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# The Co-Evolution of India's Policy on Science, Technology, and Innovation with University Education: The Need for Innovation in Higher Educational Institutions

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**Abstract**

Innovation-focused education and research have been identified as critical contributors to enhancing the innovative behaviour of individuals, organisations, and economies. Therefore, Higher Educational Institutions (HEIs) embrace innovations to transform teaching, research, and knowledge transfer that impact economic and social objectives. The research objective of this study is to shed light on India's needs for its higher education and innovation policies to develop faster growth and provide lessons on what it is doing right. For this, we study the gaps in the two policies: Science, Technology, and Innovation Policy (STIP) and National Educational Policies (NEP) applicable to HEIs. This study uses content analysis of the policies, with two experts' opinions on the evolution of the policies. It finds that the Indian government has consciously striven to adopt new developments, urgently needing to improve infrastructural facilities for knowledge-driven innovation. Yet, fostering private industry's role in innovation has not been adequate. The study concluded that policymakers need to collaborate with all the players for focused education and research, resulting in responsible innovation.

**Keywords:** Innovation; Higher Education; Science Technology and Innovation Policy; National Education Policy; Research & Development; Higher Education Institutions, India

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## Introduction

Innovation drives growth, and therefore countries have set up national innovation policies to foster a culture of innovation and experimentation. Innovation is often measured by expenses on research and development (R&D), the headcount of scientists, or the number of patents, but it goes beyond this. India started focusing on innovation in the decade of the 2010s. This was captured by its science, technology, and innovation policy. One of the aims of the policy was to increase the role of the private sector. India's expense on R&D has remained below 1% of GDP and is considerably low when compared to highly innovative countries like the USA and South Korea, which spend about 3% of GDP on R&D. However, India is regarded as the most innovative country in Central and Southern Asia since 2011, ranking 2nd amongst the middle-income economies on the quality of innovation (World Intellectual Property Organization [WIPO], 2019).

Following economic liberalisation in the 1990s India's R&D wing gained very little momentum. Government spending on R&D climbed from 0.6% of GDP in 1990–1991 to 0.7% of GDP in 2000 and has remained at that level ever since. Only the years 2005 and 2010 were different, when it was 0.8% of the GDP. Presently, India barely spends $43 per person on R&D, which is far less than its Asian counterparts like China ($368) and Russia ($285) (Fortune India, 2022). India has moved up to tenth place in the Global Innovation Index from position 62 in 2011 to position 52 in 2019, but it is still far from its goal of raising its gross research and development spending (GERD) to 2% of GDP.

Hence, our research objective is to shed light on what India needs to do in the areas of higher education and innovation policies to develop faster and provide lessons to other developing countries, based on what it is doing right. Innovation-focused education and research have been identified as key contributors to enhancing the innovative behaviour of individuals, organisations, and economies. Innovation is a behaviour rather than a knowledge that needs to be infused and reaped. Higher Educational Institutions (HEIs) are responsible for transformations not limited to teaching, research, and knowledge transferbut whose impacts are much more important in economic and social terms.

Much research is being done on national innovation systems and the relationship of academia with business, state, and other stakeholders (Casadella & Uzunidis, 2018). However, very little research looks at how a State's science, technology, and innovation policies (STIPs) develop over time along with its economic development and how the university's role is included in this evolution. Our research question is what the changes in the research policy of India in this domain have been and how has the university's role been considered? We explore this by analysing the policies of two ministries: science and education. We do this to comprehend how India's higher education policy has co-evolved with its STIPs. This study aims to identify the gaps in the innovation-focused education and research of Indian HEIs and propose multi-dimensional Responsible Innovation-focused education and research.

The following sections of the paper discuss the literature on the topic and explain the methodology adopted. After that we look at the co-evolution of STIP policies and education policies related to the period since India's independence. We then use content analysis to look at the significant words relating to the innovation field regarding the two policies. The final section presents recommendations and future directions.

## Literature Review

Schot and Steinmueller (2018) indicate that STIPs have evolved since World War II in three frames such as research and Development, innovation and transformative change. In the first frame, that started in 1945, governments supported selective science and R&D missions hoping that this would contribute to growth. Indeed, technological change seemed to explain growth beyond the simple use of capital and

labour. However, poorer countries could not often undertake R&D and therefore felt the gulf between them and the developed world widening, and many shut themselves off from globalisation. It was considered that the developed countries were not sharing their knowledge, and the developing countries lacked the education and entrepreneurial mindset to absorb this knowledge. While subsidies can foster inventions and innovation, it has been found that the cost of subsidies for each patent is high (Bronzini & Piselli, 2016). Therefore, subsidising research on a large scale is unaffordable by developing countries which justifies why they need to be selective in their development rather than adopt a harmonious approach.

The second time frame emerged in the 1980s when the STIP focused on links, clusters, and networks (Schot & Steinmueller, 2018), often called national innovation systems. In these national innovation systems, emphasis was added to stimulate learning in the system and enable entrepreneurship. Learning system was national because knowledge was considered sticky and localised; and innovation policies had a national ambit (Casadella & Uzunidis, 2018). The innovation system involved the interaction of several actors. For example, the triple helix approach considered government, industry, and universities as the three main actors (Etzkowitz & Leydesdorff, 2000). Other approaches believe that media and cultural organisations (Carayannis & Campbell, 2009) and other intermediating organisations such as broker contacts who are between entrepreneurs and user-entrepreneurs who come up with new solutions, develop new lifestyles, preferences and practices (Metcalfe, 2010) are also important.

“Innovations are taking place globally: some are adopted successfully by the developed countries but fail to excel in developing economies, while some are adopted by developing economies successfully but do not work in developed markets” (Ashta & Mor, 2022, p. 231). The focus on continuous innovation came from a focus on economic growth and staying ahead of competing nations. This, in turn led to widening international inequalities as well as inequalities within countries since adopting the approach has remained difficult for developing countries. In any case, increased importance was given to developing the capacity for interaction rather than just learning. This also required developing a mindset for experimentation, which often did not exist among poor people since they did not have the money required to do experiments (Ashta & Mor, 2017; Mor & Ashta, 2018).

Along with this sketch of the evolution of thinking on innovations, there was an increasing call for universities to be more entrepreneurial and focus on creating innovations from their research. This then added a third agenda to universities' role in education and research: that of transferring knowledge (Moore, 2018). This added to the difficulty of developing countries which did not have the proper facilities for either education or research and certainly did not have the possibility of knowledge transfer to industry. (Alexander & Evgeniy, 2012; Almeida, 2008; De O. E Silva et al., 2012; Razak & Saad, 2007; Taylor, 2004). While specialised courses linked to local firms may positively affect innovation, it is found that the commercialisation of academic research output negatively impacts local firms’ product and process innovations (Maietta, 2015).

Starting in 2015, a third frame links contemporary and environmental challenges, including ending poverty and inequality, to the need for transformative change and assumes that the Global South can readily adopt this experimentation to transition (Schot & Steinmueller, 2018). Increasingly, researchers are paying more attention to the need to increase responsible and accountable innovation (Genus & Stirling, 2018; Temri, 2018). The literature reviewed reflects the fact that the framing of policies is not sufficient, but policymakers should continue to experiment with policy practices and address the need for innovation in the HEIs.

## Methodology

The study investigates the university’s role in the evolution of science, technology and innovation policies by examining how a State’s STIPs evolve

over time in tandem with its education policies. The study critically evaluates and compares the evolution of Indian policies formulated by the Ministry of Science with those of the Indian Ministry of Education, focusing on higher education in the area of Science & Technology and finds how co-evolution takes place between the two policies. The study provides a framework by which innovation education and research facilitators may develop and evaluate their responsible Innovation-focused Education and research through a thematic appreciation of the multidimensional concept using content analysis of policy documents which presents the select terms frequency in the Science, Technology, and Innovation Policies (STIP) and National Education Policies (NEP)

Post the secondary analysis of archival documents, we have also done a virtual interview with India's Department of Science and Technology to gain a first-hand perspective on the policy aspects and its inter-relationships in the innovation ecosystem with academia and industry. This was followed by a second interview with Professor Itty Abraham, an expert in international relations, science and technology studies, and postcolonial theory, who has been more critical of the innovation policy. In the paper, we refer to the first interviewee's views as an insider perspective on the topic (referred to as Respondent 1) and the second as an outsider's perspective (referred to as Respondent 2). We have added extracts from these mixed perspectives in areas where it was relevant to complement our analysis.

**The Co-Evolution of Indian Policies**

We first describe the STIP policies and Education policies. We then use content analysis on major STIP and Education policy circulars to understand their evolution and their relation to developments in innovation theory during this period.

**Science, Technology, and Innovation Policy (STIP)**

This preliminary description shows a historical evolution under an emerging process of our current times. When India was still considered a poor country in 1958, its policy had a focus only on science. The initial policy statement on science (Government of India [GOI], 1958) had a focus on science for the development of a welfare state, laying importance on science education and training.

Fifteen years later, with a reasonable scientific base (GOI, 1983), the accent slowly shifted to technology, thereby promoting the application of technology. India shifted its orientation towards promoting and applying science, which was either indigenously created or adapted to Indian specificities, notably large semi-skilled rural-based population and agricultural activities. India concentrated on labour-intensive microenterprises and focused on technology for the international competitiveness of Indian goods; hence developing Indian technology consultancy became a priority.

Twenty years later, it was considered that India had become a leader in scientific human resources, and many multinational firms were setting up their R&D facilities in India to tap into this scientific base (GOI, 2003). Though India has progressed in many industrial sectors along with medical facilities and reduced death rates, the population has increased considerably, but farmland has not increased. At the same time, there was international competition restricting knowledge transfers. Therefore, science and technology priorities need to evolve. And India began to participate in international consortia and inter-university centres of advanced facilities, and public-private partnerships were envisaged to share costs. In a nod to the triple helix model, Indian universities have received a third role in regional and economic development because of the changing nature of both knowledge production and economic production in order to foster academia-research-industry partnerships (Etzkowitz & Leydesdorff, 2000; GOI, 2013).

A new 2020 policy focuses on creating appropriate science, technology, and innovation ecosystems, providing information on policies, performance and social impact (GOI, 2020). Hence, the major feature of the policy is to

create an open science framework that is being developed to allow people to use knowledge in a manner that is "FAIR (findable, accessible, interoperable, and reusable) to be among the top three in the world. However, open science does not always lead to innovation because a business model is also required; in fact, unclear property rights may retard innovation (Chesbrough, 2015). While open-innovation is being encouraged within the country, in a way, this is still an "Outside-in' open innovation approach rather than an "inside-out' open innovation transposed to a nation perspective rather than a firm (Chesbrough & Garman, 2009).

In this context, it is interesting to see the contrast between the opinions of those working inside India (Respondent 1) and those who are outside (Respondent 2) on the effectiveness of innovation policies.

> The policy contour has played a crucial role in shaping India's S&T trajectory in the last seven decades (Respondent 1).

> Do you think the United States has a national innovation policy? Yet, there's no shortage of innovation there. You can have all the policies in the world, and it can lead to outcomes, or you can have no policy, and you can lead to fantastic outcomes (Respondent 2).

This difference in opinion comes from whether the respondents consider India's innovation policy a relative success or a relative failure, which, in turn, depends on the respondent's success criteria.

> It led to India's entry into the club of advanced and emerging economies to have explicit national innovation policies (Respondent 1).

However, this opinion differs from that of Respondent 2, who focuses on the failure of Indian policies.

> The bulk of India's people still live in agriculture, so agriculture should have been a place for innovation. The very few innovations that have taken place in agriculture, whether production, seeds, marketing, or even storage, either come from outside because of foundations like the Ford Foundation or Rockefeller Foundation or NGOs working with community organisations and the World Health Organization. What about defence? Here, we would think that that would be something India would certainly be concerned about and take seriously. And lo and behold, it's not the case. (Respondent 2).

There is also a contrast in what the respondents feel in terms of public-private partnerships.

> The policy mix has led to an increase in R&D investments by public and private sectors, building STI capacity, increasing the number of Full-Time Equivalent (FTE) in research, a notable rise in women's participation in STEM, and active engagement in emerging technologies. The initiatives such as Start-up India, Make in India, and facilitation channels such as technology incubators, science parks, city clusters, and promotion of open science framework have remarkably strengthened the Indian innovation ecosystem (Respondent 1).

Respondent 2 does not think that the Indian government has thought in terms of the triple helix approach. When it refers to partnerships, it is still thinking of public sector undertakings rather than public-private partnerships.

> Most of what they mean by policy directions or parts or whatever refers to the public sector rather than the private sector. The Indian Government has not seen the private sector as a source of innovation (Respondent 2).

If we look from the triple helix approach, the Indian innovation ecosystem includes academia and other knowledge producers, industry, as well as facilitators such as government funding agencies, incubators, and accelerators. To further enable innovation and growth, the respondent from the Department of Science and

Technology mentioned that it needs to focus holistically:

> To reinvigorate the innovation ecosystem, the national policies should focus on the entire value chain (Respondent 1).

We discuss insights from the Higher education policies in the ensuing section.

**Higher Education Policy**

There have been three major National Education Policies (NEPs): 1968, 1986 (modified in 1992), and 2020. We examined the modifications and the inclusion of higher education policies.

***National Policy of Education 1968***

The leaders of the Free India movement realised the fundamental need for education and its significance for national development. Various committees reviewed the reconstruction of education, based on which they emphasised the setting up of universities, aiming to provide accessibility of education to all (Aggarwal, 1993). However, the second commission focused on providing high school education with multipurpose needs.

The Education Commission (1964-66) reviewed the development of education in India from the time of independence and concluded that India needed a drastic reconstruction to realise the constitutional goals through: 1. internal transformation 2. qualitative improvement 3. expansion of educational facilities (GOI, 2016).

The development of science, technology, and research received special emphasis among the various recommendations of these commissions (NPE, 1968). By then, India had completed the third five-year plan (1961-1966), which laid importance on the quality of education at all stages, increasing the number of universities and colleges from 578 in 1950-51 to 3277 in 1970-71 and developing science and technology development. The reform suggested providing equality in a prescribed proportion of free studentships without caste and gender partiality including physically and mentally challenged children, and early-age talented children, to accelerate the growth of the national economy.

The policy also suggested education in the field of agriculture and industry, technical and vocational education, covering many areas such as home management, arts and crafts, secretarial training, medicine and public health etc. Additionally, plans called for strengthening Centres for Advanced Study, organising postgraduate programmes with high standards of teaching and research, and establishing a small number of "clusters of centres."

***National Policy on Education 1986, modified in 1992***

The National Policy on Higher Education (1986) set the vision into five main goals for higher education - Greater Access, Equal Access, Quality and Excellence, Relevance, and Value-Based Education. The NPE of 1986 revamped the higher education system with its recommendations on expanding Higher Educational Institutions (HEIs), developing autonomous colleges, enhancing quality research, redesigning courses, training teachers, increasing coordination between national and state-level bodies, and fostering mobility between institutions.

To make enough money accessible for education, NPE 1986 increased the expenditure up to 6% of GDP and focused on decentralising education and creating the District Institute of Education and Training (DIET). It demanded that a consistent 10+2+3 system of education be implemented and that educational programmes at the primary, secondary, and higher secondary levels be reorganised together with the primary and secondary school curricula. It gave importance to Early Childhood Care, Free and Compulsory Education till completion of elementary level, and compulsory school subjects such as Languages, Mathematics, Science, Social Science, Statistics, Humanities, and History.

Technical and management education's importance was acknowledged, and the University Grant Commission (UGC) was given the responsibility to open Universities and Remote Learning Institutions to provide higher education. Besides, the policy emphasised on skill-based learning more through DIET. Career

and Technical Education (CTE), and National Council for Teacher Education (NCTE). The 1992 reform encouraged vocational education to meet the requirements of industry and employment and set up self-financed Universities. The policy also recommended including the radio, computers, media and new technologies as a part of education emphasising sports and physical fitness activities.

***National Education Policy (NEP) 2020***

India's National Policy on Education (NPE) was created in 1986 and revised in 1992. It has therefore been around for at least three decades, and throughout that time, both the country and the economy have seen a great transformation with a strong sense of respect and a mindful understanding of one's roles and responsibilities. And the new policy, National Education Policy (NEP), released on 23rd September 2020, focuses on innovation, research, and quality to fulfil India's dream of becoming a knowledge powerhouse.

NEP treats the curriculum and pedagogy of our institutions with a deep sense of respect and a conscious awareness of one's roles and responsibilities in a changing world and it tries to instil a deep-rooted sense not only in thought, but also in spirit, intellect, and deeds, as well as to develop knowledge, skills, values, and dispositions. It advocates establishing a research foundation called the National Research Foundation (NRF) with the goal of fostering knowledge, abilities, attitudes, and dispositions that reflect a truly global citizen to foster research culture through funding and recognising outstanding research activities in the country. As a result, the policy mandates innovation-based research and education in HEIs across the nation. It is also seen as essential to the success and vitality of the country' s higher education system. It also serves as a conduit for researchers to collaborate on developing high-quality research.

The NEP's concentration on HEIs' innovation includes a 'light but tight' regulatory framework with the component "Innovation", encouraging open innovation within the country; paving way to adopt the triple helix approach, identifying the priority areas for targeted funding and incentives.

We observe that phased policies strive to make education a public good that is easily accessible and inclusive with no compromise on quality and accreditations from primary to higher education levels. The highlights from the policies are as follows:

- Revised education policy: NEP 2020 mandates that all students should appear for Board Examinations for the first time in Grade 12, and a college degree will be for 3 or 4 years. The students will have the freedom to do multiple courses simultaneously. Other than these modifications, the development of virtual labs will occur along with establishing a National Educational Scientific Forum.
- Separation of functions of the government: A). Distinct, independent, and empowered bodies will perform regulation, accreditation, funding, and academic standard setting. B). National Higher Education Regulatory Council to be the sole regulator for higher education. C). National Accreditation Council to be a "meta-accrediting body". D). Higher Education Grants Council to carry out funding and financing. Institutions that fund research, such as UGC and private and philanthropic organisations, will continue to fund research according to their priorities independently. E). General Education Council to frame expected learning outcomes. F). National Research Foundation to provide a reliable base of merit-based, equitable peer-reviewed research funding in all disciplines. G). Professional Standard Setting Bodies would set standards in fields but will not have any regulatory powers. H). All HEIs, government and private, are to be treated on par within this regulatory regime.
- Increasing choice and flexibility: A) Undergraduate degree will be of either 3

or 4-year duration, with multiple exit options and appropriate certifications. B). An Academic Bank of Credit is to be established to store the academic credits earned from recognised HEIs so that the degrees can be awarded after considering the credits earned. C). Setting up new quality HEIs will be made more accessible by the regulatory regime. d. HEIs performing exceptionally well will be helped by the government to expand their institutions. E). Public Philanthropic Partnership models may be piloted to expand access.

- Autonomy for higher educational institutions: A). Stage-wise mechanisms for granting graded autonomy to colleges will be established through a transparent system of graded accreditation. B). Once an HEI receives the appropriate accreditations, a Board of Governors can govern it without external interference. C). Commercialisation in education would be curbed.

**Content Analysis of the Policies**

It is observable that the length of the latest STIP draft 2020 is considerably longer than the previous policy statements and hence will benefit from content reduction and analysis. Table 1 presents the frequency of some of the words related to universities, society, economics and sustainable development in each policy circular.

It is apparent from Table 1 that the use of words such as collaboration or partnership was more prevalent in the STIP policy documents than in the education policy documents. More recently, these words are being used more frequently. Our study observes that the use of the word collaboration in policy documents was not necessarily industry-academic collaboration. It could be foreign technical collaboration, state-industry collaboration, or even collaboration with other stakeholders. As the latest India's NEP 2020 focuses on setting up quality research institutions, promoting innovation, and creating new technologies, it would be interesting to foresee the probable challenges in implementing these initiatives and proactively work to address them. Respondent 2 of our study, endorses the fact that the lack of use of the words '*innovation*" or "*innovative*" in the earlier documents confirms that the HEIs were designed to be training institutes rather than research institutes:

> I think the critical point is that the Indian education sector was never set up to be innovative. The places like IIT, for example, were not designed to be research institutions. They were designed to train and to train at a very high level and we've seen the results of that all over the world, in terms of where these boys have ended up. But it was not designed to do research (Respondent 2).

It was only after 2010 that India declared 2011-20 as the decade of innovation for industries, but this was not in the field of education. This is reflected from Table 1 by examining the use of the words "innovation" or "innovative", which increased from 17 in 2003 to 62 in 2013 in science and technology policies and from 9 in 1992 to 48 in education policy in 2020. We can also see that while the science and technology policies have now considered the role of entrepreneurship, the education policy 2020 has very little mention of this.

As the NEP 2020 focuses on setting up quality research institutions, promoting innovation, and creating new technologies, it would be interesting to foresee the probable challenges in implementing these initiatives and proactively work to address them.

**Table 1: Word frequency in the Science, Technology, and Innovation Policies (STIP) and National Education Policies (NEP)**

| | STIP 1958 | STIP 1983 | STIP 2003 | STIP 2013 | STIP 2020 (draft) | NEP 1968 | NEP 1992 | NEP 2020 |
|---|---|---|---|---|---|---|---|---|
| Total number of words | 805 | 3737 | 4898 | 3042 | 20904 | 2581 | 13887 | 39748 |
| Science (tific, tist) | 26 | 18 | 138 | 77 | 260 | 9 | 7 | 86 |
| Technology (ical) | 5 | 141 | 125 | 56 | 233 | 3 | 28 | 105 |
| Innovate (ion, tive) | 0 | 2 | 17 | 62 | 166 | 0 | 9 | 48 |
| Entrepreneur | 0 | 1 | 0 | 3 | 32 | 0 | 3 | 4 |
| University (ies) | 0 | 0 | 7 | 5 | 15 | 16 | 32 | 82 |
| Academic (y, ies) | 1 | 1 | 14 | 3 | 66 | 1 | 4 | 46 |
| Education (al) | 3 | 4 | 8 | 2 | 75 | 80 | 362 | 768 |
| Train (ing, ed) | 3 | 3 | 4 | 1 | 24 | 6 | 34 | 52 |
| Publications | 0 | 0 | 0 | 5 | 5 | 0 | 0 | 0 |
| Sustainable (y) | 0 | 0 | 3 | 5 | 33 | 0 | 0 | 15 |
| Development(al) | 2 | 39 | 27 | 9 | 114 | 17 | 73 | 114 |
| Poverty | 0 | 2 | 1 | 0 | 1 | 0 | 1 | 1 |
| Agriculture (al) | 1 | 4 | 3 | 4 | 11 | 8 | 13 | 20 |
| Industrial (isation) | 5 | 10 | 1 | 2 | 9 | 4 | 5 | 2 |
| Industry (ies) | 2 | 10 | 18 | 2 | 60 | 5 | 10 | 12 |
| Environment (al) | 1 | 5 | 5 | 3 | 31 | 0 | 11 | 31 |
| Waste (age) | 0 | 3 | 0 | 0 | 3 | 1 | 1 | 1 |
| Network | 0 | 0 | 4 | 1 | 18 | 0 | 7 | 2 |
| Cluster(s) | 0 | 0 | 0 | 0 | 8 | 1 | 1 | 23 |

Source: Authors

Note: The use of the acronym STI reduces the number of times science, technology, and innovation are mentioned in the 2013 policy statement. The use of the word "environment" may be "academic environment", "policy environment" or "competitive environment" rather than environment related to sustainability.

## Recommendations and Future Directions

As the research objective of this study is to shed light on India's needs for its higher education and innovation policies to develop faster growth and provide lessons on what it is doing right through the study of gaps in the two policies: Science, Technology, and Innovation Policy (STIP) and National Educational Policies (NEP) applicable to HEIs and to use the two experts' opinions on the evolution of the policies and comes with the findings that the Indian government has consciously striven to adopt new developments with an urgent need to improve infrastructural facilities for knowledge-driven innovation.

While India's NEP 2020 mainly focuses on delivering skills through education and R&D, infrastructure needs improvement. The research-related infrastructure gaps in educational institutions are still impacting the nation's potential to create knowledge. Scientific knowledge spreads in the economy and emerges as innovations. The first two STIP policy statements of 1958 and 1983 focused on transforming fundamental knowledge into new goods (technology, consumer goods, and various services). The role of the market, the strategies of companies and entrepreneurs, the institutional framework, or even public policy encourage the enhancement of research, create opportunities for innovation and guide the technological applications of research (Uzunidis, 2018). We can see that the third (2003) and fourth (2013) STIP policies are exceeded in detail by the STIP fifth (2020) policy.

However, in the contemporary economy of information, knowledge, and continuous innovation, the transition from research to the market often reveals deviant behaviours: fraud, selection, appropriation, speculation, concentration, and financialisation (Uzunidis, 2018). Indeed, the Indian policymakers have mentioned their concern for the inclusion of both the customers as well as the small and

cottage industries and, therefore, selecting priority areas in tune with Indian realities and reducing concentration. Curbing commercialisation in education can be of concern to India when it aims to achieve more in terms of research and innovation. However, this discussion on fraud, appropriation, speculation, and financialisation seems to have been ignored by Indian policymakers and could be an area of public debate.

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**Author Contribution Statement**

Martina Rani Kopala: Methodology and content analysis.

Arvind Ashta: Review of literature, content analysis, conceptualisation and discussion.

Surender Mor: Conceptalisation and review.

Nadiya Parekh: Indian Education Policy and discussion.

**Informed Consent**

We declare that the authors have taken all the required permission (if necessary) before submitting the manuscript.

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