HEIs) that plays a central role in putting national economic ambitions into a real eventuality. The potential of HEIs to foster economic patriotism via creation of young innovators and systems of indigenous knowledge is significant as noted during the Association of Indian Universities (AIU) West Zone Vice Chancellors Meet 2026. Universities and colleges play a very vital role, serving as sources of research and development (R&D), intellectual property (IP), and entrepreneurial talent, in knowledge-driven economic development. The system of higher education in India, comprising more than a thousand universities and tens of thousands of colleges, has seen major positive outcomes in enrolment, rates of innovation and start-up incubation, especially in the policy landscape of post-2020 under the National Education Policy (NEP) 2020 and the Atal Ranking of Institutions on Innovation Achievements (ARIIA) (Milln, 2024;De, 2025;Association of Indian Universities, 2026;Syed, Singh, and Spicer, 2023).

Regardless of these, there are still fragmented and sporadic empirical studies that systematically attribute indicators of HEIs outputs to economic indigenization and beyond to the macroeconomic performance (Chaudhary et al., 2025; Parihar et al., 2025; Chauhan, Trikha, and Singh, 2024; Behera and Kumar, 2023). The paper will fill that gap by offering insights into how much Indian HEIs serve the purpose of indigenization, in the context of an economic patriotism framework, by assessing how the major institutional outputs, in terms of Gross Enrolment Ratio (GER), patent activity, and within startup incubation relate to economic growth over 2020-25. The paper also examines the dissimilar role played by public and private institutions in the process, and makes three substantive contributions to the literature, first, it synthesizes the theoretical discussion of economic patriotism with practical facts of higher education; second, it brings empirical evidence-based conclusions about the role of HEIs as the architect of indigenous innovation ecosystems in the post-Atmanirbhar Bharat era (Kırıktaş and Kanbir, 2025), and thirdly it advances policy-relevant recommendations at the intersection of higher education, innovation, and national economic strategy

The paper will start as follows: The literature review of the relevant literature was provided in Section 2, the research design is outlined in Section 3, the empirical findings are presented and discussed in Section 4, and the conclusions and the directions of future research are offered in Section 5.

2. Literature Review

With an increasing global economic turbulence, caused by supply chain disruptions, geopolitical tension and technological estrangement, countries are reevaluating their reliance on external markets. This has provoked economic patriotism to reemerge, as a strategic policy orientation, placing the national economic interests, domestic capabilities and resilience at the forefront. Researchers describe it as a subtle kind of protectionism that uses policy promotions, institutional assistance, and social-economic signalling to facilitate consumption and production of domestically produced goods, services, and technologies (Sharimakin, Alao, and Omosuyi, 2024; Hoeffler, 2023; ML, 2023).

Higher Education Institutions (HEIs) are key players in the knowledge economy. Alam (2024) discusses HEIs' roles in possible solutions to societal and economic issues, innovation and human capital. Singh et al. (2023) notes HEIs' role in "economic growth, technological advancement, and job creation, particularly in knowledge-based sectors". Ghosh et al. (2016) affirms HEIs' important role in R&D. Goyal et al. (2023) stresses their capacity to promote

sustainable growth through partnerships between policymakers and HEIs, whereas Kandakatla et al. (2021) exhibits HEIs' unique alignment with the Aatmanirbhar (self-reliant) India vision through entrepreneurship and innovation support.

Sustainable indigenisation, though, is not merely import substitution, it requires the development of the local ecosystems based on innovation, human resources and institutional ability. Institutions of Higher Education (HEIs) play a critical role in this change. Higher Education Institutions (HEIs) serve as pivotal generators and disseminators of knowledge, channelling intellectual output toward productive economic outcomes through systematic research and development initiatives, the creation and commercialization of intellectual property, and the cultivation of entrepreneurial activity. Enrolments, level of innovation and start-up incubation have been rapidly increasing in the higher education sector in India since 2020 (Patil, 2025; Jawed, 2024; Nithya, 2024; Chowdhury and Hanumanthu, 2023). Such policy frameworks like National Education Policy (NEP) 2020, the Atal Ranking of Institutions on Innovation Achievements (ARIIA) have additionally incorporated innovation into academic ecosystems. However, there is still a paucity of rigorous empirical evidence that directs the relationship between HEI outputs and indigenisation (and macroeconomic performance more broadly) (Korotayev, Vaskin, and Tsirel, 2021)

The current paper fills that gap exploring how HEIs as a measure of economic indigenisation in 2020-25 through the Gross Enrolment Ratio, patent activity, and start-up incubation may help to fill that gap besides delineating individual contributions of both the public and private institution.

3. Methodology

This research design uses the quantitative time-series study design to research the relationship between Higher Education Institution (HEI) outputs and economic growth as forms of economic patriotism and indigenization in India (Reznikova, Panchenko, and Bulatova, 2018; Rashid et al., 2025). The 2020–2025 (n=6) annual secondary data was analysed under the policy framework of post-Atmanirbhar Bharat which focuses on self-reliance, domestic innovation and the ability to build indigenous capabilities. This time frame captures the systemic shocks of COVID-19 as well as the following recovery that offers a valuable time frame to evaluate the role of innovation-driven education to macroeconomic performance.

The empirical-based model is built on the variables that demonstrate the indigenization guided by HEI. The Gross Enrolment Ratio (GER) is a proxy of human capital growth, and the GERs metrics of innovation output and entrepreneurship are the number of patent application and activity in start-up incubator, respectively (Coscarello, 2025). GDP growth is used as the main macroeconomic outcome and regression is performed on these independent variables. The sources of data were trusted repositories AISHE, Indian Patent Office, FICCI-EY reports and RBI statistics; data were standardised to promote cross-source consistency. With descriptive analysis, there is a sustained growth observed on all of the HEI indicators indicating a continuation of the enhancement of India as a higher education/innovation ecosystem over the period of investigation.

The analysis model is a combination of descriptive statistics, Pearson correlation and Ordinary Least Squares (OLS) regression, which determines the direction and strength of the correlation between outputs of HEI and GDP growth.

$$\text{GDP Growth}_t = \beta_0 + \beta_1 \text{Patents_HEI}_t + \text{Startup_HEI}_t + \varepsilon_t \quad (1)$$

where, β_0 is Intercept i.e. the expected GDP growth when both Patents_HEI and Startups_HEI = 0

β_1 Coefficient for Patents_HEI, i.e., the change in GDP growth for each 1-unit (1,000) increase in HEI patents

β_2 is coefficient for Startups_HEI, ie, The change in GDP growth for each 1-unit (1,000) increase in HEI startups

ε_t is Error term, ie, the random unexplained variation in GDP growth not captured by the model

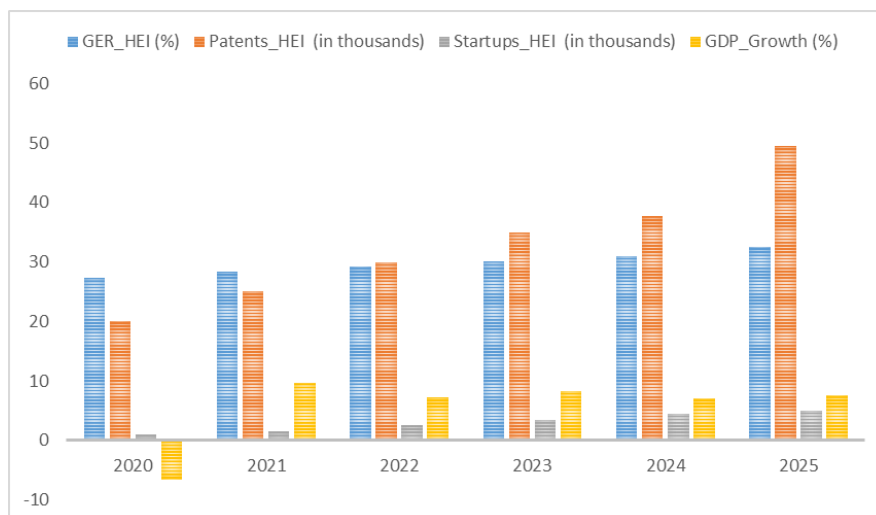


Figure 1 Trends in Higher Education Enrollment (GER), Innovation Output (Patents & Startups), and GDP Growth (2020–2025)

4. Results and Discussion

Empirical data based on the 2020-2025 dataset provides a great deal of evidence of the changing role of Higher Education Institutions (HEIs) in the overall exercise of economic indigenization in India, as part of a larger concept of economic patriotism. Figure 1 exemplifies the trends in higher education enrolment (GER), innovation output (patents and start-ups), and GDP growth in India over the period 2020 to 2025. The results indicate a steadily increasing trend in innovation productions led by HEIs as well as a moderate but statistically significant association with macroeconomic performance. Such outcomes hold some special significance against the backdrop of post-Atmanirbhar Bharat policy measures, which clearly emphasizes the formation of domestic capabilities and technological independence. Combined, the evidence makes HEIs key actors within the institution that facilitate the policy intention into its economic manifestation.

Descriptive statistics have validated that there is strong growth in all key indicators of HEI which are a pointer that there is a structural change towards innovation-driven higher education. The number of patent applications was up by a staggering 147.5 % over the period of the study and the number of start-up incubation also shot by an incredible 400% indicating the ever-growing institutionalization of entrepreneurial activity in universities. Patent filings by HEIs surged from 20,000 (2020) to 49,531 (2025), constituting 39% of the national total, with private institutions leading significantly. Over 5,000 start-ups raised \$2.5 billion collectively. IITs filed 6,558 patents with a 43% grant rate, IISc achieved 68% success, and Chandigarh University recorded 1,247 student patents in 2025. This is consistent with the current literature indicating that universities and colleges are becoming more of an entrepreneurial hotpot where they have the potential to directly support knowledge commercialisation and growth of the regional economy (Indira and Kumar, 2018; Kadia and

Parmar (2025). The long term increase in the Gross Enrolment Ratio (GER) also enhances human capital development as the basis of long-term growth which is in line with endogenous growth models. At the same time, the recovery of the GDP growth after the post-COVID 19 is an indication of a Macro economic environment that is more competent to absorb and exploit the education and innovation potential. All these signs point to the fact that HEIs are not passively reacting to the policy prodding, but are also full co-architects to the process of India becoming more of an indigenised economy.

The complexity of the HEI ecosystem and its interrelationship to the economic performance can be enlightened through the use of correlation analysis (Saha, Saha, and Saha, 2022;Kokkinopoulou, Vrontis, and Thrassou, 2025). The correlation between GER, patent activity and formation of startups ($r = 0.9699$) is exceptionally higher, which is a good evidence of knowledge system that is highly integrated and where the enlarged participation in higher education is correlated to research production and start up formation is done in an effective manner. This discovery correlates with the concept of Triple Helix model that highlights how closely universities, industry, and government are interdependent when it comes to innovation (Szczepanska-Woszczyna et al., 2024). Moreover, the moderate positive coefficients between the outputs of HEI and GDP growth ($r = 0.50-0.56$) indicate that the higher education will have a significant meaning to macroeconomic performance albeit via indirect-lagged linkages. This is in line with previous empirical studies on long-term economic payoffs to investment in higher education in the form of increases in productivity and improvement in technology (Mäkitie et al. (2022). When viewed through economic patriotism, this research findings support the premise that developing sustainable growth by enhancing a country-based knowledge base is achievable by creating a situation in which it does not require foreign technological contributions (Esposito, Ferrante, and Scicchitano, 2025).

The results of a regression, though, add valuable analysis. The coefficients of the patent activity and startup incubation, though, are positive but not statistically significant and the model explains a small portion of GDP ($R^2 = 0.276$). This can be greatly credited to the small sample size as well as the complexity of macroeconomic determination that involves fiscal, global as well as sectoral variables that are not available in the existing model. In addition, the correlation between the results of HEIs and economic performance is probably non-linear with significant time lags, especially in relation to the process of commercialisation of innovations and industrial diffusion (Munari et al., 2024). The interpretation of statistically insignificant should then be seen as part of the methodological shortcomings and the long gestation period of education-based growth, which is also admitted by previous short perspectives time-series on the education-growth nexus (Temple, 1999).

One of the strengths of the current study is its distinction between the two types of HEIs: a public and a private one. The statistics indicate that the quality of research done by private institutions is better with more of them having a leading advantage in terms of volume of patent filing whereas the public institutions have higher success in terms of grant (Pandey, De Coninck, and Sagar, 2022). This dual form indicates the dyadic nature of the Indian higher education system in which, on the one hand, private institutions are becoming more market logical and performance oriented than on the other, where, on the other, the old research infrastructure and state patronage advantages the activities of the public institutions. Such complementarity is reminiscent of the literature on hybrid innovation systems (Awawdeh et al., 2022), and in particular of economic patriotism where entrepreneurial dynamism and

strategic intervention by the state have to collectively develop indigenous capacity to innovate (Cervelló-Royo et al., 2026).

These results are widely in line with endogenous growth theory which recognizes the production of knowledge and accumulation of human capital as the key drivers of continuous economic growth. With patent inventions and incubators of start-ups, HEIs produce non-rival goods of knowledge that can increase factor productivity Laplane (2024). Economic patriotism offers the needed demand-side push in its turn, building policy-regulated markets of indigenous innovations with the help of such tools as Production Linked Incentive (PLI) programmes and specialized start-up financing programmes. The resultant clash between supply-side creation of knowledge and demand-side policy is a result of a more advanced logic of development that cuts across the traditional protectionism/liberalisation dichotomy.

Table 4.1: Descriptive Statistics

Variable	Mean	SD	Min	Max	% Change (2020–2025)
GER_HEI (%)	30.0	1.8	27.3	32.5	+19.1
Patents_HEI (in thousands)	32.9	9.4	20.0	49.5	+147.5
Startups_HEI (in thousands)	3.0	1.4	1.0	5.0	+400.0
GDP_Growth (%)	4.5	6.2	-6.6	9.7	N/A (recovery)

Table 4.2: Correlation Matrix

	GER_HEI	Patents_HEI	Startups_HEI	GDP_Growth
GER_HEI	1.000	0.993	0.981	0.560
Patents_HEI	0.993	1.000	0.961	0.525
Startups_HEI	0.981	0.961	1.000	0.509
GDP_Growth	0.560	0.525	0.509	1.000

Table 4.3: OLS Regression Summary (GDP_Growth ~ Patents_HEI + Startups_HEI)

Variable	Coef	Std Err	t-stat	p>	t
Const	-4.116	15.913	-0.259	0.813	[-54.76, 46.53]
Patents_HEI	0.275	1.029	0.267	0.807	[-3.00, 3.55]
Startups_HEI	0.192	6.633	0.029	0.979	[-20.92, 21.30]

Variable	Coef	Std Err	t-stat	p>	t
R²	0.276	Adj. R ² : - 0.206	F: 0.573 (p=0.616)	N=6	

5. Conclusion

This paper explores the role of Higher Education Institutions (HEI) as key players of economic indigenization in the context of the India Government policy framework of Atmanirbhar Bharat (2020-2025) by comparing the intentions behind a policy to practical results in terms of human capital formation and output of innovation and entrepreneurial activities. The analysis of empirical data shows that the enrolment, patenting, and start-up activity have considerable interdependences, and that the impact of HEIs on the GDP growth is indirect and time-lagged, which further illustrates that these institutions are long-term, and not short-term economic factors. This creates a complementary public-private relationship where national institutions anchor the depth of research and scale and entrepreneurial responsiveness is generated by the driver of the private HEIs alongside a hybrid ecosystem of innovation. Theoretically, the paper contributes to the development of the notion of economic patriotism by refreezing universities as soft institutional players and expanding the endogenous growth theory by acknowledging the role of HEIs as sources of non-rival knowledge. Nevertheless, irrespective of the constraints of sample and aggregation, the results confirm the importance of HEIs in achieving self-reliant, innovation-driven and economically resilient India.

References

1. Alam, M. S., & Biswas, N., 2024, Knowledge Economy and Higher Education Institutions: A Review, *Economic Affairs*, Vol. 69(1), pp. 675–684.
2. Association of Indian Universities, 2026, Concept Note: AIU West Zone Vice Chancellors' Meet 2025–26—Self-Reliant Bharat through Swadeshi, Economic Patriotism and Techno-Nationalism, AIU, March 17–18.
3. Awawdeh, A.E., Ananzeh, M., El-khateeb, A.I., and Aljumah, A., 2022, Role of Green Financing and Corporate Social Responsibility (CSR) in Technological Innovation and Corporate Environmental Performance: A COVID-19 Perspective, *China Finance Review International*, 12(2), 297–316.
4. Bednarski, L., Roscoe, S., Blome, C., and Schleper, M.C., 2025, Geopolitical Disruptions in Global Supply Chains: A State-of-the-Art Literature Review, *Production Planning & Control*, 36(4), 536–562.
5. Behera, M. and Kumar, R., 2023, Ranking of Indian Institution of Technology (IITs) in Global and Indian Ranking System: A Comparative Study, *Library Philosophy and Practice*, 1–14.
6. Blauburger, M. and Wonka, A., 2026, Debating EU Actions against Democratic Backsliding in Hungary: Shifting Government and Opposition Frames, *JCMS: Journal of Common Market Studies*, 64(2), 641–668.
7. Cervelló-Royo, R., Devece, C., Galdón, J.L., and Lull, J.J., 2026, Towards the Knowledge Society: A Definition, Measurements, and Limits, *Journal of Innovation & Knowledge*, 12, 100873.
8. Chaudhary, A.K., Chauhan, S.S., Morr e, S.A., and Lal, J.A., 2025, Impact of National Science and Technology (S&T) Policy Framework on Technology Transfer from Indian Academic Research Institutions, *Journal of Scientific & Industrial Research (JSIR)*, 84(9), 1005–1013.
9. Chauhan, A., Trikha, R., and Singh, K., 2024, Reinvigorating Science, Technology, and Innovation in the Country by Factoring Components of the Innovation System, in *Science, Technology and Innovation Ecosystem: An Indian and Global Perspective*, Springer Nature Singapore, Singapore, pp. 57–105.

10. Chowdhury, A.R. and Hanumanthu, P., 2023, Analysing India's National Education Policy from the Angle of Research, IP, Innovation, and Entrepreneurship, *Journal of Intellectual Property Rights (JIPR)*, 28(3), 211–215.
11. Coscarello, M., 2025, Social Innovation Hubs: Experiences of Incubators as Promoters of Territorial Development and Urban Regeneration, in *Crisis, Conflict and Celebration: Ethnographic Studies of European Cities*, Springer Nature Singapore, Singapore, pp. 419–450.
12. De Luca, G., Lorenzini, M., and Goldsmith, H., 2025, Navigating Global Crises. Unorthodox Monetary Policy, Debt Management and International Institutions in Britain and Italy from WWI to Covid-19, *INSTITUTA*, 4(1), 63–113.
13. De, D., 2025, Indigenising the Academia—Education, Curriculum, Language and Scripts, in *Indigenous Peoples and the Politics of Indigeneity in India: A Local Perspective on a Global Movement*, Springer Nature Singapore, Singapore, pp. 69–88.
14. Esposito, P., Ferrante, F., and Scicchitano, S., 2025, Higher Education Institutions and Innovative Entrepreneurship: A Regional Analysis, *Regional Studies*, 59(1), 2542347.
15. Ghosh, P. K., Kashyap, A., & Agrawal, R., 2016, Mapping the Position of Higher Educational Institutes in National Economic Advancement: A Comparative Analysis, *International Journal of Technological Learning, Innovation and Development*, Vol. 8(3), pp. 283–302.
16. Goyal, N., Tripathy, M., Singh, V., et al., 2023, Transformative Potential of Higher Education Institutions in Fostering Sustainable Development in India, *Anthropological Science*, Vol. 2, pp. 112–122.
17. Hoeffler, C., 2023, Arming Fortress Europe? Spaces and Instruments of Economic Patriotism in EU Armament Policy, *Politics and Governance*, 11(4), 154–164.
18. Indira, M. and Kumar, B.M.I., 2018, An Empirical Analysis of Relationship between Higher Education and Economic Growth in India, *International Journal of Research and Innovation in Social Science (IJRISS)*, II(VI), ISSN 2454-6186.
19. Jawed, S., 2024, An Analysis of Intra-Industry Trade within Pharma Sector in India Since 2014, *Sustaining Growth with Equity: Sectoral Growth, Trade and Social Protection in the 21st Century*, 14–15.
20. Kandakatla, R., Aluvalu, D., Devireddy, S., Kulkarni, N., & Joshi, G., 2021, Role of Indian Higher Education Institutions towards Aatmanirbhar India: Government Policies and Initiatives to Promote Entrepreneurship and Innovation, *Proceedings of the 2021 World Engineering Education Forum/Global Engineering Deans Council (WEEF/GEDC)*, pp. 8–14.
21. Kaur, K., 2023, Atmanirbhar Bharat Abhiyan and National Education Policy–2020: Opportunities and Challenges for India's Sustainable Development, *Indian Journal of Social Science and Literature*, 2(4), 1–4.
22. Kırıktaş, A. and Kanbir, Ö., 2025, Trade Wars in the Context of Economic Nationalism and the Search for Sovereignty, in *The Age of Economic Nationalism: The End of Globalization?*, Vol. 1.
23. Kohli, V., 2023, COVID-19 Pandemic: Leveraging the Learnings—An Indian Diagnostics Industry Perspective, in *Preparedness for Future Pandemics: Threats and Challenges*, Springer Nature Singapore, Singapore, pp. 131–143.
24. Kokkinopoulou, E., Vrontis, D., and Thrassou, A., 2025, The Impact of Education on Productivity and Externalities of Economic Development and Social Welfare: A Systematic Literature Review, *Central European Management Journal*, ahead-of-print.
25. Korotayev, A., Vaskin, I., and Tsirel, S., 2021, Economic Growth, Education, and Terrorism: A Re-Analysis, *Terrorism and Political Violence*, 33(3), 572–595.
26. Kutrzeba, F., 2024, Knowledge Economics and the Demand for Higher Education, *Journal of Modern Science*, 56(2), 625–643.
27. Laplane, A., 2024, Market Co-Creating and Shaping through Investments in Innovation: A Comparative Analysis of Two Public Funding Programmes in Brazil, *Innovation and Development*, 14(1), 25–46.
28. Mäkitie, T., Hanson, J., Steen, M., Hansen, T., and Andersen, A.D., 2022, Complementarity Formation Mechanisms in Technology Value Chains, *Research Policy*, 51(7), 104559.

29. Milln, D.G., 2024, Institutional Logics of Indigenization in Canadian Higher Education: The Role of Critical Policy Analysis as a Research Tool to Activate Social Change, *Journal of Culture and Values in Education*, 7(3), 61–75.
30. ML, M.L., 2023, Transformative Higher Education for Atmanirbhar Bharat: Reimagining the Universities of Future, *University News*, 61, 26.
31. Mostafiz, M.I., Ahmed, F.U., Ibrahim, F., and Tarba, S.Y., 2024, Innovation and Commercialisation: The Role of the International Dynamic Marketing Capability in Malaysian International Entrepreneurial Firms, *International Marketing Review*, 41(1), 199–236.
32. Munari, F., Leonardelli, E., Menini, S., Morais Righi, H., Sobrero, M., Tonelli, S., and Toschi, L., 2024, Public Research Funding and Science-Based Innovation: An Analysis of ERC Research Grants, Publications and Patents, *Research Evaluation*, rvae012.
33. Nithya, S., 2024, Exploring the Economic Impact of Commercialized Academic Patents: Assessing Mediating Effects and Spatial Spillovers, *International Journal of Law Management & Humanities*, 7(5), 1382.
34. Pacheco, A. and Franco, M., 2024, The Role of Higher Education Institutions (HEI) in Academic Spin-Off Creation: A Cooperation Perspective, *Journal of the Knowledge Economy*, 15(2), 7523–7541.
35. Pandey, N., De Coninck, H., and Sagar, A.D., 2022, Beyond Technology Transfer: Innovation Cooperation to Advance Sustainable Development in Developing Countries, *Wiley Interdisciplinary Reviews: Energy and Environment*, 11(2), e422.
36. Parihar, M., Jain, R., Jha, A., Mishra, J., Rathod, T., and Sinha, A., 2025, Economic Analysis of Atmanirbhar Bharat as Public Policy and Its Impact on MSMEs Growth in India, in *The Paradigm Shift from a Linear Economy to a Smart Circular Economy: The Role of Artificial Intelligence-Enabled Systems, Solutions and Legislations*, Springer Nature Switzerland, Cham, pp. 1625–1641.
37. Patil, S., 2025, Role of Research and Innovation in Shaping Atmanirbhar Bharat and Viksit Bharat, *Trends Scholarly Publications*, 4(1), 01–04.
38. Rashid, M., Anser, M.K., Shah, S.T.H., Nabi, A.A., Ahmad, I., and Zaman, K., 2025, Fostering Entrepreneurship: Analyzing the Influence of Access to Finance, Innovation Investment, Educational Attainment, Infrastructure Development, and Regulatory Environment, *Future Business Journal*, 11(1), 140.
39. Reznikova, N., Panchenko, V., and Bulatova, O., 2018, The Policy of Economic Nationalism: From Origins to New Variations of Economic Patriotism, *Baltic Journal of Economic Studies*, 4(4), 274–281.
40. Saha, N., Sáha, T., and Sáha, P., 2022, Entrepreneurial University and Social Innovation Ecosystems: Do They Support HEIs' Knowledge-Based Economic Development?, in *Artificiality and Sustainability in Entrepreneurship: Exploring the Unforeseen, and Paving the Way to a Sustainable Future*, Springer International Publishing, Cham, pp. 215–240.
41. Sandhu, K., Dayanandan, A., and Kuntluru, S., 2025, Fintech Innovation for Financial Inclusion: Can India Make It?, *International Journal of Accounting & Information Management*, 33(2), 268–286.
42. Sharimakin, A., Alao, R.O., and Omosuyi, O., 2024, Foreign Remittances, Deprivation and Patriotism, *Quality & Quantity*, 58(1), 753–780.
43. Sharma, C.K. and Borgohain, B., 2024, Indigenization and Vernacularization of Social Science in India: Revisiting the Debate, *Postcolonial Studies*, 27(2), 229–247.
44. Singh, D.J., 2023, Demonetisation in India: Role of Accountants, in *Innovation of Multidisciplinary Research in Present and Future Time*, Vol. 4, p. 121.
45. Singh, R. K., Kumar, R., Kumar, A., Pawar, S., & Kumar, R., 2023, The Role of Higher Education Institutes in Achieving the Goal of Developing, *Journal Global Values*, Vol. 14 (Special Issue), pp. 223–233.
46. Supriadi, A., Permana, I., Afandi, D.R., Arisonaha, E., and Kusumaningsih, A., 2025, The Triple Helix Model: University-Industry-Government Collaboration and Its Role in SMEs Innovation and Development, *International Journal of Financial Economics*, 1(9), 75–90.

47. Syed, R.T., Singh, D., and Spicer, D., 2023, Entrepreneurial Higher Education Institutions: Development of the Research and Future Directions, *Higher Education Quarterly*, 77(1), 158–183.
48. Szczepanska-Woszczyna, K., Lyulyov, O., Pimonenko, T., Infante-Moro, A., Zimbhoff, A., and Solodovnikov, S., 2024, The Contribution of Higher Education to Innovation Development: Long-Term and Short-Term Analysis, *Forum Scientiae Oeconomia*, 12(4), 8–29.
49. Tippa, N.G. and Mane, S.R., 2023, An Effort to Make Atmanirbhar Bharat Mission through National Education Policy–2020, *International Research Journal of Social Sciences*, 12(2), 34–37.
50. Upadhyay, M. and Malik, F.A., 2024, Societal and Economic Impact of Atmanirbhar Bharat: A Long-Term Vision through Education, in *Empowering India's Future: NEP, Skill Development and Cultural Expression*, p. 17.
51. Wandhe, D.P., 2024, An Overview on Production Linked Incentive (PLI) Scheme by the Government of India, SSRN Working Paper, No. 4693578.