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Research Article

The Economics of Higher Education in India (2000–2019): Navigating Challenges and Unlocking Opportunities

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ABSTRACT

The period of 2000-2019 was simultaneously challenging and opportune for higher education in India. Given the very low percentage of government funding for the sector vis-à-vis the GDP, the sector experienced gigantic funding deficits. As a consequence, it suffered from insufficient infrastructure and scarce multidisciplinary research, with huge regional inequalities - city-region universities compared to rural ones. The application-based system and increased focus on standardized testing favoured the students from the richer strata, and the enrollment rates among the economically weaker sections declined due to the increasing tuition fees. However, programmes such as RUSA and IoE measures enhanced the infrastructure and faculty quality, which helped in improving the global competencies. The use of ICT tools and e-learning modules such as SWAYAM kept the teaching-learning environment vibrant. International cooperation incorporated best practices, which enhanced research activities and student exchange programmes. Higher education contributed to economic development through knowledge and skill building, innovation, and entrepreneurial growth, thus making it an investment for national prosperity.

Keywords: Higher education, funding shortfalls, RUSA, SWAYAM, economic development.

1. Introduction

From 2000 to 2019, higher education in India went through a sea change due to rapid economic growth and an exploding youth population. This period saw an overall increase in more colleges and other institutions of higher education because from having enrolled 10% in the year 2000, enrollments rose to beyond 26% in 2019. These expansions of colleges and the opening of a large number of universities and new colleges were seen due to more efforts by the Government towards increasing access. Although the NEP 2020 was a product of 2019, the process to reform the education system and enhance higher education quality was complete. The Gross Enrollment Ratio (GER) had to be 50% by 2030, and this was directed under NEP. So, the government's commitment towards expanding opportunities in education continued further.

Despite all these advancements, the Indian higher education sector was characterised by inequities in access, quality, and financial sustainability. Regional and gender-based disparities in enrollment persisted; in rural areas, female students were farther behind the average compared with their counterparts. Quality varied markedly from institution to institution, and an enormous chasm separated elite institutions from smaller colleges. Financial sustainability continued to be a concern as gaps existed in funding and proper financial management in most of the institutions. To redress inequities and enhance quality in Indian higher education, there was a need for specific interventions. India (MHRD, 2019).

Higher education is highly important to society because it brings intellectual growth, innovation, and social mobility. It equips people with the ability to perform various tasks and contribute towards the increasingly complex world. In this regard, it is particularly needed in India as it meets the requirements of a fast-growing and youth-oriented population. Higher education institutions enhance human capital, directly proportional to the overall socio-economic growth of the country, as they enable more and more advanced learning/research opportunities. It inculcates amongst these human specimens critical thinking, creativity, and problem-solving abilities turning them into informed citizens as well as effective leaders. Upward mobility opportunities as well as general quality of life improvement reduce even further social inequalities propelled by this thrust on higher education.

The contribution of higher education to Indian economic development is simply huge. The growth that occurred between 2000 and 2019, developed, and increased the number of students in higher education institutions has made much contribution to India's economic growth. Higher education institutions have given an impressive workforce which has met the necessities of diversified industries. This convergence of academic results and marketplace requirements has smoothed the way for increases in productivity and competitiveness. For example, the IT and software services sector in India has been greatly enhanced by a steady supply of highly qualified personnel, and as such, that nation has become the world leader in the said field. It was interesting to note that India had 993 universities and 39,931 colleges by 2018-2019, which represents an enormous infrastructure dedicated to higher education (MHRD, 2019). That expansionary phase of higher education has not only improved the employability of graduates but also stimulated economic activities around educational services. services.

Besides the above, public teaching has been helping in fostering research and innovation, the latter being the driving force responsible for economic development. Academic institutes in India have contributed a lot to the research outcomes in several fields, from science, technology, and medicine, among others. The Government has, through initiatives such as the National Institutional Ranking Framework (NIRF) and enhancement of research funding, built a stronger research system involving little or no bureaucracy. Higher institutions have been a conduit for entrepreneurial development and start-ups, which is important for economic diversification and job creation. All facilities of incubation centres and industrial partnerships are there to support all the requirements that a student, for some a research worker, might need to convert their research prototype into a commercially viable startup business. These programs will also be expected to place India firmly in the league of nations in the two areas of innovation and technology (MHRD, 2019).

1.2 Objectives of the Study

Globalization and digitalization have profoundly affected the economic dimensions of higher education around the world. However, Higher Education Institutions (HEIs) promote the economy by providing skilled graduates into the workforce. Higher education is a medium of cross-border relationships and fluid global flows of people, information, knowledge, technologies, products and financial capital according to the OECD. This has resulted in more internationalization of research, but also of doctoral students and faculty mobility (Marginson and Wende, 2007). However, the sector has its challenges including funding, quality assurance and aligning curricula with what the industry needs.

Access to higher education plays a significant role in the socio-economic development of a country, and in India, it is particularly so. While having one of the largest higher education systems in the world, the country still has quite a few issues to address. A section of India's youth is unemployable because there is a gap between what is taught in institutes of education and what industries want. These problem areas are identified and the National Education Policy (NEP) 2020 tries to overcome these by adopting multidisciplinary learning, developing global competitiveness and establishing collaboration with international universities. These sing-offs may or may not be successful because many problems such as commercializing education and shortage of qualified teachers cannot be solved yet. (Volchik et al., 2018,)

Opportunities range from technology integration for better learning outcomes, and implementation of frameworks on outcome-based education(OBE), to collaborations between academia and industry, among many more in the Indian higher education sector. AI integration into the curriculum is said to prepare the students better for the future workplace. Furthermore, NEP 2020 advocates for the recruitment of quality-skilled teachers and quality learning to make global scholars and innovators. The potential to transform human capital and growth is much higher in terms of strategic reforms and investments than in economic opportunities that higher education faces at both global andIndianlevels.

1.3.Scope and Limitations

This article is a comprehensive analysis of the economic dynamics of higher education in India, for the years 2000-2019. New institutions were built with much wider spread access to education sectors during these two decades where investment and infrastructure of higher education grew immensely. The article explores how higher education can contribute to economic growth, increase employability, and promote innovation. It also discusses issues about access inequalities, quality enhancement, and financial viability of the sector and highlights areas of improvement. This paper, by analyzing the above factors, tries to untangle the intricate connection between higher education and economic development in general in the Indian scenario. However, the study has limitations in that it does not take into account the impact of COVID-19 which evolved after 2019. This will not cover every aspect of the pandemic on global and Indian higher education but will discuss some of the basic issues in the whole situation. Thus, it does not look at the changes and adaptations to the pandemic itself that have taken place thereafter but focuses instead on the period up to 2020 in tracing the sector's evolution, unencumbered by the impacts of the pandemic itself. Education has always been important on the policy agenda in India, but if we look at a period here from 2000 to 2020 which is pre-COVID is substantial in itself to talk about higher education: the trends, and policies then are significant enough to talk about without losing relevance as COVID-19 came later with challenge to higher education.

2.Economic Growth and Higher Education

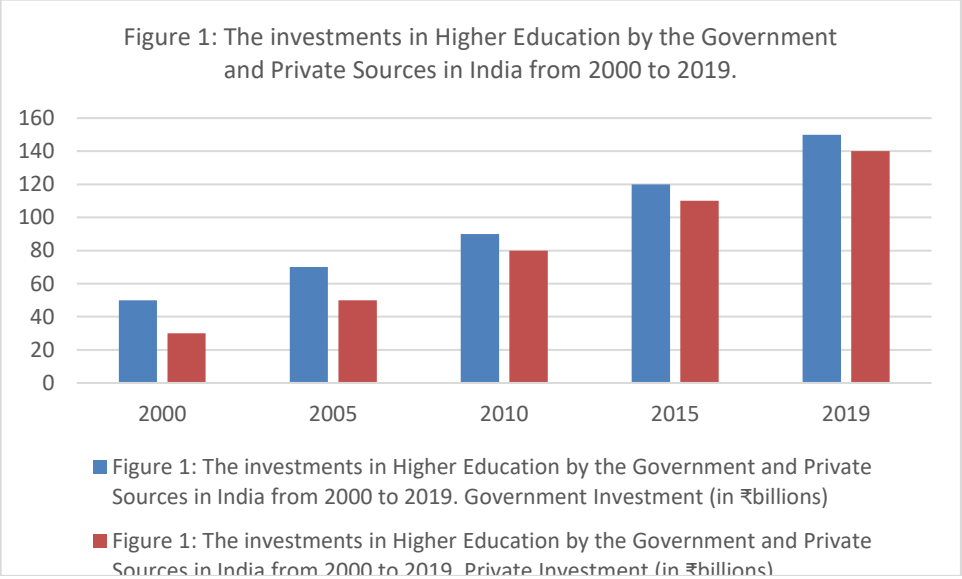
More directly, higher education increases economic growth in a country due to the reason that it provides people with advanced knowledge and abilities needed in almost all industries. Well-educated persons are innovative, and productive, and contribute to levels of economic output and efficiency in a country. India's growth in higher education institutes and enrollment has increased year after year, from 2000-2019, thereby contributing to the economic development of the country. Graduates in higher education fill up skill-related jobs in high-skill economies to create employability in IT, engineering, healthcare, and finance-related industries. Higher education promotes R&D in the creation of new inventions in technology as well as with new industries being incorporated into their daily operations. It enhances institution-industry-government interactions to intensify knowledge flows in innovation systems. That is to say, higher education supports the short-term needs of the economy by offering the required skilled people while simultaneously pushing more development with research, innovation, and entrepreneurship and with a positive feedback cycle that will tend to benefit society as a whole (De and Tanuka, 2008; Dissou et al., 2016).

2.1. Investing in Higher Education

Investments in higher education are always necessary to develop the socio-economic condition of any country. In the context of India, this is true. This area of education equips students with skills and knowledge that are responsible for innovation, a rise in productivity, and contributing to economic growth as a whole. As far as the case of India is concerned, it has accepted this as the basis for being globally competitive, not to mention becoming a competent labour force. It is in this light that the role of both the government and the private sectors becomes important so that opening opportunities for higher education will guarantee attaining social equity and inclusion (Dissou et al., 2016).

An extremely significant increase occurred during the period 2000 to 2019 in Indian investments both in public and private higher education, as shown in Figure 1. Trends were noticed showing fluctuations but, on the whole, an increase in government expenditure on higher education as a share of GDP, with an indication that the government seriously intends to better the quality of higher education, besides making higher education accessible. Private investments have also been on high rise; private institutions have grown tenfold in the same period to increase demand in higher education. Higher privatization began with this trend whereby private spending outpaced public spending over the same period (De and Endow, 2008; Geetharani, 2021).

Figure 1: The investments in Higher Education by the Government and Private Sources in India from 2000 to 2019.

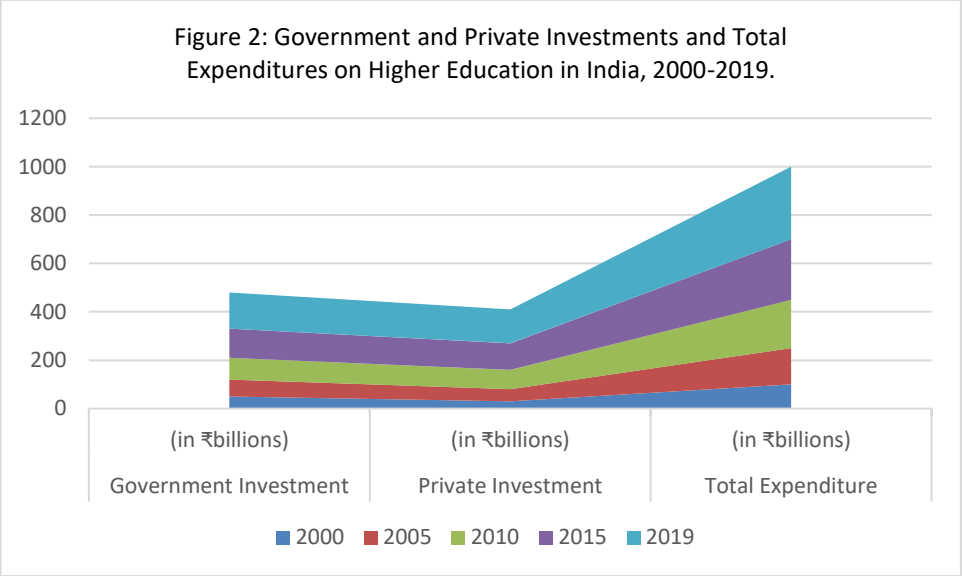


Source: The data shown in Figure 1 is compiled from India Education Spending – Historical Data. https://www.macrotrends.net/global-metrics/countries/ind/india/education-spending.

Figure 1 illustrates that therehas been a continued influx of investments in higher education from both government and private sectors from 2000 to 2019 in India. In 2000, there was an expenditure of ₹ 50 billion in higher education from the government while private sources contributed ₹ 30 billion. Accordingly, these investments grew to ₹70 billion from the government and ₹50 billion from private investments by 2005. The same trend followed into 2010 with ₹ 90 billion in government investment and ₹80 billion in private investment. 2015: The investments were ₹120 billion by government and ₹ 110 billion by private sources. In 2019, the amount invested by the government was ₹ 150 billion and ₹ 140 billion was invested in by the private sector. It is revealed from this data analysis that there was increasing emphasis on investment

in higher education both by the government and private sectors, mirroring the importance placed on education for India's development.
The patterns of funding and expenditure in higher education in India from 2000 to 2019, illustrated in Figure 2 indicate immense investments in the entire postsecondary education sector. `Commentators often bemoan the fall in the proportion of public spending on higher education as a part of total government expenditure from 16.73% in the year 2000 to 15.00% in the year 2019. Private sector spending was also elevated, and a key input in education. This mix of financing played a role in scaling up the higher education landscape, developing infrastructures and enhancing the quality of education. The collective efforts of both sectors together to address challenges of accessibility, equity, and quality in higher education(Geetharani, 2021).

Figure 2: Government and Private Investments and Total Expenditures on Higher Education in India, 2000-2019.



Sources: The data shown in Figure 2 is compiled from the following:

1. microtrends.net. India Education Spending – Historical Data. https://www.macrotrends.net/global-metrics/countries/ind/india/education-spending.
2. De and Endow, 2018.
3. Geetharani, 2021.

As seen in Figure 2, the specific amount of this investment received in the higher education sector in India increased threefold from ₹ 50 billion in 2000to ₹ 150 billion 00in 2019 further illustrating the government spending and efforts to improve the structure of higher education. Simultaneously, private sector investments increased considerably from ₹ 30 billion in 2000 to ₹ 140 billion in 2019. This growth was fueled by the expansion of private institutions and an increasing demand for higher education. Meanwhile, governmental and private investments along with other operational costs related to higher education —the whole amount of money spent on higher education —went up from ₹ 100 billion to ₹ 300 billion between 2000 and 2019. It is this increase in spending that signifies the downward transition in forming greater financial investment received, especially, for the development of higher education infrastructure,teachers and scientific resources in India.
From 2000 to 2019, both government and private investment in higher education was rising overall; only the growing amount revealed the government's promise to improve both the quality and accessibility of higher education. Private investments also increased, following the growth of private institutions and the increasing demand for higher education. Nonetheless, there was variability in the distribution of these investments, with some regions/institutions receiving more funding than others. Yet despite increases in funding, the quality of education did not always increase to the same extent, showing that there were inefficiencies in how resources were utilized. This period's input on higher education was outweighed by operational costs, manpower, buildings, and research activities. The overall spending had increased but it faced some problems in terms of getting the most out of it concerning better learning outcomes. Problems like insufficient infrastructure, lack of faculty, and outdated curricula remain, straining the quality of education overall. But the investments rarely lived up to their promise, because the investments often stopped short of dealing with these systemic problems

2.2. Employment Generation

Higher education in Indiafrom 2000 up until 2019 was one of the main inputs into general overall economic growth that also had several impacts on overall economic and social development in many areas. With the

expansion of tertiary institutions and rising enrollment ratios, higher skill and general levels of the workforce increased as well. This allowed for further growth by way of the expansion of diverse major industries, ranging from information and communication technology engineering to health-related sectors, financial sectors, and many others. A massive pool of trained human resources with tertiary education brought in foreign investments; Indian industries turned out to be globally competitive. Higher education establishments also emerged to be centres for research and innovative activity, enhancing technological progress and entrepreneurship. Moreover, research provided practical applications under the collaboration model between industry and academia in the development of new goods and services. The positive manifestations notwithstanding, challenges like access disparities, disparities in the quality of education, and regional imbalances continued to prevail, thus requiring sustained efforts toward more equitable and inclusive growth (Ravi et al., 2019; Joshi and Ahir, 2016).

Besides job creation, higher education significantly added to India's GDP during the period of studyas it improved the country's skilled manpower base, promoted innovation, and attracted foreign direct investment. Higher growth in institutions of higher learning along with growing enrollment rates have resulted in a better-skilled and high-productionlabour force. It has further defined the culmination of all areas beginning with information technology, engineering, health care, finance, and so on. The high pool of skilled manpower was an area in which foreign investments were attracted, and it made Indian industries compete on the global stage. It has also flourished research and innovation at the college campus, leading to the progress of technology, entrepreneurship, and more. The collaboration between academia and industry proved critical in making sure that research reaches practical applications, and leads to new product formations, and service innovations. But, somewhere along this journey, we realized that our progress had not been uniform and that there existed persistent challenges of access, deprivation, quality of education, regional imbalance, etc. That needed to be addressed to assure equity and inclusion in this growth (Wariah and Karthikeyan, 2018).

Higher education has been related to job creation as well as to skill development. The technical training combined with the on-the-job experience provided by the higher education institution equips students with technical, as well as soft skills demanded in most professions, thus adding to their employability and that of the labour force productivity as well as competitiveness. Besides, college education encourages critical thinking, out-of-the-box problem-solving, and innovative skills, all of which are required in today's fast-changing workplace (Harvey, 2000).

The higher education industry had salutary impactson employment creation in India from 2000 to 2019. Besides, more numerous institutions of higher learning and growth enrolment supported creating a more skilled, even more knowledgeable workforce. This wasto be followed by foreign investment and further rising competitiveness of Indian industries worldwide. The government further emphasized the upgradation of the quality of higher education and made it industry-compatible and more employable for graduates. In addition, such initiatives as the National Skill Development Mission and the 'Skill India' campaign emphasized the required vocational training for skill development further helping the scenario of employment within the nation.

From 2000 to 2019, skill development in India was largely enabled by higher education. In such a scenario, universities and colleges brought in practice-based courses as part of the academic curriculum to minimize the gap between what was taught academically and what was needed from the industry perspective. So it aimed at making graduates more employable by providing them with practical skills in line with demand in the job market. Further, the National Skill Development Mission or the Skill India initiative showcase the commitment of the government to enhance vocational training as well as embedding skills in higher education institutions. These initiatives go a long way in ensuring greater preparedness of students for the workforce, creating an atmosphere of innovation and encouraging entrepreneurship (Wadaskar, 2018).

During the study period, several institutions and programmes in India's higher educational landscape excelled, making profound impacts on national competitiveness. A well-known illustration is represented by the Indian Institutes of Technology (IITs), which remained highly regarded worldwide for their educational excellence in the fields of engineering and technology. IIT was not just the birthplace of some of the best graduates who later worked at top multinational companies and research organizations but also gave birth to a culture of innovation and entrepreneurship. Similarly, some of the new programmes (NITs and IISERs) did very well and were successful in enhancing science and research education in the country (MHRD, 2019a)

Another success is the establishment of private universities and colleges that have created more access to higher education. Institutions such as Amity University, founded in 2005, and Lovely Professional University (LPU), founded in 2006, grew relatively quickly, catering for a diverse portfolio of undergraduate and postgraduate programmes. In addition to offering high-quality education, these institutions placed a strong emphasis on industry-relevant skills, thus enhancing the employability of their graduates through practical training. Initiatives like the National Skill Development Mission and the Skill India Programme by the government have also given a big push in this direction where employees were trained in vocational skills and development (ISR, 2019).

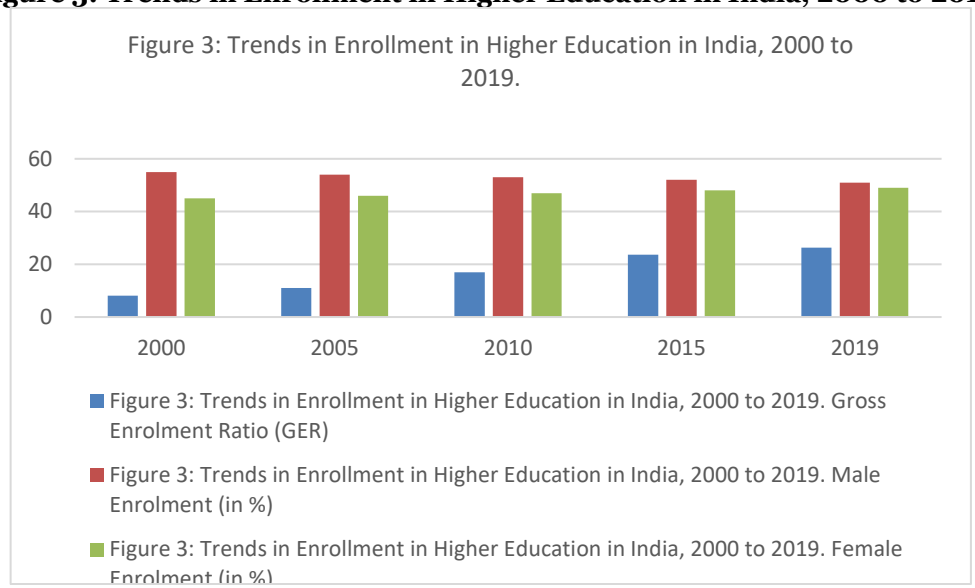
3. Challenges in Higher Education

Between the years of 2000-2019, there have been several challenges faced by higher education in India which has posed a hindrance to the overall development of the same. Firstly, one of the most critical problems was the fact that the institutions were highly different in the kind and quality of education delivered. Most of the universities and colleges were badly equipped with out-of-date curricula, dilapidated infrastructure, and a lack of qualified faculty. It led to the skills taught in higher education institutions not being aligned to the needs of the real world. There was an issue of equity and access as also evidenced by enrollment rates differing among different socioeconomic groups, genders, and regions. A very low GER particularly for Scheduled Castes and Scheduled Tribes highlighted a need to increase access to quality education. There were also financial constraints that made it challenging for the public and private institutions to secure capital for research, infrastructure development, and hiring of faculty members. Despite the complications stated above, several government programs and reforms were adopted to handle the above issues (Kumar and Trivedi, 2019; Tilak and Choudhury, 2019).

Access and equity in higher education are necessary for social mobility and opening opportunities for every individual, irrespective of his or her background. In India, specifically, access to higher education has been a constant challenge due to several socio-economic barriers. Equitable access requires equal opportunity for enrollment by students coming from diverse socio-economic profiles, gender groups, and regions. This will ensure there is an increase in a more diverse and inclusive learning environment, hence bringing about a more equal society (Tilak and Choudhury, 2019).

From 2000 to 2019, changes in enrollment and inequalities in higher education had been on a roll in India, as is revealed in Figure 3. For example, the Gross Enrollment Ratio (GER) in higher education had increased from about 8.1% in 2000-01 to 24.5% in 2015-16. While these changes have attracted attention, wide disparities persisted along regional lines with lower GER values for SCs and STs. There are also gender imbalances; there is a gender balance because the number of male students enrolled is more significant than that of females. The imbalances call for particular policies and interventions to help the groups affected (Kumar and Trivedi, 2019).

Figure 3: Trends in Enrollment in Higher Education in India, 2000 to 2019.



Source: Data in Figure 3 is compiled from several reports of the All India Survey on Higher Education (AISHE) reports by the Ministry of Education, Government of India.

Figure 3 reveals that the Gross Enrollment Ratio (GER) proportion of the eligible population enrolled in higher education grew from only 8.1 percent in the year 2000 to 26.3 percent in 2019. This shows a tremendous increase in the number of studentswhohave sought higher education in the past 20 years. Male graduates accounted for 55% of those enrolled in higher education in 2000 compared to 51% in 2019. But this small decrease shows how the gap between rates of enrollment among men and women has closed. The proportion of females enrolled in higher education rose from 45% in 2000 to 49% in 2019. This trend indicates better access to higher education for women and the work being done to reach gender parity.

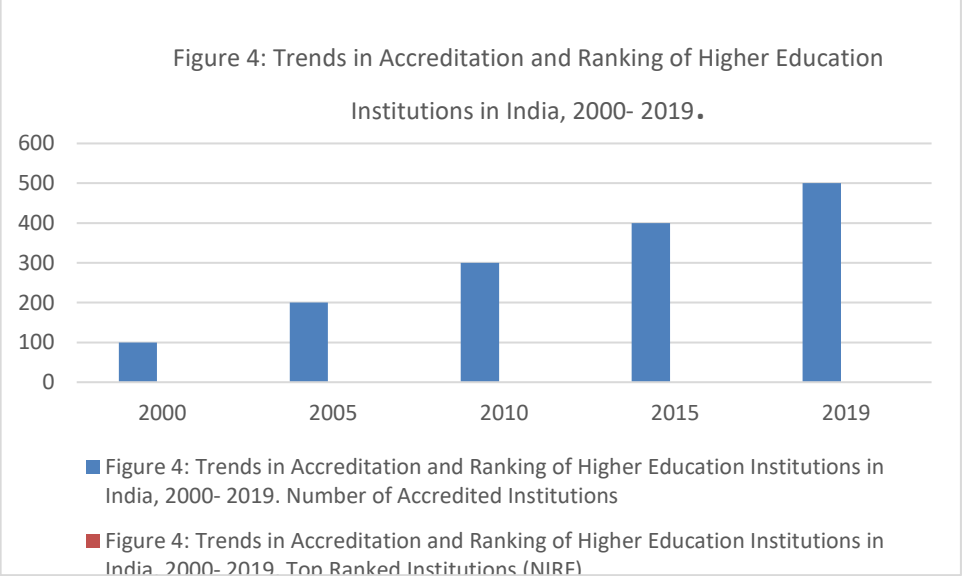
Regional differences also characterized access to higher education. States with a higher per capita Net State Domestic Product (NSDP) generally depicted a higher GER than those witha lower NSDP. Access to higher education was better in an urban area than in a rural area, causing regional enrollment inequalities. Government initiatives to improve access and equity included establishing new higher education institutions and the implementation of scholarships and freeships for economically disadvantaged students. Despite these efforts, challenges remained, and continued efforts were needed to achieve true equity in higher education.

4. Quality of Higher Education in India

Between 2000 and 2019, the Indian higher education quality had even dramatically improved. In 2000 GER was at 8.1%, which shot up to 26.3% in 2019. Along with this boom, there also came an intention to uplift the quality of the institutions regarding infrastructure and academics. The reports of the All India Survey on Higher Education (AISHE) have charted the expansion of universities and colleges. Really, from being just 28 at independence in 1956, it saw an impressive increase in the number of universities, reaching 851 by 2019. Yet, such developments notwithstanding, the challenges of overall quality across institutions as well as regional discrepancies persisted. The qualitative improvement in higher education in India during the study period can be measured through the accreditation and ranking of higher education institutions in India, faculty qualifications, and research output by the respective institutions (Kumar, 2019).

In the past few decades, the accreditation and ranking of higher education institutions in India have gained significance, as shown in Figure 4. Quality assurance is managed by the University Grants Commission (UGC) and other organizations such as the National Assessment and Accreditation Council (NAAC) and the National Board of Accreditation (NBA). The NIRF (National Institutional Ranking Framework) was first announced in 2016 to rank institutions based on different parameters ranging from teaching and learning to research and outreach. NIRF became a criterion for institutions and a tool for students and parents to assess quality by 2019. Proposed by the Ministry of Education, these transformative reforms were intended to strengthen the assessment and accreditation processes and make them conform to international best practices (Kumar, 2019; NIRF, 2019).

Figure 4: Trends in Accreditation and Ranking of Higher Education Institutions in India, 2000- 2019.



Sources: Data shown in Figure 4 are compiled from: 1. All India Survey on Higher Education (AISHE) reports for various years, and 2. NIRF, 2019.

As shown in Figure 4, the number of institutions has increased dramatically over the years, with only 100 accredited institutions in 2000 compared to 500 in 2019. This indicates a growing focus on ensuring quality assurance in higher education. Further, this elite list has changed from year to year based on the National Institutional Ranking Framework (NIRF). IIT Madras,IIT Bombay, IIT Delhi, and IISc Bangalore figured in the top ranking list in 2000, 2005, 2010, 2015 and 2019 respectively. It signals the evolving nature of institutional performance and quality over time.

Faculty and research output have been two of the most critical determinants of the quality of Indian higher education. Having more faculty members with the highest degrees has raised the quality of their research. As per AISHE reports, there were almost double the admissions for a PhD – 77,798 in 2010-11 and 161,412 in 2017-18. Research output — as measured by publications in peer-reviewed journals and citations — has also grown. The importance of both quality and quantity of research has been incorporated into the rankings, which assess an institution's research impact(MHRD, 2019a; UGC, 2019). While there has been an evident positive transformation already, there is still a work in progress when it comes to more research funding, and transforming research culture to ensure that the research ecosystem works hand-in-hand with the academic ecosystem.

5. Financial Sustainability of Higher Education in India

Long-run viability and effectiveness in the sustainability of academic institutions can only be built based on financial sustainability. According to Kretzmann and McKnight (1993), this refers generally to the ability to generate stable sources of funding, utilize resources efficiently, and invest in infrastructure, research, and

student support services. Economic sustainability refers to the ability of institutions to maintain quality of education at a high level, professors so great that they do not even think about changing jobs, and students have enough variety in learning. It further includes the ability to respond to changing economic conditions, advancing technology, and evolving educational needs. Financial sustainability thus provides an environment with which to excel in academia, in terms of brilliance and innovation, to further develop society and the economy as a whole while keeping in view the inflow of funds, how this inflow is managed, and what structure institutions follow to charge fees from students.

Indian higher education experienced significant funding gaps from 2000 to 2019 due to an expansive sector and increasing demand for quality education. Student enrollments and the number of institutions increased, but funding for higher education did not scale up proportionately. Even government expenditure on higher education as a percentage of GDP was relatively low at around 0.66%, in 2004–2005. All these underfunding categories led to substandard infrastructures, less number of faculties to bear the burden, and less research and development. This big funding difference was also evident in the central and state universities, with the former receiving more amount than typical state universities (Wani and Jan, 2019).

Over this period, financial management in Indian higher education was a story of struggles of taking all the right steps in terms of allocation as well as utilization of resources. Most institutions met budget strains and tended to rely on money generated from tuition and private funding. Funding distribution was the concern of the UGC (University Grants Commission), but it was not a constitutional division, and many institutions received varying degrees of support. In addition, there was a call for better financial planning and accountability to ensure that the money allocated would be utilized properly. Financial management practices that included the lack of transparency added to that funding gap and made it challenging to fill the gap in serving the needs of the sector. However, there were moves aimed at improving financial management through policy reforms and obligations concerning accountability and efficiency (Gandhi, 2015).

The fee systems of Indian higher education heavily influenced enrollment between 2000 and 2019. Of course, higher education was transformed into a commercialized entity, which only subjected students to higher tuition, especially in private educational institutions. The increased fee structure placed an extra financial burden on many budding students, particularly those from economically underprivileged backgrounds. As a result, enrollment rates in higher education also showed variation as the private institutions received better enrollments due to the perceived quality and infrastructure whereas public institutions suffered at lower rates because of the limitations in their funding and resources. The gross enrollment ratio (GER) for higher educational institutions in the country increased from 11.1% in 2004-2005 to 26.3% in 2018-2019, according to reports by the All India Survey on Higher Education, signifying the fact that the demand for higher education had been booming in the country amid rising costs (Chetan and Begum, 2019; MHRD, 2019a).

The impact of fee structures on student take-up further highlighted the disparities in the opportunity for access to higher education between regions and social groups. Higher education proved hard for students coming from rural areas and marginalized communities; the result was a lower enrolment rate for these students. Over the past few years, the government made several steps forward to strengthen financing for higher education in the nation, and one such measure was RUSA (RashtriyaUchchatar Shiksha Abhiyan) - a programme which was implemented by the government in the year 2013, specifically to meet this demand-side gap by adding state universities and colleges to its coffers. However, the effects of these policies were limited by the overall underfunding of the sector and the continued reliance on tuition fees as a primary source of revenue. Educated under the "commercialization" of higher education, which has resulted in the growing sector of academic institutions, many of them were also scarred by little public financial resources to adequately fund the demand and, therefore, the quality of education for all students (Chetan and Begum, 2019).

6. Opportunities for Improvement

As of 2019, the imperatives to improve Indian higher education were focused on concerns like filling funding gaps, developing new infrastructures and fostering inclusiveness. To deliver quality higher education to a larger number of the population, the government was convinced that greater public investment in higher education was necessary and urged other stakeholders to join the cause. Policies like RashtriyaUchchatar Shiksha Abhiyan or RUSA were initiated based on the idea of helping the universities and colleges that are owned by state governments to financially support them. These support policies also facilitated region-specific infrastructural growth, recruitment of academic faculty and research. They were demanding more accountability and transparency in the management of finances to achieve the best possible use of resources. To have equal access to higher education across regions, initiatives were taken to address and manage the regional discrepancies in access by creating more institutions and promoting online and digital learning platforms.

The new educational policy (NEP) of 2020 framed in 2019 presented several avenues for better development in Indian higher education when it suggested an interdisciplinary model to the institutions, encouraging them to provide larger subjects based on the amalgamation of arts, humanities, and sciences to the students. These continued till the vision of this holistic education model that focused on breathing creativity, critical thinking, and innovation into the minds of students. Furthermore, the policy motivated technology

integration in education, most importantly online and digital learning to improve access to quality education, especially in distant areas. Teacher Training and Development-Importance The NEP also expressed the necessity of teacher training and development to ensure that teaching is done at a high level, which requires a well-prepared teacher (MHRD, 2019b).

6.1. Policy Reforms

Between 2000 and 2019, several policy reforms were introduced by the Government of India aimed at enhancing higher education. Among its many initiatives, the RashtriyaUchchatar Shiksha Abhiyan (RUSA) was launched in 2013 to support state universities and colleges financially, enhancing infrastructure, faculty recruitment, and research. So of course, the government introduced the Pradhan Mantri Innovative Learning Program (DHRUV) to identify and nurture talented students, as well as the Education Quality Upgradation and Inclusion Programme (EQUIP) in 2019, which had a vision plan for the next five years around access, inclusion, quality and excellence in higher education. Similar national programmes, such as the Institution of Eminence (IoE) scheme, were also rolled out to identify and encourage only the best public and private institutions in the country by giving substantial financial support to attain global standards (UGC, 2020; PIB, 2020).

These initiatives were further strengthened in 2020 by the NEP(National Education Policy) which provided a detailed framework to ensure that Indian Higher Education would emerge and provide the most effective industry-ready talent. NEP encourages multidisciplinary education and finding interlinks between arts, humanities, and sciences to promote creativity and innovation. It also will discuss the use of technology in education, such as through online and digital learning, to improve access to quality education -- especially in remote areas. The policy announced the vision for higher education for 2030 where it envisaged GER for Higher Education Institutions (HEIs) to reach 50% by 2035 and proposed setting up of Multidisciplinary Education and Research Universities (MERUs), which can offer holistic and multidimensional education. The establishment of the National Research Foundation (NRF) was meant to promote a strong research ethos and develop research capability across the higher education sector (UGC, 2020; PIB, 2020).

Until 2019, the various policy reforms in the hands of the Government of India resulted in a momentous impact on the higher education landscape. The RashtriyaUchchatar Shiksha Abhiyan (RUSA) initiative successfully began to improve the infrastructure and faculty quality of colleges and universities in the states. The Education Quality Upgradation and Inclusion Programme (EQUIP) offered a structured policy for better access and inclusions. Hence, the GER moved upwards from 11.1 percent in 2004-2005 to 26.3 percent during 2018-2019. Furthermore, the Institution of Eminence (IoE) scheme upgraded the top public and private institutions into world-class institutions, thereby equipping them with the capacity to be at par with global bests while attracting good talent. The Pradhan Mantri Innovative Learning Programme (DHRUV) identified and nurtured talent among students, promoting excellence and innovation. Even amid such successes, there were challenges such as funding gaps and regional disparities that signify the need for continued effort in ensuring equitable and sustainable development in higher education (MHRD, 2019a).

6.2. Technological Advancements

Technological advancements from 2000 to 2019 brought about a sea change in higher education in India. These digital tools and platforms overhauled the teaching-learning process. Computers and smart boards in the classrooms, and handheld computing devices gave classroom instruction a more interactive cutting edge to learning. Learning apps on mobile and Open Educational Resources (OER) provided students access to an array of knowledge and material. New technologies like Artificial Intelligence (AI) and Machine Learning (ML) made major contributions towards personalizing the process of learning and maximizing its yield. Computing based on a cloud allowed virtually infinite storage, retrieval, and sharing of enormous numbers of educational material data that fostered remote access for learning while making team interaction feasible. Moreover, virtual new and augmented concepts make difficult stuff look intuitive rather than daunting to understand. Massive Open Online Courses (MOOCs) have democratized access to quality education for the most underprivileged in society. Together, these technological advancements have ensured that higher education in India is more accessible, efficient, and effective (Banwari, 2019).

The technological advances contributed to an enormous turnaround in the development and application of online learning and digital resources for India's higher education till 2019. Various initiatives were undertaken by the Ministry of Human Resource Development (MHRD) under the Digital India campaign that included the Study Webs of Active Learning for Young Aspiring Minds (SWAYAM) platform which provided a coordinated portal for online courses across various disciplines. SWAYAM has been able to meet its target of enrolling over 100 lakh students in over 2,200 courses by 2019. Another major initiative was the National Digital Library of India (NDL India), which provided a single-window search facility for accessing a huge repository of digital content, including books, articles, videos and theses. Students explored web-enabled experiments through the Virtual Labs project, which allowed for experiments to take place from anywhere with Internet access. Together, these initiatives were designed to democratize education, making it accessible for students from various backgrounds and regions (LIS Portal, 2019; MHRD, 2017).

Digital resources were also utilized for ongoing teacher training and professional development. Therefore, to train untrained teachers, the Annual Refresher Programme in Teaching (ARPIT) was introduced, where more

than 15 lakh teachers participated in several courses. According to the National Mission on Education through ICT (NMEICT), ICT tools were utilized in higher education as a result of the project, which also helped create a holistic learning environment by fostering innovative pedagogical practices. Digital resources faced a lot of criticism but in a country like Pakistan, the introduction of digital resources not only elevated the quality of education but also filled the gap between urban and rural areas ensuring that all the students of the country get to enjoy the high-quality educational content (LIS Portal, 2019; MHRD, 2017).

6.3. International Collaboration

International collaboration in higher education plays a vital role in the global awareness of its students, enhancing academic quality, and cultural exchange. For India, international collaboration has been the most important instrument for improving the quality of higher education and research opportunities. Foreign university collaborations have helped Indian institutions adopt best practices, modernize curricula, and enhance faculty development. This would include the various programmes on twinning, joint degrees, and dual degree programmes that help create academic exchange and provide exposure to international students and faculty members. Such programmes help research capabilities and even contribute to solving global problems, as part of joint research projects. fields.

In India, there is the University Grants Commission (UGC), which has been pushing for international collaboration. It is through UGC guidelines on internationalization in higher education that institutions set up international affairs offices, reach out to international alumni, and collaborate in global citizenship efforts. The NEP 2020 reiterated that Internationalizing the Higher Education Institutions was important, and the need was to raise the bar to stand alongside the best available global standards. The policy has opened avenues for strategic alliances, branding overseas, and greater academic and research collaborations with foreign universities. Therefore, Indian students have always benefited froma diverse range of learning approaches, higher academic standards, and better job opportunities in the international arena.

Such partnerships between Indian and foreign universities were instrumental in improving the quality and global ranking of higher education in India from 2000 to 2019. Partnering with leading institutions in the USA,UK, Canada, Australia, and Germany allowed Indian universities to adopt best practices, modernize curricula and enhance research capabilities. By way of example, the Indian Institute of Technology (IIT) Bombay worked with the University of California, Berkeley to establish joint research projects and exchange programmes that enhanced the academic experience for students and faculty on both sides of the globe. Such partnerships also enabled exchanges of students and faculty, where Indian students got international exposure and an understanding of different education systems (Chakraborty, 2020).

These global collaborations brought many advantages. They promoted the globalization of Indian academic standards as Indian degrees and diplomas came to be seen on par with international standards. International students and faculty members adding diversity in the context of knowledge and experience diversified the learning scenario in Indian institutions. Such associations further led to the most sophisticated research and innovation as solutions to world problems and in addition, created a new set of knowledge through sectoral fields. In terms of NEP 2020,this cooperation was initialized by UGC and the Ministry of Education, resulting in a growth of higher education integration between Indian and foreign institutions. In other words, all those partnerships have had a great impact on the expansion and international integration of India's higher education system (Editorial Team, no date.).

7. Impact of NEP 2020

The 2020 National Education Policy has proved to be the backbone of transforming higher education in India with comprehensive reforms aimed at modernizing the system of education. This NEP is structurally underlined by features of multidisciplinary education in favour of the provision of additional subjects by institutions and their integration with arts, humanities, and sciences. The policy should adopt an all-embracing nature that encourages creativity, critical thinking, and innovation among the learners. In addition, through technology, it targets using online and digital learning to expand easy access to quality educational facilities for greater educational empowerment for students in distant places. Teacher training and development under the NEP develop quality teachers who can offer the best education. These are strategic fields; the NEP is an adaptable, inclusive, and innovative higher education system responding to the diverse interests of students at large in the country (Shukla & Kaur, 2021; Vashist, 2021).

The most distinguishing feature of NEP has been the pursuit to raise the Gross Enrollment Ratio in higher education to 50% by 2035. As part of this policy, it has suggested that this is possible through establishing MERUs and will help propagate holistic, multi-disciplinary education and exchange of knowledge and skills between the students and teachers. The NEP further scopes research capability through the NRF, going to spearhead research culture and post the development of research capacity in all the higher learning institutions. Quality education is meant to improve academic excellence, better prepare students for a fast-changing global economy, and also orient them to respond to changing environments. NEP 2020 will drastically transform the Indian higher education system and provide the same model to the nation for times to come (Shukla & Kaur, 2021; Vashist, 2021).

8. Conclusion

2000 to 2019 proved to be the challenging years as well as the opportune years for higher education in India. In India, the higher education sector had tremendous funding shortfalls, even though government funding as a percentage of the general GDP stayed low. There was a lack of funding to bring infrastructure up the tail end of the competitive race and hardly any room for multidisciplinary research. In addition, some regional disparities in accessing quality higher education were realized, whereby city-region universities were favoured over those in rural regions. It favoured application-based systems and increased focus on standardized testing, which is advantageous to the rich students who have the wherewithal to pay for added preparation, thus decreasing the enrollment rate of those coming from poorer backgrounds as tuition rates continue to climb in a new era of pluralistic commercialization.

The same period of study also offered scope for higher education to thrive. RUSA and IoE measures aimed at the enhancement of infrastructure, and quality of faculty in teaching as well as to improve the global competencies Due to this, usage of ICT instruments and e-learning modules like SWAYAM along with digital resources increased by a greater margin and kept the teaching-learning arena vibrant and helped learn better. Moreover, international collaborations led to the integration of best practices, acknowledged by scholars with collaborative research activities and student exchange programs expanding the channels that were available in Indian higher education. education.

Higher education is, in a great way, used for economic development as it advances the level of knowledge and skills towards the formation of an industrious working class. This higher education arouses new innovative ideas, technology research and technological discoveries, which in return enhance economic growth and development. It, also contributes towards the upgradation of a nation's human capital, by providing enhanced efficiency in their skills as well as facilitating the growth of entrepreneurial ventures through initiation of new industries. Colleges and universities are also often working with industries, so, new technologies or solutions can be developed to address many challenges in society. This is the reason why higher education should be treated as an investment, not in an individual, but as an economically contributing asset for the nation, and its overall economic prosperity, well-being, and global competitive position.

Considering the broad and diversified Indian population, accessibility, and advantages of higher education become extremely high-economic-relevance-related aspects for an individual as well as for the economy. Higher education signifies upward mobility and income equality in India. It could potentially help to bridge that gap and leave no one behind. This growth of the knowledge economy is mainly on the premise of India's higher education system, which fosters professionals in almost all types of services including engineering, medicine, IT, and business. With this on top, RUSA and the National Education Policy 2020, among others, have a broader focus on quality and equitable provision of higher education that can be more productive for economic growth. Thus, Indian higher education not only brings forth a pool of talent capable of driving industrial growth and inducing foreign investment in the country but is also instrumental in making India a reality for those aspirations of rising to be the world's lead economic power.

8.1. Recommendations

From 2000 to 2019 higher education in India faced some challenges that could be addressed by several means. First, higher education is a public good, and as such, all citizens share the responsibility of paying for it, so this one is easy: raise public investment in higher education. This meant spending more of GDP on education and also funding central and state universities. Support and promotion of equality and diversity in accessing higher education; the creation of such access would be possible by the establishment of additional institutions in less accessible areas, providing scholarships and other forms of financial assistance to poor students, and through practices that foster greater participation by marginalized communities. Improvement of quality through curricular reforms, faculty development programs, and effective technology support are imperative for this vision. Innovative teaching methods, interdisciplinary learning, and digital resources can all help higher education institutions reshape themselves toward a more holistic and effective education. Promoting partnerships between academia and industry can also help reduce the chasm between theoretical understanding and practical expertise, enhancing the employability and readiness of graduates for the workforce.

The 2020 National Education Policy would make the foray of making radical overhauls in India's higher education space in a bid to redress these shortcomings. Such investment in education, according to NEP, would boost spending on education with its focus of increasing public spending and increasing it to 6% of GDP. It may fill in funding moderate lags and deliver better infrastructure and resources to institutions in higher education. It further tries for equity and inclusiveness with a few such recommendations, among others, while framing a plan that aims to increase the GER (Gross Enrollment Ratio) of higher education to 50% by 2035. Others are setting up MERUs or Multidisciplinary Education and Research Universities and establishing the NRF (National Research Foundation) as an initiative towards quality education and research. The NEP is set to reform the education sector by incorporating technology to promote online and digital learning that can gain better access and quality for those, especially in remote areas. The NEP envisions a transformed, inclusive, agile, and forward-looking higher education system that would serve the broad

spectrum of Indians in higher education and prepare them for the constantly evolving global economy through these six thrust areas.

Future policies and practices of higher education in India need to be accessibility, quality and inclusivity. An approach could be public investment in higher education to the tune of 6% of education spending as a percentage of GDP. As a result of the increased funding, infrastructure would be developed with better resources for the institutions. Moreover, the establishment of more institutions in the deprived areas, scholarship and financial aid to the economically weaker sections, and measures to accommodate less privileged groups are also important so that such facilities are available to all. Technology usage in education, such as online and digital demeanour in learning, can also give students access to quality education, especially those in far-flung areas.

Another important thrust for this purpose is to develop industry-academia partnerships for helping to translate theoretical knowledge into practical expertise. This can be done by fostering joint research projects, internships, and exchange programmes that enable the students to have practical experience and exposure in the industry. The NEP 2020 will have a vision to improve the international ranking of research output of the nation through a National Research Foundation (NRF) capable of funding interdisciplinary research, thereby duly impelling innovation around social-aid type solutions. Moreover, we can improve the employability of our workforce through vocational education and skill development, contributing to economic growth and development. As the article suggests, and leveraged upon by the structural flexibility in our existing reserve educational machinery, India can build an enabling higher education eco-system to meet the evolving education and career aspirations of its citizens and propel us in the ensuing competitive scenario where the scaffolded intervention can be an enabling genesis for the higher education and research system of the country.

References

1. Banwari, Vijeta. (2019). Recent Technological Trends in the Higher Education Sector in India. Journal of Engineering Technologies and Innovative Research. 6 (1): 533-538.
2. Chakraborty, Aniban. (2020). Foreign partnerships in Indian higher education: significance, challenges and concerns. Globalisation, Societies and Education. 19 (1): 1-14. https://doi.org/10.1080/14767724.2020.1861439.
3. Chetan N., Madhu and Begum, Rizwana. (2019). Commercialization of Higher Education in India – A Critical Analysis. Journal of Emerging Technologies and Innovative Research. 6 (3): 211-213.
4. De, Anuradha and Tanuka Endow (2008). Public Expenditure on Education in India: Recent Trends and Outcomes. Working Paper No.18. Research Consortium on Educational Outcomes and Poverty.). https://nbn-resolving.org/urn:nbn:de:0168-ssoar-69258.
5. Dissou, Yazid; Didic, Selma; and Yakautsava, Tatsiana. (2016). Government Spending on Education, Human Capital Accumulation and Growth. Economic Modelling. 58: 9-21.
6. Editorial Team (no date). International Research Collaboration in India. https://indianhighereducation.com/india-analysis/international-research-collaboration-in-india.
7. Gandhi, M.M. (2015). Financial Management of Higher Educational Institutions – with reference to Financing, Pricing, Accounting Standards and Gaps in Practices in Universities and Colleges. International Journal of Higher Education Management. 1(2): 33-45.
8. Geetharani, P. (2021). Family Spending on Education in India Pattern and Determinants. Occasional Paper #55. NIEPA, New Delhi. from: https://www.researchgate.net/publication/358604319_Family_Spending_on_Education_in_India_Pattern_and_Determinants.
9. Ghara, T.K. (2020). Expenditure Pattern in Higher Education in India: AISHE Data Analysis. Journal of Humanities and Social Science. 5 (1): 42-50. https://www.iosrjournals.org/iosr-jhss/papers/Vol.%2025%20Issue5/Series-1/F2505014250.pdf
10. Harvey, L. (2000). New Realities: The Relationship between Higher Education and Employment. Tertiary Education and Management. 6: 3–17. https://doi.org/10.1023/A:1009685205201
11. ISR (India Skills Report). (2019). India Skills Report/2019, by Wheebox, PeopleStrong, CII, AIU, UNDP and AICTE. https://www.aicte-india.org/sites/default/files/India%20Skill%20Report-2019.pdf.
12. Jaiswal, A. K. (2019). Government Initiatives in Education Sectors: A Review. International Journal for Research Publication and Seminar,
13. Joshi, K.M. and Ahir, Kinjal. (2016). Higher Education growth in India: Is growth appreciable and comparable? https://doi.org/10.15027/39940.
14. Kretzmann, J. P., and McKnight, J. (1993). Building Communities from the Inside Out: A Path toward Finding and Mobilizing a Community's Assets. Evanston, Ill: The Asset-Based Community Development Institute, Institute for Policy Research, Northwestern University.
15. Kumar, Manoj. (2019). Higher Education in India: History, Nature and Challenges. International Journal of Social Sciences. 8 (4): 103-109. https://doi.org/10.30954/2249-6637.04.2020.4.

16. Kumar, Lokesh and Trivedi, Venu. (2019). Disparities in Higher Education in Indian States: A Comparative Analysis. Journal of Engineering Technologies and Innovative Research. 6 (3): 95-11. https://www.jetir.org/papers/JETIR1903E19.pdf.
17. LIS Portal (2019). 28 Digital Initiatives of Government of India in Higher Education. https://lisportal.com/lis-blogss/digital-initiative-of-govt-of-india-in-higher-education.
18. Marginson, Simon and Wende, Marjik van der. (2007). Globalization and Higher Education. OECD Education Working PapersNo.8. https://www.oecd.org/content/dam/oecd/en/publications/reports/2007/07/globalisation-and-higher-education_g17a1988/173831738240.pdf..
19. MHRD (Ministry of Human Resource Development). (2019a). All India Survey on Higher Education 2018-2019. https://www.educationforallinindia.com/AIHES2018-19.pdf.
20. MHRD (Ministry of Human Resource Development). (2017). Digital Initiatives in Higher Education. https://www.education.gov.in/sites/upload_files/mhrd/files/NMEICT-e-Bulletin-April-2019.pdf.
21. MHRD (Ministry of Human Resource Development). (2019b). National Education Policy 2020. https://www.education.gov.in/sites/upload_files/mhrd/files/NEP_Final_English_0.pdf.
22. NIRF (National Institutional Ranking Framework). (2019). India Ranking 2019. https://www.nirfindia.org/nirfpdfcdn/2019/pdf/Report/IR2019_Report.pdf.
23. PIB (Press Information Bureau). (January 6, 2020). Year-End Review 2019 – Department of Higher Education. https://www.pib.gov.in/newsite/PrintRelease.aspx?relid=197278.
24. Ravi, S.; Gupta, N.; and Nagaraj, P. (2019). Reviving Higher Education in India. New Delhi: Brookings India. https://www.brookings.edu/wp-content/uploads/2019/11/Reviving-Higher-Education-in-India-email-1.pdf.
25. Shukla,P. D., & Kaur, J. (2021). A Study on the Impact of National Education Policy 2020 on HigherEducation System. Journal of Education and Practice, 12(16), 94-100.
26. Tilak, JBG and Choudhury, PK. (2019). Inequality in Access to Higher Education in India between the Poor and the Rich. Working Paper, CSD-1/2019. https://csdindia.org/wp-content/uploads/2019/05/Prof-Tilak-Inequality-in-Access-to-Higher-Education-in-India.pdf.
27. UGC (University Grants Commission). (2019). Report of the Committee on Promoting and Improving the Quality of Research in Indian Universities and Colleges. https:// www. ugc.gov. in /pdfnews/5816125_Promoting-and-Improving.pdf.
28. UGC (University Grants Commission-India). (2020). Salient Features of NEP 2020: Higher Education. https://www.ugc.gov.in/pdfnews/5294663_Salient-Featuresofnep-Eng-merged.pdf.
29. Vashist, A. (2021). National Education Policy 2020: An Insight into Reforms in Higher Education System. Journal of Education and Social Policy, 6(2), 1-7
30. Volchik, V.; Oganesyan, A.;& Olejarz, T. (2018). Higher education as a factor of socio-economic performance and development. Journal of International Studies. 11(4): 326-340. https://doi.org/10.14254/2071-8330.2018/11-4/23.
31. Wadaskar, Smita. (2018). Role of Higher Education in Skill India. https://www.academia.edu/87557303/Role_of_Higher_Education_in_Skill_India.
32. Wani, J.M. and Jan, Anisa. (2019). Financing Universities in India. Journal of Emerging Technologies and Innovative Research. 6 (5): 332-339.
33. Wariah, S.S. and Karthikeyan, K. (2018). Trends in higher education and growth in India: A case study. Journal of Physics. https://doi.org/10.1088/1742-6596/1139/1/012033.